Friendship in young people with Asperger's syndrome

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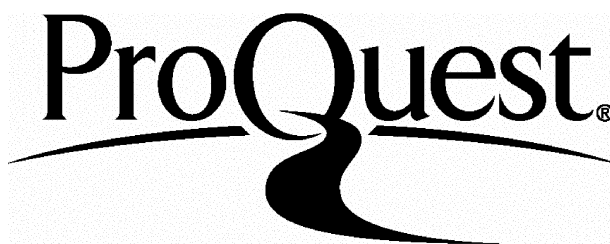ProQuest Number: U644057

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ABSTRACT

The understanding and experiences of twenty young people with Asperger's syndrome (AS) were compared with those of nineteen age-matched neurotypical young people. The participants were aged between eleven and nineteen years of age. They were asked: first, to define "a friend"; second, to say whether or not they thought that friends were important; third, to complete a questionnaire that asked about what they did with their friends; and fourth, to rate the behaviours of two friends in each of six story vignettes. Supplementary information was obtained by means of a brief semi-structured interview with each of the participants and, about the Asperger's group, by means of questionnaires completed by some of their parents and staff.

It was found that, whilst the definitions of friendship that the AS group gave were similar in content to those of the neurotypical group, some, at least, had a rather theoretical quality. Although most of the AS group thought that friendships were important, significantly fewer of them than of the neurotypical group mentioned the importance of companionship in explaining why. Responses to the friendship questionnaire suggested that there were differences between the two groups in terms of the security of their friendships, that is the extent to which they felt able to rely upon their friends and to transcend any differences arising. There were significant between-group differences in the responses to five of the six friendship vignettes, suggesting that young people with AS have a different perspective on what is and is not appropriate social behaviour. Information from the semi-structured interviews

and the parent and staff questionnaires was used to provide illustrations of the between-groups differences that emerged and also to highlight instances where the formal measures perhaps failed to access fully the lived experience of the young people with AS.

The difficulties that the AS group faced in forming and maintaining friendships were explored, with a view to considering how their friendships could best be supported. Directions for future research were suggested and possible methodologies were considered.

Acknowledgements

CHAPTER ONE

Introduction

1. Brief overview and rationale

"He was never able to become integrated into a group of playing children. He never got on with other children and, in fact, was not interested in them. They only "wound him up" (Asperger, 1944, quoted in Frith, 1990, p40)

This case description is one from Hans Asperger's original research paper, in which

he described a group of children that he called "autistic". Today, that group would

be described as having Asperger's syndrome ("AS"), although it is still the case that

many researchers conceptualise AS as an autistic spectrum disorder ("ASD").

People with AS may have an IQ in the normal range but experience particular

difficulty understanding social situations. The archetype of the person with an ASD

is of someone who actively avoids human contact but this is not invariably the case.

Moreover, it has been suggested (Howlin, 1997) that, as they grow older, people with

ASDs become increasingly anxious to be accepted, to join in with others and to make

friends. Their particular pattern of strengths and difficulties may mean that this is

hard for them to achieve, however.

This study asks a group of young people with a diagnosis of AS what they think

about friendship. It also explores how their friendship behaviours compare with

those of young people of similar ages and seeks to probe the underlying mechanisms

that may shape the friendships that they are able to form.

2. Historical perspectives

2.1 Kanner's autism and Asperger's syndrome: social difficulties

The word "autism" derives from the Greek word "autos", meaning "self". It was first used (Frith, 1991) by Bleuler (1908) to describe the social withdrawal seen in adults with schizophrenia.

Autism has only been defined as a distinct condition since the early 1940s, although it has probably always existed (Frith, 1989). Lorna Wing (1996, p17) suggests that autistic children may have been the 'fairy changeling' children of ancient legend. It was believed that the fairies would sometimes steal away a human child and leave in its place a fairy child who looked human – and, in some versions, remarkably beautiful – but was somehow strange and remote from human kind.

The word "autism" was borrowed by both Leo Kanner (1943) and Hans Asperger (1944) in the accounts that they wrote, independently and within a year of each other, of "a particularly interesting and highly recognisable type of child", as Asperger put it. There were many similarities between the two accounts but also some differences (Frith, 1991) that suggest that the prototype that Kanner had in mind was younger, with more delayed and blatantly deviant language acquisition – in other words, a child with a more striking and severe communication disorder.

Asperger's (1944) paper was published in German in the last year of World War II and was not published in translation in this country until 1991 (Frith, 1991). In

contrast, Kanner's paper was published in America and achieved wide and immediate currency. As a result, "autism" has tended to be understood by reference to the criteria and presentation described by Kanner. It is only relatively recently (Wing & Gould, 1979) that it has come to be accepted that there exists a wide range of disorders (see Bishop, 1989) affecting social interaction and communication, which may be associated with any level of intelligence.

This evolving understanding of what it may mean to be autistic is of more than purely historical interest. Both Kanner and Asperger saw social difficulties as the most important and characteristic feature of the disorder they described. They differed, however, in the primacy that they accorded them as a feature of the disorder. The wider publication of Kanner's description may have contributed to a popular conception of people with autism as disliking and avoiding human contact. In contrast, Asperger presented a more differentiated picture of their interactional abilities. More recently, Wing (1996) has suggested a four part typology, comprising (i) aloof; (ii) passive; (iii) "active but odd"; and (iv) over formal, stilted (Wing, 1996). Of these, only the first group is entirely asocial – although the other groups clearly manifest social difficulties.

When Kanner (1943) first described autism, he talked of a profound autistic withdrawal and mutism or language without real communicative intent as two of the key components of the disorder. Later (Eisenberg & Kanner, 1956), he refined his description somewhat. Language and communication deficits were no longer seen as key criteria. His emphasis on extreme isolation remained, however. Various influences may have been operating (Jordan, 1999, pp10-11). Work was being

carried out about attachment (Bowlby 1969), which suggested that the pro-social behaviour of children could be affected by the relationship with their main carers. Perhaps Kanner felt that since otherwise "mute" children were sometimes noted to be able to produce isolated phrases or repetitions, there was an elective or psychogenic element to their muteness. This would have been in line with contemporary psychodynamic thinking. Bettleheim (1967) claimed that the pronominal reversal often noted in these children was not the result of language difficulties but was instead a refusal to use "I" – a denying of self. Over time, therefore, the way that the reasons for the autistic child's isolation were understood led to isolation being construed as a cause rather than a consequence of autism.

From the outset, Asperger's perspective was rather different. He described the children as having a

"fundamental disturbance which manifests itself in their physical appearance, expressive functions and, indeed, their whole behaviour. This disturbance results in severe and characteristic difficulties of social integration. In many cases the social problems are so profound that they overshadow everything else."

Unlike Kanner, he did not locate this disturbance within the child's relations with other people, suggesting instead that

"the essential abnormality in autism is a disturbance of the lively relationship with the whole environment"

Moreover, unlike Kanner, Asperger did not believe that autistic children were incapable of forming emotional attachments. Indeed, he observed that several, upon admission to his hospital, had suffered very acutely from homesickness, from which he concluded that they were capable of strong feelings. He also noted, however, that the quality of their distress was rather different from that manifested by the non-autistic children. He attributed this to the capacity of the non-autistic children to feel

and respond to the love and care offered to them by the staff. He speculated that what the autistic children perhaps missed the most was the "objects and habits of home". He concluded, however, that the autistic children could not be understood in terms of "poverty of emotion" in a quantifiable sense but rather in terms of a disharmony in "emotion and disposition". This, he noted, made social adaptation very hard to achieve.

The similarities between Kanner's and Asperger's accounts are more striking than the differences but the differences in how they understood autism are important. The pre-eminence of Kanner's account in this country may have led to a popular perception that asocial tendencies are a cause of autism, rather than as part of a much more complex picture.

2.2 What are the unifying characteristics of ASDs?

Wing (1996, p92) notes how very different people with ASDs may be from one another but nevertheless identifies a triad of impairments that are common to them all. These are: -

(1) An impairment of social interaction: individuals will vary in the degree to which they do actually interact. Some will be aloof from human contact: others will make active social approaches but often in a peculiar one-sided way. It is thought that all have a limited understanding of how to interact socially with other people.

(2) An impairment of communication: some people with ASDs never develop language; some are able to echo learnt phrases; others do acquire functionally competent language. What all tend to share, however, is that the content of their speech may be both repetitive and rather one-sided. Their understanding of

language, even when it is otherwise good, may be literal. Their intonation can be notably monotonous and their use and understanding of body language may be limited.

(3) An impairment of imagination: children with ASDs do not develop pretend play in the same way as other children. This perhaps reflects in adult life as a difficulty in understanding another person's emotions or sharing their point of view. People with ASDs may, instead, find pleasure in their own special interests. This may include the repetition of activities that give them pleasure but which, to the outside world, may seem limited and ritualistic. Their enjoyment of these activities may result from their imaginative impairment, which means that they are not readily able to generate novel alternatives.

Wing (1996) suggests that these difficulties may be present in different degrees of severity and describes the resulting configuration as existing along a continuum of severity, hence the global term, ASD. ASDs are seen as parts of a syndrome: a characteristic pattern of symptoms that occur together.

2.3 Are Kanner's autism and AS distinct disorders?

Given the differences between Kanner's and Asperger's accounts of the core deficits of autism, it is reasonable to ask whether there are, in fact, two distinct subgroups and whether those who fall into the Asperger's group are more sociably disposed. If so, any conclusions about their capacity to form and enjoy friendships would not necessarily generalise across the autistic spectrum (assuming that it is justified to suppose that there is a spectrum of disorders).

Research exploring the biological foundations of autism has yielded some insights into genetic factors and predisposing medical conditions but has not, so far, identified the actual brain area or pathway involved (Gillberg & Coleman, 2000). At present, therefore, it is not possible to look for a single biological mechanism that effectively discriminates between different ASDs (eg AS or high functioning autism: "HFA") or identifies them as points along the same spectrum.

Some studies have shown (Gillberg, 1991) that AS and autism frequently occur in the same family and this suggests that the two conditions may be expressions of the same underlying defect. Gillberg suggests that there may, in fact be three groups: (1) Kanner autism, which is usually the result of environmentally determined brain damage or specific factors causing specific brain dysfunction; (2) Asperger's syndrome, which is usually caused by polygenic hereditary influences; and (3) a clinically less specific group with traits of both conditions, a developmental course during which both diagnoses are considered and a background of both hereditary Asperger type problems and laboratory indications of brain damage. He cautions that no firm conclusions can be drawn, however, and highlights the need for large-scale epidemiological studies in order to progress towards a resolution of these issues.

2.4 How autism and Asperger's syndrome are currently diagnosed

Current diagnostic classifications separate out autism and AS but there is not universal support for this, with some researchers (eg Eisenmeyer, Prior, Leekham, Ong, Wing, Gould & Dowe, 1998) suggesting that the subdivision is not justified. The area of particular overlap seems to be between AS and high-functioning autism

(HFA). Both ICD 10 and DSM IV define AS as, in effect, autism without the language and cognitive impairments. Interestingly, however, this is at odds with Asperger's own contention that the pattern of impairments that he described could occur at low levels as well as high (Happé, 1994, p85). Moreover, it carries the theoretical implication (Jordan, 1999, p25) that language and cognitive impairments in autism are not fundamental to the disorder and do not arise from the same psychological deficit as social difficulties. This assumption may simply not be justified.

Other diagnostic criteria (eg Burd & Krebeshian, 1987; Szatmari, Bartolucci & Bremner, 1989) describe unusual patterns of speech. Jordan suggests that what is implicated in the aetiology of all ASDs is communicative language, rather than structurally correct speech. The application of different diagnostic criteria (eg ICD 10 or Gillberg's) may result in different classifications (Leekham, Libby, Wing, Gould & Gillberg, 2000). Moreover, Gillberg (1998) contends that the development of some individuals may mean that it is appropriate to diagnose autism at one point in time and AS at another. Some authors (eg Volkmar, Paul & Cohen, 1985) have suggested that it is not, in any case, useful to form subgroups, since it tends to obscure the fact that autism has a wide range of presentations.

2.5 Social motivation: central to the disorder or an external variable?

Frith (1991) suggests that instead of the underlying cognitive fault in ASDs coming in degrees (as the spectrum hypothesis suggests) it may be that at one end of the spectrum there are aggravating factors and, at the other, the Asperger's end, there are ameliorating factors. She suggests that one such factor could be a sociable

disposition. Whilst this may well be the basis on which autism and Asperger's are informally differentiated in clinical practice, Frith's hypothesis has not been formally tested and there is evidence that not all people with Asperger's are, in fact, sociable (Wing, 1989).

3. Psychological models of Autistic Spectrum Disorders

In the absence of (in most cases) a medical explanation for autism, psychological models offer an important template to assist understanding and guide intervention. One of the difficulties in generating a fully explanatory model is that, as noted already, people with autism may be very different from each other. Also, some features of the presentation are not unique to autism – in fact, it has been suggested (Frith, 1991) that AS may be the extreme form of a normal personality variant. Nevertheless, there have been various attempts to move beyond the purely descriptive and to explain the core deficit in autism. These shed some light on the sort of issues that may make friendships fraught with difficulties for the autistic person.

It is not possible to do full justice to the complexity of each of the models described in this section, nor is it possible to include every theoretical account of the social difficulties of autism. What follows is, therefore, highly selective and chosen for its relevance to how people with autism manage friendship interactions.

In recent years, several first person accounts by people with ASDs have been published. Although, as Happé (1991) notes, some are co-written and may therefore be overlaid by the interpretations of the non-autistic author, they do yield some interesting insights. Where relevant, first person accounts are adduced, therefore, to show how the difficulties described in the psychological models might translate into the lived experience of having an ASD.

3. 1 Theory of Mind

"Imagine what your world would be like if you were aware of physical things but were blind to the existence of mental things. I mean, of course, blind to things like thoughts, beliefs, knowledge, desires and intentions, which, for most of us self-evidently underlie behaviour....The gulf between mind readers and the mind blind must be vast." Baron-Cohen (1995, p1)

Baron-Cohen neatly describes how it would be *not* to have a theory of mind. Without this ability, much of what happens in social interactions would seem impenetrable and unpredictable. This theory offers a compelling explanation for the range of social difficulties observed in ASDs. Baron-Cohen suggests (1992) that it could also explain why autistic individuals prefer (or even insist upon) rigid, repetitive routines, which allow them to know what is going to happen next. The consequences for social interactions and, in particular, for friendships are potentially devastating.

Some of these can be deduced from the studies that have tested out the theory of mind hypothesis. The seminal study in this area was by Baron-Cohen, Leslie & Frith (1985). It looked at three groups of children: autistic, normally developing and with Down's syndrome. They were asked to complete a task that required them to understand that a person who was not privy to the same information as them might

hold a belief that was both different from theirs and factually untrue. (This is termed first order theory of mind – that is, *what another person, A, thinks.*) The autistic children performed materially worse than the other two groups. This suggested that the ability to take the mental perspective of another person was severely impaired. Some autistic individuals were, however, successful with these tasks.

In order to test the limits of their understanding, attention turned to second order theory of mind – that is, *what a different person, B, thinks that person A thinks.* An early study (Baron-Cohen, 1989) suggested that children who were able to pass first order theory of mind tasks failed on second order tasks. Later work, however, showed that some people with autism were able to pass second order tasks (Bowler, 1992; Ozonoff, Rogers & Pennington, 1991). Some research (Dahlgren & Trillinsgaard, 1996, Happé, 1995 and Yirmiya, Sigman, Kasari & Mundy, 1999) suggests that verbal mental age may be a factor in discriminating between those who can and those who cannot pass theory of mind tasks. Happé suggests that children with autism need a much higher verbal mental age to pass false belief tasks than do those with learning disabilities or normally developing children. How better language actually helps has not yet been fully elaborated, however (Rutter, 1999).

It may be that the difficulty is located primarily in the pragmatics of language. Tager-Flusberg (1989) noted that people with autism only develop communicative functions that affect the behaviour of others, such as the ability to ask for something but do not develop those that might be pertinent to their mental states, such as comment. Similarly, Attwood, Frith & Hermelin (1988) found that autistic children were able to make normal use of gestures that impacted upon the behaviour of others,

such as gestures to them to come, be quiet or go away. They did not, however, make use of gestures that influence mental state such as consolation, embarrassment or goodwill. Baron-Cohen (1989) found that children with autism were capable of protodeclarative pointing, that is, pointing to get needs met but not of protoimperative pointing, that is pointing to establish joint attention.

Baron-Cohen (1995) incorporates these and similar findings into his model of mind reading processes. He roots the model in an evolutionary context, suggesting that human beings developed the abilities that he describes in order to "understand, predict and manipulate the behaviour of others in a group". He suggests that, in primate groups, social abilities directly determine status and that this, in paleontologist Richard Leakey's terms "serves as an exquisite sorting system, in which individuals with an edge in making alliances and monitoring the alliances of others score significantly in reproductive success" (in Baron-Cohen, 1995, p16).

Baron-Cohen's model incorporates an intentionality detector (ID), which allows the individual to recognise voluntary, goal drive actions in another person; an eye direction detector (EDD), which makes it possible to know what another person is looking at and, therefore, sees; and a shared attention mechanism (SAM), whereby people are able to look together at something and each understand what the other sees. These components work with each other and with a final part of the model, the theory of mind module (ToMM) so that the person is able to recognise volitional mental states (desire and goal), perceptual mental states (eg seeing) and finally epistemic mental states (ie pretending, thinking, knowing, believing, imagining, guessing and deceiving).

Coming back to the question of why some people with autism are able to pass theory of mind tasks, Bowler (1992) noted that even those who were able to pass second order tasks had difficulty in real life situations. Hermelin & O'Connor (1985) suggested that high functioning autistic individuals use logical processes to understand affective and social situations. Jordan (1999) comments that, far from lacking a theory of mind as a core deficit, children with autism need to construct a theory in order to understand mental states – in other words, they lack the automatic understanding that most people possess. It seems likely that, as Sigman, Yirmaya & Capps (1995) suggest, the flow of human interaction is too fast for the slow processing of social cues by people with autism, so they are not always able to use their abilities in everyday life.

What, then, would be the practical implications of these mentalising difficulties, when it comes to making and sustaining friendships? Perhaps the most graphic way of illustrating some of the possible difficulties is to look at first person accounts.

If it is difficult to take their perspective, it may be problematic to recognise what another person thinks or feels and this may make the person with the ASD vulnerable to abuse. Temple Grandin, who has HFA, likened herself to an anthropologist on Mars and described to Oliver Sacks how, in dealing with a colleague:

"I had to learn to be suspicious, I had to learn it cognitively. I could put two and two together but I couldn't see the jealousness on his face" (Sacks, 1995, p248).

Similarly, the ability to infer another person's meanings and intention from the actual words that they use may be impaired. A very literal interpretation of another person's

words may have unexpected and (for them, perhaps) undesirable consequences.

Donna Williams (1992) described moving in with her boyfriend:

"'Garry arrived home to the sheepish grin of his flatmate's girlfriend who informed him that I'd moved in.
"What!" he exclaimed in disbelief.
"You said you wanted me to live with you", I explained.
"One day, I said", he stressed.
Nevertheless, I was there, and that was that." (p77)

It may mean that the person with an ASD is not fully aware of the impact of their words or actions. As Kenneth Hall (2001), aged ten at the time of writing, observed:

"If I am unhappy about something, I tell the truth. Like if I am fed up with a visitor, or if I dislike something. Or if I dislike a person. Or if someone does or says something stupid or makes a mistake." (p66)

Clearly, such an interpersonal style would tax even the most robust of friendships.

It may be, however, that some people with an ASD may lack the basic skills even to form friendships, as this quotation from Donna Williams (1992) illustrates:

"I did not know how to make friends, so I would stand there calling this girl every four letter word I knew.....One day, she caught me. She was about to 'smash my face in' when she decided to at least ask why I had tormented her so persistently for so long. 'I wanted to be your friend' I blurted out furiously" (p66)

3.2 Central coherence or executive functioning

3.2.1 Central coherence

What the central coherence and executive functioning approaches share is that they look at the non-social information processing of the person with autism. This contrasts with Theory of Mind research, where the focus is mainly on their social capacities. It resonates with Asperger's comment that the essential abnormality in

autism is a "disturbance of the lively relationship with the whole environment" (in Frith, 1991, p74).

Theory of mind offers a good account of the triad of impairments identified by Wing (1996) - that is impairments of (a) social interaction; (b) communication; and (c) imagination. As Happé (1994, p115) observes, however, it cannot explain all the features of autism such as a restricted repertoire of interests (DSM IV); obsessive desire for sameness (Kanner & Eisenberg, 1956); islets of ability (Kanner, 1943); savant abilities (estimated to occur in 1 in 10 autistic children: Rimland, 1978); good rote memory (Kanner, 1943) and preoccupations with parts of objects (DSM IV).

Frith (1989) observed that a weak drive for central coherence could perhaps account for the difficulties of autism not accounted for by Theory of Mind. This is perhaps best illustrated by the way in which children with autism respond to the Children's Embedded Figures Test (Shah & Frith, 1983, cited 1993). Their scores were above average for their mental ages, which is normally taken as an indicator of "field independence" in cognitive style. Instead, Frith suggested that an inability to make sense of a whole, meaningful picture might actually be an asset in the performance of this test, which requires the subject to resist the distraction of the whole picture in order to pick out the required figure. As early as 1943, Kanner observed that a universal feature of autism was an "inability to experience wholes without full attention to the constituent parts".

Another striking example of this style of processing is a clinical anecdote quoted by Happé of a bright autistic boy who was asked to name the parts of a toy bed. All

went well until the child reached the frilled pillow, which he identified as "a piece of ravioli". The clinician agreed that the pillow did, indeed, resemble a piece of ravioli but it is suggested that normal subjects would have been guided by the context in which the question was asked. Central coherence theory suggests that autistic subjects are less influenced by context than are normal subjects.

An interesting aspect of this approach is that it is not a deficit model. As Happé notes, it also offers an account of " the abnormality of excellence", those skills sometimes noted in autistic individuals and referred to as islets of ability: outstanding computational skills or a phenomenal memory for birth dates, for example. It is suggested that these may be explicable in terms of a cognitive style that involves the preferential processing of parts over wholes.

Although Frith (1989) originally suggested that central coherence theory could account for mentalising impairments, Happé suggests that a causal explanation of autism should retain alongside the notion of central coherence the idea of a specific and modular mentalising difficulty. She puts this into an evolutionary context. The ability to mentalise has enormous evolutionary value; in contrast, having weak central coherence has some assets as well as considerable disadvantages. She suggests that the latter may be more akin to a cognitive style than to a specific deficit, which may co-exist alongside a mentalising deficit in autistic individuals.

3.2 Executive functioning

In contrast, the theoretical position that suggests that autism is an executive disorder (Russell, 1997), whilst not denying that individuals with autism may have a deficit in

theory of mind, suggests that the breakdown occurs elsewhere in the cognitive system. Russell suggests that executive difficulties interfere with the acquisition of a theory of mind. As he expresses it: " *the subject must be the right kind of entity to acquire this theory*, and one might even say that having a mind must precede the theory of it". In contrast, Perner, Stummer & Lang (1999) suggest that theory of mind deficits contribute to the failure fully to develop executive capacities. What is common to both positions, however, is the belief that the information processing deficit that is at the core of ASDs is not purely social.

Executive functioning incorporates a range of cognitive abilities. Ozonoff (1995) describes it as a cognitive construct for behaviours that are mediated through the frontal lobes. Broadly, this would seem to encompass the generation of novel ideas, the ability to plan how they should be realised, integrating information from a variety of sources, and the ability to inhibit pre-potent responses that may be at odds with the intended goal. On the basis of factor analytic studies, an adequate executive system would seem to consist of three components (Russell, 1997): inhibition, mental flexibility and working memory.

Ozonoff (1997) adopts an information processing approach to unpack the different components of executive functioning and to look at how people with autism perform on each. Reviewing a range of studies, she concludes that there would seem to be specific impairments in flexibility in autism and some evidence for impairments of planning and working memory. She also concludes, however, that inhibition seems to be relatively spared.

This modular approach goes some way to answering the reservation that Happé (1994) expresses about umbrella definitions of executive functioning. She observes, for example, that the apparent difficulty with inhibition demonstrated by an autistic person may in fact be the consequence of an inability to respond appropriately to contextual cues rather than a difficulty with the executive skill of inhibition per se. Ozonoff observes that, by treating executive functioning not as a unitary category but rather as a multidimensional construct, it is possible to move towards identifying the different "fingerprints" of clinical populations who are known to behave in ways suggestive of executive difficulties. (These populations include people suffering from Attention Deficit Hyperactivity Disorder, Schizophrenia, Tourette's syndrome and Obsessive Compulsive Disorder). Thus, the executive disorder hypothesis claims to be able to explain the various features of autism.

Pacherie (1997) reviews a number of studies that explore the motor skills of people with autism and suggests that there is evidence for the proposition that an impaired ability to formulate motor representations of their actions may lead to executive difficulties. In other words, they are not easily able to make a connection between the intention and the act and, as a result, their sense of agency does not develop as it otherwise would. Russell (1997) makes a similar point but suggests that the problem is one of action monitoring and the ability to act at will. Both of these, he contends, are necessary ingredients in the development of the pre-theoretical awareness that would normally lead to the development of a theory of mind. Thus, it is a sense of agency and the ability to regard experiences as one's own that precede the development of theory of mind. This is interesting because it identifies as important the same behaviours that Bettleheim (1967) took as evidence that people with autism

lack a sense of self but whereas Bettleheim conceptualised it as a psychogenic problem, Russell locates it firmly within the architecture of the brain.

In terms of other behaviours that the executive disorder hypothesis can account for, Turner (1997) suggests that repetitive behaviour may be explicable in terms of either a deficit in generativity or a deficit in behavioural inhibition. She looks at but dismisses the idea that the person with autism is unable to develop voluntary control over their actions on the grounds that repetitive behaviour is known to decrease when the autistic person is cued to behave differently. Jarrold (1997) suggests that the lack of pretend play commonly noted in children with autism is also explicable in terms of an executive disorder. It was Vygotsky (1962) who originally suggested that pretend play depends upon the emancipation of objects from their normal meanings. Jarrold suggests that, although autistic children can respond to prompting to do this (Harris, 1993), they are not able to do so spontaneously. Pennington (1979) suggests that a difficulty with joint attention may be caused by a late maturation of the frontal lobes. This was tested by comparing the joint attention, social communication and executive skills of a group of autistic children aged 3-6 years with the performance of controls. The autistic group showed significant correlations on social interaction and joint attention as well as relatively poorer and characteristically perseverative performance on the executive tasks. Although there is relatively less clear evidence linking the executive theory to a deficit in imitation, Jarrold contends that, as meaning has been shown to help autistic children to imitate better, this undermines the symbolic deficit hypothesis and makes it more likely that an underlying executive disorder is operating.

3.2.3 Central coherence –v- executive dysfunction

There are clearly many points of similarity between the two theories; there are also some important differences. Executive dysfunction is proposed as an over-arching theory that can explain many of the behavioural manifestations of autism. In contrast, central coherence does not purport to explain in full the theory of mind difficulties of people with autism and suggests that there is an explanatory role for both. After summarising relevant literature, Pennington, Rogers, Bennetto, McMahon Griffith, Reed & Shaw (1997) conclude that neither theory comes out of validation tests unscathed. They suggest that the focus on the executive areas of the brain perhaps neglects the fact that deficits in one area will have an impact at other levels of functioning.

How might a deficit in executive functioning impact upon the ability to make or to keep friends? One obvious difficulty might be that of generating and carrying out plans of action. This is perhaps illustrated by an excerpt from Holliday Willey (1999), who observed that:

"I think the only reason I ever invited a friend to come to spend time with me was because my parents suggested it and I knew it was something teenage friends are supposed to do" (p35)

Taking this one step further, it may be hard for the person with an ASD to come up with ideas of how to spend time with a friend – particularly if their poor mentalising skills mean that they find it hard to imagine what that person might enjoy. Elsewhere, Holliday Willey observes that:

"I don't believe I ever felt compelled to share any of my toys, my ideas or anything else that was mine..." (p17)

Another aspect of executive functioning is the ability to inhibit impulses and this, too, may be problematic. Grandin (1986) gives an account of how, in the school lunch queue:

"..a girl a little older than I cut into the line ahead of me....Impulsively, I whirled around and smacked her. She yelled and suddenly the talking and laughing around me stopped. The dead silence in the room chilled me." (p66)

Executive deficits may also impact upon the ability of the person with an ASD to make sense of a lot of information that is presented at the same time. This may be why Kenneth Hall (2001) notes that:

"There is another thing which is extremely difficult for me. In groups, I behave differently. I can't concentrate or be friendly at all. I get distracted easily.....It is easiest to be with one child at a time. This can make it difficult to make friends." (p41)

At a more subtle level, an executive problem may make it hard for the person with an ASD to categorise and make sense of social inputs. A very simple level of processing is perhaps implied by the following account by Holliday Willey (1999):

"As if I had a Rolodex in my mind, I would categorise the actions of people, noting their differences and subtleties with a mixture of abstract appreciation and a real curiosity about why they acted as they did."

Elaborating further, she says:

"As long as things followed a set of rules, I could play along.....but, as I have discovered, most rules fade the moment they inconvenience someone." (p35)

The rules of social interaction or, for that matter, friendship, are not readily reducible to a set of logical propositions. That is not to say, however, that people with ASDs have not made attempts to do so. The late Marc Segar produced a self-help guide for people with ASDs that included a table aimed to help them to distinguish between what he termed "a true friend and a hoax friend". Even he concluded, however, that

"You are likely to meet many young people who don't exactly fit into any one category on this table, in which case you must use your discretion" (OASIS website)

Such subtle discrimination is, however, likely to prove difficult for people with ASDs.

3. 3 Psychodynamic approaches

In the past, some psychodynamic accounts of autism have assumed it to have a psychogenic basis. More recent accounts (eg Alvarez & Reid, 1999) acknowledge that it has an organic basis. In the introduction to this work ("Autism & Personality", produced by the Tavistock Autism Workshop) the editors describes it as a book "not just about autism but instead about the children and young people with autism and how their individual and unique personalities may interact with the autistic symptomatology" (p1).

Alvarez notes that the autistic child may lack the capacity for or be uninterested in differentiating animate from inanimate objects. As a result of their own counter transference reaction, the therapist may find it difficult to attribute mental states to the person with autism. In considering this proposition, it is perhaps interesting to reflect that the literature on autism focuses very much on deconstructing the cognitive components of the disorder and there is little that touches on the affective states of the person with autism. As Asperger himself noted, however, they are not emotionally impoverished and are capable of strong feelings. It is complicated for those helping them to understand those strong feelings, however, because of what he describes as "a qualitative difference, a disharmony in emotion and disposition".

The Tavistock book comprises a series of case studies illustrative of psychodynamic working with this group. The fact that autism is believed to be a life long disorder is reflected in the fact that a developmental approach is taken to therapy. In the normal developmental literature, development is seen as "primarily a social process" (Carr, 1999). In other words, the child exists within a social environment and is subject to its influences.

The core deficit of autism is formulated as an impairment of the normal sense of emotionally based curiosity about, and desire for, interpersonal relationships. Lianne Holliday-Willey (1999) comments that when she was a child:

"...I think I would say that I was rather perfunctory about my relationships with peers. In reality, they were not awfully important. Not that I did not like people in my groups. I did. It was just that I would not have been terribly upset if I had been alone and without a group to identify with. My own conversations and thoughts were always my best friends" (p35)

This account seems to lend support to the view that the person with an ASD may lack a capacity for personal relatedness which, in turn, impacts upon their social understanding (Hobson, 1993). Work on attachment behaviours in ASDs, however, suggests that, although children with ASDs may behave in a way that, using normal criteria, suggests disorganised attachment, when a form of sub-classification is used, it appears that at least 40% are, in fact, securely attached (Capps, Sigman & Mundy, 1994). Whilst this is lower than the rate of securely attached children in a non-clinical population, which is around 60% (Carr, 1999), it nevertheless offers a striking contrast to the view that autistic children fail to form emotional bonds (Capps et al., 1994).

It is hard to disentangle the direction of causation in all this because the behaviour of a person with an ASD will, in turn, impact upon their environment and how other people relate to them. Alvarez comments on the range of ways in which parents may react to having an autistic child in their midst. They may endlessly second-guess his needs and so reduce the scope that he has to ask for and receive help. They may feel so helpless in the face of the child's apparent indifference that they leave him too much to his own devices. They may collude with demanding or aggressive behaviour as a way of maintaining some sort of social normality. They may oscillate between different strategies as their energy levels and their mood fluctuate. These early experiences of interpersonal interactions may be played out in later social relationships, such as friendships. None of the above implies any criticism of the parents. They are simply trying out a range of strategies in an attempt to manage to the best of their abilities a situation for which, probably, nothing could have prepared them. The fact is, however, that the cognitive profile of the child impacts upon how other people respond to him, which in turn impacts upon the way in which he develops.

ASDs are lifelong conditions. The behavioural and other features of the disorder will impact upon the system in which the autistic person finds himself throughout his adolescence and adult life. Whatever the degree of his or her desire for interpersonal relationships, the person with an ASD is likely to be influenced by the way in which other people relate to him and how easy the interactions are for him to manage. Moreover, the desire for relatedness may not be static over the life span. Holliday Willey (1999) observes that:

"when I think of my earliest years, I recall an overwhelming desire to be away from my peers." (p16)

Likewise, Williams (1992) notes that, at six:

" Whether other children were my friends was irrelevant."(p21)

Both authors, however, go on to give accounts that express how important friendships were later to become to their wellbeing.

It is possible that, in spite of the enormous cognitive difficulties that friendship may pose, the person with an ASD may nevertheless benefit from the warmth and affection of those around them. Temple Grandin (1986) notes that:

"The most important component of [a] treatment plan is the presence of loving people to work with. I recovered because my mother, Aunt Ann, and Bill Carlock cared enough to work with me"(p180)

Holliday- Willey (1999) elaborates the reasons why this sort of support may be beneficial in her description of what her two closest friends mean to her:

"My two closest friends...help me to know what acceptable is, not just because they are always willing to offer instructions on how to act or advice on how to perceive things but more important because they are so loyal in their affirmations that I am just fine as I am. And although I cannot explain why this happens, their belief in me fosters my own belief in myself, which in turn makes me become less apprehensive and more able...." (p58)

The importance that she attaches to this support is evident when she goes on to say:

"My deep dark fear, the one that makes my bones scream, is that there are AS people in search of friendship who will never find any, no matter what they do, solely because of their AS.....I know that reality will wound them as they stumble forward, deeply lonely and ever more estranged from others." (p60)

The importance that both these authors attach to friendship later on in life may be the result of a process of late maturation or it may be that, as they grow up, autistic people are influenced by the social world and begin to perceive hitherto unsuspected benefits to friendship. As already noted, however, the cognitive profile of the person

with an ASD may mean that friendship is likely to remain difficult and at times, perhaps, even aversive for them.

3. Views of people with an ASD

There has been relatively little attempt to elicit from people with autism what they think about social relationships – in particular, friendship. How do they understand it? Is it something that they would like? Are they put off the idea because they find it hard to manage? What sorts of experiences have they had? There are good reasons why these questions have not been asked. First, if social withdrawal is conceptualised as a defence, there would be little to be gained from asking autistic people about it because it would not be accessible to consciousness. Second, it may be assumed that an autistic person could not manage the social contact necessary to elicit their views. Third, given that language difficulties are a defining part of autism and that "odd, pedantic language" is common, even in Asperger's, it may be assumed that their responses would lack authenticity. Any or all of these may be true. Asperger himself observed that:

" it is hard to know whether they suffer from themselves. They are strangely impenetrable and difficult to fathom. Their emotional life remains a closed book."

Since Wing & Gould's study (1979), milder cases of autism have been more readily recognised. As the publication of first person accounts illustrates, this group would seem to have some capacity for self-reflection (although see Happé, 1991) and this would seem to justify an attempt to elicit their views.

Historically, people with autistic spectrum disorders have been perceived as socially withdrawn (Kanner, 1943). Whilst this is certainly a common feature of the presentation, it is by no means universal (Wing, 1996). Although there are many anecdotal accounts of the difficulties that people with ASDs experience forming friendships (eg Howlin, 1997), there has been relatively little systematic study of how they themselves experience and understand friendship (although see Bauminger & Kasari, 2000).

There is a great deal of research that explores how normally developing children and young people feel about friendship and behave with their friends. It is interesting, therefore, to compare how peer relations are experienced by young people with Asperger's syndrome. Autistic disorders are thought to exist along a continuum of severity (Wing, 1996) and it has been suggested that they shade into normality (Frith, 1991). This may pose particular problems for those at the milder end of the autistic spectrum because their difficulties, although very real, may not be obvious. Their behaviour may therefore be construed as anti-social or selfish – even if, in reality, they are trying hard to do the right thing. Many young people with milder forms of the disorder are educated in mainstream schools. Their characteristically uneven profile of skills and difficulties (Howlin, 1997) may cause teachers to believe that they could manage social situations better if they just tried harder. Sadly, this is unlikely to be the case. The stresses of "getting it wrong", without fully understanding why, may be considerable and very damaging to the young person's self esteem. The resulting vicious cycle will not be conducive to establishing friendships with their peer group.

What is the likely impact of having difficulty making friends? People with autistic spectrum disorders are known to have a higher incidence of psychopathology than the normal population (Wing, 1981). Amongst the normal population, the importance of social support for psychological wellbeing is well documented. It is at least possible, therefore, that the limited social support available to the autistic spectrum group plays a part in the development of their psychopathology.

The practical ramifications of not having peer relations may also be considerable. It is known that people with Asperger's syndrome are over-represented in prison populations (Hare, Gould, Mills & Wing, 2000; Scragg & Shah, 1991). It is not clear how many of these individuals have committed offences that are in some way linked to their social difficulties. It may be, however, that some offences, for example those of a sexual nature, are associated with inept attempts to form relationships.

The aim of this study is, therefore, to try to find out more about their understanding and experience of friendship from the young people with Asperger's syndrome themselves.

5. Models of friendship

In order to understand how other people may be important to people with autism, it is useful to be able to make normative comparisons. It is for this reason that the relationship of friendship has been chosen. There is a considerable body of research that looks at the friendships of children and young people. Bukowski, Newcomb &

Hartup (1996) comment that the word "friend" appears in most children's vocabulary around the fourth year and that best friends are ubiquitous in social experience during middle childhood and adolescence. They observe that friendship is closely tied to liking and that it is voluntary. Common ground and affirmation are both believed to be necessary for the formation and maintenance of friendship. Although friendships may not have the same permanence as family relations, their developmental significance is thought to be considerable. There is evidence that developmental outcome derives from a complex transaction between the child's attributes, their close relationships and the broader social context (Hartup & Van Lieshout, 1995).

Bukowski et al state that there would seem to be three conditions that mark the friendships of children and adolescents. These are, first, reciprocity: that is, mutual regard, behavioural mutuality (including co-operation and effective conflict management) and a similar level of "benefit" for each participant; second, liking: that is, the desire to spend more time with that person than is spent with other people; and third, affection and having fun. Although children articulate these conditions differently at different ages, they remain stable throughout childhood and adolescence.

From the point of view of the young person with autism, there are potential problems with all of these. As the Theory of Mind hypothesis suggests, the autistic person's ability to manage a reciprocal relationship is likely to be severely challenged by the difficulties that they experience in adopting another person's perspective. Do they have the cognitive resources to achieve the delicate contractual balancing act that friendship entails? Their emotional inaccessibility has also been noted in the

psychodynamic model above and this may impact upon their capacity both to experience and to show liking or affection for another person. Having fun depends, to some extent, upon the ability to generate ideas for entertainment and the flexibility to respond to those ideas that another person comes up with. As the executive theory of autism suggests, these abilities may be compromised in the person with autism, as may the ability to inhibit their own impulses in order to engage fully with the demands of a reciprocal relationship.

Nevertheless, people with autism live in the social world and, as Wing's four-part categorisation shows, by no means all of them eschew social contact. It must be assumed, therefore that they do manage some relations. Whether or not these meet the criteria outlined above for friendship is debatable. Some might more accurately be described as "aquaintanceships".

For normally developing children, what are the differences between having friends and acquaintances? Bukowski et al identify four: first social engagement, co-operation and conflict management are greater among friends than they are among non-friends (Newcomb & Bagwell, 1996); second, self awareness and self esteem as well as knowledge about others and about the world are enhanced (Ladd & Kochenderfer, 1996); third, friendships serve as both an emotional and a cognitive resource (Hartup, 1996); and fourth, these relationships are likely to be the forerunners of others (Kramer & Gottman, 1992)

From the point of view of the autistic child, what this suggests is that any difficulty experienced in making friendships or reluctance to engage in friendly relations with

peers may have a knock-on effect on the child's development. If there are ways in which this can be remediated so that the important lessons of friendship can be learnt, it would seem important to explore them.

This prejudges the subject matter of this study, however, which is to look in more detail at the sorts of relationships that young people with autism *do* have with their peers. In the research on normally developing children and young people, a dimensional approach is often used as a tool to explore the nature and quality of their friendships. This is particularly useful for studying the autistic group because their cognitive profile clearly suggests that some aspects of friendship will be easier for them than others. For the purposes of this study, the model suggested by Bukowski, Boivin & Hoza is used. This decision is partly pragmatic. Their Friendship Qualities Questionnaire operationalises their model for clinical or research work. It is brief and the questions that it asks are, for the most part, concrete, so its usage is unlikely to be confounded by the particular cognitive style of the autistic subjects. It has also been used at least once for an autistic population (Bauminger & Kasari, 2000), providing a point of comparison between that study and this.

The Friendship Qualities Scale (FQS) looks at five features of friendship: first, Companionship; second, Help, which entails both aid and protection from victimisation; third, Security, encompassing trust and reliable alliance; fourth, Closeness, including the affective bond and reflected appraisal; and fifth, Conflict. Validational evidence suggests that reciprocated friendships are generally described more favourably than unilateral ones (Bukowski et al, 1994). Friendships of more than 6 months' duration are also described more positively than more recent ones on

all but the conflict scale. In a separate study, the authors also related scores on the FQS with ratings of self esteem and perceived competence and found them to be correlated. One aim of this study would be to try to map the responses to this questionnaire onto the various psychological models of autistic functioning.

An interesting issue that arises in considering the friendships of this group is motivation. This is an area that is under-researched for normally developing children (Bukowski et al, 1996). It is particularly pertinent to the autistic group. As noted in the comparison between autism and AS above, it has been taken as a sine qua non that autistic children are not motivated to form friendships. This may perhaps be because it was Kanner's description of the more disabled, aloof child that defined popular and professional perceptions of autism in this country until quite recently. Wing's typology, however, would suggest that it would be a mistake to make assumptions on this point. Personal accounts by people with autism suggest that they are able to feel the benefits of social support. Are they also motivated to seek it out? This question is complicated by the fact that most people with autism have, by adolescence, a history that is punctuated with repeated misunderstandings and rejections. Also, as noted above, those who are able to form friendships generally learn from the experience and go on to form more. Even if they were motivated to seek out social contact with their peers when they were younger, many young people with autism may have found that their ability to do so, relative to their normal peers, has declined over time. In asking about motivation, therefore, it may be very hard to be certain of the processes that are operating or to disentangle the many variables.

6. Studies that look at the friendships of young people with ASDs

Although there are numerous anecdotal accounts of the friendship difficulties of young people with an ASD, a literature search identified only one study that systematically compared their experiences and understanding of friendship with those of a normally developing group. In "Loneliness and Friendship in High-functioning Children with Autism" Bauminger & Kasari (2000) noted that, although all the children with autism reported at least one friend, the quality of their friendships was poorer in terms of companionship, security and help. In addition, fewer associations were found between their friendships and loneliness than were noted for the non-autistic group, suggesting less understanding of the relation between friendship and loneliness.

Three measures of friendship were used. These were: The Friendship Qualities Scale (Bukowski, Boivin & Hoza, 1994) (FQS), which explores what friends do together; an interview procedure, in which children were asked: "What is a friend?" and their responses were coded for Companionship, Intimacy (comparable to Security on the FQS) and Affection (comparable to Closeness on the FQS). In addition, parents were asked about the numbers of friends they had and how often and what they played together.

Of note, the authors concluded that the children with autism did have a social desire for involvement in the relationships of others. Since they defined a friend less often than normal controls in terms of Companionship, Affection and Intimacy, however, they may not have had the same perceptions of the role of a friend as the non-autistic

group. As noted, most of the autistic group perceived themselves as having friends but, as the authors caution, this was based mainly on self-reports and interviews with the children, who may have overestimated the nature of the relationship. Interestingly, however, their mothers' reports of numbers of friends were generally greater than those of the children themselves. This may either have come about as a result of an overestimate by the mothers or a failure on the part of the children to recognise certain of their relationships as friendships. Bauminger & Shulman (2001) have continued to explore the friendships of children with HFA, exploring how they spend time together and what maternal perceptions of their friendships are. These unpublished papers are considered in more detail in the Discussion section.

This study seeks in part to replicate the findings of Bauminger & Kasari (2000) through the use of the FQS. It also seeks to expand upon their brief interview in order to elicit more information about the sorts of friendships that children with AS may form. In addition, it adds a vignette component, in order to tease out the thought processes that may underpin the friendship difficulties of this group.

7.   **Methodological issues**

As noted earlier, although first hand accounts provide a useful insight, there has been limited systematic study of how young people with AS, as a group, understand and experience friendship. One of the aims of this study was, therefore, to find out what the issues are that most commonly bear upon the friendships of this group. This posed several methodological problems.

In the first place, first hand accounts written by people with ASDs suggest that their social experiences are very different from those of neurotypical people and that these experiences are underpinned by their particular cognitive style. The psychological models of ASDs and how they may impact upon friendship are outlined above. For the purposes of a between groups comparison, a reliable and valid way of measuring the relevant information is necessary. As noted previously, in their study of HFA Bauminger & Kasari (2000) used a friendship questionnaire and carried out a content analysis of a definition of friendship. This begs the question, however of whether standardised instruments, created for a neurotypical population, can really tap into the underlying cognitive differences of the AS group in a meaningful way. Bauminger & Kasari's study showed that that there seemed to be differences in the friendships of young people with HFA but did not elaborate in any detail upon the mechanisms underlying those differences.

In order to find out more, it seemed that the most logical thing to do was to ask the young people about their views and experiences of friendship. This, too, was fraught with difficulties, however.

The first of these was language. Although DSM-IV specifies that people with AS do not have a "clinically significant general delay in language", clinical experience suggests that they may use language in a way that is pedantic or odd (Jordan, 1999, p25). As Happé observes of ASDs: -

> "whilst it is true that some autistic people never develop language, it is more striking that even those who do still fail somehow to communicate fully."

Kanner (1951), too, described language that "does not seem intended to serve the purpose of interpersonal communication" (p23). Howlin (1997, p34) comments on the fact that people with ASDs may appropriate a sophisticated sounding vocabulary but then use it in ways that are, perhaps, mildly inappropriate. This has resonances with the echolalia that is often observed in less able people with ASDs. It is as if the language of the person with an ASD develops through a series of learnt associations. So, instead of generating a comment that is unique to each particular situation, they instead draw upon a stock of learnt phrases that are not inappropriate but, equally, do not truly convey what they are feeling at that moment. So, asking a young person with an ASD about their friendships might yield no more than a well-rehearsed description of what they had heard other people say about friendship. This received wisdom might not, however, authentically reflect their views and experiences.

A second issue that was potentially problematic pertained to the social experience of an interview. To understand this issue it is necessary to think about how psychological models of ASDs might predict that a person with AS would manage an interview. If executive processes are implicated in AS, it might be hard for the interviewee to generalise about their experiences, to generate responses or to elaborate them with examples. It might also be difficult for them to inhibit their desire to talk about their special interests in order to answer the questions posed. Conversely, the impact of theory of mind difficulties could be positive, since the person with AS would be less likely than a neurotypical person to try to portray themselves in an advantageous light. From a psychodynamic perspective, some respondents might defend against the very real problems cause by their AS by a process of social withdrawal. It would clearly be unkind and unethical to press too

hard for information about issues that might be closely entangled with the interviewee's psychic defences.

A study that explored the conversational abilities of children with HFA (Capps, Kehres & Sigman, 1999) seemed to confirm that both language and social factors might impact upon the process of interviewing someone with AS. They found that, relative to children with developmental delay, autistic children more often failed to respond to questions and comments, less often offered new, relevant contributions and produced fewer narratives of personal experience. Thus, the idea of interviewing someone with AS for a study of this kind involved a curious double bind: the purpose of the interview was a curiosity about their lived experiences but, by reason of their AS, it was likely to be hard for them to share those experiences.

These are issues that are not peculiar to ASDs. In qualitative research into the experiences of people with learning disabilities, the participants may also find it difficult to convey their experiences. This is not seen as a reason not to attempt it - indeed, as Booth & Booth (1996) observe: "silence may be as telling as talk" (p57). What is, perhaps, unique to the case of autistic subjects, however, is the fact that their accounts, whilst sounding plausible, may in fact be "borrowed": a phenomenon that makes the process of interpretation very slippery indeed. Moreover, having in mind a particular cognitive model from the outset and working on the premise that what the interviewee says is not necessarily what he means seems inimical to the spirit of truly inductive work and more akin to a covert form of hypothetico-deductivism.

Some studies using a qualitative methodology have sought to get round these issues by selecting subjects who were thought, by those who knew them well, to be able to speak about their disability and their experiences (Carrington & Graham, 2001). This process of pre-selection means taking a decision not to seek the views of the less articulate and perhaps less insightful people with AS. Their experiences of a social construct like friendship might be very different from the experiences of more able young people with AS, however. And that brings us back, full circle, to the fact that this study was intended to explore the experiences of the group.

A further difficulty arose from the fact that friendship is not an internal state: it is an experience that is located within the social world. There is a body of research about the friendships of neurotypical young people that explores what is normative and what different friendship behaviours may say about how satisfactory and stable the friendship relationship is. In the case of people with AS, it seemed particularly important, in exploring the experiences of the group, to find out how their experiences compared with those of other young people of a similar age, so that their reports could be understood in context. A control group is, of course, necessary where quantitative comparisons are being made but the idea of a group comparison is not one that sits easily with a more qualitative approach, where the aim is to explore the inner world of the individual without reference to what is socially normative.

It is common in research into ASDs to seek a third party perspective (Bauminger & Kasari, 2000; Carrington & Green, 2001) - perhaps because it is recognised that the social and language difficulties of the person with AS may mean that it is hard for them to give a complete account. In the present case, two groups of people seemed

to be well placed to provide information about the friendships of people with AS. First, the school staff could provide insights into the group and how their friendships developed within the special school setting. Second, the parents could report how their own child managed friendships within less specialist settings and reflect their perspective of how their child understood, experienced and felt about friendship issues.

Taking all of these considerations into account, neither off-the-peg quantitative methods nor inductive, thematic methods seemed to offer a completely satisfactory way of answering the research questions. In the circumstances, a mixed methodology was chosen. This reflects the fact that, as Willig (2001) expresses it, there is no point in looking under a lamppost for keys that were dropped elsewhere, just because the light is better there. In the present case, the difficulties posed in accessing the inner world of the person with AS and the fact that friendship is not, in any case, an experience only of the inner world meant that it was necessary to look for the metaphorical keys in more than one place.

A quantitative approach was taken in the first instance. AS and mainstream participants were asked to complete a standardised questionnaire (the FQS); to define a friend and say whether friends were important, with a view to a content analysis of their replies being undertaken; and to rate the behaviour in some story vignettes. A between-groups comparison was made of all of these items.

Because it was felt, however, that these methods might not pick up the full texture of the understanding and experiences of the AS group, both groups were asked some additional questions about their friendships in a brief semi-structured interview. Information from the interviews was used to illustrate the findings that emerged from the quantitative measures and to highlight areas where it was thought that those measures might not have tapped into some important aspect of the experience of the AS group. In addition, a third party perspective was obtained from parents and teachers. This information, too, was used illustratively, either to add to the information yielded by the quantitative measures or to highlight that there were issues that they had not, perhaps, fully addressed.

8.   Assumptions and terminology

8.1 Assumptions of this study

For the purposes of this study, it will be assumed that autism and AS form part of the same spectrum of disorders. The subjects all attend a special school for young people with AS. Since they all talk about themselves as having AS that is how they are described in this study. It is beyond the remit of this research to explore in any detail whether understanding and experiences of friendship are the same in HFA and AS.

8.2 Terminology

Because a majority of the participants in this study were male, people with AS are referred to throughout as "he". This is not to imply that it is a condition that only affects males and a note about prevalence rates is included in the Method section.

The decision to use the masculine throughout was taken largely for reasons of simplicity but also because there were so few female participants that to have identified their gender, in referring to what they said, made it possible that they could have been identified.

Where other studies about ASDs are cited, the author's description of the diagnosis of participants (autistic, ASD, AS or HFA) is used.

9. Research Questions

There were four overarching research questions, exploring three distinct but inter-linked aspects of friendship. Within each exploratory research question was a specific research hypothesis, central to the question being considered. They are set out below

9.1 Research question 1: Understanding of friendship

How do young people with AS understand friendship? The hypothesis was that, in answering the question "What is a friend?" the young people with AS would include fewer dimensions of friendship than an age equivalent group of neurotypical young people attending a mainstream school ("the mainstream group").

Information from accounts provided by the AS group, the mainstream group and the AS parents and teachers was used to provide illustrations of the issues emerging and also to highlight ways in which the research methodology did not adequately capture the full lived experience of the young people with AS.

9.2 Research question 2: Importance of friendship

Do the young people with AS think it is important to have friends? The hypothesis was that, in answering the question: "Do you think it is important to have friends?" the young people with AS would give fewer affirmative answers than the mainstream group and would adduce different reasons for the importance of having friends. Information from accounts provided by the AS group, the mainstream group and the AS parents and teachers was used to provide illustrations of the issues emerging and also to highlight ways in which the research methodology did not adequately capture the full lived experience of the young people with AS.

9.3 Research question 3: Experiences of friendship

How do young people with AS experience friendship? They hypothesis was that, in completing the FQS, the young people with AS would obtain lower scores than the mainstream group on the sub-scales of Companionship, Security and Help (Baminger & Kasari, 2000). Information from accounts provided by the AS group, the mainstream group and the AS parents and teachers was used to provide illustrations of the findings of the questionnaire and also to point to relevant issues that it may not have captured.

9.4 Research question 4: Roles and rules in friendship

How do the social difficulties of the young people with AS manifest in and impact upon their friendships? The hypothesis was that the ratings that the young people with AS gave to the behaviour in the vignettes would differ from the ratings given by the mainstream group. Information from accounts provided by the AS group, the

mainstream group and the AS parents and teachers was used to provide further illustrations and clarification of the issues emerging in the vignettes.

CHAPTER 2

Method

1. Participants and Setting

1.1 The AS Group

The setting that the AS participants were recruited from (the"School") is registered with the DfEE for pupils with AS. Expertise on AS is provided to the School by a steering committee that includes psychologists and psychiatrists with a special interest in ASDs. The school is currently working with City and Guilds and a local University on the preparation of training packages for those working with people with AS, for which it is hoped to obtain NVQ status.

Only young people with AS are accepted by the School under the terms of their registration with the DfEE. All (excepting any that are not UK resident) have Statements of Special Educational Needs, with their places being funded by their relevant Local Educational Authority. Once a referral is made to the School, they consider all information, reports etc supplied by the referrer and meet, in the first instance, with the parents alone. If they feel that the student fulfils their entry criteria, that is, if they have AS and educational needs that the School can meet, they invite the pupil to the School so that they can assess them in the classroom and in the residential setting. This assessment visit is for a minimum of twenty-four hours: more usually the potential pupil will spend three days at the School. Over the course of their visit they are assessed, as appropriate, by a Speech and Language Therapist,

Occupational Therapist, Educational Psychologist and Behavioural Therapist employed by the school.

Because recruitment for this study was done through the School, it was felt that it would be inappropriate to interview parents to verify independently that their children met the diagnostic criteria for AS. It is likely that obtaining LEA-funded special educational provision for their children will have been a long and stressful process for parents and it was felt that asking further diagnostic questions in the School context had the potential to raise their anxieties, which would have been both unkind and unethical.

The School's assessment of the participants in this study as having AS was, therefore, accepted as sufficient for recruitment.

The parents of forty-eight young people with AS were invited to consent to their children participating in the research. Twenty-three (46%) sets of parents returned Consent Forms, agreeing that their children could take part.

For various practical, educational and medical reasons, three of the young people did not, in the event, take part in the research - although the parents of one of those did fill in a Parents' Questionnaire for the purposes of this study.

Of the remaining twenty young people, all agreed to take part in the research.

The participants ranged in age from eleven years and six months to nineteen years and three months, with a mean age of fifteen years and four months. The sample consisted of nineteen boys and one girl. All but two participants boarded at the school (the two exceptions attended as day pupils).

1.2 The comparison group

A group of nineteen developmentally neurotypical young people was recruited, comprising seventeen boys and two girls (the "mainstream" group). Twelve of the group attended one mainstream boarding school. A further five attended other boarding schools and two attended day schools. The group included two non-identical twin boys and one boy who has a brother diagnosed with AS. The age range of the mainstream group was twelve years five months to eighteen years one month, with a mean age of fifteen years five months.

It was felt important to recruit mainstream participants who, like the AS participants, attended a boarding school because it seemed likely that the social environment would have a material effect upon the friendships that were formed and how they were conducted. The two groups were matched as closely as possible for age and gender. They were not matched for IQ. This was primarily for practical reasons of recruitment. Research suggests, however, that intelligence, as a unitary construct, is not necessarily correlated with the ability to form friendships (Janos, Markwood & Robinson, 1985), although, not surprisingly, social cognition is likely to be linked to how friendship is understood (Cristante & Lucca, 1989).

1.3 School staff and AS parents

All Teachers, Learning Support Assistants (LSAs) and Care Staff in the AS school, forty-nine in all, were invited to fill in questionnaires abut the friendships of young people with AS. Across all of those professions, eighteen responses were received (response rate overall: 36%). Most of those responding were teaching staff and LSAs (response rate across this group: 64%). This probably reflects the fact that an explanation of the research and its rationale had been presented to the teaching staff at a Staff Meeting. Unfortunately, it was not possible to arrange a similar meeting with the care staff, who worked shifts and only 4 filled in their questionnaires (15%).

The parents of the 15 youngest participants were also invited to fill in similar questionnaires. 12 sets of parents responded (80% response rate). It had originally been intended to post questionnaires to all parents but, as an emphasis of the school's education of the 6th form group was the fostering of their independence and autonomy, it did not seem appropriate to ask their parents to comment on their friendship behaviours.

2. Personal context

I am the mother of a thirteen-year old boy with an autistic spectrum disorder. During my core learning disabilities placement, I co-facilitated a group for adults with AS which aimed to address their difficulty in understanding how other people think. As a result of these experiences, I became curious to know more about how people with AS feel about friendship and about their friendship experiences.

3. Ethics

Ethics approval for this research project was obtained from the University College London/University College Hospital Ethics Committee. A copy of the letter confirming the Committee's approval is attached as Appendix 1.

4. Design

This study used a between-groups design and a mixture of quantitative and qualitative self-report measures to explore how the understanding and experiences of the AS participants compared with those of the mainstream participants.

5. Measures

5.1 Overview

AS and mainstream participants were asked to take part in a semi-structured interview, to fill in a Questionnaire about friendship activities and to rate the behaviour of some friends described in six brief story vignettes.

AS school staff and AS parents were asked to complete a questionnaire.

5.2 Measures used with AS and mainstream participants

5.2.1 The Friendship Qualities Scale (FQS, Bukowski, Boivin & Hoza, 1994,): The FQS was administered to both AS and mainstream groups so that their responses could be compared.

The FQS is a self-report questionnaire that assesses the quality of children and young adolescents' relationships with their best friends, according to five dimensions: Companionship, Closeness, Security, Help and Conflict. It has been used in previous research into the friendships of high-functioning children with autism (Bauminger & Kasari, 2000).

The young person is first asked to nominate a "best friend" and to answer all the questions by reference to the relationship that he or she has with that best friend. It was explained to participants that, if they did not have a "best friend" relationship, they should choose one of their closest friends and complete the FQS by reference to that person. The FQS consists of 23 items which are rated on a 5 point scale from 1 (not true) to 5 (really true).

The Companionship dimension consists of four items such as "My friend and I spend a lot of our free time together". There are five items in the Closeness dimension. Some probe the affective bond, such as "I feel happy when I am with my friend". Others explore the reflected appraisal of the friend, for example "When I do a good job at something, my friend is happy for me". There are also five items in the Security dimension. Some are indicative of a reliable alliance, for example "If I have

a problem at school or at home I can talk to my friend about it". Others tap into the ability to transcend problems, such as "If I said I was sorry after I had a fight with my friend, he would still stay mad at me". There are five items on the Help/aid dimension and an example is " My friend helps me when I am having trouble with something". The Conflict dimension consists of four items such as " My friend and I can argue a lot".

A confirmatory factor analysis by the authors demonstrated that those scales represented distinct but related domains of friendship (Bukowski, Boivin & Hoza, 1994). The internal consistency within each dimension was high and the validity of the scale was indicated by the pattern of higher ratings for mutual friends than for non-mutual friends and for stable friends than for non-stable friends (Bukowski, Boivin & Hoza, 1994).

Two of the items used in the original scale were inappropriate for boarding school pupils and were therefore swapped for more ecologically valid items from the relevant dimension taken from the authors' second and longer version of the Questionnaire, The Friendship Activity Questionnaire (a 46 item instrument).

5.2.2 Semi-structured interview (Appendix 2) The semi-structured interview consisted of seven open-ended questions about the participant's friendships, together with suggested prompts.

In drafting the semi-structured interview, consideration was given to how best questions could be phrased in order to elicit an authentic response (Capps et al,

1999). The difficulty that people with AS might have in generalising about their experiences seemed to indicate a closed style of questioning. On the other hand, however, there was a risk that closed questions could be perceived as confrontational. Moreover, given their possible difficulty in generating novel responses, the AS group might be influenced by questions that were specific.

These issues are not peculiar to subjects with AS. In research with people with learning disabilities (Budd, Winer, Schoenrock & Martin, 1982), open-ended questions were found to be unanswerable by many participants but the addition of clarifying questions was found to exacerbate response bias. In the present case, it was decided primarily to use open-ended questions, supplementing these with closed questions only when the interviewee seemed willing and able to elaborate. This approach was underpinned by the assumption that it is not only what the interviewee says that is important but also what he omits.

Two questions were explored using a Content Analysis (Smith 2000). The first of these: "What is a friend" replicated the question asked in the research into loneliness and friendship in high-functioning children with autism carried out by Bauminger & Kasari (2000). The second, "Do you think that it is important to have friends?" was asked in the hope of obtaining a sense of how motivated participants were to form friendships, a theme which is relatively under-researched in the normal population (Bukowski, Newcomb & Hartup, 1996).

The aim of the content analysis was to obtain both a qualitative description and a quantitative measure of the groups' views on these two issues. The coding followed

closely the dimensions used in the FQS. Companionship was coded positively where a friend was identified as, for example, someone to play with or spend time with. Closeness was coded when an affective bond was referred to or the friend in some way made the participant feel positively appraised. Security was coded in cases where issues could be safely confided and where the friends were able to transcend differences of opinion. Help was coded when the friend was identified as someone who offered either protection or assistance. These codings reflected previous studies on friendship generally (Bukowski, Boivin and Hoza, 1994) and on the friendships of people with an ASD in particular (Bauminger & Kasari, 2000). For the second question, a fifth dimension was added: Loneliness (Bauminger & Kasari, 2000). This was coded as being present when participants talked of a friend being important in the avoidance of loneliness.

The other questions asked in the interview were intended to obtain more information about the issues explored in the FQS. The FQS asks about a best friend, so participants were asked about the sorts of friendships that they had formed. The Companionship dimension was explored with the question "How do you like to spend time with your friends?" and participants were also asked about Conflict "Do you ever fall out with your friends?" and Closeness " Are you fond of your friends?" Follow-up questions (in italics) also sought to pick up on the themes of Security and Help, where appropriate. It was intended to use this data for illustrative and descriptive purposes, to provide more in-depth information whereby the other measures could be understood in context.

In most cases, participants' responses were tape-recorded but where parental consent was not given for the recording, detailed notes were taken and transcribed as contemporaneously as possible.

A reliability check of the coding was undertaken by an auditor, in each case, a second researcher with experience of qualitative methods. A list of the criteria for each of the categories was provided and a range of unlabelled quotes was presented to the auditor in random order. After discussion, a concordance rate of 100% was achieved in each case between the categories chosen by the auditor and those chosen by the researcher. A copy of the coding criteria is attached as Appendix 7.

5.2.3 Vignettes (Appendix 3) Six short vignettes were written, based on the format used by Dewey (1991, in Frith, 1991). Participants were asked to rate the behaviours in italics using a five point scale, ranging from A (not at all strange) to D (very strange). The vignettes were intended to represent the way in which it is likely that the cognitive difficulties of autism or AS would be manifested in social situations. Participants' responses were recorded so that the responses of the two groups could be compared.

To verify that the vignettes were, in fact, representative of the sorts of social situations that people with AS find difficult, Staff Questionnaires were sent out before the vignettes were finalised. One of the questions in the Staff (and Parent) Questionnaires invited the respondent to give examples of specific social situations in which they had observed that the young person with AS was having difficulty. The

responses to this question seemed to indicate that the vignettes did, for the most part, tap into areas of common difficulty but changes were made to three of the original vignettes to reflect (suitably disguised) situations and events described by staff. A short description of the contents of the individual vignettes and a brief explanation of their theoretical basis follows.

The first vignette gives an account of one boy accidentally hurting another boy during a football game. It reflects the fact that a young person with AS may find it hard to understand that another person thinks differently from them and may sometimes impute intention incorrectly, perhaps thinking that another person intended to hurt or distress them (Blackshaw, Kinderman, Hare & Hatton, 2001).

The second vignette describes one boy's abrupt departure in the course of a pre-arranged activity with a friend. The young person with AS may understand the "rules" of friendship in only a very literal sense and have little grasp of the spirit of the rules (Dewey, 1991).

In the third vignette, one friend unselfishly abandons an enjoyable activity to console another. The effect of Theory of Mind deficits (Baron-Cohen, 1997) and poor executive functioning (Russell, 1997) may mean, however, that the person with AS finds it hard to empathise with the distress of another person or to generate ways of making them feel better.

In the fourth vignette, one friend pressurises another, who is feeling unwell, into going ahead with a shared activity that he particularly enjoys. Once again, this is

intended to tap into theory of mind (Baron-Cohen, 1997) and executive inhibition (although see Ozonoff & Strayer, 1997). It also explores the role of empathy (Baron-Cohen, 1999).

The fifth vignette reflects the poor social fine-tuning that sometimes characterises people with AS, with a young girl making a personal and potentially embarrassing comment to a boy she has just met (Hall, 1999).

The sixth vignette describes how, at a youth club, one friend leaves another to go and join in an activity. This was intended to explore whether a young person with AS would be more likely to feel that being left by a friend to cope alone in a strange situation was unreasonable.

5.3 Measures used with Staff and Parents of the AS group

5.3.1. Questionnaires ("Staff Questionnaires" and "Parent Questionnaires") (Appendix 4). The questionnaires were in two parts. The first part consisted of six open-ended questions that followed substantially the same form as the semi-structured interview. The second part required the respondent to rate sixteen statements about friendship behaviours, using a Likert scale. The scale was compiled for the purposes of this research and had face validity. The statements were intended to tap into the main psychological models of ASDs. Six items looked at aspects of executive functioning, two exploring generativity, two inhibition and two flexibility, of which the statement "They find it hard to cope if something they have planned with a friend happens a bit differently" is an example. Reliability of the six

executive items was .47 (Cronbach's alpha) perhaps reflecting the fact that executive functioning in AS is not a unitary construct (Ozonoff, 1997). Six items were concerned with Theory of Mind, such as "They understand that friends may want to do things that they don't". Reliability of the six Theory of mind items was .74 (Cronbach's alpha). Four items explored affective issues, in particular the feelings of the person with AS: "They seem to be fond of their friends" and what they seemed to need, in affective terms, from friends: "They don't seem to look to friends for affection or support". Reliability for the affective items was .55 (Cronbach's alpha).

Staff were asked to give their impressions of young people with AS, as a group. Parents, on the other hand, were asked to fill in the questionnaire in relation to their own child. The Staff and Parent Questionnaires were used to yield descriptive and illustrative information to supplement the data obtained by other means in the study.

6. Procedure

Information Letters and Consent Forms were sent by post to parents (see Appendix 5). At the time of the interview, participants who were not yet sixteen were given an Information Form and Participants who were sixteen or over were given an Information Letter and Consent Form (see Appendix 6). The AS participants were interviewed individually. The FQS and Vignettes were read aloud to them. This was at the suggestion of the School, who felt that some participants would find it hard to attend to relatively lengthy written information. They were given a visual representation of the response scale in each case. Their responses were tape-

recorded where appropriate. The mainstream participants were also interviewed but filled in both the Questionnaire and the Vignette independently, prior to the interview. This was at the request of the mainstream school, in order to minimise the time involved. The vignette form was modified for these purposes so that participants could write brief comments explaining why they had rated the behaviour as they did.

The Staff Questionnaires and Parent Questionnaires were distributed and returned by post.

7. Summary

The AS and mainstream group completed the FQS in order to obtain quantitative data across five dimensions about their day-to-day experiences of friendship (Research Question 3). The same dimensions were also explored in the interview in order to provide lived illustrations of the dimensions investigated (Research Questions 1-4). As part of the interview, participants were asked what a friend was (Research Question 1) and if they thought that it was important to have friends (Research Question 2). Finally, they were asked to comment on some vignettes in order to elicit their perceptions of socially appropriate behaviour (Research Question 4).

Parents and staff completed written questionnaires. The first part closely followed the format of the semi-structured interviews with participants. The second part asked

about specific friendship behaviours. The information from the questionnaires was used illustratively, to provide a third party perspective on all the issues addressed with participants (Research Questions 1-4).

The rationale for the methodology that was chosen is outlined in the Introduction to this study.

CHAPTER 3

Results

1. Overview

1.1 Research questions

This study explored four research questions. The first concerned how young people with AS understand friendship. The second concerned the importance that young people with AS attach to friendship. The third was about the lived experiences of friendship of the young people with AS. The fourth concerned the difficulty that young people with AS have in making sense of social situations and knowing how to behave. This chapter looks at each of the research questions in turn.

1.2 Notes on abbreviations and coding

When quotations are included in the Results, the participant is identified as follows. The prefixes are "A" for AS; "M" for mainstream; "P" for parent; and "S" for staff. The number that follows is the participant code. The final letter denotes the approximate age of the participant, with "Y" being the youngest participants, aged eleven to thirteen years; "O" being the slightly older group, aged 14 years to pre-sixth form; and "S" being the sixth formers. To protect confidentiality, parent codes are unrelated to participant codes.

When an exchange with the interviewer is quoted, the letter "I" denotes the interviewer and the letter "R" denotes the respondent

2. Research Question 1: Understanding of Friendship

2.1. How do young people with AS understand friendship? The hypothesis was that, in answering the question "What is a friend?" the young people with Asperger's syndrome would include fewer dimensions of friendship than the control group. Relevant information from the interviews and the parent and teacher questionnaires were considered

2.2. The hypothesis was explored by means of a Content Analysis of the definitions of friendship given by the young people with AS and the mainstream group. Two raters categorised the data according to the criteria set out in Appendix 7. Their reliability on each of the four dimensions was evaluated using Cohen's kappa. On the Companionship dimension, agreement was .94; on the Closeness dimension, it was .52; on the Security dimension, it was .91; and on the Help dimension it was .87. Neither rater found any mention of conflict in any of the definitions of friendship. The raters then discussed those results where there was disagreement by reference to the criteria and achieved 100% agreement on all items.

The hypothesis was not supported. There were, in fact, no statistically significant differences between the two groups in the frequency with which individuals referred to each of the four dimensions of friendship: Companionship, Closeness, Security or Help. The results are summarised in the table below.

Table 1 - Content analysis of the question "What is a friend?"

Dimension	AS (n=20)	MS (n=19)	χ^2 (1)	p-value
Companionship	15	15	.09	.77
Closeness/Affection	4	7	1.4	.24
Intimacy/Security	12	14	.82	.37
Help	5	5	.01	.93
Conflict	0	0	-	-

As the table illustrates, there was no statistically significant difference between the two groups in the frequency with which they alluded to any of the dimensions of friendship in their definitions. There was also considerable variation in the frequency with which each of the dimensions was mentioned within each of the two groups. The mean number of dimensions included in the definitions of the AS group was 1.67; for the mainstream group it was 2.16, which was not significantly different $(t(37) = 1.17, p=.25)$.

Although the content analysis of the responses to the question showed no significant differences between the two groups, comments made in the interviews suggested that the experiences of the two groups were subtly different.

Three of the AS group said, in the course of their interviews that they did not currently have any friends, although each alluded to friendships at a younger age.

Even amongst those who said that they did have friends, there was a certain

wistfulness in their comments, as this example illustrates:

> "A friend...hmm...I haven't had too many friends in life but there has to be
> someone you trust, someone you actually care about...someone who likes
> almost the same interests as you..." (A15/S).

In other cases, there was a sense that the definition was based upon carefully

constructed theoretical principles: -:

> "Difficult one. A friend, I'd say, is someone who would has a deep and
> profound understanding of you, who would probably go as far as laying down
> life for you but under the condition that you do the same." (A7/O)

In contrast, the responses of the mainstream group seemed, in general, to be rooted in

experience:

> "It's someone who you feel that you're able to talk to, that you, who you, like
> the same things. Maybe, um, I dunno, you might sort of - this sounds quite
> strange, but - someone you might do naughty stuff with! Just, like, someone
> you feel you can trust. Someone who can see your side of things, too, that
> thinks the same way." (M3/Y)

M3's off-the-cuff mention of "naughty stuff" provides a vivid illustration of an

ordinary scenario: the experience of shared enjoyment and mutual trust in an activity

that isn't really allowed. In contrast, A7's description focuses more upon a situation

that would be out of the ordinary and seems to be the product of careful thought

about friendship.

2.3 Summary of the results on Research Question 1

Although a content analysis revealed no difference between the two groups in the

way that they defined friendship, it is possible that there are subtle, underlying

differences in how they actually experience friendship that the analysis did not

access.

3. Research Question 2: the importance of friendship

3.1. Do young people with AS think that friendship is important? The hypotheses were that, in answering the question: "Do you think it is important to have friends?" fewer of the young people with AS, compared with the mainstream group, would give affirmative answers; and the two groups would adduce different reasons for the importance of friendship.

3.2. The Hypotheses were explored by means of two content analyses. The first analysis coded the responses of the two groups as "Yes", "Ambiguous" and "No". Two raters categorised that data, coding as ambiguous any response that was not clearly affirmative of the importance of friendship. 100% concordance was achieved. Most respondents in both groups replied that friendship was important and the Fisher's Exact statistic showed that there was no significant difference between the two groups (p=.23). The results are shown in the table below: -

Table 2 - Analysis of responses to the question: "Is it important to have friends?"

Group	Yes	Ambiguous	No
AS (n=19)	16 (84.2%)	2 (10.5%)	1(5.3%)
MS (n=18)	18 (100%)	0	0

The reasons adduced for the importance of friendship were then coded by two raters, using the same criteria as were employed in coding research question 1, above (see

Appendix 7) with the addition of the extra category: "Loneliness". The reliability between the two raters was evaluated using Cohen's kappa. On the Companionship dimensions, agreement was .94; on the Closeness dimension, it was 100%, on the Security dimension, it was .60; on the Help dimension, it was .64 and on the Loneliness dimension it was 100%. The raters then discussed those results where there was disagreement by reference to the criteria and achieved 100% agreement on all items.

The results are summarised in the table below: -

Table 3: Content analysis of reasons given for the importance of friendship

Dimension	AS (n19)	MS (n18)	$\chi2$	p-value
Companionship	7	16	10.65	.002
Closeness/Affection	3	1	*	.60
Intimacy/Security	3	5	*	.45
Help	2	3	*	.66
Loneliness	6	4	*	.71

*: It was not possible to carry out a chi-square analysis for these dimensions because in each case, one or more squares had an expected count of less than 5. The number given is the p-value from Fisher's Exact Test.

Significantly more of the mainstream group explained the importance of friendship in terms of the companionship that they derived from it. There are two possible reasons for this. First, it may be that the AS group found it harder to generate ideas

about the importance of friendship, leading to an overall impoverishment of their responses. The average number of dimensions included in the responses of each group seems to support this idea. The AS group, on average, gave answers spanning 1.2 dimensions, whereas for the mainstream group, it was 1.6 and this difference was statistically significant (t(35) =.23, p=.03). In the second place, it may be that companionship is harder for the AS group to achieve than it is for the mainstream group, because their cognitive profile means that they are less able to share with another person the kinds of things that friends would commonly do together. Information from the interviews and questionnaires suggests that this may well be the case.

This quotation illustrates some of the difficulties that the AS group may encounter in achieving companionship. The respondent was asked what sorts of things he liked to do with his friends: -

> I: "How do you like to spend your time with your friends? You've talked about some things, like at college, talking about the subjects you are doing. What other sorts of things do you like doing with your friends?"
> R: "I suppose it's the social situation you want to spend with them. You may all go to the cinema, for example. You wouldn't just sit around the house talking all day. You'd do something more active than that. I mean, I'm not particularly keen on the cinema because I find films hard to follow. But certainly sport's a good thing. You may want to go and play football together."
> I: "Do you play football a lot?"
> R: "I can't very well.......I find group sports, it comes back to the idea that you are working in teams. I always found when I was young I always let the team down so no-one would ever want me on their team. That's what I found. And people on your team would just bully you if you weren't doing very well and that sort of thing. But, yes, certainly sport's a good way of mixing with people." (A16/S)

So, A16 described two ways in which friends might choose to spend time together, the cinema and sport but then went on to observe that both were activities that he, personally, found difficult.

In contrast, the account of this mainstream sixth former refers to a range of different activities: -

> "...we'll just go up to our friends rooms or something and there'll be a group of about ten people and we'll all just sit down and chat, say how annoying people have been or something like that and you just sit and talk to each other and you might, I mean, some people have coffee machines in their rooms so we'll all just sit down and have a cup of coffee.....and then when we've got more time, especially after supper, like when we've got an hour before prep, we'll go up onto the cricket pitch and play football and then you've got everybody coming up and sometimes you have to tell people to go away because there's not enough space! But you just do everything together." (M13/S)

It is clear from his account that this respondent experiences no real difficulties in engaging with any of these activities.

3.3. Summary of the results on Research Question 2

Both groups rated friendship as important. The AS group, however, generated fewer reasons, overall, for its importance and, in particular, referred less often to the importance of Companionship. These differences were statistically significant. Information from the interviews and questionnaires suggests that certain companionable activities may be hard for the AS group and it is possible that this is why they made less reference to Companionship than the mainstream group. We will return to this issue in considering Research Question 3, below.

4. Research Question 3: Experiences of friendship

4.1. How do young people with AS experience friendship? Hypothesis 2 was that, in their responses to the Friendship Activities Questionnaire, the young people with

Asperger's syndrome would obtain lower scores than the mainstream group on the dimensions of Companionship, Closeness and Security.

4.2 The FQS asks respondents to answer a number of questions about their "very best friend". Participants were asked to complete it by reference to their best friend if they had one or, if they had a group of friends, by reference to one close friend from that group. The FQS taps into five dimensions of friendship. The responses of the two groups will be considered as follows. First, a statistical comparison will be made of their responses to the FQS on each of the dimensions. Next, data from the staff and parent questionnaires and from the interviews with participants will be considered, further illustrating their perspectives on each of the five dimensions.

The mean scores of the two groups on each of the dimensions of the FQS were plotted on a histogram and, as they approximated to a normal distribution in each case, a t-test was used to compare the responses of the AS group and the mainstream group. A comparison of the scores of the two groups on the Security dimension showed that the AS participants reported significantly less Security in their friendships than the mainstream group. No statistically significant difference was found between the two groups on the Companionships and Closeness dimensions, however. No differences were predicted as part of the research hypothesis on the dimensions of Help and Conflict and no significant differences were found between the two groups.

The results are summarised in the table below.

Table 4 - Comparison of scores on the FQS

| Dimension | AS (n17) | | MS (n19) | | | |
	mean	SD	mean	SD	t	p
Companionship	3.47	.93	3.89	.52	1.69	.11
Closeness	3.38	.97	3.49	.66	.38	.71
Security	3.31	1.18	4.02	.72	2.14	.04
Help	3.20	1.14	3.78	.71	1.79	.08
Conflict	3.80	.85	3.95	.70	.55	.58

The FQS was designed to look at close friendship and in an evaluation of the validity

of the scale, the authors (Bukowski, Hoza & Boivin, 1994) found that subjects gave

higher ratings for mutual friends than for non-mutual friends and for stable friends

than for non-stable friends. The difference between the two groups in the dimension

of Security is, perhaps, particularly telling, however, since it bears upon the

reliability of the alliance with the friends and upon their ability to transcend

problems.

In the interviews all of the mainstream group and all but three (15%) of the AS group

identified some current friendships and a majority (76% of the AS group and 80% of

the mainstream group) described a small circle of good friends rather than a "best

friend" relationship. Data from the interviews and questionnaires, however, suggest

that these apparent similarities should not be taken at face value.

A preliminary point to note is that the apparent similarities in the composition of the friendships may mask underlying differences since, in general, the AS group provided relatively unelaborated descriptions of their friendships, as this quotation illustrates: -

> I "So, would you say you have quite a few friends or a best friend or, er..."
> R "Four"
> I "Four best friends?"
> R "No. Four friends"" (A13/O)

In contrast, the mainstream group, in general, provided much more elaborated descriptions of their friendships that touched upon, for example, different degrees of friendship, as this example illustrates:

> " I have got four good friends out of fifteen in my year in that house. There's sixty people in the whole year, so it's like fifteen in each house. But then there are some that I don't really.... [get on with]. Then, I get on with others, but I don't particularly like them." (M6/O)

This lack of elaboration might be explained in two ways. First, it is possible that their social and communication difficulties mean that the AS group's account of their friendships did not do justice to their true complexity. Second, it is possible that their experiences are genuinely different from the mainstream group. Although both of these may be true, information from parent and teacher questionnaires suggest that the latter is the more salient explanation. Most parents seemed doubtful that their children had true friends, as these typical comments illustrate: -

> "He longs to have friends..." (P12/Y);

> "He does want friends and still names as friends people who he hasn't seen for over seven years" (P10/O).

Whilst school staff seemed more confident that the AS group had relationships with their peers (reflecting, perhaps, that in the school setting there was both scope for and

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support with peer relationships), there was a clear sense from most accounts that these were qualitatively different from normal friendships: -

> "....many of the friendships formed would not really be seen as friendships among non-AS children" (S15)

> "Generally, their relationships seem to be acquaintances rather than best friends, as though they drift into relationships as the lesser of two evils." (S6)

> "Their friendships do not seem balanced or based on mutual respect" (S3)

These third party descriptions of the AS friendships suggest that they are relatively superficial relationships (although, that suggestion is tentative, since a third party perspective was not sought about the mainstream friendships). It is perhaps surprising, therefore, that there are not bigger differences in the ratings of the two groups on the FQS.

In considering what other factors may be operating, the five dimensions of the FQS provide a useful framework within which to make comparisons between the friendships of the two groups, using data from the interviews and questionnaires.

4.2.1. The Companionship Dimension

As the table shows, the two groups gave similar ratings of their friendships on the Companionship dimension. The questionnaire items about Companionship ask about whether the respondent and their friend choose to spend time together but it does not explore in detail the ways in which they pass the time.

Several of the responses of staff and parents highlighted the importance of a shared focus for the AS group, as this response illustrates: -

"Their friends always seem to be those with whom they have something in common (always playing computer games with each other). I think their friendships are based on mutual interests rather than anything else." (S4)

There was a sense from some replies of the friendship being secondary to the activity - a means to an end, rather than an end in its self.

"Talks computers or swaps computer games - that is his main interest in friends. But prefers to play the games on his own. A friend is a hindrance then." (P7/M)

or, as another parent expressed it: -

"His friendships seem to be more alongside than really involved" (P11/M)

Several of the AS participants, too, highlighted the importance of a shared interest in their friendships in a way that suggested that the sharing was more active than reflective, as this account illustrates: -

R: " Playing on Nintendo, sometimes...."
I: "Do you ever just sit and chat?"
R: "We usually talk whilst we are playing killing games, yeah and experimenting by usually firing off two rocket launchers at exactly the same time..." (A4/Y)

As noted with reference to Research Question 2, above, it is possible that common friendship activities are particularly difficult for the AS group because of their cognitive profile and that they therefore engage in a more limited range of activities with their friends. It may also be that the sorts of activities that are easiest for them are those that require single focused attention, such as computer games.

Indeed, knowing how to "be" with another person may be particularly hard for the person with AS. One member of staff described how she found one of her pupils trying to "learn" how to greet someone, as if it was a homework exercise that he

could master if only he tried hard enough. She found him sitting quietly on his own and: -

> "He was reading a book about how to greet people. He told me that this is what you do to greet people: (1) walk up to them; (2) smile; (3) say hello; (4) shake their hand etc....He was acting out these stages for me......... He asked me if that was okay. I said: if you smile at people that much, they will run off! Probably not the best thing as he didn't realise that he was overacting. I told him a small smile would be fine and there was no need to show every tooth in his mouth. You simply don't realise how hard the simplest thing is for an AS person" (S13)

The greeting is probably the easiest and most socially circumscribed part of an interaction and yet, for that pupil, it clearly represented a considerable challenge.

Group interactions may be more complicated still, as this quote illustrates:

> "It's very hard trying to know when its appropriate to speak and you want to try to work in together speaking ....I like laughing and joking but everybody all there, and you don't know when to input. I don't want to be inappropriate or rude but on the other hand I don't want to look like I'm being rude by not speaking at all." (A16/S)

That is not to say, however, that the AS group do not value the companionship of their friends: indeed, there was a clear sense from many, over the course of their interviews, that it was very important to them. As one respondent said, simply: -

> "...if you don't have friends, you'll be lonely for most of your life, and it's not nice." (A17/S)

How does this information from the interviews and questionnaires bear upon the lack of any significant difference between the groups on the Companionship dimension of the FQS? The FQS, in effect, requires the respondent to decide how often they engage in particular activities with their friends. If, as the data suggest, companionable activities are harder for the AS group, they may simply be satisfied

with less and judge the frequency of such interactions differently from the mainstream group.

To summarise this section, there was no statistically significant difference between the two groups on the Companionship dimension of the FQS but several points salient to the sort of Companionship that the AS group enjoy emerged from the interview and questionnaires. Third parties commonly described the friendships of the AS group as being, relatively, dependent upon a shared activity. The AS participants, too, referred to the importance of shared interests but some accounts suggested that the range of activities that they are, in fact, able to share with friends may be limited by their cognitive profile. It may be that it is helpful to them if there is a clear set of rules governing the interaction. One mother suggested that this perhaps accounted for the popularity of computer games as a shared focus, a phenomenon noted by staff and parents alike. There are indications that less structured interactions are difficult for them. Nevertheless, it seems that many young people with AS do value the Companionship of their peers.

4.2.2. The Closeness Dimension

As the table shows, the accounts that the two groups gave of the Closeness of their friendships were not statistically different. The questionnaire items about Closeness tap into two different aspects of this construct: Affection, that is feeling happy when the friend is there and missing him when he is not; and Reflected Appraisal, that is how the friend makes the subject feel about themselves.

There was a sense from what parents said that, although in principle the AS group were keen to have friends, the reality was that, when they were together, they seemed almost indifferent to their friends: -

> "At time he feels that friends are too much bother "because you have to talk to them" and he just wants to withdraw from the world. At other (happier) times, he enjoys the company of a group of "friends" and seeks them out but is still unwilling to put himself out to be with them eg to phone or invite them over to do things with them unless he really wants to." (P7/O)

This bears upon the affective component of closeness. The same parent, however, highlighted the importance of reflected appraisal: -

> "But he does seem happier when he has a group of friends who accept him and are kind to him and treat him as an equal. He is desperate to be seen as "normal" and not as a "freak" as he has so often been called." (P7/O)

The phenomenon of not being obviously affectionate towards friends but, at the same time, seeming to desire and benefit from their closeness was also highlighted in staff accounts: -

> "I do feel that these students appear not to need friends but, in my experience, they behave in a more relaxed and comfortable way when they are aware that a fellow student responds to them. They then feel less isolated and perhaps less fearful - more accepted." (S5)

A substantial number of both the AS and mainstream participants struggled, to some degree, when asked if they were fond of their friends. The older mainstream participants required least elaboration and were more ready to acknowledge the affective quality in their friendships: -

> "I'm just there and I'm thinking I'm glad to be with them. It's like a warm feeling, I'm glad to be there." (M20/O)

In general, the AS responses were briefer (and in some cases, perhaps, rather formal) but nevertheless affirmative: -

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"Very fond of my friends. I wish all the best for them." (A17/S)

None of the mainstream group seemed to see affection as a source of vulnerability or as something that they needed to restrain, however. One of the AS participants, on the other hand, spoke of his ambivalence about making friends at school. He said that he wanted to take advantage of the chance of having friends but that he was reluctant to become too fond of them because he felt that they would inevitably lose touch when they left school. Paradoxically, the fact that he talked about choosing not to become close to his friends suggested a degree of emotional detachment but, at the same time, his fear of missing his friends when he left school implied that, in reality, he had a significant emotional investment in the relationships.

When asked if they would worry about their friends if they were distressed, most of the AS group responded in a conventionally appropriate way. Some, however, were quite explicit that this was an area of difficulty for them. One subject replied, quite seriously: -

"No, not really. I don't know how to be sympathetic." (A6/Y)

Responding to the same question, an older boy observed: -

"No, not really, even the ones going through the same thing that I once did. I can still put it though as, it's not me, I don't care." (A20/O)

Later on in his interview, however, he described how he had slowed down to allow another boy not to be last in a race because he had been in that very same position himself and recalled how he had felt. This suggested that he did, in fact, draw on exactly parallel experiences of his own to empathise with others and then try to help.

Another respondent, who was particularly reflective about what it meant for him to have AS, said: -

> "We do view the world differently, we view people differently. We don't understand people's feelings all the time.....I've come a long way....but a lot of people with AS don't. They can't see how people are feeling, so people don't want to be their friends, I've found. Because we come across as selfish, we're ignorant. We come across sometimes as not very nice." (A16/S)

This is perhaps the sort of behaviour that is reflected in the comments that staff and parents made about the seeming indifference of the AS group to their friends. Nevertheless, as this particpant went on to observe, whilst empathy is an important determinant of Closeness, it is not the only determinant of friendship. People with AS may have other qualities: -

> "But, you know, I mean certainly I think people with AS can make very good friends....they can be trusted, they want to please people, they're not out there to hurt anybody." (A16/S)

The practical difficulties that Companionship entails for the young person with AS have already been noted and it is likely that the difficulties alluded to by A16 make it difficult for them to achieve Closeness, too. In the same way that there are no clear "rules" to tell the person with AS how to spend time with their friends, there are no clear rules that govern the interpretation of or showing of affection. One participant spoke at some length about his fascination with the game Pokémon, which is governed by complex rules. In the course of so doing, he described one of his favourite characters. This was a fire horse, it's mane and tail both made of fire. He explained how the fire would not burn anyone who the horse liked. Apparently, the horse could develop its ability to run fast over several games by chasing after its own parents. It seemed from this description that the game was governed by a set of complex but clear rules, allowing players to interpret what the behaviour of the

characters meant, and to predict how they would react in particular circumstances. It seemed that the participant had invested great effort in learning the rules and took pleasure in his impressive mastery of the game. It was interesting to reflect, however, that complicated though those rules were, human behaviour is more complex still and not readily reducible to a set of logical propositions.

The difficulties that some AS participants described in trying to make affective contact with others may be further exacerbated by their past social experiences, which may have left them reluctant to risk rebuff or to engage with another person, only to be rejected. As one member of the sixth form staff observed: -

> "By the age of sixteen when our students come to us, they seem to have acquired significant social damage. Here they are reticent about embarking upon new friendships. They seem to expect to be rebuffed." (S2 - sixth form staff)

All of these factors may well contribute to an impression of indifference.

In summary, there was no statistically significant difference between the two groups on the dimension of Closeness. Nevertheless, various points emerged in interviews and questionnaires which suggest that the experiences of the two groups may, in fact, be different in certain important respects. Looking first at the issue of affection, the behaviour of the AS pupils may suggest that they do not feel affectionate to their friends. Several of the AS group acknowledged that it is hard for them to know how other people are feeling and their apparently detached behaviour is perhaps the external manifestation of this difficulty. Turning to the second component of closeness, Reflected Appraisal, there are many indications that the AS group are happier and feel more confident when their friends hold them in positive regard.

Nevertheless, their chequered social histories may mean that they have little expectation that they will be liked.

The Security Dimension

This was the only dimension in which there was a statistically significant difference between the two groups. The questionnaire items about Security tap into two aspects of this construct. The first is Reliable Alliance, that is being able to trust the friend enough to talk about sensitive issues (it does not ask if this reciprocal). The second is Transcending Problems, that is being able to negotiate difficulties in the relationship without losing the friend.

Staff and parents were asked whether the AS group ever just talked with friends. Most parents described chatting as an adjunct to a shared activity but some (four parents - 33%) said that they had noted no chatting or confiding at all. A majority of the staff (eleven - 61%) felt that their pupils did not talk about personal concerns or confide in each other. As one said: -

> "I find playing games that require two or more players tends to draw pupils together, PC games, chess, wide games in the woods, football etc. I don't find them just sitting chatting unless they are forced together ie on a journey in a vehicle. They do like sitting together to watch films/videos where they share the experience and the sweets." (S18)

Several of the AS group talked about chatting as something that they enjoyed doing with their friends in the context of a shared activity but it was not possible to elicit whether or not this was an exchange of sensitive information. One boy described frequently chatting to his friends and, when asked to elaborate, it emerged that much of this was on the Internet and that he had a network of people to whom he sent instant messages regularly but whom he had never met face to face. The account of

another participant cast some light on what the person with AS may see as the purpose of chatting: -

> R: "I mean, people are great, y'know? You can talk to them - I mean, you have a lot of conversation which you don't need to have...I remember, I heard one lady talk, you know, you say: "Did you watch Coronation Street last night?", "Oh, yeah, I watched it" they said. "Well, this happened, didn't it? And that, and that". There's no sense talking about it, you've all seen it! But, it's something you do, you know? So talking's definitely one of my favourite things. I love talking - I mean, as you can probably tell. And it's nice to talk to other people."
> I: "Why do you think people do that, talking about things they both know the answer to?"
> R: "It's something I've never understood. I could never see the point in idle conversation. I talk to get information and I do it in the most efficient way possible. So I say very little and try to get lots of information if I can. But, y'know, people, it's the way people are. It passes the time and it's interesting to talk, I think." (A16/S)

Chatting cropped up much more frequently in the accounts of the mainstream participants. The younger ones tended to describe it as a sort of default activity:

> "...It's wet outside and you've got the old pool table and ping pong table and things have just grown boring and you just sit and chat and it's quite interesting actually." (M3/Y)

In the accounts of the older pupils, there seemed to be a greater awareness of the intrinsic enjoyment of talking to peers: -

> "....I mean, earlier this term, I sort of sat down and started talking to someone in my house about, you know, really sort of what's the meaning of life, that kind of stuff. And you find yourself talking about that every now and then" (M7/O)

This suggests a developmental course.   The literature, too (Buhrmester, 1991) confirms that intimacy becomes increasingly important as young people progress through pre-adolescence and adolescence. It may be that the ability to manage an intimate social exchange is something that the AS group are either slower to, or fail to develop. Some of the AS participants and their parents observed, in fact, that

friendships had become harder for them as they became older. In some cases, the young person with AS was noted to seek out either older or younger friends suggesting, perhaps, that they are out of step with the rest of their age cohort in terms of their ability and desire to talk about sensitive things.

As regards sharing very personal information, when they were asked about the importance of friendship in Research Question 2, only three (15%) of the AS participants talked about the importance of a confidant. This was one of those responses: -

> "Yes, it means that there's always someone to listen to you when you have your problems." (A13/O)

As noted on Research Question 1, however, twelve of the AS group included in their definitions of friendship some notion of security or trust and this description of a friend is illustrative: -

> R: "Someone you can trust"
> I: "What sort of thing would you be trusting them with"
> R: "Just things I wouldn't talk about with other people" (A14/O)

It may be that, although those twelve participants recognise that Reliable Alliance, is a component of friendship, their social difficulties mean that they are not always able to access it and this is perhaps reflected in their responses to the FQS. Nevertheless, there were indications from some of the interviews that when they are able to talk in this way to friends, they find it beneficial, as following description illustrates graphically. A17 was talking about going to the pub with his friends: -

> R: "We go down there with a couple of my friends and we just go in there and have a few drinks and chat. It's a social time, really."
> I: "So, it sounds like it's quite important, this chatting bit?"
> R: " Yes, because you can let steam out of your body. If you're worried about something you can make yourself much more happy inside." (A17/S)

On the issue of Transcending Problems, parent and staff accounts suggest that this is not an area of competence for the AS group. This comment was typical of many:

> "Asperger people seem to find fallings out difficult. They are not skilled in how to patch things up and are often unable to see both the physical and emotional signs that upset may have been caused." (S10)

Third party respondents also talked about how the AS group seemed to have no sense that they needed to do anything to recover from fallings out: -

> "Goes to his room. After a cooling off period, just carries on as before. Doesn't want to apologise, ever." (P2/Y)

These responses suggest that the AS group find it difficult both to recognise that a conflict has occurred that needs to be repaired and to generate appropriate solutions off their own bat. This does not necessarily imply that they are indifferent to the quarrel that has occurred, however, as this account illustrates: -

> I: "So how might you make it up?"
> R: "That's something that I find absolutely impossible. Sometimes I feel like something really bad is going to happen. Like, all my friends....I'll tell you what, I think I know what might happen. X, he's already at a new school and he's actually, I'm sure he'll make friends there and Y and Z, they'll make friends as well and then, after that, you know, when I try to talk to them or something, they'll just say: "Oh, we're just going out somewhere. We'd ask you to come but, you know?" And then they'll leave me and I'm absolutely stuck with no friends at all." (A10/0)

A10 seemed to have no workable strategies for Transcending Problems and was aware of the difficulties that this presented for him. Other members of the AS group were likewise unable to describe any strategies but seemed more confident of the prospects of a resolution. This response was fairly typical: -

> R: " Yes, I think we have a few arguments but it doesn't take long before we're back together again."
> I: "What do you do to make it alright again?"

R: "I don't think we do anything, actually, it just goes away and we are back in friendship again." (A8/0)

One subject had clearly given the matter considerable thought, however, as this account illustrates: -

R: "When I've fallen out with a friend, I like to give the broken link between us a while to rest. I generally give them about a week, as much as a week in order to get over the falling out, and myself to get over the falling out and then I try to rebuild the bond from there and if the person really isn't interested in being any type of a friend of mine any more, then I just let it drop"
I: " How would you go about rebuilding the bond?"
R: "I just go up to the person quietly and say I know we fell out at such and such a time over such and such a thing but I've thought to myself that the friendship is far too valuable to lose, so if you wouldn't mind forgetting what I've done?" (A7/O)

The heuristic that he had very thoughtfully developed relied primarily upon the passage of time and so would be equally applicable across a range of different circumstances and situations.

In contrast, the mainstream group seemed to be much more confident of their ability to respond on a situation-by-situation basis, as this response illustrates: -

"I'm not sure, really. It's just, um, I suppose it's different for each person or whoever you fall out with, really, isn't it? There's no sort of equation which fits it." (M7/O)

Some also described how they tried to avoid problems:

"There's a line and you know that if you cross it they could get upset. And in the banter you can usually judge where the line is and you know not to cross it." (M20/O)

This was not something mentioned by any of the AS group.

What many of the responses illustrated was that the social and communication skills that are a defining part of AS may make it very difficult for the AS group to avoid problems with friends and also to resolve problems once they have arisen.

In summary, Security was the only dimension of the FQS where there was a significant between group difference. It seemed that the AS group were able to recognise its importance as a defining feature of friendship but that it was nevertheless an aspect of friendship that they found particularly hard to operationalise. Their skills deficit could sometimes make it appear to third parties that they were indifferent about whether or not they were able to retain and rely upon their friends but, on the basis of their own accounts, for most, this is unlikely to be the case.

4.2.4 The Help dimension

As the table shows, there was no statistically significant difference between the two groups on the Help dimension. The questionnaire items about Help are about the help that the respondent receives from his friend. This is explored from two angles: the first is Help, that is how the friend might take active steps to help the respondent; the second is Protection from Victimisation, that is how the friend might intervene if the respondent was being bullied by someone else.

The AS group, their parents and the school staff said relatively little about the help that they received from friends. This may have reflected the fact that in the special school environment, the staff took on the role of ensuring that the AS group were neither left to struggle alone with difficulties, nor victimised by other pupils. In rating the extent to which they could rely on Help from their friends, the AS group may not have taken into account that their friends were perhaps being prompted by staff to behave in this way.

The idea of help coming from responsible adults may also be a feature of the parental relationship with the AS group. Indeed, some of the parents commented upon the amount of help that they needed to supply in order to maintain the friendships of their AS child: -

> "As [he] got older, these children became less interested in playing with [him] and the opportunities decreased....It was during the school holidays that I would arrange specific days for [him] to meet with a friend. Without the day to day contact, it was obvious that a gap had widened. Fortunately the other Mums encouraged their own children to play and suitable activities were arranged such as swimming. By the ages of 11 or 12 [he] met with friends maybe only half a dozen times a year." (P8/Y)

In summary, there was no statistically significant difference between the two groups on the dimension of Help on the FQS. Data from the questionnaires, in particular, however, suggest that the help of informed adults may be particularly important for this group in making and maintaining friends.

4.2.5. The Conflict dimension

The responses of the two groups on the FA Questionnaire showed no significant differences in the extent to which they reported conflict in their friendships. As noted above, however, staff and parent reports suggest that the AS group may be relatively impervious to conflict because of the difficulties that they experience in recognising that it has occurred. Most of the AS respondents did not cite specific instances of conflict in the interview. One, however, described two instances of "falling out". His account suggests that he found it hard to localise what had gone wrong but that he felt that the fault was his: -

R: "One time, I just hung around with them nearly all the time and....they just said nothing after a while....and...I just left it. I just left it for...two, three months? No, not two or three months, four or five weeks, right? But now they're talking again....You know, I just hung around with them too much, yeah?...I fell out with X at my old school"
I: "What was that about?"
R: "Oh, me acting like a total dope. Well, I do that most of the time anyway. Me acting so *immature* [laughed without humour]." (A23/S)

There was a clear sense from his account that he did not fully understand what had occurred beyond the painful suspicion that it was somehow his fault.

The authors of the FA Questionnaire observe that conflict is a correlate of friendship continuity. Indeed, some of the mainstream respondents saw it as positive thing: -

"I think it's quite important in a way. I mean, it may sound silly but I think it's quite important sometimes to have arguments - not to start an argument but, if say, you disagree about something, not to avoid one. Just don't go along with it. 'cos otherwise you keep on just agreeing and you won't have an opinion and I think its sometimes important to show you have an opinion. And also, just occasionally, to let it out, you know? Often you are better friends after...You both think, well, we've had arguments but we are still friends and that sort of strengthens your friendship" (M9/O)

None of the AS group identified any positive aspect to conflict. In contrast, (as noted above) their approach was, commonly. to acknowledge that it occurred but to dismiss both the positive and negative after-effects: -

R: "If you all got on and agreed with everything, there'd have to be a perfect world really, because there's always arguments and people are always arguing, you know?"
I: " And when that happens, how do you sort it?"
R: "Well, you apologise if it's your fault and then you work on from there. Don't know how it happens. Just work on from there." (A18/S)

The impression from the AS parents and staff response was that conflict was a common occurrence: -

"They frequently argue and fight" (S7)

> "Very often he will lost patience or blow up some minor disagreement out of all proportion." (P6/O)

but also that it is perceived by the AS group as a rather trivial, superficial occurrence,

As P6 added to his remarks above: -

> "However after any disagreement he will, given a short cooling off period, completely forget the incident and carry on as if nothing has happened."

For the sake of completeness, it should be noted, too, that in a minority of cases, staff and parents report people with AS becoming obsessed with some past conflict and unable to move on: -

> "If someone falls out with him he can be obsessed with the fact they don't like him and go on and on for days worrying about it. I usually have to sort it out." (P12/Y)

In summary, there was no statistically significant difference in the levels of conflict reported by the two groups on the FQS. Both groups described conflict in their interviews but it is possible that the importance that they attach to it and the amount that they actually experience in their day-to-day lives may be quite different. On the basis of the third party observations, it is possible that the AS group experience relatively more conflict than the mainstream group but that in general they are quicker to forget about it afterwards.

Summary of the results on Research Question 3

Whilst the scores of the two groups on the FQS differed significantly only on the Security dimension, information from the interviews and questionnaires highlighted some possible differences in their lived experience of friendship.

5. Research Question 4 - Roles and Rules in Friendship

5.1. What sorts of difficulties do young people with AS commonly experience in a social setting? Hypothesis 3 was that the ratings that the young people with Asperger's syndrome gave to the "unusual" behaviour in each vignette would differ from ratings given by the control group.

5.1.1. Vignettes: Data to answer this question were gathered from vignettes, where participants were asked to comment on the behaviour of the friends in the story. The spread of the responses was not sufficiently close to a normal distribution for parametric statistics to be used. The mean responses of the two groups, AS and Mainstream were therefore compared using a Mann Whitney U. The results of the two groups are presented in table 3.

In general, each story contained some behaviour that was not unusual and some that was. No directional predictions were made about the responses between the two groups. On occasion, people with AS may seem indifferent to the social norms but they may also be particularly conservative in their adherence to particular standards of behaviour (Dewey, 1991) and this made a directional prediction difficult.

As can be seen, on one of the six stories, there was no statistically significant difference in the responses between the two groups on either of the two behaviours that they were asked about. On five stories, however, there was a statistically significant difference in the rating of one of the two behaviours. A full table of results is set out below.

Table 5 - Comparison of ratings given to the Vignettes

Stories	Item	AS Mean rank	MS Mean rank	U	p-value
Story 1	Kicked the ball	19.85	20.16	187.00	.84
	Pushed him	15.82	24.39	106.50	.02
Story 2	Took pizza	14.76	24.24	90.50	.01
	Outraged	19.84	19.16	174.00	.81
Story 3	Swore about game	16.77	23.39	125.50	.04
	Lent game	19.13	20.92	172.50	.54
Story 4	Had sore throat	21.16	17.84	149.00	.29
	Dismissed illness	18.11	19.84	155.00	.61
Story 5	Too much aftershave	16.25	19.47	124.00	.30
	Said too much	14.79	21.82	98.50	.04
Story 6	Left at club	19.47	17.63	145.00	.57
	Complained about it	15.38	21.29	108.50	.03

As the table shows, the mainstream group rated certain behaviours as being significantly more strange than did the AS group. How might the explanations that individuals gave for their ratings shed light on these differences?

On the first vignette, about the boy who pushed his friend in retaliation for an accidental hurt, some of the AS group seemed to have no sense of the moral content of the actions, as this reply illustrates:

> "Not at all strange - there was an accident, wasn't it and they were just generally squabbling because he kicked the ball at him and he didn't mean to" (A21/Y)

Some of those who rated the behaviour in the reasonable range seemed to be drawing on their own social experiences:

> " A little strange but a fairly typical reaction if someone is hurt" (A11/O)

On the second vignette, the boy who left his friend to watch the video alone, taking his half of the pizza, this comment was echoed by several of the AS group:

> "Not at all strange: he wasn't liking the film, so why stay?" (A5/Y).

Some participants identified that it was not appropriate behaviour and suggested alternative ways of managing the situation - although, as this example shows, these, too, were fairly crude: -

> "Bit peculiar, just leaving like that. Probably "C". Just walking off like that. It isn't something you do. If you're good friends you just tell them to change the video or something and they do it. " (A12/O)

In general, however, the AS group were less shocked by the behaviour than the mainstream group, several of whom laughed at the improbability (they said) of anyone both flouting the social conventions and so blatantly disregarding the feelings of their friend.

On the third vignette where the boy cursed his broken Gameboy, most of the AS participants said that they felt that this was just how someone would behave in those circumstances. Several of the mainstream group, however, felt that the reaction was

overly dramatic and mildly embarrassing. This suggests that they felt that the wailing boy should have been more aware of how he would look to others but that the AS group considered less what others might think.

The fifth vignette was about the girl who commented on the strong after-shave of her new neighbour. Some of the AS group said that she was merely stating a fact and (by implication) there was nothing wrong with that. As one said:

"it's not strange if she thinks it's strong" (A11/O),

although another observed that it was

" a little strange - she has no tact" (A13/O)

a view that was reflected in a few of the responses.

Some felt that she was just making conversation eg:

"It sounds like she's just trying to start a conversation - probably fancies him" (A12/O)

an observation that was also made by one of the mainstream group. As the difference in the scores shows, however, more of the AS group seemed unaware of the embarrassment that such a remark might cause to another person.

The sixth vignette, about the boy who was left to make his own way at the youth club raises some issues in common with the earlier ones. These are: the inappropriate apportionment of blame, a failure to see that the friend might have his own ideas of what he wanted to do and the excessive and perhaps rather embarrassing outburst. In addition, it concerns an unfamiliar social situation, which for someone with AS could be particularly alarming. This AS participant's account sheds some light upon how that aspect of the situation might impact upon his behaviour: -

R "Actually, it's unfair, leaving his friend there in the middle, especially like being placed in the middle of nowhere and you don't know your way around. And he feels shy and nervous to actually even go up to anyone and say: Hello What's your name? Because his friend's just left him standing there, which is very annoying."

I "And what about the second bit, what he says to his friend?"

R "That's not strange. If that was me, I would have said that. What the hell or whatever did you leave me on my own. I don't know any of these people, I'm not going to be friends again, I'm just not going to see you. I won't accept that. This is, like, out of order." (A17)

This suggests that, when anxious, it may be particularly hard for the person with AS to process all the issues pertinent to a social situation.

It was perhaps surprising that, on the first two vignettes where the AS and mainstream participants gave different ratings, this rating was not reflected in the ratings that they gave to the reciprocal behaviour in that story. So, for example, although the AS group thought that the behaviour of the boy who left with half the pizza was less strange than the mainstream group did, they were no more surprised than the mainstream group by the friend's expression of outrage. It may be that emotional outbursts have less salience for them. It is not clear whether this likely to be a function of their cognitive profile or of their social experiences.

5.1.2. Staff and parent information about the social difficulties of friendship

Staff and parents completed a Likert scaled questionnaire that explored how three models of autism might impact upon the friendship behaviour of a young person with AS. As noted above, the questionnaire was not validated and was intended only to explore the possible impact of each of the postulated deficits of autism on friendship behaviour. The average of the item scores for each of the dimensions was computed to achieve a score for each dimension. The mean scores for each dimension is set out in the table below: -

Table 6 - Frequencies of particular behaviours noted by staff and parents

	n	min	max	mean	SD
Executive	30	3.17	5.00	4.05	0.44
ToM	30	2.33	5.00	3.80	0.60
Affective	30	2.00	4.50	3.31	0.63

(Items were rated on a 5 point scale, where 5= strongly agree this behaviour occurs; through 3= not sure; to 1= do not agree this behaviour occurs)

The scores suggest that the staff and parents rated friendship difficulties that are associated with a deficit in executive functioning as occurring most frequently, and theory of mind difficulties as being the next most common. They were most ambivalent about the role of an affective deficit in friendship difficulties. As noted in the Method section, for the Executive and Affective parts of the scale, reliability cannot be assumed.

The vignette in which one boy pushed his friend described an intemperate response to an accidental knock with the football. On the Likert questionnaire, parents and staff were asked if the person with AS would tend to blame their friend if things went wrong in a friendship interaction. This yielded a range of responses (perhaps linked to the imprecise wording) with most respondents saying that they did not know. In

the more open-ended part of the questionnaire, however, one parent described very similar behaviour:

> "Would always blame the friend even if the fall out was due to a misunderstanding or an accidental blow." (P2/Y)

Other parents also described occasions when the response of the AS individual seemed disproportionate to the trigger.

Both the pizza vignette and the youth club vignette described circumstances where one friend wanted to do something that the other did not. Staff and parents were asked in the Likert questionnaire if the young person with AS found it hard to compromise if their friend wanted to do something different from them and most replied either that they agreed or agreed strongly. This issue was also raised in response to the qualitative questions and common observations were: -

> "They do enjoy interaction with others but this is often only on their terms - meeting their needs - only playing the games they want to and on their terms. They will often wander off when they have got bored or will argue when challenged with turn taking or the social rules of the situation." (S2)

> "He tries to play with others.....but will only play what he wants, not anything else. If they play by his rules, all is well." (P12/Y)

The pizza vignette, in particular, describes an apparent indifference to the social norms and to the other person's view but, as this parent's account suggests, this may well stem from an underlying social deficit: -

> "...though he is pleased to see the friend...he needs constant reminding to stay with him. After twenty minutes, he will be elsewhere, doing something alone. I then talk to him about friends doing things together and he says: "Yes, you're right", goes back.....for another twenty minutes and the cycle repeats." (P10/O)

The vignette about the girl commenting frankly upon the excessive usage of after shave by a new acquaintance describes a comment that could have been very hurtful for the recipient. When asked on the Likert questionnaire if the person with AS found it difficult to see another person's point of view, most respondents either agreed or agreed strongly that this was the case. A common observation of parents and staff was that the AS group had limited insight into the effects of their words and actions. One parent described bad language and name calling and concluded: -

"He has no clue as to the offence or hurt he causes." (P9/O)

A lack of insight into the feelings of others may not be the only factor operating here, however. The pragmatics of social communication may be very hard indeed for the AS group, as this parent's account illustrates: -

"Knowing what to say or how to behave is definitely a difficulty....he actually said to me: "the thing with meeting a friend, once you've said hello, it's difficult to know what to say next." I'm aware that he does rehearse conversations to cope better in these situations." (P8/Y)

This difficulty can be exacerbated by emotional arousal: -

"Behaviour when excited is inappropriate for his peers, also he can say what he thinks and straight to the point. He often offends people....." (P9/O)

This is pertinent to the youth club vignette, where one friend was left to manage alone in a strange social situation.

5.1.3. Postscript

This study was concerned only with non-sexual, same sex friendships. Nevertheless, the difficulties that the AS group experience in their friendships will also have an impact in a sexual context. Several staff described AS boys naively using very

inappropriate language or physical contact with the opposite sex and then being amazed at their negative response. The implications of this behaviour are potentially very serious. The following account describes the behaviour of a sixteen-year old.

> "One of the....students thought that, in order to get a girlfriend he had to approach her and fondle her breasts (before introducing herself)! We had to talk to him at great length after this - he had just never been taught the courtship process and it was apparent that he was unable to learn by observing others." (S9)

It may be that the young person with AS is especially vulnerable to getting it wrong in a sexual context because the situation is particularly demanding of their executive skills. As well as needing to process and respond to inputs from the environment, they are also having to integrate their own physical and emotional responses to the situation. This carries risks for all concerned. Although it is beyond the scope of this study to do more than allude to this issue in passing, it is one that will be returned to in the Recommendations section of the Discussion, below.

5.2. Summary of the results on Research Question 4

To summarise this section, on five of the six vignettes, there was a significant difference between the accounts of the AS and the mainstream groups. Further information about how the AS group had processed the stories emerged in the interviews and it seems likely that the differences are attributable to their particular cognitive style - although, in some case, their social experiences may also have played a part. Data from the questionnaires suggested that the AS group encounter similar difficulties in real life situations.

Chapter 4

DISCUSSION

1. Summary of Results

1.1 Overview of findings

The main findings of this study were as follows: -

• The AS group gave definitions of friendship that encompassed a similar number of friendship dimensions as the definitions given by the mainstream group. The content analysis does not, however, reflect the fact that, for many of the AS group, the definitions had a "learnt" quality that distinguished them from the more overtly experiential definitions of the mainstream group. Of note, a small number of the AS participants said that they did not currently have any friends, whereas all the mainstream group said that they did.

• All of the mainstream group and most of the AS group were unequivocal about the importance of friendship. In giving reasons for its importance, most of the mainstream group referred to the companionship that friendship afforded but significantly fewer of the AS group did so. Information from the vignettes, interviews and questionnaires highlighted some of the ways in which companionship may be difficult for the young person with AS.

• The only dimension of friendship on which there was a significant between groups difference on the FQS was Security, suggesting that the AS group have a less reliable alliance with their friends and that they are less able to transcend any problems occurring in the relationship. The between group difference on the companionship dimension was not significant.

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- Third party reports suggested that, from the outside at least, many of the peer relations of the AS group appeared qualitatively different from the respondents' perceived norms of friendship.

- Responses of the two groups to the vignettes illustrated the practical difficulties that the person with AS may experience in friendship. On five of the six stories, AS participants gave a rating for one of the behaviours that was significantly different from the mainstream group.

1.2.   *Organisation of this Chapter*

The Chapter begins by comparing the outcome of this study with previous research. It then considers experience of friendship by reference to psychological models of ASDs and a model of friendship. It goes on to explore why it may be that people with ASDs are more able to define friendship than to experience it. Issues of motivation are also considered. It concludes with some observations about the limitations of this study, possible clinical implications and possible directions for future research.

2. Previous research into friendship and autism

This study did not wholly replicate the finding of Bauminger & Kasari (2000). Whereas they found that their autistic subjects achieved lower mean scores for the number of dimensions referred to in their definitions of friendship, the content analysis in this research found no such difference. This study did not find, as they did, significant differences in the frequency with which the AS group referred to

Closeness or Companionship in their definitions - although this study found that the AS group spoke less about Companionship as a reason why friendship was important. On the FQS, this study found between group differences only on the Security dimension, whereas Bauminger & Kasari found differences across the dimensions of Companionship, Security and Help.

There are two issues that may go some way to explaining the differences. First, Bauminger & Kasari's subjects were young people with HFA rather than AS and were, therefore, more likely to have, or to have had language difficulties. The AS group in this study may, therefore, have had the linguistic competence to give comparable definitions of a friend to the mainstream group but interview and other illustrative data suggest their ability to operationalise those definitions may be relatively poor. It is interesting, too, that in response to an indirect question, group differences on the companionship dimension did emerge.

Second, the AS group all attend a residential school which specialises in Asperger's syndrome. It is likely that this has a significant effect upon the opportunities that are available for friendships. The environment is highly structured and help is at hand to enable the pupils to maximise the chances of forming and maintaining friendships. Moreover, it is a setting where AS is the norm, so individuals are not marked out by their different way of understanding the world, something that anecdotal reports suggest can lead to bullying, teasing and isolation in settings where they are not well understood (Sainsbury, 2000: p72). In addition, the fact that all potential friends in the school also have AS will inevitably impact upon the nature of the available friendships and how they meet the participant's needs.

Perhaps less obviously, setting may also be pertinent to the comparison group in this study, an equal number of whom attended boarding schools. Paradoxically, the structured residential setting, which provides a positive framework for young people with AS, may operate to inhibit to some degree the natural friendship behaviours of the mainstream children. Whereas at home, they would be relatively free to choose which companions they saw out of class, at school they are constrained by the setting and by choices (about which house they are in, for example) which are made for them by the school. It must be stressed that this is not a criticism: the small loss of individual freedom in that setting is, no doubt, more than offset by the many advantages offered. It is possible, however, that the institutional setting enables the AS group to manage certain behaviours that they could not achieve spontaneously, whilst inhibiting, to a degree, the spontaneous behaviour of the mainstream group. This, too, may have contributed to smaller differences between the two groups being found in this study.

Bauminger & Shulman (2001), in an ongoing research programme have found that children with HFA can explain what a friend is but tend to see friends as companions for shared activities, rather than people with whom they have a close relationship. They noted, too, that the idea of playing together with a friend, rather than alongside them, seemed to be difficult for children with HFA. In this study, the importance of a shared activity or focus for the AS group was highlighted. Bauminger & Shulman also noted, however, that a proportion of children with HFA identified the importance of reciprocal trust in their friendships, suggesting a more personal and affective perception of what a friend is.

Bauminer & Shulman (2001) have also looked at mothers' perceptions of the friendships of their autistic children. They noted that very rarely do those friendships emerge spontaneously and persevere without adult help. The importance of adult help to support the AS group in their peer relations was noted in this study, too. Being in a specialist setting, the AS group in this study may have more favourable experiences of friendship than they would if they were educated in a mainstream or non-specialist setting, with less adult support. This is pertinent to how the scores on the FQS are interpreted in this study and also to the extent to which these findings will generalise, given that most children with AS are educated in mainstream schools.

The mothers in Bauminger & Shulman's study were reported to believe that friendship was an "actual social experience" for their children, although it may differ in quality from that of normally developing children. Similarly, in this research, several parents said that their children actively sought social contact but then described how those contacts failed to blossom into "full" friendships, often because their children seemed unable to manage the compromises that the friendship entailed.

3.   Experiences of friendship: friendships or "aquaintanceships"

3.1   *Understanding friendship difficulties by references to psychological models*

It is perhaps helpful at this stage to link the findings outlined in the Results chapter back to the cognitive models of ASDs outlined in the Introduction chapter. It must

be emphasised, however, that these are not closed categories. The models are being used here for descriptive purposes and it is not intended to suggest that any of the models is necessarily the principal or sole cause of the behaviour described. It is most likely that the causes are multi-factorial. The numbers in brackets refer to relevant sections of the Results. (For ease of reference in this section, it is assumed that the central coherence model is subsumed within the executive model).

3.1.1.Theory of mind: difficulties in understanding how another person thinks may include the following behaviours: -

• Preferring to focus on an activity than on the friend (4.2.1)

• Not taking into account what the friend wants to do (5.2.1; 5.2.2);

• Acting or speaking in ways that cause embarrassment or distress to the friend (5.2.1; 5.2.2);

• Being unaware of having caused hurt or distress and finding it difficult to generate ways of making things better (4.2.3; 4.2.5; 5.2.2);

• Having difficulty understanding or interpreting the friend's moods (4.2.2);

• Believing, when hurt or distressed, that the friend intended that outcome (5.2.1; 5.2.2).

3.1.2.Executive: This may entail difficulties planning, generating, integrating and inhibiting actions in the context of friendship and may translate into the following: -

• Not knowing what to do with a friend - and, in fact, having a more limited range of options (3.2.1; 4.2.1);

• Finding it hard to generate things to say to a friend or knowing how or when to break into a conversation to say them (4.2.1; 4.2.3; 5.2.2);

- Being unable to process and monitor the simultaneous inputs that could alert them to the need to modify their social approach, or of the fact that hurt has been caused (5.2.2);

- Finding it hard to generate solutions that would assist in conflict resolution (4.2.3);

- Difficulty separating internal states - their own distress or anxiety - from what the friend wishes or intends (5.2.1);

- Difficulty planning and so subduing short term gratification to the longer-term interests of the friendship (5.2.1).

3.1.3. Affective: This may entail different ways of relating to other people, whether caused by an in-built difficulty with emotional relatedness, or secondary to the cognitive difficulties outlined above, or reflecting the learnt experiences of the AS group: -

- Difficulty in recognising or responding to the emotional states of others (4.2.2; 5.2.1; 5.2.2);

- A reluctance fully to engage with friends (4.2.2).

3.2. The impact of AS on friendships

A distinction is sometimes drawn in the literature on children's friendships between peer acceptance and friendship. The former is described as a one-way, or unilateral construct (Bukowski & Hoza, 1989). Friendship, in contrast, is inherently dyadic (Wright, 1985). The results of this research suggest that it can be very difficult for the person with an ASD to maintain the reciprocal balancing act that friendship entails - especially over a period long enough to build a reliable friendship. In order

to understand why, it is perhaps helpful to reflect upon what is entailed in the formation and maintenance of a successful friendship. The FQS is essentially an outcome measure of current friendship. It asks the respondent what he and his closest friend do together and about what the friend does for him but it does not explore what the respondent does to foster the friendship. Some of the information yielded by this study has a bearing upon this issue of competence in friendship. The vignettes are perhaps the most revealing source, although the illustrative information that emerged in the interviews and questionnaires also sheds some light upon the factors that may contribute to difficulties establishing full and secure friendships.

Asher, Parker & Walker (1996) propose ten hypotheses about what makes for a successful friendship between two children or early adolescents. These provide a convenient framework within which to explore the different elements of friendship by reference to these research findings and to psychological models of ASDs.

Asher et al.'s first hypothesis is that the young person must recognise friendship as a relationship that transcends a specific context and must possess the skills necessary to interact outside a single setting. As the replies of parents and staff that were quoted in the Results section illustrated, the young person with AS may gravitate towards a friend in pursuit of a shared activity but then lose interest when it is completed. The executive hypothesis suggests that integrating a range of simultaneous inputs may be difficult for the person with an ASD. Games usually have clear and explicit rules, which may make them particularly attractive for the young person with AS in a way that a complicated social interaction is not. An interaction that is not context dependent will need to be generated by one or other

friend and that may be difficult for the young person with AS (Jarrold, 1996). This difficulty in generating ideas of how to interact may contribute to the appeal of games, especially computer games, which can provide complex entertainment with almost no creative input. Also, as the participant who described his difficulty with cinema and sport illustrated, it may be that many other things that friends do together, such as team sports, are particularly hard for people with AS. This implies that they have a more limited range of activities from which to choose in the first place, so that when one activity ceases or they have had enough of it, they may not readily be able to generate alternatives.

The second hypothesis of Asher et al is that the young person must possess the skills and disposition to be perceived as a fun, resourceful and enjoyable companion. This was not something that this research addressed directly although, as noted in the Results section, one of the older AS participants noted how their difficulty in understanding how others think and feel may mean that young people with AS are perceived as selfish. Sainsbury (2000, p83) notes that school children have a limited tolerance of social deviance of any kind, however slight and that children with AS, who find it hard to understand the social behaviour of others and to behave in socially appropriate ways themselves, are ready targets for bullying and unkindness. As noted above, executive difficulties may mean that the young person with AS cannot readily generate fun things to do - in fact, this model would predict that they are likely to be materially less resourceful companions than non-AS children. Moreover, it has been noted (Capps, Kasari, Yirmaya & Sigman, 1993) that children with AS may be highly expressive of their negative emotions. There was some evidence of this in the vignettes, where the AS tended to rate cross, angry or

distressed behaviour as less strange than the mainstream group. As a result, they may not be perceived as fun or enjoyable companions.

Asher et al.'s third hypothesis is that the young person must recognise and respect the "spirit of equality" that is at the heart of friendship. As one of the staff remarked, the friendships of people with AS may not appear to be balanced. There are, perhaps, two issues here. First, in order to achieve equality, the person with AS would need to pick up on and integrate a range of cues, not only from their friend but also from the wider environmental context. As the vignettes in this study perhaps illustrate (as well as previous research, such as Dewey's (1991) vignettes and Happé's (1994) Strange Stories) this is not something that they find easy. Moreover, for reasons what will be discussed further in the Limitations section, below, it is likely that vignette exercises may overestimate their real-life performance. Second, the person with AS would need to be able to act upon the signs that they had picked up that things were not equal. This would call for a degree of mental flexibility, (Ozonoff, 1997, p197) as well as for an ability to instigate possible solutions and to monitor the outcomes - all issues with which the executive model of cognitive functioning would predict difficulty (Russell, 1997, p256).

Asher et al.'s fourth hypothesis is that the young person must possess skills for self-disclosure. The Security dimension of the FQS includes items pertaining to self disclosure and, as noted, this was one dimension where the scores of the AS group were materially lower than the mainstream group. Historically, the idea that people with ASDs lack a sense of self has been used to account for different behavioural features, such as pronominal reversal (Bettleheim, 1967). It has been suggested that

they have a deficient capacity for reflective self-awareness and a limited ability to recognise the commonalities between themselves and others (Hobson, 1990). Research into the inner experience of able people with an ASD (Hurlbert, Happé & Frith, 1994) found that they described their mental contents entirely in terms of pictures in the head, whereas normal subjects described a mixture of inner speech, pictures and "pure thought". In another study (Lee & Hobson, 1998), autistic children were found to show a dearth of talk pertaining to their self-concept. Children with HFA may also have particular difficulty in talking about socially derived emotions, such as pride or embarrassment (Capps, Yirmaya & Sigman, 1993). As children grow through adolescence, the ability to make intimate friendships, based on sharing private thoughts and ideas, becomes increasingly important (Buhrmester, 1991). This is likely to be difficult for the person with AS. Although several of the AS group described chatting with friends, it was not clear to what extent they disclosed personal information. Several staff and some parents took the view that they did not and this would be consistent with their scores on the FQS.

The fifth hypothesis of Asher et al. is that the young person must be able to express caring, concern, admiration and affection in appropriate ways. Although the two groups did not differ significantly on the Closeness dimension of the FQS, by their own admission, some of the AS group find it hard to know how to be sympathetic. Even those who do or are willing to try may find it difficult to decipher from the verbal and non-verbal cues that an expression of this kind would be appropriate. Although DSM-IV criteria exclude any language difficulties from a diagnosis of AS, it has been noted that the language of people with Asperger's can be unusual. Burd

& Krebeshian (1987) described it as pedantic, sterotyped and aprosodic and these are not features that would readily translate into this sort of emotional expression.

The sixth hypothesis is that the young person must be able to help their friends when their friends are in need. This requires that they are able both to recognise the need and to generate strategies that would be helpful. Research into the responses of autistic children to the distress of others suggests that, whilst children with HFA may be aware of the distress of others, they may nevertheless find it hard to respond pro-socially (Bacon, Fein, Morris, Waterhouse & Allen, 1998). To put oneself in someone else's shoes requires a degree of metarepresentation that may be difficult for the person with AS: perhaps this is why the participant referred to above said that he did not know how to be sympathetic. It may be, however, that the salient issue is the metarepresentative issue rather than sympathy: it was interesting that one participant recounted trying to help another boy who was losing a race by slowing down himself. It is possible that, having actually experienced the identical situation, he did not need to imagine how the other boy felt: he knew and, knowing, he tried to help.

The seventh hypothesis of Asher et al. is that the young person must be a reliable partner. Their lower scores on the Security dimension of the FQS suggest that this is an area of particular difficulty for the AS group. As the responses to some of the vignettes (especially the Pizza and Video vignette) showed, the person with AS is not readily able to disengage from their own goals in order to offer this degree of consistency and reliability to their friends. Data from the staff and parent questionnaires also suggested that person with AS may find it hard to compromise or accommodate a friend's wishes. They may also attend more to the shared activity

than to the person that they are sharing it with, possibly because the activity is easier for them to understand than the social exchange.

The eighth hypothesis (Asher et al.) is that young people must be able to manage disagreements and to resolve or, (as far as possible) prevent disagreement. Although scores of the two groups did not differ significantly on the conflict dimension, there was a difference on the Security dimension, one element of which is transcending difference. The difficulties that young person with AS may face, in overcoming conflict, were illustrated with information from two of the interviews. In one case, it seemed clear that the respondent was struggling to understand why the falling out had occurred. In the second, the respondent had devised a single strategy for managing conflict that was not dependent upon being able to read subtle clues about upset. As noted in the Results section, none of the AS group mentioned an awareness of the possibility of avoiding upset or conflict. Conflict avoidance and resolution calls for an ability to understand the other person's perspective and taps into executive skills such as planning how to respond, generating possible resolutions and inhibiting personal impulses. Moreover, any or all of these skills may be compromised by the emotional arousal levels of the person with AS.

The effect of emotional states upon the functioning of people with AS is relatively unexplored. In his original account, Kanner (1943) suggested that many of the characteristic behaviours of autism were anxiety driven but there have been few attempts (Gillott, Furniss & Walter, 2001) to evaluate anxiety levels in children with autism using standardised instruments. In a study of anxiety in children with HFA, Gillott et al (2001) found (perhaps not surprisingly) that they had higher rates of

social anxiety than neurotypical children. In particular, it was found that they worried about social situations, both ruminating about them and sometimes actively avoiding them. In contrast, they did not appear to worry about looking foolish to other people. This is particularly interesting in the light of the Youth Club vignette: the illustrative explanation of one AS participant that is quoted in the Results shows exactly the behaviour that these findings would predict - worrying about the social situation but having no hesitation in shouting at the friend. Clearly, the combination of anxiety and a lack of self-censorship would make it hard for the young person to resolve disagreements.

The ninth hypothesis is that the young person must be able to forgive. Here, perhaps, the casual response of many of the AS group to conflict may be an advantage, as the passage of time alone seems to enable them to put disagreement behind them. This is not, of course, quite the same as forgiveness but it may be equally palatable to the friend. For the small minority who perseverate on the disagreement, however, this is likely to be problematic - at least, without adult help.

The tenth hypothesis of Asher et al. is that the young person must recognise that friendships are embedded within a wider social network and be prepared to address issues that arise from this fact. It has been noted (above, Gillott et al., 2001) that young people with HFA may worry about social situations. It seems that (Hall, 2000) for the person with AS, a group situation may pose particular challenges because it entails monitoring simultaneously the reactions of a group of people and perhaps simultaneously inhibiting one's own response, thus calling upon a range of executive skills. One participant described his difficulties in knowing when to

interject in a group conversation. A group setting is both busier and more fast paced than a one-to-one interaction and the young person may be impervious to such subtle responses as jealousy (Grandin, 1986) or to considerations of status (Sainsbury, 2000, p47) within the group. Their social oddities may also make them the butt of teasing from members of the group to whom they are not close (Sainsbury, 2000, p72).

In summary, Asher, Parker and Walker identify various factors that contribute to the successful formation and maintenance of friendships. Most of these call upon skills that the young person with AS may struggle with.

4. Understanding of friendship: "Talking the talk" but not "walking the walk"

The fact that the AS group achieved comparable scores on the FQS and for their definitions of friendship may reflect the fact that they are able to "know" intellectually what a friend is. It is possible, however, that their experiential understanding lags behind. This is suggested by the rather theoretical quality of some of their responses, as well as by the observations of some staff and parents that their friendships in some way fall short of the norm. Hobson (1993) writes of a very able man with AS who, in spite of 'A' levels in English and German was preoccupied (he was a psychiatric in-patient) by his inability to grasp what the concept of "friend" meant. It seems likely that what was at issue in his case was not a problem defining "a friend" but rather in fully appreciating what it meant.

This notion of being able to define something but less able to "live" it also emerged in some of the interactions with the AS participants in the course of this research. In one instance, a participant had just completed the vignettes, commenting spontaneously and entirely appropriately that several of the responses described in the stories were not at all tactful. I was having problems with my tape recorder and the subject volunteered that, in his experience, women of my age were not very good with machines. Making conversation, I observed that my mother, who is nearly eighty, had just bought her first computer. The participant replied, quite without irony or rancour, that he doubted very much if she would manage to learn how to use it in the limited time she had left! It was clear throughout this exchange that he was simply interested in what we were discussing.

Nevertheless, this example highlights a difficult double bind for the person with AS. If he is able to say what he should be doing in a friendship situation, a friend or teacher who sees that he is not doing it is likely (unless equipped with a good understanding of ASDs) to think that he understands fully the implications of his behaviour. He may be told off or criticised on the basis that it *must* be clear to him what he is doing wrong - when, in fact, being able to recite the rules is not at all the same thing as being able to apply them.

5. Importance of friendship - do young people with AS want to make affective contact?

5.1. Pointers from theory and research

Some research (Hobson, 1993) sees a desire for affective closeness as a pre-requisite to the formation of successful friendships. Bauminger & Kasari take up this theme, noting that Hobson's hypothesis is confirmed by their finding that children with autism see a friend primarily as a companion rather than a close and intimate friend.

A possible flaw with this argument is that it implies that factors like companionship, closeness and intimacy have equal weighting in developing friendship. Intuitively, it seems more probable that most friendships develop in stages, through proximity into companionship and, only as liking and trust are built up, into intimacy and closeness. In other words, a friendship may, in time, encompass all of these dimensions but it is likely that they develop at different rates and that the "gateway" to the more affective components is companionship.

This study highlights that the capacity that the young person with AS to engage in companionable activities may be materially limited by their cognitive profile. This, in turn, may result in their finding it difficult to sustain an interaction sufficiently to, as it were, move up a gear into a more affectively based relationship. Repeated difficulties with friendships may mean that, in time (as one staff member observed), they become conditioned to expect failure and then reluctant to try to make friends. The boy who commented upon his reluctance to become too fond of his friends may well also have been expressing something of this sort. It seems likely that most

normally developing young people would have some expectation of being able to make friends to replace those with whom they lost contact on leaving school.

This is not to deny that the affective aspects of friendship pose particular difficulties for the person with AS. Giving primacy to affective explanations for the impoverished social relations of people with AS, however, risks ignoring the cognitive barriers that stand in their way. Moreover, cognitive and affective factors are likely to be mutually influential. The fact that people with AS may find it hard to know how to "be" with friends is bound to impact upon their willingness to seek out company but this would not justify the assumption that they do not, at some level, desire or need human interaction. Indeed, early on in his account of "autistic psychopathy", Asperger (1944, in Frith, 1991: p39) observed how important it was, in order for the person with AS to reach their potential, that they find "understanding, love and guidance".

5.2. Clinical impressions

It was very striking that several (although by no means all) of the AS group seemed to want to continue our interaction after the research interview was concluded. One participant stayed to chat about cooking, going into some detail about recipes. Another took me off to look at a computer game that he had mentioned and insisted that I should not look away from the screen, even to acknowledge another person coming in to the room, so that I could fully enjoy the special effects. One spent some time trying to fix my mobile phone. Another stopped me as I walked through the school and took me to look at something that he had made in class. Another went to

elaborate lengths to offer tips that my children could use for a particular computer game, dictating slowly so I could write them down in full.

A cynical view might be that these were all special interests of the AS participants and that I was merely a convenient audience. Certainly, there was a sense, on some occasions, of being bombarded with information with an intensity that was, perhaps, unusual. Some of the mainstream participants stayed to chat about inconsequential issues, in a way that felt unremarkable and friendly. My sense was that the AS participants were aiming for an interaction that was, socially, similar. What marked their approach out as different from that of the mainstream participants was that it tended to be rather more concrete or one-sided. Whereas the mainstream group used language in a generative way to make contact (volunteering information about themselves and their families, for example), the AS group tended to rely on things that were physically present or things where they could articulate a clear set of rules. My feeling was, however, that they were simply using the resources that they had available to make social contact, to the very best of their abilities.

5.3. Bridging the gap between AS people and neurotypical people - more clinical impressions

On another occasion, I was chatting to a participant as we returned to the classroom. He had told me in our interview that he found inconsequential conversation hard to understand: people were simply stating facts that were known to them both rather than exchanging new information and he could not see the point of it. As we walked, I commented on the torrential rain that we were having that day and he responded appropriately. After a few conversational "turns" and recalling our

interview, I wondered whether to remark upon the fact that we were engaging in the sort of pointless conversation that he and I had discussed. Glancing sideways at him, however, I noticed that he seemed to be attending closely to the conversation and I had the sense that he was trying to accommodate my social needs and expectations and taking satisfaction in his success. It would have disrupted an enjoyable interaction to remind him that I knew his views about such exchanges.

Later on, reflecting upon the sense of satisfaction that I thought I detected in this participant, I realised that I had felt something very similar on those occasions when I managed to achieve a rapport with an AS participant after, perhaps, an unpromising beginning. For me, as perhaps for him, there was a sense of needing to make some subtle accommodations in my natural social style in order to achieve optimal communication. Maybe it is not so much that the person with AS lacks a capacity for personal relatedness (Hobson, 1993) as that his style of relating does not map exactly onto the style of a person who is neurotypical, so that there is a mismatch. Interestingly, this theme emerges in research into attachment behaviours in autism. Attempts to categorise autistic infants as securely or insecurely attached using normal classification criteria in one study resulted in all of those who could be classified being rated as disorganised in attachment. Use of a sub-classification, however, suggested that 40% of the group were, in fact, securely attached (Capps, Sigman & Mundy, 1994). The implications of this are two-fold. First, it suggests that it may be misleading to place too much reliance upon external behavioural indicators in judging how the AS group feel about their friends. Second, it may be that it would be helpful for willing friends (or potential friends) of the young person with AS to be given explicit advice about how they can be helped in a friendship

situation. Friendship is a dyadic relationship and to look only to the person with AS to make accommodations in their personal style carries the implication that they have sole responsibility for achieving a successful relationship. It might be that neurotypical peers (and non-specialist teachers) would be able to build more rewarding relationships with the person with AS if they were clear about the nature of the difficulties that the person with AS faces. Guidance is available in text books (for example, Howlin, 1997, pp30-59) as well as in first-person accounts (Holliday-Willey, 1999, pp129-131; and Williams, pp194-196) - although each person with AS is different and it is not possible to generalise to every situation.

This would, of course, depend upon the non-AS person being motivated so make contact. As noted in section 4 above, however, the behaviour of a young person with AS is easily misconstrued as intentional or selfish and the non-AS person may see little reason to make an effort. This issue will be returned to in section 7 of this Chapter.

5.4. Motivation

As noted in the Introduction, the motivation to form friendships is an area that is generally under-researched, so there is no ready frame of reference within which to consider the motivations of children with AS. It is hard to draw any firm conclusions from this study. Only a small minority did not think that friendship was important but, whilst they were not numerically significant, it is interesting that they had no parallel in the mainstream group. What is clear is that, because of their cognitive style, the AS group face a great deal of difficulty in managing the practicalities of friendship behaviour - and probably attract more opprobrium for honest mistakes

than the mainstream group. It is very likely that these factors have a material effect upon their motivation to form or sustain friendships and, by the age of the subjects in this study, it is likely to be hard to disentangle the effects of cognitive, affective and socially learned factors.

6. Limitations of this study

6.1.Participant characteristics

As in any study of this kind, certain compromises were necessary in order to recruit an appropriate sample for investigation and factors that should be borne in mind in evaluating the results are set out below.

As noted in the Method section, it was decided for practical reasons to rely upon the School's classification of the AS participants as meeting the criteria for this study. Whilst it is clear that all the participants do, indeed, have an ASD and function in a way that currently meets diagnostic criteria for AS, it is possible that some may have had a developmental language disorder. Under DSM and ICD criteria, that would more properly have lead to them being classified as autistic. Clinically, however, there is no universal consensus about whether AS and HFA are, in reality, separate disorders or not and, if they are, how best to differentiate between them (Howlin, 2000). The slight woolliness about the AS/ HFA distinction in this study may, in fact, reflect the sort of ambiguities that exist in day to day clinical practice with this population.

It has already been noted that the friendship experiences of a sample who are in special (and highly specialist) education may not be representative of the experiences of young people with AS who are educated in the mainstream. This has implications about the extent to which the findings of this research can be generalised to young people with AS as a whole.

The participants in this research ranged in age from eleven to nineteen years of age, so from pre-adolescence to adulthood (although all were still at school or sixth form college). Although the issues of friendship explored in this study are relevant across the full age range, it is likely that what is socially normative at the extremes of the age range is very different. Because of the small sample size and wide age range, it was not possible to do justice to any developmental issues that may have been operating.

As regards matching the AS and mainstream children, the ages were matched as closely as possible and the mean ages were similar (although there was one fewer in the mainstream group). As noted in the Method section, although the participants were matched for age and for educational environment, they were not matched for IQ. Research suggests that IQ, as a unitary construct, is not necessarily correlated with the ability to form friendships (Janos, Markwood & Robinson, 1985). Moreover, models of autistic functioning would suggest that, within an IQ battery, some sub-tests will pose particular difficulties for people with an ASD. In particular, the executive model would predict that those sub-tests that require the subject to

generate novel ideas, integrate information or inhibit pre-potent responses would be relatively harder for people with an ASD than those that require linear processing.

This is borne out by research. Several studies (eg Goldstein, Beers, Siegel & Minshaw, 2001) have noted, for example, that people with an ASD are likely to have a high score on the Block Design sub-test and a low score on the Comprehension sub-test of the WAIS-R. Moreover, poor performance on the Comprehension sub-test of the Weschler scales has been found to be associated with poor performance on theory of mind tasks (Happé, 1995). Matching the full-scale IQ scores of participants with AS and neurotypical participants would not take into account the characteristic peaks and troughs of the AS IQ profile. So, behind an apparently identical IQ score, an AS participant and a neurotypical participant might differ materially on precisely those cognitive capacities that are most pertinent to friendship. In these circumstances, matching the groups by IQ would have the potential to mislead.

This is not to suggest, however, that it would not have been desirable to find a way of ensuring that the two groups of participants were as nearly matched as possible. A better vehicle than IQ for matching participants might have been a measure of theory of mind. Nevertheless, as noted in the Introduction, it was felt that there were ethical reasons for keeping to a minimum the amount of assessment that was undertaken as part of this study.

It needs to be remembered, therefore, in evaluating the results of this study, that the AS and mainstream participants were not matched for cognitive ability.

AS regards gender, there were two girls in the mainstream group, in contrast to one girl in the AS group. It was, in fact, notable that a majority of the AS group were male. Although Asperger noted that the AS children that he saw were almost exclusively boys, more recent prevalence rates would not entirely support this. It has been suggested that most girls with autism are at the lower end of the ability range (Volkmar, Szatmari & Sparrow, 1993), but, even at the upper end, the ratio is estimated to be five boys to one girl (Lord & Schopler, 1987) and those rates were not reflected in this sample. With regard to the characteristics of the mainstream group, studies on genetics and autism suggest that there is a heritability factor and that, within families, there may be a broader phenotype that falls short of an ASD but has some similar characteristics (Gillberg, 1991). It was perhaps less than ideal, therefore, to have included a participant who was known to have a brother with a diagnosis of an ASD. Similarly, having twins in the control group was not ideal, on the basis that the twin relationship is likely to have an impact upon the friendships that are formed.

6.2. Instruments used

The FQS was chosen because it had been used in a previous similar study on friendship in HFA (Bauminger & Kasari, 2000). Whilst it is described as appropriate for children and adolescents, normative data from the authors themselves relate to a much younger sample (aged approx 11 years). Similarly, the subjects in the Bauminger & Kasari study were younger than in this research (8-14 years). Indications from the older members of the mainstream group were that they do not have "best friend" relationships and that a questionnaire that looks at a single

relationship may not adequately capture the complexity of their network of friendships.

The vignette format has certain methodological limitations. It is known that a proportion of high functioning people with ASDs are able to pass both first and second order theory of mind tests (Happé, 1994), whilst nevertheless being reported to experience considerable social difficulty. This is perhaps explicable in terms of executive functioning. This sort of testing may well take place in a distraction-free environment, where the individual is required only to focus on the task in hand. In contrast, the true social environment is fast-paced and multi-faceted and requires the individual to integrate an array of rapidly changing external stimuli. As well as external stimuli, the individual has also to contend with their internal states, which may well include high levels of anxiety (Attwood, 1998). A vignette exercise is, by its very nature, more contained and emotionally neutral than a comparable real-life encounter. Moreover, the written format highlights for the reader the salient clues that he needs to attend to. The performance of the AS group on the vignettes may not, therefore, mirror how they would manage the same situations, were they to encounter them in their every day activities.

As noted in the Method section, for practical reasons, the way in which the FQS and the vignettes were presented to the groups differed. This may have resulted in the mainstream group coming to the interview primed to think about the friendship issues explored in the FQS and the vignettes. Conversely, it may be that the AS group were prepared for the subjects raised in the FQS and vignettes by the

experience of the interview. Clearly, a counterbalanced presentation would have been preferable.

The Likert questionnaire given to parents and staff was intended to elicit information about friendship across three dimensions (Affection, Theory of Mind and Executive) and appeared to have face validity. As the Cronbach's alpha scores given in the Method section show, however, it appears that, with the exception of Theory of Mind, the intended items did not reliably access the same constructs.

6.3. Wider methodological issues

A full description is given in the Method about why it was chosen to explore friendship in AS in this study through a combination of quantitative measures and more qualitative interview and questionnaire methods, with the latter being used to obtain illustrative information. In many ways, this mixed method represented an uneasy compromise. The sample size was chosen for reasons of power associated with the FQS and the vignettes (see section 6.4) and in order to have a sense of what was normative for young people with AS. With such large numbers, it was not feasible to do a thematic analysis - and, in any case, the recruitment of a "control" group is at odds with the spirit of inductive, qualitative research. Nevertheless, the relatively unstructured nature of the interview meant that it was really only feasible to do a content analysis on the first two questions and other, interesting information that emerged did not lend itself readily to content analysis. In thinking about how people with AS like to spend time with their friends, for example, it would have been difficult to have come up with a coding that was sufficiently precise to permit

content analysis whilst also being sensitive to more thematic issues such as the degree of interaction entailed. Every effort was made to choose quotations that were reasonably representative of the group (or, if not, to say so) but the nature of the data was such that, for the most part, it was not realistically possible to say what percentage of the group thought in a particular way. Accordingly, most of the interview and questionnaire data can only be illustrative of factors that bear on the extent to which the more quantitative measures can (or cannot) be taken at face value.

6.4 Statistical issues

6.4.1 Type 1 Error: As explained, a multi-method approach was taken in this study because of the real practical difficulties of accessing the lived experiences of people with AS. A disadvantage of this approach, however, is that the multiple comparisons increase the risk of a type 1 error: that is, of finding an apparently significant difference between the two groups that is, in fact, the result of random variation. The apparent between-groups differences that emerged need to be treated with caution, therefore and, in particular, those emerging from the content analysis of participants' observations about the importance of friendship and the scores on the FQS.

6.4.2 Sample size: The sample size for this study (20 young people with AS and 19 neurotypical young people) was determined primarily by reference to other studies of ASDs. For example, in their study of friendship and loneliness in young people with HFA, Bauminger & Kasari (2000) compared a group of 22 children with HFA with a group of 19 neurotypical children. Pragmatic considerations also influenced the size

of sample however. This was a time-limited study and it was not possible, in the time, to identify and recruit any more AS participants.

In the circumstances, a formal power analysis was not undertaken. The relatively small size of the groups, however (Cohen, 1992) means that the statistical power was sufficient to pick up only relatively large effect sizes, thus increasing the risk of a type 2 error: that is, of failing to pick up on material between-groups differences.

6.5   Interviewing the AS group

As noted in the Introduction, it was anticipated that the social and language difficulties of the AS group would impact upon the responses that they gave in an interview situation. Although interviewing the AS participants in this study was both interesting and enjoyable, it was, in certain respects, more challenging than interviewing the mainstream group. In general, for example, the AS participants did not respond to the technique of "reflecting back" as a prompt to elaborate on what they had said. They tended simply to agree with the paraphrase and leave it at that. Overall, less predictable questions elicited more limited responses from the AS group. A question about aspects of friendship that they did not like, for example, yielded few responses of any substance from the AS group.

These factors are significant in a between groups study because, in analysing the content of the interview questions, it is assumed that the two groups are equally able to vocalise their experience - and this may simply not be the case. This, of course,

casts doubt upon whether what is found pertains to the actual experiences of the participants or, instead, to their ability to describe those experiences.

Valuable though between groups studies may be, a more qualitative exploration of friendship with people with AS would avoid the risk of eclipsing the highly individual nature of their experiences with superficial comparisons. (See the section on directions for future research, below.)

7. Clinical implications of this research

7.1.   Third party understanding:

Probably the most significant finding of this research is that a large majority of the AS group think that it is important to have friends but that managing the nuts and bolts of friendship can be difficult for them. It is important for those close to a person with AS to be aware they may sometimes behave in ways that suggest that they have no interest in or concern for their friends and to have some understanding of why. An associated point is that, although many people with AS can give a very good definition of friendship, there is a sense in which it is learnt and it does not follow that they necessarily have a conceptual understanding of friendship. Because they sound as if they know what they are talking about, people who do not understand the implications of AS are likely to believe that they are highly competent at friendship. Then, when they make a characteristically simple mistake, those people are likely to think that their behaviour was volitional and to react accordingly.

7.2. *Style of communication*

As noted above, it may be helpful for carers and friends to make some accommodations in their interactions with the person with AS. It is helpful to bear in mind, for example, that they find it hard to process simultaneous inputs. This is something that friends and teachers new to AS could usefully be told. It may help to keep speech simple and unelaborated and to rein in any spontaneous emotional response. If someone is cross with the person with AS and perhaps shouting angrily at them, the executive hypothesis might predict that they would find it hard to decode both the words and the tone simultaneously - especially if they do not understand that they have done anything to give rise to anger.

One of the AS teachers observed how, without conscious thought, he had developed a style of talking to his AS pupils that was very measured and emotionally neutral. This was, he said, quite unlike the way in which he responded to his own children or, for that matter, to past pupils who did not have AS. This is perhaps the sort of style that Williams (1992, p196) terms "an indirect or detached manner" and observes may be very helpful. (It is interesting to reflect whether this sort of social response may be one of the reasons why refrigerator parenting was supposed to be associated with ASDs - effect, rather than cause.)

7.3. *Adult support:*

The friendships of people with AS seem to need a lot of adult input. The person with AS may need help in thinking of ways in which they can spend their time with a peer, in order to progress that relationship towards friendship. They may need help

in knowing how their friend is thinking or feeling and advice on how to offer appropriate support. Should conflict arise, they may need help with their own feelings as well as in understanding the nature of the dispute, generating solutions, implementing them and monitoring the impact.

In considering the friendships of people with AS, the errorless learning paradigm comes to mind. People with ASDs are often highly perseverative and, having once behaved in a particular way, may find it hard thereafter to generate alternatives. This suggests that maximising their chances of a successful friendship interaction through adult intervention is important, not just for their emotional well-being but also because negative interactions could rapidly lead to a spiral of inappropriate repetition and social withdrawal.

7.4 Skills teaching

Friendship rests, to some extent, upon a set of social skills (like how to greet people or carry on a conversation, both issues mentioned in the staff and parent questionnaires). Whilst it may be hard for children with AS to generalise what they learn in one setting to other situations (perhaps as a function of their executive skills deficit) there is some evidence that teaching from a social skills group may be beneficial (Howlin & Yates, 1995). Indeed, as noted in the Results, one member of staff reported finding an AS pupil trying to learn these skills from a book. In a non-specialist setting, he active involvement of willing neurotypcial peers in a "circle of friends" may help in the application of rote learned skills.

In addition, people with AS may find it hard to decipher and label emotions - a skills deficit that may become particularly apparent in adolescent friendships when mutual disclosure becomes more important. Here, too there is evidence that a taught approach may be beneficial (Hadwin, Baron-Cohen, Howlin & Hill, 1996).

7.5. Cognitive teaching

It has also been suggested that people with ASDs may need to learn in an intellectual way how to do things that non-AS people may achieve easily and intuitively (Carrington & Graham, 2001). This is particularly true in friendship and, as noted in the Results section, some participants described heuristics that they had devised themselves, in order to manage particular situations, such as conflict resolution. Marc Segar's (1997) work is a good example of this sort of thinking. Whilst such prosthetic solutions are unlikely to generalise to every situation, they are almost certainly better than nothing and may do much to reduce the anxiety that the person with AS is known to experience (Gillott et al., 2001) about particular social situations.

8.   Directions for future research

8.1. Extending the present study

It would be interesting to find out how the experiences of a group of AS children who are in mainstream education compare to the AS group in this research. The social setting, understanding of AS and the levels of support offered are likely to be

very different. This might have a particular impact upon scores on the FQS, which is the measure that taps into friendship experiences.

8.2. Friendship networks

In view of the significant differences on the Security score of the FQS between the two groups, it would be interesting to explore the stability of the friendships of people with AS, perhaps using the Network of Relationships Inventory (Furman & Buhrmester, 1985). Coupled with the FQS, this could shed some light upon the degree to which stability is associated with friendship satisfaction for this group, which is interesting both practically and theoretically.

8.3 Sexual issues

As noted at the end of the Results section, the social difficulties of friendship may be particularly acute and visible in a sexual context. It is at least possible that issues of this kind contribute to the over-representation of people with AS in the prison population (Hare, Gould, Hill & Wing, 2000; Scragg & Shah, 1991). Sex education programmes for people with ASDs tend to be directed more to those with a learning disability and an ASD than to people with AS (eg the Benhaven programme: Melone & Lettick, 1983). The subtle difficulties of the AS group clearly warrant attention, however and this is an area in which more work is needed.

8.4 Qualitative approaches

As noted already, the interviews with participants in this study suggest that a fruitful (and relatively unexplored) line of enquiry would be to take a more thematic and inductive approach to understanding the friendship experiences of people with AS,

using, perhaps an approach such as Interpretative Phenomenological Analysis (Smith 1999). This might be more effective at accessing issues such as motivation, for which the content analysis in this study proved rather a blunt instrument.

In this study, a few of the AS participants were clearly making great efforts to understand cognitively issues that are probably understood in a less conscious way by people who do not have AS. Their comments are quoted in this study when they appeared able to articulate issues that were relevant to the whole group. It is quite possible, however, that their use of cognitive heuristics means that their experiences of friendship are, in some respects, quite different from those of people with AS who have not been able to find cognitive routes to understanding. It is very possible that the latter may be more prone to anxiety and low mood. Some qualitative studies have selected participants who are known to be articulate and reflective (Carrington & Graham, 2001) and the value of their contribution to a better understanding of living with an ASD cannot be underestimated. It would, however, be unfortunate if all the research effort in this area was focused primarily upon the most able individuals.

8.5. Social support

One final area that clearly warrants research concerns the extent to which the social support available to a person with AS may serve to protect them from low mood. One participant described his fear of losing his friends and, another, his reluctance to become attached to friends. These illustrations point to the importance that at least some people with AS attach to friendships. Holliday-Wiley (1999) described how she felt happier, knowing that she had friends who liked her - a point that also

emerged in the account of the staff member who observed that when AS children felt accepted, they were more relaxed and comfortable: "less fearful". Numerous studies have found that people with ASD suffer from mood disorders at above normal prevalence rates (for a table of studies, see Howlin, 1997, pp222-3) and it is interesting to reflect upon whether the difficulty that they experience in building and maintaining social relationships is a factor. This research seems to suggest that, even if their friendships may, in the eyes of outsiders, fall some way short of the norm, they are nevertheless, in some degree, important to people with AS. It would be interesting to try to achieve some sort of empirical indications of the relationship between friendship and mood. Clarifying how the friendship status of a person with AS impacts upon their mood may identify some social predictors of vulnerability to low mood. It might well be that working to increase the availability of friendship-type support might serve a protective function. Further research is, however, needed to establish in more detail what would constitute a socially supportive relationship for this group, since it is clear that, in some respects, friendship interactions can be experienced as highly stressful by the person with AS.

9. Conclusions

The aim of this research was to find out about how a group of young people with AS understood and experienced friendship. It assumes that it is possible to generalise, to a degree, from the experiences of the twenty AS participants.

It has been emphasised throughout this Discussion section how important it is for people who know or care for people with AS to have a working model of AS, in order to understand their behaviour, so that they do not dismiss them as selfish or disinterested. As noted elsewhere, however, ASDs exist along a spectrum and no two individuals are alike. Each individual with AS is unique, in personality, in cognitive style and in experience. For the professional, therefore, a knowledge of AS should be no more than a starting point in trying to understand their inner world.

At the end of one interview, the AS participant said that he had something to say and asked me to switch my tape recorder on again. This is what he said and it seems an appropriately cautionary note with which to conclude this study: -

"Asperger's syndrome covers as wide a possible variety of personality types and as wide a variety of people as people without Asperger's syndrome. But it's more than that. It's a whole autistic spectrum. Even itself. There is such a wide variety that there is absolutely no way that you can exactly define anyone as anything. This is very important. Please remember. Thank you."

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University College London Hospitals **NHS**

NHS Trust

The Joint UCL/UCLH Committees on the Ethics of Human Research

Committee Alpha Chairman:
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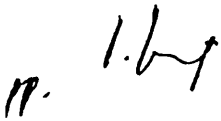UCL
Gower Street

October 5, 2001

Dear Dr Barker

Study No: 01/0134 *(Please quote in any correspondence)*
Title: **Understanding and experiences of friendship of young people with Asperger's syndrome**

T.hank you for your letter dated 24th September addressing queries relating to the above application.   The application has been agreed by Chairman's Action.   There are no objections on ethical grounds to this study going ahead

Please note that it is important that you notify the Committee of any adverse events or changes (name of investigator etc) relating to this project.   You should also notify the Committee on completion of the project, or indeed if the project is abandoned.   **Please remember to quote the above number In any correspondence.**

Yours sincerely

Professor André McLean, BM BCh PhD FRC Path
Chairman

SEMI-STRUCTURED INTERVIEW
Interview to be audiotaped – script for use of researcher only

Understanding and experience of friendship of young people with Asperger's syndrome

Possible prompts are in italics.

1. What is a friend?

2. Do you feel it is important to have friends? *(Why? What do they do for you? How does it make things better for you if you have friends? Do your friends look out for you?)*

3. Everyone has different sorts of friendships. There are no right or wrong ways to have friends. *(Some people have one close, special friend. Some have a small group of friends. Others seem to be friends with everyone. Some people prefer to spend time on their own.)* I was wondering how these things work for you?

4. How do you like to spend your time with your friends? *(Do you always spend the time doing something? Do you sometimes just hang out together without doing much? Do you like to talk to each other: what sorts of things do you like to talk about?)*

5. Do you ever fall out with your friends? *(what might make you fall out? Why do you think that is? How do you feel when you fall out? How do you make things better?)*

6. Are you fond of your friends? *(do you miss them when they aren't around? Do you worry about then if they are having a hard time? Are you pleased for them if thngs are going well for them – if they get a good mark for work, for example?)*

7. Are there any bits of having friends that you <u>don't</u> like? *(when might you decide you don't want to spend any more time with them?)*

Confidential

Friendship story vignettes

Instructions

- **These stories are about people who are a similar age to you.**
- **In each story, some parts are in *italics*.**
- **Immediately after the italics, there is a pair of brackets: ( ).**
- **What would you think of the behaviour in italics if you saw it?**
- **Choose from this list whether, in that situation, you think the behaviour was:**
  A. Not at all strange
  B. A little strange
  C. Moderately strange
  D. Very strange
- **The letter that you have chosen goes in the brackets.**

Story 1. The football game

Alex and Darren are out in the garden kicking a football around. Suddenly Alex notices a strange cat that has come into the garden and bends down to stroke it. *At the very same moment, Darren kicks the ball to him* (   ) Seeing that Alex hasn't noticed it, Darren calls : "Watch out". The ball hits Alex on the back. It gives him a fright and hurts him. *Alex rushes over to Darren and pushes him, shouting: "You did that on purpose!"* (   )

Story 2. Pizza and video

Martin has been invited round to Ali's house to spend the evening watching Ali's new video. They are going to share a takeaway pizza. They sit down to watch the video and eat the pizza. The video turns out to be a comedy. Martin doesn't find it very funny – in fact, he thinks it is boring. *Martin picks up his half of the pizza and tells Ali that he is going to go home.* (   ) *Ali is very surprised and a bit annoyed. He says "But we are supposed to be watching the video together!"* (   )

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Story 3. Game Boy

Stephen and Liam have been doing Maths homework in the classroom. Liam finishes his and starts to pack up his things. Stephen is still struggling. To help him to keep going, the teacher suggests that, when he had finished, he can spend some time playing on his Game Boy. At long last, Stephen completes the last sum. He rushes off to the sitting room, where Liam is already playing with his own Game Boy. Stephen gets out his Game Boy and switches it on. Disaster! The batteries are flat! Stephen wails: "*Oh no! That is so unfair!*" ( ). Liam comes over to him, holding out his own Game Boy. "Never mind, Stephen" says Liam *"you can use mine instead"* ( )

Story 4. Anyone for tennis?

Henry's friend Jack has promised to play tennis with him on Saturday morning. Henry really enjoys playing tennis, so he is looking forward to it. Jack wakes up with a very sore throat that day. He comes round to Henry's house and *tells Henry that he feels too ill to play tennis* ( ). Henry is very disappointed and a bit surprised – after all, Jack is up and dressed. *Henry says: "It doesn't matter about your sore throat, we can still play." ( )*

Story 5. Meet the neighbours

Kayley's family has just moved into a new house and all their belongings are still in cardboard boxes. Their new neighbours invite them in for a cup of tea. The neighbours have a son, Gareth, who is about the same age as Kayley. He is good looking, fashionably dressed and *wearing rather a lot of after-shave* ( ). They are introduced and Kayley remarks to Gareth: "*Gosh, your after- shave is strong!*" ( ).

Story 6. The Youth Club

Ian suggests to Fred that they should go to a Games Morning at the local Youth Club together. There are all sorts of card games and board games set out and people seem to be teaming up to play together. Ian is a keen chess player and is soon invited to play by another boy. *He goes off to do so, leaving Fred on his own* ( ). Fred doesn't know how to play any of the games that are on offer. When Ian finally finishes his game, Fred complains *"You shouldn't have left me on my own like that"* ( ).

THE END

Sub-Department of Clinical Health Psychology

UNIVERSITY COLLEGE LONDON

GOWER STREET LONDON WC1E 6BT

QUESTIONNAIRE FOR STAFF

This form was completed by: -

Name..
(if you prefer, you may leave your name blank)

Role (ie carer, teacher, night staff etc)..

It might be that I would like to get in touch with you to ask you to expand on something that you have said that is particularly interesting. If you would be willing for me to do this, please could you tick this box: thank-you ☐

Section 1

Where you feel that there is a lot of individual variation, it would be helpful if you could say so. Thanks!

1. How important do you think these young people feel it is to have friends?
(eg Do they actively seek company? Do they want to be liked? Do they want to have "a friend" to be like everyone else? Or perhaps they are not particularly keen to be with other people? etc)

2. What sorts of friendships do they form?
(eg do they have "best friends" or several friends? Do they try to make friends but find it hard? Perhaps they aren't really interested in having friends at all?)

3. What sorts of things do they like to do with friends

(eg are they always busy "doing" something together – or do they sometimes just chat? Do they always do exactly the same things with particular friends? Do they confide in their friends?)

4. Most people have occasional "fallings out" with their friends. How do these young people manage that sort of conflict?

(eg do they often have arguments with friends? Or do they just lose interest? Do they find it easy to make it up again if they disagree?)

5. Are there any aspects of friendship that you feel are particularly difficult for them?

(eg knowing what to say, how to behave? Understanding why their friends act as they do? Tolerating differences of opinion? etc)

6. Sometimes, even when they are trying hard to "get it right", people with Asperger's syndrome can misread a friendship situation or behave in ways that others find difficult to understand. If you can recall any striking occasions like this, please can you give brief details.

Section 2

For each question, please circle the
appropriate response, where: -

$\left\{\begin{array}{l} 1= \text{strongly agree (SA)} \\ 2= \text{agree (A)} \\ 3= \text{not sure (NS)} \\ 4= \text{disagree (D)} \\ 5= \text{strongly disagree (SD)} \end{array}\right.$

RESPONSES

QUESTIONS	**SA**	**A**	**NS**	**D**	**SD**
1. they seem to be fond of their friends	1	2	3	4	5
2. they find it hard to come up with ideas of things to do with other people	1	2	3	4	5
3. they are readily able to see a friend's point of view	1	2	3	4	5
4. if their friend wants to do something different from them, they find it hard to compromise	1	2	3	4	5
5. if they become upset, they tend to feel that the friend they are with *meant* to upset them – even if this is unlikely	1	2	3	4	5
6. they rely upon the emotional support of friends	1	2	3	4	5
7. they find it difficult to cope if something they have planned to do with a friend happens a bit differently	1	2	3	4	5
8. they are surprised if a friend doesn't necessarily want to do the same thing as them	1	2	3	4	5
9. they seem to miss their friends when they are not around	1	2	3	4	5
10. they always have lots of different ideas for things to do with their friends	1	2	3	4	5

11. they will check out with a friend that s/he is happy to do what they want to do

    1   2   3   4   5

12. they are able to put their friends wishes before their own

    1   2   3   4   5

13. when things go wrong, they don't immediately blame the other person

    1   2   3   4   5

14. they don't seem to look to friends for affection or support

    1   2   3   4   5

15. they are able to be flexible in their dealings with their friends

    1   2   3   4   5

16. they understand that friends may want to do things that they don't

    1   2   3   4   5

Thank you for filling in the questionnaire!

Sub-Department of Clinical Health Psychology

UNIVERSITY COLLEGE LONDON

GOWER STREET LONDON WC1E 6BT

QUESTIONNAIRE FOR PARENTS

This form was completed by: -

Name..

Parent or guardian of...

It might be that I would like to get in touch with you to ask you to expand on something that you have said that is particularly interesting. If you would be willing for me to do this, please could you let me have either phone or e-mail contact details?

Contact details..

Internal use only
Participant Code ....

APPENDIX 4

Sub-Department of Clinical Health Psychology

UNIVERSITY COLLEGE LONDON

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CONFIDENTIAL

Participant Code.........

General Enquiries: 020 7679 1897
Clinical Tutor Team: 020 7679 12!
Senior Secretary: 020 7679 5699
UCL Switchboard: 020 7679 2000
Code from overseas: +44 20
Fax: 020 7916 1989

QUESTIONNAIRE FOR PARENTS

Section 1

NB: The words in italics are just a prompt rather than questions you need to answer specifically

1. How important do you think your son or daughter feels that it is to have friends?

(eg Do they actively seek company? Do they want to be liked? Do they want to have "a friend" to be like everyone else? Or perhaps they aren't particularly keen to be with other people?)

2. What sorts of friendships do they form?

(eg do they have a "best friend" or several friends? Do they try to make friends but find it hard? Perhaps they aren't really interested in having friends at all?)

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3. What sorts of things do they like to do with friends?

(eg are they always busy "doing" something together – or do they sometimes just chat? Do they always do exactly the same things with particular friends? Do they confide in their friends?)

4. Most people have occasional "fallings out" with their friends. How does your son or daughter manage this kind of conflict?

(eg: do they often have arguments with friends? Or do they just lose interest? Do they find it easy to make it up again, if they disagree?)

5. Have you noticed any aspects of friendships that seem to be particularly difficult for your son or daughter?

(eg knowing what to say or how to behave? Understanding why friends act as they do? Tolerating differences of opinion?)

6. Sometimes, even when they are trying hard to get it right, people with Asperger's syndrome can misread a friendship situation or behave in ways that others find difficult to understand. If you can recall any specific occasions like this, please can you give brief details?

7. If your son or daughter has any siblings, please note their ages and if they are girls or boys here: -

Section 2

For each question, please circle the appropriate response, where: -

1= strongly agree (SA)
2= agree (A)
3= not sure (NS)
4=disagree (D)
5= strongly disagree (SD)

RESPONSES

QUESTIONS	SA	A	NS	D	SD
1. they seem to be fond of their friends	1	2	3	4	5
2. they find it hard to come up with ideas of things to do with other people	1	2	3	4	5
3. they are readily able to see a friend's point of view	1	2	3	4	5
4. if their friend wants to do something different from them, they find it hard to compromise	1	2	3	4	5
5. if they become upset, they tend to feel that the friend they are with *meant* to upset them – even if this is unlikely	1	2	3	4	5
6. they rely upon the emotional support of friends	1	2	3	4	5
7. they find it difficult to cope if something they have planned to do with a friend happens a bit differently	1	2	3	4	5
8. they are surprised if a friend doesn't necessarily want to do the same thing as them	1	2	3	4	5
9. they seem to miss their friends when they are not around	1	2	3	4	5
10. they always have lots of different ideas for things to do with their friends	1	2	3	4	5

11. they will check out with a friend   1   2   3   4   5
that s/he is happy to do what they
want to do

12. they are able to put their friends   1   2   3   4   5
wishes before their own

13. when things go wrong, they don't   1   2   3   4   5
immediately blame the other
person

14. they don't seem to look to friends   1   2   3   4   5
for affection or support

15. they are able to be flexible in their 1   2   3   4   5
dealings with their friends

16. they understand that friends may   1   2   3   4   5
want to do things that they don't

**Thank you for filling in the
questionnaire!**

Sub-Department of Clinical Health Psychology

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[Information letter and consent form for parents of AS participants]

Dear Parents,

What young people with Asperger's syndrome think about friendship

With the permission of ████████████████████████████████████, I am writing to invite your help with this project.

Who I am
I am working for a Doctorate in Clinical Psychology (which is the professional qualification for clinical psychologists) at University College London (UCL). I am also the parent of a twelve-year old son with Asperger's syndrome. As part of my doctorate, I have to undertake some original research. Because of my experiences both as a parent and as a psychologist, I am very interested in Asperger's syndrome and would like to use this opportunity to find out more about how young people with Asperger's view the world. In particular, I am interested in their understanding and experiences of friendship. Whilst it is recognised that people with Asperger's syndrome can find friendships problematic, relatively few studies have asked for their perspective on this issue.

Information about the research
(a) What the research will consist of
The young people with Asperger's syndrome will be invited to answer some short questions and to talk to me about their views and experiences of friendship. In addition, they will be given some short stories about friendship situations and asked to comment on them. In order to gain an impression of how friendship is experienced in different settings, both staff from the young people's school or college and their parents will be asked to respond to some written questions on this issue.
So that their responses can be compared with those of young people of a similar age who do <u>not</u> have Asperger's syndrome, some of the same information will be gathered for a group of young people who are in mainstream schools.
(b) Confidentiality
All information gathered will be kept confidential and shared only with staff of your son or daughter's school and my research supervisors. Individual children are never identified in research writings. For this research, information from many children will be put together for group comparisons. I will provide feedback to all volunteer families on these group findings. The results of the research will be written up and submitted in partial completion of my Doctorate in Clinical Psychology and may, if appropriate, be published in a Psychology journal.
(c) Ethics
All proposals for research using human subjects are reviewed by an ethics committee before they can proceed. This proposal was reviewed by the Joint UCL/UCLH Committees on the Ethics of Human Research. This research will be supervised by Dr Chris Barker and Dr Stephen Butler from University College London, with advice from Dr Francesca Happé from the Institute of Psychiatry.

How I would like your help!
(a) Consent
I need to know whether you are willing for your son or daughter to participate in this research but please note: -
You do not have to take part in this study if you do not want to. If you decide to take part you may withdraw at any time without having to give a reason. Your decision to take part or not will not affect your son or daughter's care or management in any way.
If you are willing for your son or daughter to take part in the research, please complete the attached consent form and return it to me in the pre-paid envelope. Young people over 16 years of age will also be asked formally if they are willing to participate in this research.

Any questions that you might have....
Please feel free to ring me (07775-895323) or e-mail me (Pmbdclin@aol.com) or to ring Dr Chris Barker (020 7679 5962) or e-mail him (c.barker@ucl.ac.uk) if there is anything that you would like to discuss about this research.
And in conclusion...
Thank you for taking the time to consider this request.
Yours Sincerely,

Pippa Barrett
Trainee Clinical Psychologist

Sub-Department of Clinical Health Psychology

UNIVERSITY COLLEGE LONDON

GOWER STREET LONDON WC1E 6BT

General Enquiries: 020 7679 1897
Clinical Tutor Team: 020 7679 12!
Senior Secretary: 020 7679 5699
UCL Switchboard: 020 7679 2000
Code from overseas: +44 20
Fax: 020 7916 1989

[For parents of AS participants]

Confidential

PARENTAL CONSENT FORM
What young people with Asperger's syndrome think about friendship

Please circle as appropriate: -

1. Have you read the information sheet about this study? ....yes/ no

2. Have you had the opportunity to ask questions and discuss this study?..........yes/ no

3. Have you received satisfactory answers to all your questions?...................yes/ no

4. Have you received enough information about this study?.........................yes/no

5. Do you understand that you are free to withdraw from this study...
   * At any time
   * Without giving any reason for withdrawing
   * Without it in any way affecting your son or daughter's care...................yes/ no

6. Do you agree to your son or daughter taking part in this study...................yes/ no

7. Do you agree that any interview with your son or daughter may be audiotaped for the purposes of this study?... yes/ no

I am the parent or legal guardian of...
                              (Please print your son or daughter's name here)

....
Parent or legal guardian's signature

....
Please print your name

....
Date

When you have completed the form, please return it in the pre-paid envelope to Pippa Barrett, Dept of Clinical Health Psychology, University College London, Gower Street, London WC1F 6BT.
AS (1) P

Sub-Department of Clinical Health Psychology

UNIVERSITY COLLEGE LONDON

GOWER STREET LONDON WC1E 6BT

[Information and Consent for for parents of mainstream participants]

Dear
CONFIDENTIAL

What young people think about friendship

I am writing to invite your help with a project that is designed to explore the friendship experiences of young people. For the purposes of this study, I need to interview a number of normally developing young people. Your Headteacher has kindly agreed that I may write to you to invite your son or daughter to participate in the research.

Who I am and why I am doing this research
I am working for a Doctorate in Clinical Psychology (which is the professional qualification for clinical psychologists) at University College London (UCL). As part of my doctorate, I have to undertake some original research. I am interested in young people's friendships and, in particular, how the experiences of young people with Asperger's syndrome, a developmental disorder, differ from those of normally developing children, like your son or daughter.

Information about the research
(a) What the research will consist of
Young people will be interviewed and asked about their views and experiences of friendship. They will be given a questionnaire to complete and will be read some very brief stories about friendship situations and asked to comment on them.
(b) Confidentiality
All information gathered will be kept confidential and shared only with staff of your son or daughter's school and my research supervisors. Individual children are never identified in research writings. For this research, information from many children will be put together for group comparisons. I will provide feedback to all volunteer families on these group findings. The results of the research will be written up and submitted in partial completion of my Doctorate in Clinical Psychology and may, if appropriate, be published in a Psychology journal.
(c) Ethics
All proposals for research using human subjects are reviewed by an ethics committee before they can proceed. This proposal was reviewed by the Joint UCL/UCLH Committees on the Ethics of Human Research. This research will be supervised by Dr Chris Barker and Dr Stephen Butler from University College London, with advice from Dr Francesca Happé from the Institute of Psychiatry.

How I would like your help
I need to know whether you are willing for your son or daughter to participate in this research but please note: -
You do not have to take part in this study if you do not want to. If you decide to take part you may withdraw at any time without having to give a reason. Your decision to take part or not will not affect your son or daughter's education in any way.
If you are willing for your son or daughter to take part in the research, please complete the attached consent form and return it to me in the pre-paid envelope. Young people over 16 years of age will also be asked separately if they are willing to participate in this research.

Any questions that you might have
Please feel free to ring (07775-895323) or e-mail me (Pmbdclin@aol.com) or to ring my supervisor, Dr Chris Barker (020 7679 5962) or e-mail him (c.barker@ucl.ac.uk) if there is anything that you would like to discuss about this research.

Thank you for taking the time to consider this request.

Yours Sincerely,

Pippa Barrett
Trainee Clinical Psychologist

Sub-Department of Clinical Health Psychology

UNIVERSITY COLLEGE LONDON

GOWER STREET LONDON WC1E 6BT

[For parents of mainstream participants]

NORMALLY DEVELOPING GROUP

Confidential
PARENTAL CONSENT FORM
What young people think about friendship

Please circle as appropriate: -

1. Have you read the information sheet about this study?.............................yes/no

2. Have you had an opportunity to question and discuss this study?................. yes/no

3. Have you received satisfactory answers to all your questions?.................... yes/ no

4. Have you received enough information about this study?...........................yes/no

5. Do you understand that you are free to withdraw from this study
   - At any time
   - Without giving any reason for withdrawing
   - Without it in any way affecting my son or daughter's care?......................yes/ no

6. Do you agree to your son or daughter taking part in this study?...................yes/ no

7. Do you agree that any interview with your son or daughter may be audio taped for the purposes of this study?...yes/ no

I am the parent of legal guardian of...
(Please print your son or daughter's name here)

....
Parent or legal guardian's signature

....
Please print name

....
Date

When you have completed this form, please return it to me in the pre-paid envelope – thank-you.

Sub-Department of Clinical Health Psychology

UNIVERSITY COLLEGE LONDON

GOWER STREET LONDON WC1E 6BT

[For AS participants aged 16 years or older]

CONFIDENTIAL

Dear

General Enquiries: 020 7679 1897
Clinical Tutor Team: 020 7679 125
Senior Secretary: 020 7679 5699
UCL Switchboard: 020 7679 2000
Code from overseas: +44 20
Fax: 020 7916 1989

What young people with Asperger's syndrome think about friendship

I am a psychologist. I am studying for a Doctorate in Clinical Psychology, which is the professional qualification for clinical psychologists. I am also the mother of a young man with Asperger's syndrome. As part of my Doctorate, I have to do some research. I am very interested in the experiences of people with Asperger's syndrome. In particular, I am interested to know how people with Asperger's feel about friendship and what their experiences of friendship have been like.

I am writing to ask if you would be prepared to take part in my research. This is what it will involve. I would like you to answer some questions and to talk to me about your views and experiences of friendship. I would also like you to comment on some very brief stories about typical friendship situations. I am also asking parents and teachers to answer some written questions on this topic.

I want to find out how the experiences of people with Asperger's compare with those of people who don't have Asperger's syndrome. To find this out, I will be asking some young people in mainstream schools some of the same things. When I have got everyone's responses, I will write up the results of the study. No names will be mentioned in the study. Instead, I will be comparing two groups: those who have Asperger's and those who don't.

You do not have to take part in this study if you do not want to. If you decide to take part, you may withdraw at any time without having to give a reason. Your decision whether to take part or not will not affect your care, management or teaching in any way.

All proposals for research using human subjects are reviewed by an Ethics Committee before they can proceed. This proposal was reviewed by the Joint UCL/UCLH Committee on the Ethics of Human Research.

Whilst I am doing the research, I will be supervised by Dr Chris Barker and Dr Stephen Butler, my tutors from UCL, with additional advice from Dr Francesca Happe from the Institute of Psychiatry. If you want to ask any questions about this study, you can ring me (07775-895323) or e-mail me (Pmbdclin@aol.com). Alternatively, you can ring my supervisor Dr Chris Barker (020 7679 5962) or e-mail him (c.barker@ucl.ac.uk). We will be happy to talk about the study with you.

I hope very much that you would like to take part in this study and to let me know your views about friendship. If you would, please can you complete the form which comes with this letter and return it to me in the stamped and addressed envelope.

Thank you for taking the time to consider this request.
Yours Sincerely,

Pippa Barrett
Trainee Clinical Psychologist

Sub-Department of Clinical Health Psychology

UNIVERSITY COLLEGE LONDON

GOWER STREET LONDON WC1E 6BT

[For AS participants aged 16 years or older]

Confidential

CONSENT FORM
What young people with Asperger's syndrome think about friendship

Please circle as appropriate: -

1. Have you read the information letter about this study?...........................yes/ no

2. Have you had an opportunity to question and discuss this study?..............yes/ no

3. Have you received satisfactory answers to all your questions?....................yes/ no

4. Have you received enough information about this study?........................yes/ no

5. Do you understand that you are free to withdraw from this study: -
   - At any time
   - Without explaining why
   - Without it affecting your care or teaching in any way?....................... yes/ no

6. Do you agree to take part in this study?..yes/ no

7. Do you agree to being audio taped for the purposes of this study?................yes/ no

Signed: -

....
Signature

....
Name in block capitals

....
Date

....
Name of school or college attended

Sub-Department of Clinical Health Psychology

UNIVERSITY COLLEGE LONDON

GOWER STREET LONDON WC1E 6BT

General Enquiries: 020 7679 181
Clinical Tutor Team: 020 7679 1
Senior Secretary: 020 7679 569°
UCL Switchboard: 020 7679 2M
Code from overseas: +44 20
Fax: 020 7916 1989

[For AS Participants aged less that 16 years]

INFORMATION SHEET

What young people with Asperger's syndrome think about friendship

I am carrying out a study of what young people with Asperger's syndrome think about friendship. I hope this study will help people to understand a bit more about how it feels to be a person with Asperger's syndrome.

This is what taking part in the project will involve: -

- I would like to talk to you generally about your thoughts on friendship
- I would like to ask you some short questions about friendship
- I would like to read you some very brief stories and ask what you think about what happens in them

I am also asking parents and teachers to answer some written questions.

I want to know how young people with Asperger's syndrome feel about friendships, compared with young people who don't have Asperger's. To find this out, I will be asking some young people in mainstream schools some of the same things that I am asking you. When I have got everyone's responses, I will write up the results of the study. No names will be mentioned in the study. Instead, I will be comparing two groups: those who have Asperger's and those who don't.

If you want to ask any questions about this study, you can ring me (07775-895323) or e-mail me (Pmbdclin@aol.com) Alternatively, you can ring my supervisor Dr Chris Barker (020 7679 5962) or e-mail him (c.barker@ucl.ac.uk). We will be happy to talk about the study with you.

Thank you very much for your help,

Pippa Barrett
Trainee Clinical Psychologist
AS (3) U16

Sub-Department of Clinical Health Psychology

UNIVERSITY COLLEGE LONDON

GOWER STREET LONDON WC1E 6BT

[For mainstream participant aged 16 years or older]
CONFIDENTIAL

Dear

What young people think about friendship

I am a psychologist. I am studying for a Doctorate in Clinical Psychology, which is the professional qualification for clinical psychologists. As part of the doctorate, I have to do some original research. I am interested in young people's experiences of friendship. In particular, I am interested to compare the experiences and understanding of normally developing young people, like you, with those of young people who have a developmental disorder.

I am writing to ask if you would be prepared to take part in my research. This is what it will involve. I would also like you to fill in a questionnaire about friendship and to comment on some very brief stories about typical friendship situations. In addition, I would like you to talk to me about your views and experiences of friendship.

I will be asking some other young people who have a developmental disorder called Asperger's syndrome to do the same things. When I have got everyone's responses, I will write up the results of the study. No names will be mentioned in the study. Instead, I will be comparing two groups: those who have Asperger's syndrome and those, like you, who don't.

You do not have to take part in this study if you do not want to. If you decide to take part, you may withdraw at any time without having to give a reason. Your decision whether to take part or not will not affect your care, management or teaching in any way.

All proposals for research using human subjects are reviewed by an Ethics Committee before they can proceed. This proposal was reviewed by the Joint UCL/UCLH Committee on the Ethics of Human Research.

Whilst I am doing the research, I will be supervised by Dr Chris Barker and Dr Stephen Butler, my tutors from University College London, with additional advice from Dr Francesca Happé from the Institute of Psychiatry. If you want to ask any questions about this study, you can ring me (01582-712924) or e-mail me (Pmbdclin@aol.com). Alternatively, you can ring my supervisor Dr Chris Barker (020 7679 5962) or e-mail him (c.barker@ucl.ac.uk). We will be happy to talk about the study with you.

I hope very much that you would like to take part in this study and to let me know your views about friendship. If you would, please can you complete the form which comes with this letter and return it to me.

Thank you for taking the time to consider this request.
Yours Sincerely,

Pippa Barrett
Trainee Clinical Psychologist

Sub-Department of Clinical Health Psychology

UNIVERSITY COLLEGE LONDON

GOWER STREET LONDON WC1E 6BT

Confidential

CONSENT FORM
What young people think about friendship

Please circle as appropriate: -

1. Have you read the information letter about this study?..........................yes/ no

2. Have you had an opportunity to question and discuss this study?.............yes/ no

3. Have you received satisfactory answers to all your questions?..................yes/ no

4. Have you received enough information about this study?.......................yes/ no

5. Do you understand that you are free to withdraw from this study: -
   - At any time
   - Without explaining why
   - Without it affecting your care or teaching in any way?......................yes/ no

6. Do you agree to take part in this study?...yes/ no

7. Do you agree to being audio taped for the purposes of this study?.............yes/ no

Signed: -

....
Signature

....
Name in block capitals

....
Date

....
Name of school or college attended

When you have completed this form, please return it to Pippa Barrett - thank-you.
MS (2) 016

Sub-Department of Clinical Health Psychology

UNIVERSITY COLLEGE LONDON

GOWER STREET LONDON WC1E 6BT

[For mainstream participants aged less than 16 years]

INFORMATION SHEET

What young people think about friendship

I am carrying out a study into young people's experiences of friendship. I am interested to compare the experiences and understanding of normally developing young people, like you, with those of young people who have a developmental disorder.

This is what taking part in the project will involve. I would like you to: -

- fill in a questionnaire about friendship
- comment on some very brief stories about typical friendship situations
- talk to me about your views and experiences of friendship.

I will be asking some young people who have a developmental disorder called Asperger's syndrome to do the same things. When I have got everyone's responses, I will write up the results of the study. No names will be mentioned in the study. Instead, I will be comparing two groups: those who have Asperger's syndrome and those, like you, who don't.

If you want to ask any questions about this study, you can ring me (01582-712924) or e-mail me (Pmbdclin@aol.com). Alternatively, you can ring Dr Chris Barker (020 7679 5962) or e-mail him (c.barker@ucl.ac.uk). We will be happy to talk about the study with you.

Thank you very much for your help,

Pippa Barrett
Trainee Clinical Psychologist

Categories for content analysis

Companionship
- Spending time together from preference or with enjoyment;
- May include: -
  - doing things together
  - talking about shared interests (eg sports)
  - "just talking"

Closeness/Affection
- Liking and caring about a friend
- May include: -
  - Missing them when they are not around
  - Minding for them when they are upset
  - Being pleased for them when they are successful
  - Being happy when they are there

Security/Intimacy
- Being able to talk about feelings or problems that would not disclose generally (but without active helping - see below, under Help)
- Mutual Empathy
- Trust
- May include: -
  - being able to survive disagreement and make up afterwards
  - sharing secrets

Help
- with tasks or with relations with others (sticking up for each other)
- dealing with own feelings (as opposed to just sharing them)
- someone who "looks out" for you
- "they'll be there for you if you need them"

Conflict
- fights; or
- arguments; or
- disagreements; or
- winding each other up

NB the categories exclude things that are characteristics of the other person, rather than specific to the friendship eg "someone who is kind".

Loneliness

(relevant only to question about importance of friends)

- If participant uses the word "lonely" to describe how they feel (or would feel) without a friend