USING PERSONAL CONSTRUCT METHODOLOGY TO EXPLORE RELATIONSHIPS

WITH ADOLESCENTS WITH AUTISM SPECTRUM DISORDER

USING PERSONAL CONSTRUCT METHODOLOGY TO EXPLORE RELATIONSHIPS

FOR ADOLESCENTS WITH AUTISM SPECTRUM DISORDER

Abstract

Background: Research shows that adolescents with Autism Spectrum Disorder (ASD) experience difficulties developing friendships, and that loneliness is a significant factor contributing to higher incidence of anxiety and depression within this population.

Aims: This study aimed to provide an in-depth analysis of relationships as described by adolescents with ASD, and, from these descriptions, to explore what can be inferred about the development of successful interpersonal relationships for these individuals.

Methods and Procedure: Eight adolescents with ASD participated in semi-structured interviews using established personal construct theory (PCT) techniques.

Outcomes and Results: PCT was found to be a helpful approach to elicit rich, qualitative data. A thematic analysis identified four themes: relationships as a source of support, perceptions of similarity and difference, valued qualities in self and others, and the development and maintenance of relationships.

Conclusions and Implications: Whilst this exploratory study highlighted some commonality in terms of perceptions of family support and friendships as protective and desirable, participants differed in their ability to establish and maintain peer relationships. Participants valued personal qualities such as intelligence, humour and trust within relationships, and recognised the important role of peers and siblings in the development of social skills, a finding which has implications for the delivery of social skills training and other interventions. The study provides empirical support for the application of personal construct

methodologies in ASD research and offers a potentially useful approach to therapeutic intervention.

What this paper adds

Whilst research suggests that individuals with ASD typically find forming and maintaining relationships difficult and, as a consequence, may experience loneliness and psychological distress, there is a lack of in-depth qualitative case studies describing their experience. Perhaps because they often find talking about emotive issues and interpersonal dynamics difficult, engaging this population in qualitative research can be challenging. However, personal construct theory has been presented as a useful approach, since it is sensitive to the social communication needs of people with ASD. This study employed two specific PCT approaches as a way of generating discursive data. Dyadic construct elicitation was found to work well with this population, but due to the discrete nature of the constructs the technique of laddering may not illuminate a consistent hierarchy. However, in utilising these methods, the study enriches previous findings by reinforcing the importance of friends and siblings as active conduits to the social world, the importance of considering gender in the social context of the individual, and the importance humour plays as a social skill.

Highlights

1. PCT is a useful approach when interviewing adolescents with ASD

2. Adolescents with ASD use various strategies to develop supportive relationships.

3. Relationships with both family and friends were valued by participants.

4. A developmental task is to understand how ASD fits into their self-identity.

5. Peers and siblings play an important role in helping the person with ASD manage.

Keywords:

Autism spectrum disorder, Asperger's syndrome, relationships, friendships, humour personal construct psychology.

Acknowledgements

1.0 Introduction

Consistent with current diagnostic criteria, individuals with Autism Spectrum Disorder (ASD) face challenges developing and maintaining social relationships. Research has demonstrated they often experience loneliness as a consequence (Bauminger & Kasari, 2000) and this can lead to psychological problems such as anxiety and depression (Mazurek, 2013).

Studies have shown that adolescence is a particularly challenging time for individuals with ASD, with increased vulnerability to comparatively high levels of loneliness, low life satisfaction, anxiety, and depression (Feldhaus, Koglin, Devermann, Logemann, & Lorenz, 2015; Strang et al, 2012; Whitehouse, Durkin & Ziatas, 2009). Social relationships play a significant role in buffering against loneliness and enhancing psychological resilience (Gifford-Smith & Brownell, 2003). However, recent research has shown that not only may there be differences in the quantity of relationships maintained by young people with ASD, but also in the quality. In a systematic review of the characteristics of friendship in children and adolescents with ASD, Petrina, Carter, and Stephenson (2014) conclude that this group differed in the frequency, quality and reciprocity of friendship, and there was some evidence this became more acute as the child developed. The literature indicates that adolescents with ASD experience particular difficulty forming appropriate relationships with peers at school (Attwood, 1998) and are at increased risk of experiencing peer bullying (Wainscot, Naylor, Sutcliffe, Tantam & Williams, 2008).

In addition to friends, family has been identified as a significant source of social support for children with ASD (Bradford, 2010; Cridland, Jones, Magee & Caputi, 2014). Good parental support has been found to be a protective factor against the experience of loneliness in this population, by facilitating access to social networks (Bauminger & Kasari, 2000), and by providing practical support in forming and maintaining friendships (Lasgaard,

Neilsen, Eriksen & Goossens, 2010). Sibling relationships have also been shown to be a protective factor (Lasgaard et al, 2010) by providing social support, sometimes as substitute friends (Knott et al, 1995), but also as an important source of social learning and social facilitation (Tsao & Odom, 2006).

Research exploring precisely how children with ASD see social relationships functioning is limited, but recent work looking at gender is illuminating some essential differences between boys and girls with ASD (Orsmond & Kuo, 2011). Whilst both genders want friendships, girls tend to be more actively motivated in seeking out and maintaining these relationships, and consequently may experience better quality relationships (Sedwick, et al, 2016). Such studies show the complex interaction between mainstream gender differences in social development, combined with the specific social communication difficulties experienced within ASD (Tierney, Burns, & Kilbey, 2016).

Carrington and Graham (2001) caution researchers against making assumptions based upon their own beliefs regarding friendships, as these may differ from those held by adolescents with ASD. Previous research also indicates the need to more fully understand how the foundations to building social relationships, such as social motivation, self-presentation and reputation management, are seen from the perspective of the young person with ASD before effective support strategies can be developed (e.g. Cage, Bird & Pellicano, 2016; Scheeren, Banerjee, Koot & Begeer, 2015). Consequently, whilst the need for more in-depth, qualitative, studies focusing on relationship formation is argued for within the literature, it does present methodological challenges as the very deficits being explored may limit the utility of research methodologies which rely heavily upon the participant's ability to engage in a conversation of this nature (Carrington, Templeton & Papinczak, 2003). Hence, researchers have sought structured methodologies to help scaffold these conversations and allow exploration in a way which is more comfortable to individuals with ASD.

One approach found to meet these aims is Personal Construct Theory (PCT). PCT (Kelly, 1955) is based on the principle of constructive alternativism, the notion that all our understanding, perceptions and insights are open to question and reconsideration (Butler & Green, 1998). The focus within the PCT framework is on exploring how an individual construes entities or events by using specified techniques to elicit constructs on which the individual builds their world views, and then, through contrast and comparison, how they make judgments and decisions (Butler & Green, 1998). PCT in the research context uses these techniques within a structured interview to elicit narratives around a particular topic. The aim is to reveal the subjective cognitive structures by which a person makes sense of the world, including a hierarchy of constructs. All constructs are bipolar, e.g. 'good' only has meaning in relation to 'bad', allowing the person to place themselves and others on that construct and hence build up a rich picture of themselves in relation to others. Used in this way PCT is a constructionist, phenomenological approach, but unlike some other approaches facilitates direct comparison between self and others.

Case studies using PCT methodologies have demonstrated this approach to be well suited to individuals who have ASD (e.g. Hare, Searson & Knowles, 2011; Hare, Jones & Paine, 1999; Hare, 1997; Proctor, 2001; Sharma, Winter & McCarthy, 2013). Even those with quite significant impairments have been able to engage with this approach (Thomas, Butler, Hare & Green, 2011). Cridland et al. (2014a, 2014b, 2015, 2016) endorse the use of PCT when conducting research with adolescents with ASD, pointing to 'the dearth of literature attempting to look at this subgroup grounded in any theoretical approach' (p108, 2014a). They identify three significant adolescent developmental tasks which should be considered: functioning within the increasingly complex world of adulthood; identity development; and development of flexible processing styles.

In the 2015 paper Cridland et al. investigated these tasks using semi-structured interviews, with 26 participants, including adolescents with ASD (n=7) and their families. Through thematic analysis they identified themes which related to the tasks outlined in the conceptual paper and an additional area: the challenges of puberty. All participants reported developing and maintaining friendships as difficult, especially understanding the complex and subtle functioning of adolescent friendships and distinguishing between friends and acquaintances. Using the personal constructivist *dependency grids* tool, Cridland et al (2016) explored dependency distribution patterns for three adolescents with ASD. The adolescents identified siblings as an important and, often, preferred source of support. They also showed a preference for problem focused rather than emotion focused strategies in the management of challenging situations. Cridland el al (2016) acknowledge the limitations of using supplied rather than participant generated elements in their study, but conclude that personal construct dependency grids offer promise as both a research and clinical tool for adolescents with ASD.

In the present study, established PCT techniques were employed to elicit and explore relationship constructs for adolescents with ASD. By adopting a PCT framework sensitive to the social communication needs of individuals with ASD, the study allows for a more comprehensive appreciation of the social world of these adolescents.

The following three research questions were addressed:

1) How do adolescents with ASD describe interpersonal relationships?

2) From participants' exploration of personal constructs, what can be inferred about the development of successful interpersonal relationships for adolescents with ASD?

3) How useful are the PCT techniques of construct elicitation and laddering to explore relationship formation in this group of adolescents?

2.0 Method

2. 1 Design

This study used an exploratory qualitative design, incorporating PCT techniques within a semi-structured interview. The two PCT techniques used were a dyadic construct elicitation task to expose the constructs by which the participants made sense of their world (Hagans, Neimeyer & Goodholm, 2000) and 'laddering' (Hinkle, 1965) which illuminates a hierarchy of super and subordinate constructs. Traditionally, constructs have been elicited using a triadic method, presenting the respondent with three elements and asking in what way two are alike and different from a third (Fransella, 2005). However, as Butler and Green (1998) comment, this approach can be conceptually difficult for young respondents. Dyadic elicitation is considered a less demanding task. It involves the respondent first identifying the similarity between two elements (in this case friends), thereby defining one pole of a construct, before identifying the opposite of that similarity (the contrast pole). Laddering is a technique through which a 'ladder' of interlinking constructs is built leading to more core constructs on which an individual bases their world view. This is usually achieved by repeatedly asking why a construct is important to the individual, moving from context dependent to core constructs.

2.2 Participants

The inclusion criteria were that participants: had a previous formal, diagnosis of ASD or Asperger's syndrome; were aged between 13-18 years; had no identified intellectual disability; had no additional mental or physical health problems; and were participating in mainstream education. Efforts were made to recruit both boys and girls.   Eight participants were recruited, two girls and six boys. Six had a diagnosis of Asperger's syndrome, one of ASD, and one of autism (Table 1). Only two of the eight participants lived with both birth

parents. Three lived with their mother and stepfather, two with their mother as a sole carer, and one with his grandparents.

Table 1: Demographic details of participants

Participant Name*	Age	Diagnosis	Age at time of diagnosis	Household
Matthew	16	ASD	5	Grandmother Step-Grandfather
David	15	Asperger's syndrome	7	Mother, step-father, younger brother (13 years old)
Sarah	15	Autism	10	Mother, step-father, older sister (19 years old)
Tom	15	Asperger's syndrome	5	Mother, step-father, younger brother (11 years old)
James	14	Asperger's syndrome	6	Mother, 3 older brothers (17, 20, 21 years old)
Simon	14	Asperger's syndrome	9	Mother, Father younger brother (11 years old)
Jenny	13	Asperger's syndrome	12	Mother, younger sister (10 years old) younger brother
Edward	13	Asperger's syndrome	12	Mother, Father, younger brother

* pseudonyms used

2.3 Procedure

The research was conducted in compliance with the British Psychological Society Code of Practice and with the approval of a University ethics committee. Participants were recruited via an ASD support charity and a mainstream secondary school. Participants were interviewed once in their own home, the interview lasting 50-90 minutes. At the start of each

interview, the researcher met with participants and their parent(s)/guardian(s) jointly to discuss issues of consent. All interviews were audio recorded and subsequently transcribed.

Participants were asked to write on cards the names of 10 important people in their lives. These names were used as "elements" for the PCT exercise. Participants were then invited to pick pairs of elements and, for each pair, to identify a characteristic or similarities shared by the selected individuals.   Participants were asked to name the opposite of each characteristic / similarity. This is known as the "opposite method" of construct elicitation. Each similarity with its corresponding opposite constitutes a bipolar construct.

Laddering involved participants saying which pole of a characteristic/trait they preferred. The researcher then asked why this characteristic/trait was important. Within their explanation, participants typically described constructs closer to their core values. The researcher again asked participants to identify the opposite of these new traits/characteristics, select their preferred pole, and offer a reason for their choice. The process is outlined in *Figure 1,* which includes the questions put to the participant by the researcher.

Participant	Sarah		
Dyadic elements	Mother	Father	
Bipolar construct "In what way are these two people similar" Followed by "Which would you rather be? Which is better?"	There for me	…………………………………	Not really caring
Preference	↑		
Rationale "Why is (selected pole) better?"	Sarah: "Because, if I like need anything, or just like need some help, I can go and talk to them... someone's going to be there"		

Figure 1: Bipolar construct for "There for me/ Not really caring".

2.4 Data analysis

Analysis followed Braun and Clarke's (2006) guidance on thematic analysis. The interviews were transcribed and repeatedly read by the researcher. Initial codes were generated to reflect the most basic elements of the raw data, with particular emphasis on developing codes regarding the nature of /maintenance of interpersonal relationships. From the long list of themes produced, the researcher then looked for broader overarching themes and interrelationships.

The research was guided by Yardley's (2000) four principles for quality in qualitative research; "sensitively to context; commitment and rigour; transparency and coherence; impact and importance" (Yardley, 2000, p. 215).

3.0 Results

3.1 Element identification

The majority of participants (6/8) were able to identify 10 individuals as elements in the exercise. Two participants, David and Sarah, found identifying individuals particularly challenging. With encouragement, David was able to name seven and Sarah nine elements. However, in both cases, non-specific elements were included (for example, writing the word "friends" instead of the names of specific individuals).

The elements identified by participants could be classified under eight groupings: parents/step-parents, siblings, extended family, friends, teachers, celebrities, the police, and pets. Matthew was the only individual to include celebrities and the police. It is of note that Matthew had an unsettled family background and was currently living with his grandparents.

3.2 Thematic Analysis

The thematic analysis of interview transcripts identified four main themes: relationships as a source of support; perceptions of similarity and difference; valued qualities in self and others; and the development and maintenance of relationships. These themes highlighted not only the similarities between participants but also considerable differences in the way participants viewed themselves and their relationships. To illustrate each theme, examples of constructs and explanations from within the textual data are presented.

3.2.1 Relationships as a source of support

Construct elicitation involving family members as elements highlighted a degree of consensus between participants, with access to dependable support reported as a salient and much valued feature of these relationships. This is illustrated by the bipolar construct "There for me/Not really caring" (*Figure 1)* described by Sarah.

Whilst James highlighted the loving nature of his family relationships and Matthew spoke of the kindness of his grandparents, for Tom a salient feature of parental support was

their guidance: "They support me and guide me through life until I can make more decisions on my own". Sarah and Jenny emphasised the supportive nature of family relationships. However, both individuals notably acknowledged difficulties in peer relationships and so possibly lacked alternative sources of support.

Outside of the family the protective nature of friendships was acknowledged by a number of participants. Friends could "prevent you from being lonely" (James) and were "there to turn to" (Edward) when feeling threatened. Indeed, a lack of friendships could lead to vulnerability, with Jenny commenting, "If you don't make so many friends, it would be easier to make enemies" and Edward noting, "If you don't have friends there's no one really there for you except for you and your family". Only three participants spoke of having contact with friends outside of school. For Simon, this degree of contact was particularly important, as illustrated in *Figure 2*.

Participant	Simon		
Dyadic elements	Friend (A)	Friend (B)	
Bipolar construct	Being there ……………………………………………		Not being there when you most need them
Preference	↑		
Rationale	"Well, if you're bored or upset. I was staying with my grandmother and I knew that [name of friend] was just over the phone, so I was calling him, talking to him. Then, when we got back we arranged to go out to the cinema. It was just nice."		

Figure 2: Bipolar construct for Being there / Not being there when you most need them.

The importance of reciprocation in friendships was highlighted by Simon, James and Matthew, "I help him a lot, and he helps me" (Matthew). It is of note that two individuals who reported a history of difficulty in their peer relationships at school, Jenny and Matthew,

included authority figures in their important relationships and spoke of valuing the support and guidance these individuals had given them; "I talk to my teacher, Miss Johnson…I don't have her as my teacher for Year 8, but I still see her every week" (Jenny). Matthew identified "the police" as one of his elements. Although he was subsequently able to identify a specific police officer, it is possible that Matthew's choice may have symbolised the police generally and possibly a need for authority figure in his context.

3.2.2 Perceptions of similarity and difference

Participants held a range of perspectives regarding their perceived similarity to, or difference from, the important people in their lives. Some participants identified positively with a sense of difference, some were less comfortable with their perceived differences, whilst others strongly identified with a sense of similarity to friends or family.

David spoke of valuing his and his friend's individuality, explaining that this quality contributed to their being more "interesting", and, therefore, less "boring" than other people. Similarly, Simon strongly identified with being "unique", explaining this uniqueness had helped him to develop positive relationships at school. It is of note that Simon was the only participant to distinguish between the feeling of connectivity he experienced within his friendship group and the sense of difference he experienced within the wider school community: "In my friendship group I can certainly connect myself to others, but I suppose I'd be unique around the school".

James saw a great deal of similarity between himself and his best friend, commenting that his description of his best friend could also apply to him. Similarly, Tom believed a good friend should be like a "mirror" to the self, as outlined in the bipolar construct "Good friend/ Enemy" (*Figure 3*).

Participant	Tom		
Dyadic elements	Friend	Brother	
Bipolar construct	Good friend …………………………………………….		Enemy
Preference	↑		
Rationale	"Trust, similarities, like a favourite TV series, favourite music, favourite food. They are like a mirror, you look at them and you see a bit of yourself in them."		

Figure 3: Bipolar construct for Good friend / Enemy.

Despite valuing these similarities, Tom also spoke of his friends holding different perspectives, and, whilst these differences could lead to enjoyable and enlightening discussions, he noted they could often be confusing, "They [two best friends] both like what I like but it's kind of confusing because, say if there's a TV show, they both like it but they both have their different opinions about it". This example demonstrates the quite dyadic construing of Tom, with the expectation that once similarity was established there should be no nuanced differences.

The experience of perceived differences was less positive for participants who had encountered difficulties in their peer relationships. Matthew, who reported experiencing considerable bullying at school, recognised his difference and spoke of wishing to be more like his two best friends, both of whom presented with a physical disability. When discussing the bipolar construct disabled/non-disabled (*Figure 4*), Matthew expressed a preference for being disabled, saying, "I recon I'd be respected because I, because my mate [who is physically disabled], he doesn't get disrespected, so I wouldn't". By identifying a clausal relationship between, in his words, "physical deformity" and peer respect, Matthew's comments suggest some acknowledgement of his difference, but linking visible difference to respect, infers that, because his disability is not obvious, people do not attribute his difference

to disability but perhaps to a choice to be different. Matthew's description of ASD as "a difficulty of anger" is of note.

Participant	Matthew		
Dyadic elements	Friend (A)	Brother	
Bipolar construct	Disabled	………………………………………….	Non-disabled
Preference	↑		
Rationale	"Because I would get a lot of respect and that, but, the way I am now, I get no respect"		

Figure 4: Bipolar construct for Disabled/ Non-disabled.

Managing difference was a salient theme within Jenny's transcript. She spoke of having to hide her Asperger's from friends using a number of different "masks".

With my really, really close friends I can be more me, but to friends I've just recently made I'd still be my sort of my mask, my hidden self, and what I would do is I'd try to be like them so I'd try not to mirror them but I would find what they have interests in and I would compare things of interest and I would talk about that a lot because it would start conversations easily. (Jenny)

Edward differentiated between his Asperger's syndrome and autism, explaining that he had learnt about autistic people at school: "In English we read about people with autism and in form time we looked at people who have autism and how their life is different to ours". Whilst he does not explain *how* people with autism are different, he clearly identifies with his none-autistic peer group. Edward described Asperger's syndrome as impacting primarily upon his interactions with new people, rather than existing relationships, commenting that he found it "hard to talk" to people he had not met before.

Whilst Simon strongly identified with, and took pride in, being different from his peer group, it is of note that he comments life would be much the same if he were not to be autistic; "I sometimes think about it [not having Asperger's syndrome], what would life be like, but I'm assuming it wouldn't be much different really."

3.2.3 Valued qualities in self and others

The attributes and qualities participants considered important within interpersonal relationships varied considerably. Where common traits did emerge, the basis on which these perceptions were formed was frequently very different. Matthew and James both spoke of the importance of respect within peer relationships. Matthew, the only participant to include celebrities in his list of important people, commented on how his favourite wrestlers were physically large and had the power to demand respect: "You've got to give them respect because if they are bigger than you and if you disrespect them they are going to knock you down". Mathew considered his unimposing size and absence of physical disability to be the main reasons why he was not given respect by his peers. James spoke of the importance also of having "self-respect" so that people do not "walk all over you".

For Edward, respect within friendships was very much related to trust; if people did not respect you they broke your trust. This is illustrated in *Figure 5*, also showing how 'laddering' occurred for the bipolar subordinate construct "Trustworthy/unreliable" to the core superordinate construct "Respect/treat you badly".

Participant	Simon	
Dyadic elements	Friend A	Friend B
Subordinate Bipolar construct	Trustworthy …………………………………… Unreliable	
Preference	↑	

Rationale	"Because people can tell you stuff and they have like, they trust you to keep it like secret and they have respect for you so they're willing to tell you things they're not willing to tell anyone else."
Superordinate Bipolar construct	Respect ……………………………………… Unwanted
Preference	↑
Rationale	"So that, if you respect someone else, they'll respect you and they won't treat you badly. I've had friends in the past that I kind of fell out with and never got back to know them again because they would say something and I would find out it wasn't true and then get angry with them and they lost my trust."

Figure 5: Bipolar constructs for Trustworthy / Unreliable and Respect / Unwanted

Trust was a salient theme throughout Jenny's interview. She believed being unable to trust affected her ability to make friends and that other people, who were better able to trust, made friend more easily as a consequence: "I suppose for some people it's easier, because they trust people easier, whereas I'm just a bit more wary, only trusting someone 100% when I've known them for a long time". For Jenny, trust was very much linked to understanding: "The more you understand someone, the more trust you can have". Interestingly, Jenny described feeling unable to trust her father as he himself had ASD, making him harder to understand than non-autistic people:

I don't trust my dad much. I don't understand him very well. He's autistic, and he's not strange, he's different. So it's hard to understand him because I spend most of my day trying to be normal and to understand people but with my dad it's hard to understand him because he's so different. (Jenny)

James also spoke of trust, commenting that his parents' ability to have a good time socially demonstrated this quality: "Having a good time with friends can show you that you can put your trust in other people, and erm, and they can give you their trust" (James).

The use of humour within relationships was highlighted as important by several participants. However, participants held different views about the function of humour. Simon explained that knowing he had made his friends laugh and feel good made him feel good in turn, as described in *Figure 6.*

Participant	Simon	
Dyadic elements	Mum	Friend
Bipolar construct	Good sense of humour	……………………………………… Very serious
Preference	↑	
Rationale	"It just makes me feel good that I've made someone happy, I guess, and it's not all to do with they won't get annoyed and you won't feel bad. You'll feel bad, if you get them annoyed, but you'll feel good, if you make them laugh and you know it's just funny."	

Figure 6: Bipolar construct for Good sense of humour / very serious

For Simon, the role of humour was to support an enjoyable and engaging exchange between friends. He emphasised the importance of reciprocity within a humorous exchange and spoke of judging the appropriateness of jokes, "If you play a joke on them [a friend] they'll laugh about it and they can do the same to you and it's all just, in the end, it's all good fun, as long as it isn't anything too serious".

By contrast, Edward and Jenny spoke of humour as a social skill, the use of which could help an individual feel accepted within their peer group. Edward warned that an individual who lacked a sense of humour would risk being ignored by peers at school, as illustrated in *Figure 7.*

Participant	Edward		
Dyadic elements	Friend (A)	Friend (B)	
Bipolar construct	Funny	……………………………………	Not a good sense of humour
Preference	↑		
Rationale	"People aren't going to, erm, want to listen to you because what you're saying isn't like very funny, it's just like garbage. No one's going to want to listen to it."		

Figure 7. Bipolar construct for Funny / Not a good sense of humour.

James was willing to forgive his friend's less desirable qualities as he considered him funny, "Rob, he's a bit slimy, but he's funny and stuff". Humor was also a valued quality in family relationships for Matthew, who described his sister as "beautiful and funny".

Many participants identified bipolar constructs relating to intelligence, with which they positively identified. For Simon, having an area of expertise opened the possibility of engaging with other people with similar or even different areas of interest. Tom spoke positivity about being "nerdy":

 "I enjoy being nerdy I suppose. It kind of comes with intelligence maybe. I kind of get the effect that, if I'm smart, that kind of feels good".

Matthew, despite talking primarily about the difficulties and challenges he experienced, maintained a positive sense of his own intelligence and spoke of how being "smart" would help him in the future, "I could get a job, maybe go to uni". Tom spoke of intelligence not only in terms of academic attainment but as emotional intelligence, a key to understanding the emotional states of others, and privileged that as a more important construct (see *Figure 8*).

Participant	Tom		
Dyadic elements	Girlfriend	Best Friend	
Bipolar construct	Intelligence	……………………………………………	Stupidness
Preference	↑		
Rationale	Tom: "Well, it's important for grades and understanding the difference between right and wrong" Interviewer: "And why is that important?" Tom: "Well say if someone was upset, you could understand their feelings."		

Figure 8: Bipolar construct for intelligence / stupidness

3.2.4 The development and maintenance of relationships

Some participants spoke of their effort to develop social skills and consequently their friendship network, whereas others, who had possibly experienced less difficulty in this regard, spoke of the importance of actively maintaining relationships.

James noted the importance trying to engage with others, which he suggested could lead to greater reciprocity within a relationship. This could be accomplished by providing "complements and [saying] how are you? How are you doing? Stuff like that, because then you are being listened to and you're listening to someone else" (James). The seemingly rote learnt style of interaction described by James is perhaps shared by Jenny who reflected on how important her sister had been in helping her develop the skills to build friendships. This help centred around practical advice on such matters as what gifts to buy a friend and involved an element of modelling behaviour as Jenny reported observing her sister's interactions with friends. However, despite evidence of rote learning, Jenny appeared motivated to develop her skills and was engaged in active strategies to improve. For

example, she spoke of not knowing "what to expect" in social situations, but would frequently seek guidance from her mother. She spoke also of having sort advice about engaging in humorous exchanges with her friends, explaining that, "If one of them makes a joke, I know to laugh".

Whilst she expressed concern that her lack of understanding of other people limited her social opportunities, she acknowledged that a "fresh start" at secondary school and her concerted effort to engage in conversations had helped her:

> Every morning I say hello to at least all of my friends, and that slowly builds up the trust between us and I find that easier. Each day I can talk to them more and I can relax around them more and understand them more. (Jenny)

The importance of having a friend playing the role of mentor is demonstrated by the accounts of Sarah and Edward, the former seemingly lacking this relationship and the latter having a friend who filled this role. Sarah, who had experienced difficulties in her peer group relationships, remained unable to initiate or participate meaningfully in conversations at school. "Sometimes it leaves me feeling upset and annoyed because I wish I could do it because something's stopping me from doing it and I just can't make myself do it, it's too hard" (Sarah). Edward spoke of the important role his relationship with his best friend had played in helping him develop the skills and motivation to engage with a wide range of ideas and perspectives. He perceived this relationship as a fertile experience which had helped him to develop new knowledge and understanding.

> ...[W]hen I was younger I wasn't very smart, and everything just seemed a bit pointless,… but now that I hang out with Max who is very intelligent, I have a better understanding and view of things..... We have very intelligent conversations, just talking really like. Views on religion for example, both looking at a good perspective and a bad perspective has given me a better understanding of opinion really. (Edward)

4.0 Discussion

This study applied PCT methodology to explore how adolescents with ASD describe relationships, and what can be inferred about the development and maintenance of successful interpersonal relationships for these individuals.

Thematic analysis of the construing interviews revealed participants often viewed relationships with both family and friends in terms of the support and protection they afforded. This finding is encouraging given that previous research (Symes & Humphrey, 2010) has identified lower levels of perceived family support amongst adolescents with ASD when compared to the perceptions of same age peers without ASD. The type of support identified very much echoed that found by Cridland et al (2016) in terms of primarily seeking practical, problem based help, but these findings also highlighted the need for emotional support. The importance of siblings, not only in offering practical support, but also as mentors, explaining and modelling appropriate pro-social behaviour, supports the previous findings of both Cridland et al (2016) and Tierney, Burns, and Kilbey (2016).

The experience of relationship difficulties emerged as an important factor determining how comfortable participants felt about their perceived similarity to, or difference from others. However, all participants viewed friendships as desirable, reinforcing the findings of Bauminger and Kasari (2000) and Cridland et al. (2015). Molloy and Vasil (2001) have argued that ASD might be more appropriately considered a difference rather than a disability. This distinction is reflected by those participants in the present study who reported little difficulty in their interpersonal relationships, but spoke instead of valuing the uniqueness or individuality that came with being *different*. The experience of other participants, however, resonates more closely with Firth's (2004) account, that many individuals with ASD are often acutely aware of their social deficits and can recognise the comparative ease with which others are able to interact, and this causes distress.

Both female participants reported peer relationship difficulties. In line with previous research findings (e.g. Carrington, Templeton & Papinczak, 2003), one spoke of 'masking', attempting to fit in by wearing a metaphorical mask to hide her difference. By contrast, a number of the male participants talked about their difference in a positive way.

In describing valued qualities in self and others, participants emphasised the importance of trust and respect within relationships. Understanding others enabled trust to be established, whilst other's unpredictability could lead to an erosion in trust.

Intelligence was identified as an important quality in terms of prospects, whilst interpersonal skills were valued as a means through which relationships could be established and maintained. The distinction made by Minihan, Kinsella and Honan (2011) between social *skills* (learnt behaviours which enable an individual to complete certain tasks) and social *competence* (the ability to engage in meaningful, emotion-based relationships) is relevant when considering how participants developed their relationships, particularly through the use of humour, of which there were varying levels of understanding. For one participant, recognising when to laugh was a social skill she had acquired, whereas another participant described being able to engage in an emotion-based, reciprocal, exchange with friends – sharing a joke and having fun rather than reacting in a rote learnt manner. Humour often depends upon the individual being able to shift perspective, to view the world from a position other than their own. Samson and Hegenloh (2010) found that individuals with ASD often struggle to comprehend jokes which require perspective taking. In PCT, perspective taking, the ability to construe another's construing, is considered essential to the development of meaningful relationships. This represents an area of considerable difficulty for many individuals with ASD (Cridland et at, 2014a).

In summary, whilst a number of participants reported experiencing significant difficulties interacting with peers and establishing friendships, most spoke positively about

their relationships. The development of successful relationships was acknowledged to be an active process which could be supported by the use of humour and shared interests. Participants showed a range of depth of understanding of these dynamics, possibly reflecting the complexity of their construct frameworks. Friends and siblings were recognised as important allies in the development of social skills, by modelling, mentoring, and providing the opportunity to practice interactions.

Social skills training programs are a widely used means of helping young people with ASD develop the tools to establish and maintain relationships (for a review see Cappadocia & Weiss, 2011). However, a limitation of these programs has been the relatively poor generalisation of new social skills outside the group setting (Laugeson, Frankel, Gantman, Dillon & Mog, 2012). One approach to addressing this issue has been to involve peers (other children without ASD), an addition which has yielded positive outcomes (for example, Bauminger, 2002). The findings of the present study would support the use of peer based learning in the development of social skills for adolescents with ASD. That siblings were also identified as important role models would further support the conclusions of Castorina and Negri (2011) who found that their involvement had a positive influence on social skills training outcomes.

The research of Miczo (2004) highlights the importance of humour ability in predicting an individual's willingness to communicate with others, their sense of loneliness and perceived stress. Indeed, given the prominence of humour within everyday social interactions, supporting adolescents with ASD to better understand and use humour might help mitigate some of the reported difficulties this population experience in grasping the subtleties of relationship dynamics (Carrington et al. 2003).

This study has a number of strengths and limitations. The benefit of the PCT methodology employed has been twofold. Firstly, it privileged the perspectives of

participants, acknowledging that they themselves are the architects of their own reality (Butler & Green, 1998). Secondly, the personal construct methodology provided a highly-structured interaction which, it is argued, helped mitigate potential communication difficulties. Cridland et at, (2014, 2015, 2016) present PCT as a useful framework for understanding the experiences of young people with ASD, and for supporting the young people themselves in understanding their own experiences. However, some participants more than others were able to easily identify elements (people) to include. Others struggled, naming pets and famous people instead. Whilst the quality of these relationships may be different, their relevance should not be dismissed as they clearly played a role where conventional relationships were absent, and were perhaps chosen for symbolic reasons, e.g. the police providing Mathew with an authority figure.

The disconnected nature of the constructs generated by the participants concurred with previous research findings, but also challenged the process of laddering, as it was not always clear how one construct linked with another, nor that one construct was superordinate over another. Whilst laddering may be a useful way of exploring what, and how, constructs might connect, with this population it cannot perhaps be relied upon to generate a hierarchy and the circular questions approach to generate superordinate and subordinate needs further testing.

PCT is both a research and a therapeutic approach. The findings of this study suggest that individual work focusing on core constructs and the framework in which they are embedded would be valuable. The concrete and non-interpretational approach of PCT possibly lends itself to the cognitive style of young people with ASD as it provides a structured, progressive exploration. Many people with ASD may find open-ended therapeutic conversational styles anxiety provoking, but PCT offers a scaffolding of the conversation, moving from the superficial to greater emotional depth, in a graded way. Social Skills training with individuals is now well established, but the findings of this study point to the

need to ensure this is considered in a gendered way, acknowledging the differences between how male and female adolescents develop their social networks and interact within friendship groups. Humour was identified as a particularly significant social skill at this developmental stage, but to use it requires an understanding of the complex dynamics and symbolism reflected in the interpersonal dynamics of the young person's social circle. Hence, it is particularly important for humour to be considered within social skills training programmes.

5.0 Conclusion

The present study builds upon existing work by applying established PCT research methodology to further develop our understanding of the experiences of adolescents with ASD. The methodology employed, and a range of similar PCT methodologies, hold promise for further application in ASD research and support the previous work of Cridland et al (2014a) in terms of the possible differences in the construing styles of adolescents with ASD. This opens therapeutic possibilities using PCT which should be explored further. The differences emerging between the management of social relationships between boys and girls with ASD found in other studies were reflected in these findings and point to the need to consider gender differences in further research and therapeutic work. Building on previous findings the participants in this study were actively engaged and motivated to develop their supportive relationships, some more successfully than others, and all were trying to integrate their ASD identity with that of their peers.

References

Bauminger, N. (2002). The facilitation of social-emotional understanding and social interaction in high-functioning children with autism: Intervention outcomes. *Journal of Autism and Developmental Disorders*, *32*, 283-298.

Bauminger, N., & Kasari, C. (2000). Loneliness and friendship in high-functioning children with autism. *Child Development*, *71*, 447-456.

Bradford, K. (2010). Supporting families dealing with autism and Asperger's disorders. *Journal of Family Psychotherapy*, *21*(2), 149-156.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*, 77-101.

Butler, R. J., & Green, D. (1998). *The child within: The exploration of personal construct theory with young people*. Oxford: Butterworth-Heinemann.

Cage, E., Bird, G., & Pellicano, E. (2016). "I am who I am": Reputation concerns in adolescents on the autism spectrum. *Research in Autism Spectrum Disorders*, *25*, 12–23. Cappadocia, M. C., & Weiss, J. A. (2011). Review of social skills training groups for youth with Asperger syndrome and high functioning autism. *Research in Autism Spectrum Disorders*, *5*, 70-78.

Castorina, L. L., & Negri, L. M. (2011). The inclusion of siblings in social skills training groups for boys with Asperger syndrome. *Journal of Autism and Developmental Disorders*, *41*, 73-81.

Carrington, S., & Graham, L. (2001). Perceptions of school by two teenage boys with Asperger syndrome and their mothers: A qualitative study. *Autism*, *5*(1), 37-48.

Carrington, S., Templeton, E., & Papinczak, T. (2003). Adolescents with Asperger syndrome and perceptions of friendship. *Focus on Autism and Other Developmental Disabilities*, *18*, 211-218.

Cridland, E. K., Caputi, P., Jones, S. C., & Magee, C. A. (2014a). Understanding high-functioning autism during adolescence: A personal construct theory approach. *Journal of Intellectual and Developmental Disability*, *39*, 108-118.

Cridland, E. K., Jones, S. C., Magee, C. A., & Caputi, P. (2014b). Family-focused autism spectrum disorder research: A review of the utility of family systems approaches. *Autism*, *18*, 213-222.

Cridland, E. K., Caputi, P., Jones, S. C., & Magee, C. A. (2015). The perceptions and experiences of adolescent boys with autism spectrum disorder: A personal construct psychology perspective. *Journal of Intellectual and Developmental Disability*, *40*, 354-367.

Cridland, E. K., Jones, S. C., Caputi, P., & Magee, C. A. (2015b). Qualitative research with families living with autism spectrum disorder: Recommendations for conducting semi-structured interviews. *Journal of Intellectual and Developmental Disability*, *40*, 78-91.

Cridland, E. K., Caputi, P., Walker, B. M., Jones, S. C., & Magee, C. A. (2016). A personal constructivist approach for investigating the patterns of dependency of adolescents with autism spectrum disorder: case study of two families. *Journal of Constructivist Psychology*, *29*, 30-50.

Feldhaus, C., Koglin, U., Devermann, J., Logemann, H., & Lorenz, A. (2015). Students with Autism Spectrum Disorders and their neuro-typical peers- differences and influences of loneliness, stress and self-efficacy on life satisfaction. *Universal Journal of Educational Research*, *3*, 375-381.

Firth, U. (2004). Emanuel Miller lecture: Confusion and controversies about Asperger

Syndrome. *Journal of Child Psychology and Psychiatry*, *45*, 672-678. Retrieved from

http://disturbiosdodesenvolvimento.yolasite.com/resources/utah_frith_sindrome_asperg

er_2004.pdf

Fransella, F. (Ed.). (2005). *The essential practitioner's handbook of personal construct*

psychology. Chichester, UK:John Wiley & Sons.

Gifford-Smith, M.E., & Brownell, C.A. (2003). Childhood peer relationships: social

acceptance, friendships, and peer networks. *Journal of School Psychology, 41*, 235–

284.

Hare, D. J. (1997). Use of repertory grid techniques in working with people with learning

disabilities. *Journal of Intellectual Disabilities*, *1*, 115–9.

Hare, D. J., Jones, J. P. R., & Paine, C. (1999). Approaching reality: the use of personal

construct assessment in working with people with Asperger syndrome. *Autism*, *3*, 165-

176.

Hare, D. J., Searson, R., & Knowles, R. (2011). Real listening–using personal construct

assessment with people with intellectual disabilities: two case studies. *British Journal of*

Learning Disabilities, *39*, 190-197.

Hagans, C. L., Neimeyer, G. L., Goodholm, C. R., (2000). The effect of elicitation methods

on personal construct differentiation and valence. *Journal of Constructivist*

Psychology, *13*, 155-173.

Hinkle, D. N. (1965). *The change of personal constructs from the viewpoint of a theory of*

construct implications (Doctoral dissertation, Ohio State University). Retrieved from

http://www.pcp-net.org/journal/pctp10/hinkle1965.pdf

Kelly, G. (1955). *The psychology of personal constructs.* New York: Norton.

Knott, F., Lewis, C., & Williams, T. (1995). Sibling interaction of children with learning disabilities: A comparison of autism and Down's syndrome. *Journal of Child Psychology and Psychiatry*, *36*, 965–976.

Lasgaard, M., Nielsen, A., Eriksen, M. E., & Goossens, L. (2010). Loneliness and social support in adolescent boys with autism spectrum disorders. *Journal of autism and developmental disorders*, *40*, 218-226.

Mazurek, M. O. (2013). Loneliness, friendship, and well-being in adults with autism spectrum disorders, *Autism, 18*, 223-232.

Miczo, N. (2004). Humor ability, unwillingness to communicate, loneliness, and perceived stress: Testing a security theory. *Communication Studies*, *55*, 209-226.

Minihan, A., Kinsella, W., & Honan, R. (2011). Social skills training for adolescents with Asperger's syndrome using a consultation model. *Journal of Research in Special Educational Needs*, *11*, 55-69.

Molloy, H., & Vasil, L. (2002). The Social Construction of Asperger's Syndrome: The pathologizing of difference? *Disability and Society*, *17*, 659-669.

Orsmond, G. I., & Kuo, H. Y. (2011). The daily lives of adolescents with an autism spectrum disorder Discretionary time use and activity partners. *Autism*, *15*, 579-599.

Petrina, N., Carter, M., Stephenson, J., & Sweller, N. (2016). Perceived Friendship Quality of Children with Autism Spectrum Disorder as Compared to their Peers in Mixed and Non-mixed Dyads. *Journal of autism and developmental disorders*, *46*, 1334-1343.

Proctor, H. G. (2001). Personal construct psychology and autism. *Journal of Constructivist Psychology, 14*, 107-126.

Samson, A. C., & Hegenloh, M. (2010). Stimulus characteristics affect humor processing in individuals with Asperger syndrome. *Journal of Autism and Developmental Disorders*, *40*, 438-447.

Sharma, S., Winter, D., & McCarthy, M. (2013). A personal construct approach to understanding stress in mothers of children diagnosed with autism spectrum disorders. *Journal of Constructivist Psychology*, *26*, 50-61.

Scheeren, A. M., Banerjee, R., Koot, H. M., & Begeer, S. (2016). Self-presentation and the role of perspective taking and social motivation in autism spectrum disorder. *Journal of Autism and Developmental Disorders*, *46*(2), 649-657.

Strang, J. F., Kenworthy, L., Daniolos, P., Case, L., Wills, M. C., Martin, A., & Wallace, G. L. (2012). Depression and anxiety symptoms in children and adolescents with autism spectrum disorders without intellectual disability. *Research in Autism Spectrum Disorders*, *6*, 406–412.

Symes, W., & Humphrey, N. (2010). Peer-group indicators of social inclusion among pupils with autistic spectrum disorders (ASD) in mainstream secondary schools: A comparative study. *School Psychology International*, *31*, 478-494.

Tierney, S., Burns, J., & Kilbey, E. (2016). Looking behind the mask: Social coping strategies of girls on the autistic spectrum. *Research in Autism Spectrum Disorders*, *23*, 73-83.

Thomas, S., Butler, R., Hare, D. J., & Green, D. (2011). Using personal construct theory to explore self-image with adolescents with learning disabilities. *British Journal of Learning Disabilities*, 39, 225-232.

Tsao, L. L., & Odom, S. L. (2006). Sibling-mediated social interaction intervention for young children with autism. *Topics in Early Childhood Special Education*, *26*, 106-123.

Whitehouse, A. J., Durkin, K., Jaquet, E., & Ziatas, K. (2009). Friendship, loneliness and depression in adolescents with Asperger's Syndrome. *Journal of Adolescence*, *32*, 309-322.

Yardley, L. (2000). Dilemmas in qualitative health research. *Psychology and Health, 15*, 215-228.