Title: Social Cognitive Causes of Aggression for Adults with an Intellectual Disability.

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DECLARATION

The candidate confirms that the work submitted is her own and that appropriate credit has been given where reference has been made to the work of others.

The two research studies presented in this thesis were carried out by the candidate whilst working as part of a research group on a study funded by the Scottish Executive, looking at causes of aggression for people who have an intellectual disability. These studies explore research questions which compliment the larger research study, however they explore separate and distinct research questions. The development and piloting of the assessments used in these studies, and all data collection, was carried out by solely by the candidate

The candidate confirms that this thesis has not been submitted in candidature for any other degree, diploma or professional qualification.

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Date: .....10th.....May.....2005

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ABSTRACT

The two exploratory studies presented in this thesis were carried out with 20 Aggressive and 20 Non Aggressive men and women who have an intellectual disability. In study one the 'Goals and Outcomes of Aggression and Submissiveness' (GOAS) assessment was devised to explore whether group or gender differences could be found in participants' expected outcomes of aggressiveness, their expected outcomes of submissiveness and their emotional reaction to these outcomes. Differences in the social goals underlying their anticipated behavioural reactions in hypothetical situations of conflict were also explored. It was shown that Aggressive and Non Aggressive participants expect different outcomes for submissiveness and have different social goals. There were no differences across these in their expected outcomes of aggression and no gender differences were shown.

In study two group and gender differences in participants' views of Self and/or their views of a stereotyped Aggressive character (SAG) were explored. Also, participants' ratings for Self were compared with those for the SAG character to identify similarities and differences across these identities. For this purpose the 'Self Perceptions and Aggressive Identity' (SPAGI) assessment was devised, which includes predefined descriptors in three domains of Interpersonal Power, Social Identity and Emotions. Differences were found in Aggressive and Non Aggressive participants' views of Self in the domain of Interpersonal Power, with Aggressive participants expecting themselves to have lower power than did Non Aggressive participants. One difference was shown in the Emotions domain for self perceptions. No differences were shown across groups in their views of the SAG character and no gender differences were found. It is concluded that these studies offer tentative evidence of the need for broader assessments of aggression taking social cognitive factors into account.

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CHAPTER ONE: INTRODUCTION.

The term 'intellectual disability' is commonly used in the United Kingdom, North America and Australia to describe people who have, (a) significant sub-average intellectual functioning as measured on standard intelligence tests, (b) difficulties in functioning in two or more specified areas of adaptive behaviour exceeding that expected given the age and cultural context, and (c) where the disability onset occurred before the age of 18 years. These criteria are broadly those included in the International Classification of Diseases (ICD-10), Diagnostic Statistical Manual (DSM-IV) and American Association on Mental Deficiency (AAMD) diagnostic classification systems. The terms 'mental retardation' and 'learning disability' are also commonly used to refer to the same population. The term intellectual disability will be used throughout this thesis. Where appropriate the terminology used by authors to describe participants and samples involved in their studies are used.

1.1. Prevalence of Aggression For People With An Intellectual Disability.

There is strong evidence that problems of verbal and physical aggression present a considerable challenge for services used by people who have an intellectual disability. Allen, (2000) reviewed studies exploring the prevalence of challenging behaviours including aggression, and highlighted the difficulty in comparing epidemiological studies due to the variability in definitions of aggression. He found prevalence rates varying from 2% to 20% depending on the sampling procedure, with

rates tending to be higher in institutional settings. Harris (1993) found prevalence rates of 38.2% in hospital settings compared with a lower rate of 9.7% in community day care facilities in his survey conducted in the south west of England. Another survey carried out by Smith, Branford, Collacott, Cooper & McGrowther, (1996) in Leicestershire showed prevalence rates of 40% for institutional settings and 23% for community settings. In a recent community based study Deb, Thomas & Bright (2001) considered the rate and types of behaviour disorder shown in a population of individuals with an intellectual disability in South Wales. The authors carried out a face to face interview with 246 clients and their carers, and administered the Disability Assessment Schedule (Holmes, Shah & Wing, 1982). It was found that 23% of the sample presented problems of aggression.

The resource implications of supporting individuals with problems of aggression is a real concern for social services and voluntary organisations working with consumers who have an intellectual disability. For example, Murphy, (1993) highlights that over 50% of the referrals to a specialist service in South East Thames Regional Health Authority were related to problems of physical aggression. Another concern is the impact that problems of aggression can have on the individuals' quality of life and the lives of their families and carers. It is generally recognised that the ability to deal appropriately with conflict is central to the survival of friendships (Shantz & Hartup, 1992) and aggressiveness commonly leads to community placement breakdown and loss of employment (Gardner & Moffat, 1990). Given this, there has been a surprising lack of controlled studies that explore the causes of aggression for people with an intellectual disability. Jahoda, Trower, Pert & Finn (2001) point out in their review paper that there remains a basic lack of understanding

of the underlying causes of aggression despite some encouraging developments in clinical interventions carried out with this client group. Whilst acknowledging advances in therapeutic approaches Jahoda *et al. (2001)* highlight the importance of discovering more about *"how people perceive their interpersonal world and want to be viewed by others"* (p 318). This study aims to advance our understanding of the underlying causes of aggressive behaviour presented by people with an intellectual disability, building on recent work looking at social cognitive factors with this client group.

In section one of this introduction chapter a brief review of common theoretical models of aggression is presented. In section two, research evidence illustrating the causes of aggression will be outlined. Treatment outcome studies are considered, as well as evidence from assessment studies that adopt the information processing model to identify causes of aggression. Some important limitations of previous research in this area and a number of significant gaps in the research literature to date are also highlighted.

1.2. Psychological Theories of Aggression.

As there is no reason to believe that the causes of aggression presented by people who have an intellectual disability are any different than those of the general population, it is worth starting by considering theories of aggression that have been proposed in the broader literature over the years. These range from biological and ethological theories, to those exploring aggression at a societal level. The intention is to give a brief illustrative overview of commonly cited models of aggression and to demonstrate the considerable development of theoretical models over recent decades.

1.2.1. Psychoanalytic Theories.

Although probably less influential today, it is worth starting by acknowledging the previous influence of psychoanalytic theories of aggression. Freud, (1917) proposed that aggression is instinctual and that, as with all instincts, the function of the aggressive drive is to reduce tension. The self destructive death wish, or Thanos, was believed by psychoanalysts to be the ultimate state which the individual strives towards in an attempt to eliminate tension (Buss, 1961). The opposite life force, referred to as Eros, was said by Freud to counteract this deathwish by a cathartic outward display of destructiveness. Psychoanalysts believe there is no need for a specific stimulus to elicit aggression, but that a build up of aggressive tension over a period of time is eventually discharged when this reaches a critical point.

1.2.2. Frustration - Aggression Theory.

The frustration - aggression theory was initially proposed by Dollard, Doob, Miller, Mowrer & Sears (1939), and represents an adaptation of drive theories, also incorporating aspects of learning theory. Unlike psychoanalytic theories, the frustation-aggression model does acknowledge an eliciting stimulus for aggression. In the early version of the theory Dollard *et al.* (1939) argued that frustration always leads to aggression and that aggression is always the result of frustration. However, the theory was readily discounted by subsequent research and a number of refinements to the original theory followed. In 1962 Berkowitz argued that anger can act as a mediator between frustration and aggression, and that no appraisal of 'being wronged' is necessary for anger to occur. It was shown that the likelihood of

aggression following anger was heightened by the co-existance of aggressive cues such as weapons of violence. Dollard *et al's* (1939) theory was further discounted by research that showed that frustration can also lead to depression (Seligman, 1972), and that individuals often engage in aggression for personal gain. Berkowitz (1979) showed that pain can also lead to aggression, and argued that appraisal theories of emotion are insufficient to account for accidentally induced pain which in turn evoke angry feelings. In 1990 Berkowitz further refined his theory, presenting a 'neo-associationist' model of anger. According to this model an aversive event leads to negative emotions which undergo a primary cognitive appraisal to label the emotion as anger or fear. Subsequent secondary appraisals are said to further define the emotions of anger and fear and ultimately influence the behavioural response, for example as fight or flight. However the theory has been criticised for failing to explain why negative emotions such as sadness, rather than anger or fear, should not be aroused (Power & Dalgleish, 1997).

1.2.3. Social Learning Theory / Reinforcement and Modelling .

The social learning theory first presented by Bandura (1973), views aggression as a result of observational learning and/or reinforcement of aggressiveness. Social Learning theorists focus on both the eliciting stimuli for aggression and the consequences of aggression. Aversive events are believed to lead to emotional arousal that may in turn lead to a number of possible outcomes including aggression. The particular response evoked will depend on learning experiences. The notion that aggression is maintained by outcomes that are expected to benefit the aggressive individual has been widely documented, (e.g., Fesbach, 1964; Buss,1961).

These perceived gains include instrumental reward, increased status and a heightened sense of power and control. Whilst social learning theories conform to the general parameters of behaviourism, cognitive processes such as rational problem solving can also be incorporated. The individual is said to engage in 'trial runs' of the behaviour in imagination to anticipate the likely outcomes before deciding how to act.

Social learning theorists have paid considerable attention to the ways in which aggression can be glamourised in films and the media, and how this may encourage aggression (Bandura, 1973). Ways in which parents may model aggression to their children have also been explored (Farrington, 1991; Patterson, Capaldi, & Bank, 1991). The early research suggested that children who observed a model being rewarded for aggressive behaviour would reproduce similar aggressive behaviours, whilst those who observed the model being punished would not. Subsequently, it has also been shown that an observer may learn aggressiveness from watching others, even although the aggressive model being observed is not given reinforcements for his or her aggression (Bandura, Ross & Ross, 1963). An experiment carried out in which children witnessed a model express aggressive behaviours under three conditions of (i) rewards for aggression, (ii) punishment or (ii) no consequences, showed that children who observed the punished model performed fewer aggressive acts than the children observing other models. However, this difference could be overcome by offering the children who observed the punished model incentives to reproduce the model's aggressive behaviour. Thus, the outcomes experienced by the model being observed by the children had an effect on their performance of these aggressive acts but not on the learning of the aggressive behaviours. This highlights

an important distinction made between acquisition and performance in social learning theory.

Gardner and Moffat (1990) propose a multi-component model of aggression following essentially behavioural principles for use with people with an intellectual disability who behave aggressively. The model takes into account three main causes of aggression and proposes ways of reducing aggression in line with the identified causal factors. Firstly the context of aggression is viewed as influential and the benefits of ecological interventions that manipulate the environment to reduce aggression are suggested. Secondly, the consequences of aggression are seen to be important in maintaining aggression and the need for contingency management approaches to change the outcomes of aggression is proposed. Thirdly aspects of the individual, such as their communication and assertiveness skills are said to influence their likely aggressiveness within provocative situations. The authors suggest that skills teaching approaches can be helpful to offer the individual more socially appropriate ways of dealing with conflict.

1.2.4. Social Constructionist Theories.

Social constructionist theories consider the social context of aggression to be of significance. A clear overlap can be seen between social learning and social constructionist theories, as both suggest that aggression is reinforced by gains for the individual. Yet social constructionist's argue that, rather than being merely shaped by the environment, there is a mutual influence between the individual and their environment. For instance, aggressiveness might represent a valued aspect of a person's identity, boosting feelings of self worth. In his study Toch (1989)

considered the meaning and function of aggression for prisoners, highlighting that within the context of the prison, the ability to fight and defend oneself from others' provocation increases status. Tedeschi, Gaes & Rivers, (1977) also emphasise the interpersonal context of aggression and consider the motives underlying aggressive acts, and how aggression may be a means of meeting the individuals' valued social goals. In particular, Tedeschi *et al.* (1977) present aggression as a coercive action, with the function of gaining power and control in social interactions.

Similarly in his theory Felson, (1978), argues that aggression is a form of impression management. This notion derives from symbolic interactionism where the focus is on the role of the 'self' in aggressive situations. Here the individual uses aggression to present himself in a desired manner to others, or refute an undesired social identity. Felson (1978) presents his view of aggression as essentially a face saving strategy that is prompted when individuals believe themselves to be attacked intentionally. Felson states that when individuals believe themselves to be cast into a negative identity, they may aggressively resist that identity (Athens, 1980). In a later paper Felson (1984) compares his theory of aggression as impression management and that of aggression as punishment and Tedeschi *et al's* (1977) theory of aggression as coercive power (Tedeschi *et al.,* 1977; Felson, 1981; Felson, 1978). Felson (1984) concludes that these three approaches can explain why retaliation occurs: namely to save face, punish a personal rule violation and to reduce the likelihood of a future attack from the protagonist.

1.2.5. Reputation Management and Social Ranking.

Emler's (1984) theory of reputation management can be viewed as an extension of social constructionist theories of aggression. This theory considers social goals of shaping one's wider reputation within a community or social network and was formed to explain causes of 'delinquent behaviour' including aggression in adolescent boys. Emler draws on Goffman's (1959) interpretation of social behaviour as self presentation and suggests that

"the actor will not be unaware that others will draw conclusions about him from the way he appears and conducts himself" (Emler, 1984, p207).

Goals of self presentation are generally aimed at crediting oneself either with socially desirable characteristics or a particular social identity. Jones & Pitman (1982) put forward their view that self presentational behaviours are largely aimed at achieving power in relationships whilst other theorists argue that such behaviour is motivated by a wish for security and interpersonal relatedness, (Bowlby, 1969). Interestingly, an awareness of social reputation is expected to improve with social experience and be dependent on adequate perspective taking skills (Emler, 1984, p213). Thus, the possible function of aggression as reputation management merits separate consideration for individuals with an intellectual disability who are often assumed to be deficient in these skills. Whilst not pertaining specifically to aggression, aspects of Gilbert's (1992) social ranking theory has much in common with theories of impression management. Gilbert highlights the human tendency to seek social status, and describes two ways that this is commonly achieved. Firstly, social status may be sought by overpowering others by using force, and secondly by making oneself attractive to others to gain their approval and acceptance. There is an acknowledged link between negative social comparison and psychological problems.

Gilbert & Allan, (1994) developed the Social Comparison Scale that measures the individual's comparisons of oneself with others with respect to social rank and achievement, (Allan & Gilbert,1995). This scale was adapted by Dagnan & Sandhu (1999) for use with people with an intellectual disability. They suggest that social comparison is a useful predictor of psychological distress in people with an intellectual disability, with social attractiveness and group belonging being possible indicators of depression in this client group.

1.2.6. Cognitive Theories of Anger.

It is acknowledged that the emotional state of anger is 'neither necessary nor sufficient' for aggression to occur, (Novaco, 1994, p. 33). Yet as aggressive behaviour is often accompanied by feelings of anger, it is important to consider cognitive theories of anger when considering the processes leading to aggression for many individuals. Raymond Novaco's cognitive behavioural model of anger is probably the most widely cited and applied model (Novaco, 1975). Novaco (1994) stresses the adaptive function of anger, highlighting that anger can serve to energise the individual to deal with problems. He also acknowledges how anger can be reinforced by an increased sense of control and a desire to present oneself as powerful. Anger management problems are said to occur when anger is too intense or occurs too often, although Novaco does not elaborate on how clinical problems of anger dyscontrol may develop.

Novaco (1994) draws heavily on Michenbaum's (1985) stress inoculation model of anxiety, incorporating behavioural, physiological, emotional and cognitive components. The focus is on the cognitive mediators of anger and primarily on

information processing, or 'how people think' in the lead up to anger. Novaco proposes that an aversive event leads to anger only when the individual has made an anger provoking appraisal of that event. This is in contrast to Berkowitz's (1969) frustration - aggression model. Novaco & Welsh (1989) highlight a number of biases that may distort the processing of information that in turn may lead to anger and/or aggression. These cognitive biases are: attentional cueing, perceptual matching, attribution error, false consensus and anchoring beliefs. Attentional cueing describes how people with anger problems may pay disproportionate attention to provocation cues that influence anger. Perceptual matching refers to a tendency shown by those with anger difficulties to categorise current conflict experiences in line with previous events where they became angry. They may then develop provocation related schema which facilitates rapid anger arousal. Attribution errors refer to the misattribution of events to the personal characteristics of another individual rather than other contextual influences (Weiner, 1985). There is a body of research evidence backing up the influence of attributional errors in anger and aggression, showing the tendency to attribute hostile intent to others within benign circumstances (Nasby, Hayden & de Paulo 1980; Dodge & Frame, 1982). False consensus is where anger prone individuals expect that others have a similar view of anger events and would react in a similarly anger related manner. A growing number of researchers have attempted to adapt cognitive behavioural treatment for anger for use with people with an intellectual disability. An overview of findings will be discussed later in this chapter.

Social Cognition- Self in Relation to Others.

Social cognitive theorists have proposed the application of the cognitive paradigm to relationships, where the focus is specifically on cognitions about oneself in relation to others and the cognitive maps used to navigate interpersonal events. As aggression is largely an interpersonal problem, developments in social cognition research deserve consideration here. Safran (1990) incorporates concepts derived from interpersonal theory and cognitive theory and proposes the construct of the 'interpersonal schema', which is a generic representation of self-other interactions. To clarify this concept Safran states:

"*individuals may develop rigid expectations of how others will be, and rigid beliefs about how one has to be to maintain relatedness*", (p 97).

Similarly, Baldwin (1992) points out the influence that important previous relationships or significant interpersonal events may have on the self schema. He believes that the self schema and these so called 'internalised relationships' can be inter-dependent. Baldwin discusses the role of interpersonal schema which he termed 'relational schema' and which incorporates representations of self, of the interaction partner, and representations of self-with-other (Ogilvie & Ashmore, 1991). Relational schema are said to be embedded in a series of interpersonal scripts which are essentially 'cognitive generalizations' based on previous experiences of similar interpersonal events. These lead to expectations that new events will follow the same familiar pattern. The declarative and procedural elements of the interpersonal scripts are described by Baldwin (1992). The former represents semantic information such as descriptive knowledge about people (e.g., '*people in authority mess you around*'). The latter includes rules and strategies used to process interpersonal information. This includes the expected outcomes of interpersonal strategies, how to reach

preferred social goals and rules for social interaction. These are represented as if-then contingencies or social interaction rules such as, '*If I agree with her she will like me'*, or *'If she disagrees with me I must confront her'*. It may reasonably be argued that maladaptive 'relational schema' may contribute to some problems of anger and aggression. For example, a history of conflict relationships may lead to relational schema characterised by an expectation of maltreatment from others, and a belief that being aggressive will reduce this maltreatment.

Personal Construct Approach.

Kelly's personal construct approach (1955/1991) is perhaps less widely cited than other clinical approaches in the cognitive literature. This approach has been used by a number of clinicians when working with offenders who present problems of violence. According to personal construct theory, the meaning violent offenders assign to their aggression is crucial to the assessment and treatment of their behaviour (Noble 1971, Kelly & Taylor, 1981). As such, the personal construct approach lends itself to work with aggression outwith the context of anger, whilst other cognitive approaches focus more on the emotional mediators of aggression and generally assume an anger management approach. Kelly (1955) emphasises the importance of exploring the way in which an aggressive person construes themselves and others within situations of conflict, thus adopting a similar focus to that of social cognitive theorists and social interactionist models of aggression. It may be argued that Kelly's (1955) model offers the clinician a more explicit focus on the role of self perceptions and views of 'self in relation to others' than other cognitive approaches. Whilst Novaco (1994) does also acknowledge the role of anger in presenting oneself in a desired way to others, the personal construct approach offers a clear framework

of assessment for identifying how individuals perceive themselves in relation to key others. Disparity between perceptions of 'actual self' and 'ideal self' is another focus in line with social interactionist theories of impression management.

1.2.7. Conclusions.

Patterson (1980) discusses ways of determining the relative value of theories within a clinical context and argues that it is important to consider the 'practicality' of the given theory. He suggests that a 'practical' theory of counselling or psychotherapy provides a conceptual framework that allows clinicians to organise their thinking, which in turn influences their practice. Using this criterion to consider how the above theories of aggression help us to develop ways of working with people who present problems of aggression it can be argued that the social learning model of aggression, social constructionist models of aggression, and cognitive models of anger are likely to be of most 'practical' benefit. As such, consideration of research evidence for the causes of aggression will focus mainly on studies influenced by these models.

1.3. Research Evidence For Causes Of Aggression.

In this illustrative review of research studies exploring the causes of aggression for people with an intellectual disability studies carried out with non-learning disabled children will be considered as well as studies carried out with adults who have a learning disability. Treatment outcome studies considering the effectiveness of behavioural and cognitive behavioural approaches will firstly be considered. Influential studies carried out with children taking an information

processing approach will then be discussed, demonstrating how the appraisal of events might influence aggressive behaviour. A few recent studies that explore the cognitive appraisals of adults with an intellectual disability are also considered. Research evidence for a conceptual link between the self concept and aggression is drawn together from a broad literature including social cognitive models of self in relation to others.

1.3.1. Behavioural Models of Aggression and Adults with an Intellectual Disability.

It is beyond the scope of this thesis to review the behavioural literature in detail, however it is worth giving a brief overview to establish a context for the studies presented in this thesis. There is a considerable literature spanning the last three to four decades that promotes the application of behavioural principles in the management of aggression and 'undesirable' behaviours presented by individuals with an intellectual disability. Much of this literature is theoretically driven applying principles of operant conditioning. Traditionally behavioural programmes have focussed on manipulating the consequences of the target behaviour, guided by an assumption that the target behaviour serves a function. The behaviour may be aimed at achieving desirable outcomes or avoiding undesirable outcomes. Thus a behavioural assessment would aim to identify hypotheses regarding the predisposing and maintaining factors that support the problem behaviour. Behavioural strategies commonly used over the years include both aversive and non aversive approaches such as reinforcement schedules, time out, extinction etc. In the 1980's the use of aversive approaches began to be less socially acceptable and this was reflected in the promotion of more 'positive' treatment approaches including functional

communication training and skills training (LaVigna & Donnellan, 1986). For example, functional communication training is based on the premise that the aggressive behaviour serves a communicative function, with treatment aiming to teach the person alternative ways of making their needs known or enhance their coping skills, (Carr & Durand, 1985). Ecological approaches pay more attention to the setting conditions within which the behaviour occurs seeking to change the environment in order to reduce the target behaviour (La Vigna, Willis & Donnellan, 1989). Similarly, the constructional approach aims to build up skills and consider what activities the person may be engaged in if not engaging in the 'target' behaviour (Cullen & Partridge, 1981). For example, if aggression is aimed at gaining attention a constructional approach may seek to offer the individual other ways of gaining attention. As mentioned earlier, Gardner & Moffat, (1990) propose a multi-component assessment and treatment approach to aggression for clients with a learning disability. The authors use three main categories in their multi-component assessment of 'aberrant behaviour' as follows: (i) events which instigate and/or increase the likelihood of the behaviour occurring, such as environmental events and person characteristics, (ii) events which strengthen and maintain the behaviour such as the introduction of positive outcome, or removal of an aversive event, and (iii) events which decrease the behaviour. They highlight the need to undertake client specific treatment programmes and include a broad consideration of the psychosocial and environmental influences as well as the consequences resulting form aggression.

When consideration is given to research studies that adopt a behavioural model of aggression, it is apparent that the main research focus has been on exploring the effectiveness of behavioural treatment interventions, with considerably fewer

studies looking at the underlying causes of aggression (Carr, Robinson, Taylor & Carlson, 1990). Indeed in their review paper Lennox, Mittenburg, Spengler & Erfanian, (1988) highlight that approximately two thirds of the papers reviewed did not report a pre-treatment assessment. In another review paper looking at behavioural treatment outcome studies, as well as pharmacological studies, Allen (2000) also notes that many behavioural treatment studies are weakened by the restricted scope of the assessments used. One of the few review papers to focus on behavioural assessment was carried out by Pelios, Morren, Tesch & Axelrod (1999) who reviewed studies looking at the impact of functional analysis on the treatment of choice for aggression and self injurious behaviour, mainly with individuals with severe or profound intellectual disabilities. They note that the use of functional analysis increases the likelihood of the use of reinforcement based interventions as opposed to interventions using punishment for aggression and self injurious behaviours.

In his review of the literature Allen, (2000) found evidence of the effectiveness of behavioural interventions. Of the meta-analytical studies reviewed in Allen's paper he points to encouraging outcomes found by Scotti, Evans, Meyer & Walker (1991) and Didden, Duker & Korzilius, (1997) who found 67% and 68% of "non overlapping data between treatment and comparison phases". Whitaker (1993) reviewed seventy-eight treatment outcome studies that look at interventions for aggression presented by individuals with an intellectual disability. He grouped studies into three main treatment categories of ecological interventions, positive programming and contingency management. According to Whitaker's (1993) categorisation, positive programming interventions included those involving

functional communication training, social skills training and self control and will be considered more fully in the next section. Contingency management studies included a range of punitive approaches such as time out, over correction, response cost and aversive stimulation. Non punitive contingency management approaches included extinction, differential reinforcement of other behaviours and differential reinforcement of incompatible behaviours. Whilst studies show evidence of the effectiveness of the behavioural interventions the comparable effectiveness of these interventions is not commented upon. In his paper Whitaker (1993) highlights the lack of evidence for effective interventions to reduce infrequent aggression (occurring less than once a day). A number of reasons are suggested for this, such as a difficulty identifying the antecedent and setting conditions of infrequent aggression and the problem of contingency management interventions taking longer to effect change when the behaviour is infrequent. Whitaker notes a similar lack of studies demonstrating the effectiveness of interventions for aggression in community settings rather than staffed environments. Also, the need for intensive staff input for contingency management approaches as well as punitive approaches is recognised as a limitation of behavioural approaches. It has also been noted that aggressive behaviour may re-appear when behavioural interventions are withdrawn or the environment changes causing alterations in behavioural contingencies (Taylor, Novaco, Gillmer & Thorne, 2002). Another limitation of studies looking at the effectiveness of behavioural interventions noted by Allen is the tendency to focus on behavioural change, which may benefit carers due to a reduction in 'difficult to manage' behaviour, and failure to distinguish treatment outcomes which enhance the quality of life of the individual.

1.3.2. Skills Deficit Model.

One widely held assumption evident in the aggression literature for people with an intellectual disability is that aggression is linked with a lack of social competence (Gardner & Moffat, 1990). In keeping with this view, many interventions for people who have an intellectual disability have been concerned with teaching social skills, (Wallace, Tiegan, Lileberman & Baker, 1973) or communication skills (Carr & Durand, 1985; Gardner & Cole, 1989). In his aforementioned review paper Whitaker (1993) referred to six studies that showed success with functional communication training or skills teaching approaches. He highlights that this approach has a restricted effectiveness as clearly not all aggression has a communicative function (Carr *et al.,* 1990). Three of the four studies reviewed that used functional communication training were carried out with people who have severe to profound intellectual disabilities where a detailed behavioural analysis of the communicative function of the aggressive behaviour is required to inform the intervention. Two studies reviewed by Whitaker (1993) involve the use of social skills training alone and two others use this as part of a package. Both studies using social skills training alone were carried out in psychiatric wards involving role play with feedback and modelling, (Matson & Stephens, 1978; Matson & Zeiss, 1978). Each intervention showed over 70% reduction in arguments and fights compared with baseline. However the duration of intervention was said to 'be 24 hours per day' suggesting that the staff input required was extremely intensive.

Surprisingly, given the focus on social skills teaching in the literature, there has been a lack of research to establish whether aggressive individuals with intellectual disabilities have inferior interpersonal skills compared with their non

aggressive peers. The findings of one recent study by Pert, Jahoda & Squire (1999) looking at the role taking skills of a group of Aggressive and Non Aggressive participants with a mild intellectual disability has gone some way to undermine a deficit model of aggression. In their controlled study, Pert *et al.* (1999) took a two-pronged approach, exploring role taking ability and social cognitive processing biases with individuals who have a mild to moderate intellectual disability. To explore role taking skills they presented participants with a series of social vignettes depicting two stereotyped characters: an aggressive and a calm character. The authors found that the Aggressive participants were better than the Non Aggressive participants at distinguishing the likely behaviour and emotions of these two hypothetical characters, as well distinguishing the characters' likely view of conflict situations. Discussing the somewhat surprising direction of their findings, Pert *et al.* (1999) point out that, although role taking is commonly linked with developmental level in the child literature, social experience is also known to influence interpersonal understanding (Kohlberg, 1969). They argue that as the aggressive participants in their study were selected on the basis of frequent aggression, they would have had repeated experience of conflict and that this may have increased their awareness of how others view such situations and how they may react. In keeping with this experiential view, in a study of aggressive adolescents carried out by Fondacarro & Heller (1990), no differences were found across groups for the ability to take on the perspective of peers. However, participants in both groups were found to be less skilful at taking the perspective of an adult. Hence, whilst Pert *et al.* (1999) emphasise that role-taking deficits will play a part in some individual's aggression, their findings challenge the assumption that this is necessarily a causal factor for all people with a learning

disability. This highlights the need to carry out a full assessment of aggressive individuals' social competence before assuming the need for interventions focussed on teaching interpersonal skills.

1.4. Cognitive Factors Linked With Aggression.

There is a growing body of treatment outcome studies looking at the effectiveness of cognitive behavioural treatment (CBT) interventions with individuals who have a mild to moderate learning disability. Recent attempts to adapt CBT approaches for this client group reflect an appreciation of the need to understand the personal meaning of events which lead to anger and aggression for individuals who have an intellectual disability (Jahoda *et al.,* 2001). This shift from predominantly behavioural interventions has been partly influenced by the recognition of the limitations of behavioural approaches in community settings. Also, there is now a wider recognition that many individuals with a mild intellectual disability have sufficient insight and emotional awareness to talk in a meaningful way about their own actions and feelings and this has led to a growing interest in using talking therapies. By simplifying rating scales and ensuring that language is simple and accessible researchers have adapted standardised self report measures of anxiety and depression for use with people who have mild learning disabilities (Benson and Ivens, 1992; Lindsay *et al.,* 1994). In a recent study by Novaco & Taylor (2004) the authors showed that self report assessments were reliable and valid measures of anger in a population of men with intellectual disabilities living in a secure setting. Using an adapted version of the Novaco Anger Scale (Novaco, 1994, 2003) and the Speilberger State Trait Anger Expression Inventory (Speilberger, 1996), both self

report anger scales were shown to be highly associated. Novaco & Taylor (2004) also found that the level of anger reported by the inpatients (self report) was significantly correlated to their record of physical aggression in the hospital as reported by staff.

In terms of CBT interventions anger management approaches have received the most attention in the intellectual disability literature, (Black & Novaco, 1993; Black, Cullen & Novaco,1997; Benson, Johnson-Rice & Miranti, 1986; Rose & West, 1999; Rose, West & Clifford, 2000) and these have in the main been influenced by Novaco's model (1979,1994). Whitaker's (2001) review paper looking at anger control treatment outcome studies adds to his previous review of behavioural treatment studies for problems of aggression (Whitaker, 1993). In the former he critically reviews CBT studies carried out with adults who have an intellectual disability and problems of anger. In his paper Whitaker (1993) aims to identify whether cognitive approaches are effective, under what circumstances they are effective, and which specific components of anger management packages effect change. Whitaker comments on the reviewed studies according to duration of treatment, the extent of change, generalisation, maintenance and the experimental design. He concludes that there is limited experimental evidence for the efficacy of cognitive behavioural interventions, suggesting that behavioural approaches incorporating antecedent control and contingency management show more benefits.

One limitation of the existing literature on CBT outcome studies is the lack of controlled studies with a predominance of studies with a case study design. Yet, despite this methodological limitation it should be highlighted that many of the aforementioned case studies offer encouraging evidence of the usefulness of a CBT

approach and the benefits of individualised formulation driven treatment interventions with this client group. For example, Lindsay, Overend, Allen & Williams (1998) in one of three case studies presented used an anger management approach with a man with a mild intellectual disability who presented aggression thought to be fuelled by his appraisal of situations and in particular his misinterpretation of others' intentions. This man was found to lack motivation to change his behaviour and showed a tendency to externalise blame. Outcome measures used include the provocation inventory, role play and self ratings of anger filled out in a daily diary. The sessions included role play of provocative situations known to trigger anger, assertiveness skills training and problem solving, and an educational component looking at the function and consequences of anger and the difference between anger and other emotions. Significant reductions in all outcome measures were shown on assessment half way through treatment (three months), at the end of treatment, and at two follow up assessments (three and nine months).

Black, Cullen & Novaco (1997) showed the benefit of a cognitive assessment of anger and aggression with a woman with an intellectual disability living in an institutional setting. Black *et al.* (1997) discuss the importance of identifying expectations, appraisals and attributions underlying anger as part of the assessment and also highlight the importance of looking at the process of therapy. They used a version of the Social Problem Solving Test devised by Castles & Glass (1986) and adapted by Black (1994). This is a structured interview based on hypothetical events depicting provocation and other 'difficult interpersonal situations'. The aim is to identify whether the interviewee can identify coping skills for the situations depicted and also whether evidence of consequential thinking, interpersonal perspective

taking, and the ability to identify others intentions. Black *et al.* (1997) described the woman as having an expectation that others viewed her negatively, as being vigilant for criticism and holding the belief that others must act in a 'fair' manner towards her. Whilst acknowledging the need for evaluation of CBT treatment approaches they argued that a comprehensive assessment and formulation is fundamental.

Rose *et al.* (2000) carried out one of the few studies with a comparison group design and showed significant differences comparing a treatment group with mild to moderate learning disabilities with a waiting list control group. The authors suggest that the cognitive components of treatment may be less beneficial than behavioural components such as relaxation, emotional recognition and role play. Rose *et al.* (2000) included staff in their clinical sessions noting that this allowed better generalisation of new skills and allowed a focus on staff responses to anger problems. It is likely that this also enhanced staff members' understanding of these individuals' anger problems, which may also have impacted on their interactions with the individual. In his critique Whitaker (2001) points out that it is therefore not clear whether the anger reduction found by Rose *et al.* (2001) as measured by the Anger Inventory (Benson & Ivins, 1992) is due to the treatment or an improvement in the staff's management of episodes of anger.

Benson *et al.* (1986) also used a comparison group design, again with a group intervention comparing four treatment conditions of relaxation, self instruction, problem solving and a fourth condition of anger management incorporating all three. The authors noted no significant differences across groups although there was a significant reduction in anger shown in all conditions. They conclude that there is no

evidence that anger management approach is more effective than the use of single components of treatment.

Taylor, Novaco, Gillmer & Thorne, (2002) recently carried out a delayed waiting list controlled study (non randomised) using an adapted anger management treatment based on Novaco's approach. The study was carried out with male inpatients of a secure unit. Following treatment, the levels of self reported anger given reduced more in the anger treatment group (n=9) than in a routine care group (n=10) using the Provocation Index (adapted from Novaco's Provocation Inventory 1975; 1988). Staff ratings of anger showed some limited evidence of the benefits of anger treatment as opposed to routine care. Willner, Jones, Tams & Green (2002) carried out the first randomised controlled trial of cognitive behavioural treatment of anger. They randomly allocated fourteen participants to a treatment group and a waiting list control group. Following nine sessions of anger management significant improvements were shown for self report anger levels within the treatment group and across the two groups. Further improvement was shown at 3 month follow up. Similar to Rose *et al.* (2000) the researchers note that clients appeared to struggle with the cognitive components of treatment whereas they were thought to benefit from the behavioural components such as relaxation. Again the design did not allow identification of the relative benefits of the components incorporated in the treatment intervention.

Another recognised shortfall of adapted CBT work has been that the cognitive strategies used in approaches with this client group are often very restricted in their focus. This might be linked to a general assumption that people with an intellectual disability cannot use, and cannot benefit from, schema-based techniques. Another

difficulty is that many studies fail to report in adequate detail the nature of the cognitive behavioural intervention that is carried out making it difficult to draw conclusions regarding the benefits of the different components of treatment.

Stenfert-Kroese, (1998) highlights that when used with people with a learning disability, cognitive behavioural treatments have focussed mainly on cognitive processes (thoughts) as opposed to content (beliefs), with only a few exceptions (Dagnan & Chadwick, 1997; Lindsay, Neilson & Lawrenson, 1997). Dagnan & Chadwick (1997) consider the suitability of CBT for clients with an intellectual disability. They suggest that two levels of CBT may be used when working with individuals with a mild to moderate intellectual disability. The first of these is based on a deficit model assuming that people with an intellectual disability are deficient in the skills required to overcome their psychological problem. This approach is aimed at teaching skills and is derived from the self-management literature (Martin, Burger, Elias-Burger, & Mithang, 1988; Harchik, Sherman & Sheldon, 1992). The second is derived from CBT and the influential work of Ellis (1977) and Beck (1979), and is concerned with emotional and behavioural disturbance. In relation to the latter, Dagnan and Chadwick make a further distinction between (i) simple cognitive therapy dealing with inferential cognitions and (ii) elegant cognitive therapy, which incorporates complex evaluation of beliefs. They consider whether 'simple' CBT is accessible for this client group following Safran's (1993) conceptualisation of the basic skills considered necessary to engage in cognitive work. These include the ability to identify automatic thoughts; an awareness and differentiation of emotion; understanding the link between cognitions and emotions; appreciation of how thoughts and beliefs mediate emotions. They explore the utility of an assessment

battery devised to test participants' ability to benefit from cognitive therapeutic techniques and conclude that there is good evidence that people with mild to moderate learning disabilities and sufficient verbal abilities can engage with simple cognitive therapy.

Recent treatment studies by Taylor *et al.* (2002) and Willner *et al.* (2002) extend the focus of cognitive approaches carried out with individuals with an intellectual disability, with both studies incorporating cognitive restructuring techniques. Taylor *et al's* (2002) paper describes the nature of the cognitive component of their intervention giving more specific detail than do other authors. The authors describe the cognitive component as being a significant focus of their work. In their study participants are given a manual based anger management intervention twice weekly over eighteen sessions. The treatment intervention included a preparatory phase of six sessions followed by a treatment phase. The latter comprised self monitoring; formulation; development of a personal provocation inventory; cognitive restructuring techniques (including modifying appraisals and challenging expectations); arousal reduction techniques (including relaxation and distraction); problem solving and stress inoculation. Despite the encouraging outcomes of anger reduction and the authors' optimism about the benefits of using cognitive restructuring techniques with this client group, the design of this study does not allow identification of which specific treatment components led to a reduction in anger. Therefore it cannot be assumed that the cognitive components *increased the effectiveness* of the intervention for this client group. This is a limitation of many studies exploring the efficacy of anger management packages that include *a range* of

behavioural, psycho-educational and cognitive techniques, such as relaxation work, problem solving and communication skills.

Despite the increase in outcome studies, we do not yet have clear evidence that CBT approaches are effective for people with an intellectual disability due to the lack of controlled studies to date. However there is a greater recognition in the literature of the need to pay closer attention to the personal meaning people assign to events which may lead to anger (Jahoda *et al.*, 2001; Pert *et al.*, 1999; Rose *et al.*, 2000). It is suggested in this thesis that alongside the need to carry out more controlled studies looking at the effectiveness of CBT approaches with people with an intellectual disability, there is also a need for broader clinical assessments.

1.4.1. Cognitive Processes and Anger.

Baker & Bramston (1997) set out to explore cognitive causes of aggression in people with a mild intellectual disability, looking specifically at attributional and emotional determinants of aggression. They used semi structured interviews with 108 participants to identify whether relationships shown to exist in the general population between (i) hostile attitudes, (ii) the emotion anger and (iii) aggressive behaviour, are also apparent with people with a mild learning disability. In their study the State-Trait Anger Expression Inventory (Spielberger, 1988) and the Cook and Medley Hostility Scale (Cook and Medley, 1985) were administered alongside the Aggression Questionnaire (Buss & Perry, 1992). It was shown that those who scored high on the hostility scale, and were more prone to anger were in turn more likely to be aggressive. This confirms the thinking, feeling, action sequence as shown in the non intellectually disabled population. The authors argue that this shows the

limitations of behavioural approaches and highlights the possible benefit of developing interventions which incorporate a cognitive component for use with this client group.

Studies from the child development literature adopting a social information processing approach have been the catalyst for a few recent research studies exploring the cognitive mediators of aggression for people with intellectual disabilities. A body of influential studies have explored differences in how aggressive children process information within social situations. The five stages of information processing proposed by Dodge, Petit, McClaskey & Brown (1986) are: (i) encoding which involves attention and focus, (ii) representation process involving integration of cues with previous knowledge and interpretation, (iii) response search stage including generation of responses and application of response rules, (iv) response decision process involving evaluation of outcomes and selection of the response, and finally (v) enactment of the response. Aggressive boys have been argued to be deficient in many of the skills involved in social cognitive processing. Indeed, Akhtar & Bradley, (1991) proposed that the response evaluation stage is the only stage of processing where aggressive boys do not differ from their peers. Other studies have shown that aggressive boys generate fewer solutions to social problems (Richard & Dodge, 1982) and have a bias in their interpretation of social events (Dodge & Frame, 1982). The latter finding has been the main focus of a range of particularly influential studies.

Dodge and Frame (1982) found that when boys were presented with a range of stories depicting interpersonal situations, aggressive boys showed an attributional bias of hostile intent compared with non aggressive peers. Crucially, this bias was

specific to two conditions – (i) ambiguous interpersonal situations where the intent of the protagonist was deliberately presented as being unclear, and (ii) self-referent interpersonal situations, where participants imagined *themselves* facing the protagonist in the story. No bias was found for scenes which depicted another character facing the protagonist. The specificity of this finding offers some insight into the processes that underlie this tendency for aggressive boys to view others as hostile. This tells us that the bias cannot be due to a deficit in social understanding as this would lead to general errors in all conditions. The personal salience of the bias in particular has fuelled speculation as to processes that may be driving these hostile attributions. The finding of a hostile attributional bias was replicated with angry or aggressive adults by Epps & Kendall (1995). They explored attributions of intent in ambiguous, hostile and benign situations. The researchers found strong correlations between attributional bias towards hostility and self reported anger and aggression using hypothetical conflict situations. However this study did not consider whether the bias was specific to situations where the conflict was directed towards self (self referent). Pert *et al.* (1999) have commented that as the attributional bias found by Dodge and Frame was specific to self-referent situations, this supports the notion that aggression may be linked with self-perceptions for some individuals. Pert *et al's* (1999) interpretation of these findings will be returned to later in this chapter. In a recent study MacBrayer, Milich & Hundley (2003) looked at whether attributional biases of hostile intent may be learned from parents and showed some evidence that there may be same-sex modelling of attributions. They included male and female aggressive children in their study and found that mothers and daughters attributions were correlated whereas mother and sons showed no such correlation.

The relevance of information processing approach for individuals who have a borderline to moderate intellectual disability and problems of aggression was first explored by Fuchs & Benson (1995), who attempted to replicate the findings of Dodge and Frame, (1982). Fuchs & Benson (1995) used hypothetical situations of peer conflict to explore 16 Aggressive and 19 Non Aggressive participants' interpretation of social situations, their ability to generate solutions and response evaluation skills. Like Dodge and Frame (1982) they included situations where the intent of the protagonist was clearly hostile and other situations where the intent was unclear. Fuchs and Benson (1985) found that, although significantly more Aggressive participants gave aggressive responses, there was no evidence that they were more likely to attribute hostile intent than a group of Non Aggressive participants. The authors suggested that the failure to replicate Dodge and Frame's (1982) results could have been due to participants' developmental deficits (Weisz & Zigler, 1979). In particular, Fuchs and Benson (1985) implied that a general lack of role taking skills presented by individuals with an intellectual disability might have precluded their participants having sufficient interpersonal understanding to produce consistent responses, let alone identify differences between groups. Yet as Fuchs and Benson did not carry out an assessment of role-taking ability no clear conclusions could be drawn. Pert *et al's* (1999) subsequent findings that Aggressive individuals' were superior to Non Aggressive participants in terms of role taking as previously mentioned, would seem to undermine the notion of aggression linked with poor interpersonal understanding.

In their study Pert *et al.* (1999) looked at attributions of hostile intent as well as participants' role taking skills. They adapted the method used by Dodge and

Frame (1982), presenting a series of interpersonal vignettes, which included events where the intent of the protagonist was ambiguous and clearly provocative. Contrary to Fuchs and Benson's (1995) findings, Pert *et al's* (1999) study found evidence that aggressive participants displayed an attributional bias of hostile intent within self-referent situations where the protagonist's intent was ambiguous. Due to methodological limitations of the study it is not possible to confirm whether the bias is specific to self referent situations. In a recent study Basquill, Nezu, Nezu & Klein (2004) also found that Aggressive participants with an intellectual disability were more likely to attribute hostile intent when viewing a range of hostile, non hostile and ambiguous situations from a video presentation. Again this study did not attempt to explore whether the hostile bias found was specific to self referent situations. Indeed the hypothetical vignettes shown by Basquill *et al.* (2004) depicted another 'target individual' at the receiving end of the 'action' unlike the study by Pert *et al.* (1999) who asked participants to imagine themselves in the situation, as well as imagining predefined other characters. Despite the noted methodological limitations of these studies, the findings of Pert *et al.* (1999) and Basquill *et al.* (2004) offer some evidence that the aggression presented by individuals with an intellectual disability may be mediated by cognitive distortions in much the same way as their non learning disabled peers.

Undoubtedly, studies adopting an information processing approach have added substantially to our knowledge of the psychological processes that play a part in aggression. However, there are two main shortcomings of this model. One shortfall is the essentially reductionist approach often adopted by researchers who follow the information processing model. Researchers often examine specific stages

of cognitive processing in isolation, thereby reducing the ecological validity of findings. A second problem is the failure to take account of factors that influence the processing of social information, such as the widely recognised tendency for individuals to pay a disproportionate amount of attention to information that fits with their salient belief systems (Sigel, 1986). Thus to explore aggressive individuals' cognitive processing outwith the context of their guiding belief systems is limiting.

1.5. Social Goals.

Dodge's (1986) model for assessing social competence acknowledges that 'unconscious influences', can act as a filter for information to be processed. Dodge proposes that when approaching an interpersonal task a child will draw on prior experiences in order to cope with the complexity of the task. These prior experiences will include social goals and the self concept. The influence social goals have on behaviour has been highlighted by Jones and Thibaut (1958). They state that:

"If we can successfully identify the goals for which an actor is striving in the interaction situation, we can begin to say something about the cues to which he will attend, and the meaning he is most likely to assign them." (p152).

This cognitive perspective on goals highlights the link between one's appraisal of interpersonal situations and goals, a link that is often ignored in the literature looking at cognitive mediators of aggression (Lazarus, 1991). Bargh (1990) argues that there may be automatic links between goals and memories of social situations in which those goals have been pursued in the past. Bargh states that:

"the result of this automatic associative link is for the motive/goal/plan structure to become activated whenever the relevant triggering situational features are present in the environment. The activated goals and plans then would presumably guide the social cognition and interaction of the individual without the person's intention or awareness of the motive's guiding role." (p 95)

Nesse (1990) points out that many human goals are social in nature. Gilbert (1995) proposes a number of 'biosocial' goals that he argues are universally pursued, including competing for status, care eliciting, care giving, formation of alliances and cooperativeness. He describes these within a sociobiological framework of relationships that may have both biological and psychological meaning (i.e., attachment). Gilbert argues that these biosocial goals can form a 'template' for the construction of self-other roles that give rise to the meaning of relationships. For example, for those pursuing a 'care giving' goal the template may be of 'self' as protector and 'other' as requiring protection. This demonstrates well the link between social goals and relational schema. Rose & Asher (1999) argue that in order to support peer rejected children to establish and maintain friendships, attention should be given to their social goals as well as their behavioural strategies.

To date there has been a lack of research exploring the social goals of aggressive individuals who have an intellectual disability. The findings of a study carried out by Wishart (1991) offers some indication that people with an intellectual disability may be more concerned with social goals of avoiding negative outcomes in their life rather than striving to attain desirable outcomes, although that study was not concerned with a link between social goals and aggressiveness. Wishart (1991) observed that children with learning disabilities were more likely than non learning disabled children to employ avoidance strategies on cognitive assessments, indicating sensitivity to experiences of failure at a young age.

The guiding influence of goals on social behaviour is also well represented by social constructionist theories of aggression, where the focus is usually on goals of self presentation and how the individual strives to present herself in a desired fashion to others within a social context. Yet, there is a surprising neglect of research studies that take account of the impact of goals on behaviour, highlighting an important gap in social cognitive research. For some people, aggressiveness may be seen as the most effective strategy to meet their social goals despite an awareness of the wider negative consequences of aggressive acts. To give an example, if a social goal of peer approval is especially important, for some individuals who have peers who shun authority this may encourage aggression, even although the individual is fully aware that aggression will have consequences such as getting them into trouble. Thus it makes little sense to simply explore the individuals' awareness of outcomes of aggression without also considering which of these outcomes are important to the individual. Only by viewing the individuals' aggressive behaviour in the context of their salient goals, can therapists get nearer to understanding the underlying motives of aggression.

Many studies taken from the child developmental literature that examine the role of goals in aggressive behaviour have significant methodological shortcomings. There is a tendency for researchers to focus on participants' ability to evaluate pro-social goals selected by the researcher and explore the strategies they would employ to meet that goal. Relatively few studies have explored which goals aggressive individuals personally value (Slaby & Guerra, 1988; Ladd & Olden, 1979; Asher *et al.,* 1980). Renshaw & Asher (1983) point out that when considering the social goals underlying aggression or other forms of anti social behaviour, most studies compare

aggressive and non aggressive participants' ability to generate strategies to meet pro-social goals such as staying out of trouble. This approach wrongly assumes that aggressive individuals share the view that pro social goals are preferable to anti-social behaviours. It can be argued that an aggressive individuals' ability to meet pro social goals is irrelevant if these pro social goals are not salient to them in real life situations.

Also, the link between goals and observable behaviour is not as clear-cut as many researchers suggest. In any social situation, how a person goes about meeting their goals will depend on which strategies they expect to be most effective in achieving the desired outcome. For example, the goal of gaining peer approval may be pursued in different ways by different individuals. Individuals who expect aggressive behaviour to gain them the respect of their peers may behave in an aggressive fashion to gain peer approval. On the other hand, a goal of peer approval may elicit passive behaviour from individuals who believe that their peers will disapprove of aggressive behaviour. This emphasises the importance of considering the outcomes the individual expects when presenting a range of social behaviours, and highlights the interaction between goals and these expected outcomes.

1.6. Outcome Expectancies and Beliefs Supporting Aggression.

In this section ways in which beliefs regarding social behaviours may support aggressive behaviour will be considered. The focus is on beliefs about the outcomes of aggressive strategies and submissive strategies. As no previous work has been carried out with individuals with an intellectual disability, research evidence from studies carried out with children will be considered.

In their study, Slaby & Guerra (1988) sought evidence of the motivational function of beliefs supporting aggression. They devised a questionnaire to explore beliefs that (i) aggression is legitimate, (ii) aggression increases self esteem, (iii) aggression helps to avoid a negative image with peers, (iv) the victim deserves aggression, (v) victims don't suffer. Their study included three groups of low aggressive, high aggressive and anti-social aggressive adolescents. The latter group were drawn from a state juvenile correctional facility and had committed one or more violent crimes. The remaining two groups were taken from public high school and were categorised according to teachers' ratings on indices of aggression. Slaby and Guerra (1988) found that the anti-social aggressive group were most likely, and low aggressive group were least likely, to believe that aggression increases self esteem and avoids a negative image with peers. This suggests that anti social aggressive individuals may have more favourable beliefs regarding aggression, and highlights the need to look beyond information processing deficits and cognitive distortions as causal factors of aggression.

Perry, Perry & Rasmussen (1986) explored children's outcome expectancies of aggression. They looked at whether differences exist in the nature of the outcomes aggressive and non aggressive children expect to follow aggression. Building on the work of Bandura (1973), they used a questionnaire consisting of 48 items requiring participants to imagine themselves performing a predefined behaviour towards a peer. Participants were then asked to indicate on a four point scale the likelihood of six types of outcomes, which were previously identified as playing a part in maintaining aggression. These were: peer approval; authority approval; tangible rewards; self approval; reduction of aversion in the future; effect on victim. Perry *et al.* (1986)

found that aggressive children were more likely than their non aggressive peers to believe that aggression would lead to tangible rewards and the reduction of aversive treatment in the future. As Slaby and Guerra (1988) point out, it is worth noting that the exploration of response-outcome expectancies spans the research traditions of both cognitive processing and cognitive content. The ability to consider the consequences of aggression is represented in the 'response decision' step of information processing (Dodge, 1986), with the evaluation of expected outcomes and the selection of the behavioural response. Whilst these expected outcomes are embedded in a single interpersonal event, beliefs regarding aggression such as those considered by Slaby and Guerra (1988) in their study represent *generalised* response outcome expectancies which apply more widely, such as '*If I am aggressive then people will look up to me'*. The authors point out that the clear distinction often made between the process and content of cognitive mediation is not held up in the social cognitive literature. They refer to the common finding that aggressive boys tend to view others as hostile within conflict situations, which they point out could be due to either errors in the processing of information or may equally be due to a set of "paranoid" beliefs. Such beliefs may in turn affect the processing of information and interpretation of intent. As such Slaby and Guerra (1988) point out that "*Beliefs may serve as either as guides to the specific information to be processed or as direct guides to action*" (p 587). It can also reasonably be argued that outcome expectancies may become well rehearsed should an individual experience frequent interpersonal aggression over a period of time. Any such well-rehearsed outcome expectancies would essentially act as a series of 'if-then' contingencies where a given behaviour (i.e., aggression), is expected to produce a predictable set response.

1.6.1. Predicted Outcomes of Submissiveness.

In line with social learning theory, which proposes that an individual's behaviour may be reinforced by positive outcomes, social behaviour may also be influenced by a desire to avoid negative outcomes. Thus, it is reasonable to assume that some aggressive individuals behave as such because they expect negative outcomes from submissiveness and are highly motivated to avoid those negative outcomes. For example, if an aggressive individual expects submissive behaviour to bring disapproval from their peers, it may reasonably be argued that this aggressiveness is aimed, at least in part, at avoiding this disapproval. Yet, there has been a lack of studies that have considered whether differences exist in aggressive individuals' expected outcomes of submissiveness. Consideration of outcomes aggressive individuals may seek to avoid, and how those *undesired* outcomes might influence their behavioural choices could help us to understand why aggressive individuals behave as they do. However, consideration of cognitive factors associated with submissiveness is largely neglected in the literature looking at aggression and is more often found in studies looking at assertiveness/unassertiveness. These studies are usually carried out with adult student populations and the aim is to explore why unassertive individuals choose submissive strategies. Very few studies have considered aggressive individuals' views of submissiveness. Deluty (1983) carried out one such study with 231 children who were assigned to three groups; highly aggressive, highly assertive and highly submissive. He compared participants 'cognitive evaluations' of nine conflict situations. Participants rated aggressive, assertive and submissive strategies that may be used within conflict situations. These were rated on a seven point likert style rating scale for four categories (good-bad;

wise-foolish; successful-unsuccessful; kind-cruel.) The children were also asked to state which of the three behavioural strategies (i) should they do (ii) would make them feel best, (iii) would make the other person feel best. Findings showed that highly aggressive group rated aggressive behaviours more favourably than the highly assertive or highly submissive group and rated assertive strategies less favourably. No differences were shown for views of submissiveness. In a previous study of aggressive, assertive and submissive children Deluty (1981*a*) found that aggressive and submissive children were able to generate a similar number of alternative solutions to conflict situations however these groups were less likely to generate assertive solutions than were the assertive children. A study carried out by Schwartz & Gottman (1976) with adults found different results, showing that non assertive adults did not differ from highly assertive adults in their ability to generate assertive solutions to hypothetical situations, suggesting that their submissiveness was not linked with an inability to generate assertive strategies. Consideration of how aggressive and non aggressive individuals with an intellectual disability may view submissive strategies has been neglected in the literature. This requires consideration as adults with an intellectual disability may have distinct views of submissiveness linked with experiences of low control and powerlessness.

1.6.2. The Value Placed On Outcomes Of Social Strategies.

A significant limitation of most existing studies that look at outcome expectancies is that they fail to consider the value individuals place on the predicted outcomes of aggression. Perry, Perry & Weiss, (1989) point out that the personal significance of the outcomes an individual expects as a result of aggression must be

known in order to predict whether these outcomes will influence behaviour. This is an important distinction that may be best demonstrated by an example. It may be that an aggressive and non aggressive individual may each predict that aggression would lead to authority disapproval, however, if the non aggressive individual *values* authority approval, whilst the aggressive person places *no value* on this social outcome, the influence this expected outcome on their behaviour will differ markedly for each individual, despite the fact that they hold the same expectation regarding outcome of their aggression. In their study Boldizar, Perry & Perry, (1989) highlighted the difference between outcome expectancies and outcome values arguing that these are at least partly independent with the exception of outcomes relating to negative self evaluation. They argue that an outcome of negative self evaluation by definition, will likely be of importance to the individual. In their study carried out with boys and girls they found some evidence that aggressive children placed less value than non aggressive children on some of the negative outcomes of aggression including peer rejection, retaliation of the victim and negative self evaluation.

1.7. The Role of Self Perceptions.

As previously noted, in his model of social competence Dodge (1985) notes that the self concept is one factor that will act as a filter for the processing of social information. Indeed, it has been long recognised that the self concept plays a central role in social perception. The self concept is defined by Markus, (1985) as:

"a set of self schemas that organize past experiences and are used to recognise and interpret relevant stimuli in the social environment." (p 1495)

Markus & Nurius (1986) note how behaviour may be influenced by an individuals' self concept. They propose that, as well as being influenced by current self perceptions, a person may be striving towards a range of 'possible selves' including their 'ideal self'. The opposite influence may also occur, with social behaviour aimed at avoiding undesired images of self (Rogers, 1981; Ogilvie, 1987). In their review paper Jahoda, Trower & Pert, (2001) point out that the role of the self concept in aggression has been alluded to by many researchers, yet the nature of this involvement of the self concept in aggression remains ill defined. The most commonly cited perspectives on how self perceptions may influence aggression, will be drawn together here.

1.7.1. Self Schema Influencing Aggression..

Jahoda, Pert & Squire (1998) offer tentative evidence of a difference in the way aggressive individuals believe themselves to be perceived by others. In their study they used a structured interview developed by Trower *et al.* (1995). The cognitive behavioural interview was influenced by Ellis's rational emotive behaviour therapy, a cognitive approach which highlights the impact of irrational beliefs on emotion and behaviour. The interview uses the 'ABC' model to explore the Activating event, Beliefs about the activating event and the emotional and behavioural Consequences of the event. Jahoda *et al's.* (1998) interview explores the personal meaning of real life conflict events for aggressive and non aggressive individuals, specifically looking at their beliefs regarding 'others view of self', and how they in turn viewed the other person. Whilst their study was limited due to the small sample, the authors found some evidence that the aggressive group were more

likely than their non aggressive peers to believe that others held a negative view of them. Perceived negative evaluations from others included being globally disabled, stupid or child like. The authors suggest that one explanation for this groups' frequently aggressive behaviour may be that their sense of self is more easily threatened in interpersonal situations.

Pert *et al.* (1999), also discuss a possible link between self schema and aggression in relation to the findings of a number of influential studies with children, which show an attributional bias of hostile intent specific to self-referent situations, (where participants were asked to imagine *themselves* facing a protagonist). The specificity of this finding to situations involving 'self' supports the notion that aggression may be linked with self perceptions for some individuals. Pert *et al.* (1999) found that Aggressive participants with an intellectual disability also presented a hostile bias within self-referent situations. Whilst, it was not possible to draw clear conclusions about the specificity of the bias to situations involving 'self' due to methodological limitations of the study, the authors interpret their findings within the context of self schema. In line with Slaby & Guerra (1988) they point to how these findings can be understood within a context of 'beliefs influencing aggression'. They argue that the tendency to view others as hostile towards self may mean that some aggressive individuals hold a perception of "self as victim" which in turn influences their attributions of others' intentions towards themselves. They argue that in the case of those with a learning disability, this vulnerable sense of self may stem from "*a personal history of dependency, stigma and failure*" (p 406), although this causal route is not explored in their study. Just as Pert *et al.* (1999) proposed that aggressive participants may have a view of 'self as victim', the findings may also

suggest that aggressive participants have a generalised expectation that 'others victimise me'. Thus, a subtly different interpretation of the findings highlights a distinction between views of self and a broader view of interpersonal self or 'self in relation to others'. It is notable that views of 'self' relevant to aggressiveness predominantly exist within an interpersonal context and thus can often be re-conceptualised as 'interpersonal schema'.

1.7.2. Self Esteem and Aggression.

A separate body of research has linked aggression and self esteem, arguing that aggressive individuals may be distinguishable from non aggressive individuals in their judgements of self-worth (Bandura, 1973). There are numerous examples in the literature of the assertion that low self esteem underlies problems of aggression, (Anderson, 1994; Renzetti, 1992; Staub, 1989; Schoenfeld, 1988). Generally, it is proposed that people with low self esteem are more easily threatened by perceived attacks to an already poor view of self (see Baumeister, Smart & Boden, 1996). Indeed aggressiveness is often interpreted as an attempt to raise self esteem by enhancing a sense of power and status. However, an opposing argument put forward by Baumeister *et al.* (1996) in their review paper is that some individuals with high self esteem may be more likely to perceive threats to their sense of self worth as unjustified, leading to anger and aggressive retaliation. The authors point out that researchers frequently contradict themselves by arguing that low self esteem may lead to aggression whilst also alluding to these individuals' egocentricity and narcissism. The authors also argue that the *stability* of an individuals' self evaluations are a crucial factor often neglected by researchers. They propose that individuals with an unstable high self esteem are more prone to anger and hostility as

they commonly hold self appraisals which are inflated or unfounded, and are, therefore, more likely to react if these self perceptions are disputed by others (Kernis, 1989; Kulik & Brown, 1979). Indeed, a more recent study takes this further, demonstrating that narcissists, who by definition view themselves positively, become more aggressive than those with low self esteem following threats to their positive self image (Bushman & Baumeister, 1998).

1.8. Gender Differences and Aggression.

Child studies adopting a social learning theory framework have shown that boys expect greater benefits from aggression than girls. Perry, Perry & Rasmussen (1986) found that boys expect aggression to lead to more tangible rewards, less victim suffering, less peer disapproval and less guilt than do girls. Perry *et al.* (1989) showed that boys expect less parental disapproval and less guilt to follow aggression. Slaby & Guerra (1988) found that males are more likely to believe that aggression would increase self esteem and that victims do not suffer, although a methodological problem with this study was that the gender of the target person was unspecified. It has also been shown that there are gender differences in the value attached to outcomes of aggression as well as the outcomes expected to occur, Perry *et al.* (1989), found that boys valued instrumental outcomes more than girls. Cairns & Cairns (1988*a*) suggest that the presentation of aggressiveness is different across boys and girls, and girls tend to display more indirect aggressive strategies such as social exclusion and ostracism. Cambell & Muncer (1987) found gender differences in the social representations held regarding aggression. They analysed the social talk of men and women and found that women described episodes of their own anger and aggression as "losing control", viewing this as embarrassing or childish and voicing

concern that their actions may threaten the future relationship with the other people involved. Women were also noted to present "pre-emptive self condemnation" which the authors speculate was in anticipation of negative reactions from others and a way of neutralizing the criticism of others. In contrast, men often described their own aggression as resulting from an integrity affront, viewing aggression as a face saving strategy. Moreover, men frequently spoke of elation after a good fight with less evidence of self condemnation. Perhaps surprisingly, despite this evidence of gender differences in the meaning individuals attach to aggression most studies are carried out solely with males. Pert *et al.* (1999) have shown some evidence of gender differences in aggressive individuals with an intellectual disability who present problems of aggression. However, these differences were restricted to evidence that aggressive men with an intellectual disability generate more aggressive responses that women. Pert *et al's* study showed no gender differences in relation to attributions of hostile intent or role taking ability however male participants were shown to generate more aggressive behavioural responses to hypothetical scenarios in the role-taking task. Jahoda *et al.* (1998) also showed that males generated more aggressive responses to a word-stem task where participants were asked to anticipate their reaction to a range of stressful situations interspersed with positive situations. The authors highlight that female aggressive participants appeared to give more socially desirable responses than did males, perhaps preferring to be viewed as passive rather than aggressive. However it could not be ruled out that the male aggressive participants may simply have been more aggressive than their female counterparts.

1.9. Summary and Conclusions

A common theme evident in theoretical models is the social function of aggression, and how aggression may be driven by social goals, such as achieving power or gaining a valued social identity. Social cognitive models are discussed in this introduction, highlighting the importance of the aggressive individuals' interpersonal belief systems or 'interpersonal schema'. How beliefs about the relational self (self in relation to others) may affect the meaning an individual may attach to social events is highlighted.

The lack of research carried out looking at cognitive causes of aggression with people who have an intellectual disability is highlighted. The adequacy of the cognitive deficit model, is questioned and important gaps in the information processing literature are pointed out, such as the failure to acknowledge how beliefs may affect one's interpretation of events. The possibility of a link between the self identity and aggression is discussed. The self esteem literature and social interactionist's theories of impression management contribute to diverse body of literature exploring the assumed link between aggressiveness and the self concept. In this introduction these are drawn together with social cognitive theories of the interpersonal self. Overall the need for more research looking at social cognitive causal factors of aggression presented by people with an intellectual disability, and the need for exploration of gender differences within this population is argued.

1.9.1. Rationale and Broad Aims of these Studies.

A broad overview of the two studies incorporated in this thesis will be outlined in this section to establish the rationale for this research and demonstrate how the two

studies compliment each other. The aims of each study will be presented in more detail in the respective methods chapters. An overall aim of this research is to expand on the existing narrow perspective on causes of aggression for this client group. Building on recent research, a social cognitive model is adopted that recognises aggressive individuals with an intellectual disability as agents who shape their social world, and who are concerned with goals of self-presentation and achieving personally valued social outcomes.

Study one will consider participants' expectations about the outcomes of aggressive and submissive strategies when used within hypothetical situations of conflict, and look at the expected emotional impact of these outcomes. It is hoped that participants' beliefs about the outcomes of aggression and submissiveness will offer insights into their behavioural responses when at the receiving end of provocation. This will highlight whether aggressive and submissive strategies are considered to be beneficial or detrimental to self. Participants' social goals will be explored to offer insights into the social outcomes that participants value and how they wish to present themselves within an interpersonal context.

In study two, participants' views of a stereotyped aggressive character will add to the exploration of 'expected outcomes' of aggression. Here the focus is on participants' generalised beliefs about aggressiveness outwith the context of personal conflict. Participants' perceptions of the stereotyped aggressive character will be compared with their views of 'self' to allow consideration of whether aggressive participants have adopted an aggressive identity. Finally, the conceptual link alluded to by many researchers between the self concept and aggression will be examined by

exploring whether differences exist in aggressive and non aggressive participants perceptions of Self and how they believe others view themselves.

These are exploratory studies looking at research questions not previously explored with participants who have an intellectual disability. For that reason a great deal of preparatory piloting work contributes to this thesis, as detailed in the respective methods chapters. These are controlled studies carried out with a group of Aggressive and Non Aggressive participants with an intellectual disability. The same participants took part in each study. Where possible, participants were seen at their day centres, although a minority of individuals not attending day services were seen at home. Most participants were seen on three occasions in all to carry out assessments one and two and administer tests of intellectual functioning. Six participants were seen on two occasions. On the few occasions where more than one assessment was administered in a session, a break was given between assessments to ensure that the assessment process was not overly demanding for participants.

CHAPTER TWO: METHODS STUDY ONE.

Goals And Predicted Outcomes Of Aggression And Submissiveness.

In this chapter the research aims of study one are outlined in detail. Particular consideration is given to the piloting phase and development of the assessment measure.

2.1. Aims of This Exploratory Study.

A main aim of this study was to develop the 'Goals and Outcomes of Aggression and Submissiveness' (GOAS) assessment with which to explore whether group or gender differences exist in participants' personal motivation to engage in, or refrain from, aggression. The GOAS assessment had four main areas of focus. Firstly, participants' predicted outcomes of aggressive and submissive strategies were considered. Secondly, to identify the costs and benefits participants associate with aggressiveness and submissiveness, their emotional responses to these outcomes were also considered. Thirdly, participants' salient goals were explored to highlight group and gender differences in the social outcomes they wish to achieve in situations of conflict. Lastly, the strategies participants generate to achieve a range of imposed social goals were considered to identify whether group and gender differences exist. As well as highlighting differences in the behavioural strategies participants select to meet these goals, this will also highlight their ability to generate effective strategies for a pro social goal.

2.1.1 Research Questions

Study one set out to compare (i) Aggressive and Non Aggressive participants (group) and (ii) Male and Female participants (gender). Group comparisons are exploratory as no previous studies have considered these research questions with individuals who have a learning disability. Gender comparisons are also largely explorative as there is no research evidence of differences in the expected outcomes of aggression for individuals who have an intellectual disability. As previously mentioned gender differences shown in studies carried out with participants who have an intellectual disability merely show that males generate more aggressive behavioural strategies than women, rather than showing evidence of gender differences in participants' views of aggression (Pert *et al.*, 1999; Jahoda *et al.*, 1998).

Group comparisons and gender comparisons set out to explore whether there are:

- differences in behavioural strategies within situations of conflict.
- differences in expected outcomes of aggression.
- differences in the emotions associated with the outcomes of aggression.
- differences in the expected outcomes of submissiveness.
- differences in the emotions associated with the outcomes of submissiveness.
- differences in salient social goals within situations of conflict.
- differences in behavioural strategies generated to meet predefined goals.
- differences in the effectiveness of strategies to meet a pro- social goal.

As well as gender comparisons to establish the above exploratory research questions the following hypothesis was considered:

- whether males generate more aggressive strategies within situations of conflict.

2.2. Participants.

This study was carried out with 20 aggressive individuals and 20 non aggressive individuals who have an intellectual disability. Each of the two groups included ten men and ten women.

2.2.1. Level of Intellectual Ability.

To ensure comparable levels of verbal and non-verbal ability across the two groups the British Picture Vocabulary Scale II (Dunn & Dunn, 1997) and the Raven's Coloured Progressive Matrices (Raven, 1965) were administered to the whole sample.

Table 1a. BPVS and Ravens Scores: Group.

	Mean Rank		**Mann Whitney U Test**
	Agg	*Non Agg*	
BPVS Scores	***17.92***	***23.08***	*Z=-1.394,* ***p=0.165***
RAVENS Scores	***22.58***	***18.42***	*Z=-1.128,* ***p=0.265***
AGE	***20.55***	***18.33***	*Z=-.615,* ***p=0.553***

It is shown in Table 1a that there are no differences across group with regards scoring on either of the above psychometric tests.

Table 1b. BPVS and Ravens Scores : Gender.

	Mean Rank		**Mann Whitney U Test**
	Males	*Females*	
BPVS Scores	***20.15***	***15.97***	*Z=-1.206,* ***p=0.232***
RAVENS Scores	***17.09***	***18.86***	*Z=-.514,* ***p=0.613***
AGE	***20.55***	***18.33***	*Z=-.267,* ***p=0.792***

It is shown in Table 1b that there are no differences across gender with regards scoring on the same tests.

Table 1c. BPVS Age Equivelant and Ravens IQ.

Participants	**BPVS Age Equiv**		**Ravens IQ score**	
	Median	*Interquartile*	*Median*	*Interquartile*
Aggressive	***7.11***	***3.03***	***52.75***	***20***
Non Aggressive	***6.09***	***4.92***	***60.75***	***18***
Males	***7.06***	***2.22***	***55.75***	***17***
Females	***7.08***	***4.24***	***57.5***	***18***

Table 1c shows scoring on the BPVS converted to age equivelants and scoring on the RCPM converted to IQ equivalents.

2.2.2. Ages of subjects

The age ranges of the participants in each of the two groups and gender are shown in Table 2 .

Table 2. Age Range for Group And Gender.

Participants	Age Minimum	Age Maximum
Aggressive	*20*	*52*
Non Aggressive	*22*	*57*
Males	*27*	*52*
Females	*20*	*57*

2.2.3. Inclusion Criteria.

The 40 participants who took part in this study were a sub-sample of participants who agreed to participate in a two year Scottish Office funded project entitled: *"Assessment of Frequently Aggressive people with Moderate to Mild Intellectual Disabilities Living in Community Settings: Examining Individual and Interpersonal Factors."* Participants were selected from a survey of 13 designated Local Authority Adult Resource Centres providing daytime activity for adults with intellectual disabilities in the West of Scotland, one centre in central Scotland and three supported employment services run by Enable Scotland. In each case the data was obtained from a staff member who was the keyworker for the individual for a minimum of 3 months prior to data gathering. The participants were required to be over 18 years of age and have sufficient receptive and expressive verbal skills to complete the assessments. To ensure that participants had sufficient communicative ability the survey included assessment questions based on the Vineland Adaptive Behaviour Scale (Sparrow, Balla, & Chiccetti, 1984). An adaptation of Harris's Checklist of Challenging Behaviour by (Harris, Humphreys & Thomson, 1994) was employed to inform the selection participants. Consistent with Harris, (1993), aggressive behaviour was defined as *"physical or verbal aggression that caused*

injury or the threat or risk of injury to others." The criterion used for selection in this study was the frequency rather than severity of aggression to avoid erroneously categorizing participants as aggressive due to very occasional or 'one off' severe incidents that may be due to extreme circumstances. Aggressive participants were required to have presented a minimum of four episodes of significant aggressive behaviour in the previous three months. Participants in the Non Aggressive participants had presented no incidents of aggression. Individuals were not included in the Aggressive group if their aggressive behaviour could be linked with problems of autism, dual diagnosis, Tourette's syndrome or psychosis. Keyworkers were asked to gain consent from potential participants' and to ensure that participants did not feel obliged to take part. Keyworkers read the consent form (Appendix1) to participants and ensured that participants were aware of the voluntary nature of the study.

Participants who were asked to take part in this study were randomly assigned by a researcher on the larger Scottish Executive funded study as previously mentioned. An equal number of male and female participants were selected from the larger study. Two participants were not available to take part therefore another two individuals were randomly selected by a researcher working for the project. Ethical approval was passed by Greater Glasgow Primary Care Trust and Glasgow City Council Social Work Department.

2.3. Development and Piloting of the GOAS Assessment.

In the course of developing the GOAS assessment four draft versions of the

assessment were piloted before the final version was completed. As the assessment aimed to explore social-cognitive factors not previously researched with individuals who have an intellectual disability, the piloting phase represented an important element of the study, allowing the research questions and materials to be selected, developed and refined. Piloting was carried out with a total of twenty individuals with an intellectual disability, consisting twelve men and eight women. Those individuals who took part in piloting were not included in the study proper. Due to time limitations and limited resources it was not possible to distinguish participants of piloting with regards problems of aggression. The aim of piloting was to ensure the clarity and ecological validity of the language and visual stimuli for use with people with an intellectual disability. Careful piloting was required to ensure that the vignettes used in the study were understood and that there was an acceptable level of uniformity in the level of aggression depicted in each of the vignettes. Also, the process of piloting allowed the researcher to ensure that the questions were understood by people with a moderate to mild intellectual disabilities and that the assessment was engaging for participants.

2.3.1. Early Drafts of the GOAS Assessment: Changes Made During Piloting.

Substantial changes that were made to early drafts of the GOAS assessment during piloting will be discussed in some detail in the following section. These included significant refinement of the initial research ideas. More specifically, piloting resulted in a narrowing of the behavioural strategies being explored, changes to the content of the hypothetical vignettes and the questions included in the assessment, and simplification of the rating scales used.

Proactive and Reactive Aggression. Early drafts of the assessment explored two types of conflict situations where the participants were asked to imagine themselves as victims of others hostility and as perpetrators of aggression. It was found that participants were uncomfortable with the latter, frequently responding *"I wouldn't hit him"* and gave mainly socially desirable responses. This appeared to be partly due to the use of hypothetical characters to represent the victim of the aggression, and partly due to the lack of justification offered for the aggressive acts. To clarify, it was felt that participants' may have been more willing to imagine themselves engaging in proactive aggression within real life conflict events taken from participants' own experience. This would allow a richer context within which to understand the motives of aggression. A shortcoming of using hypothetical vignettes to present acts of proactive aggression, is that participants could imagine no justification for the aggression. This may have caused the aggression shown in the vignettes to appear particularly harsh. Whereas in real life events it may be that the aggression would be viewed in context, for example taking into account a past history of conflict with the characters depicted in the story. Given the restriction of the assessment to hypothetical vignettes it was thought necessary to take the proactive aggression condition out.

Hypothetical Vignettes. At the outset the intention was to include approximately six vignettes which the participant would be asked to comment on with respect to a range of predefined outcomes. For this purpose a number of vignettes depicting hostile situations were drawn up, each of which gave minimal detail regarding the characters and trigger events, i.e., *"Imagine someone in your class at college starts to argue with you"*. The rationale was to avoid confusing

participants with too much information and to limit the demands on participants' memory. However, piloting highlighted the need for these vignettes to be expanded to include more detail for the following three reasons. Firstly, participants frequently indicated that more details regarding the initiating event were required to allow them to answer the questions being asked. To offer an example, when asked how staff would react to a character involved in conflict (authority approval/disapproval) participants frequently stated, "*It depends on who started it.*" Secondly, it was recognised that due to the lack of detail in the vignettes, different participants may have interpreted the scenes differently, assuming varying levels of hostility and different contexts for vignettes (i.e., some may assume a serious argument with a close friend whereas others may assume a more trivial argument with a casual acquaintance). Thirdly, participants were observed to experience some difficulty shifting set between the three ill defined vignettes, due to a lack of clear defining markers between stories.

Level of Provocativeness and Uniformity of Vignettes. It was important that participants accurately identified the vignettes as being provocative. Participants were asked whether they would feel angry if they were involved in a similar situation according to three options of a wee bit angry / quite a bit angry/ very angry. The vignettes used were rated 'very angry' by most participants (16/20; 17/20 and 17/20). To maximise uniformity across vignettes the same information points were written into each vignette. Each included information regarding (i) setting conditions, (ii) description of the provocative event and (iii) the deliberate intent of the provocation.

Physically Aggressive Strategies in Response to Conflict. In a first draft, participants were required to imagine themselves behaving in a physically aggressive

manner in response to a hypothetical situation where someone treated them in a hostile fashion. In piloting similar problems were found in relation to the questions asked regarding outcomes of physical aggression and those previously outlined in relation to proactive aggression. Many participants appeared uncomfortable with these items, frequently stating "*I wouldn't do that*", despite prompting by the researcher to "*just imagine*" behaving in this way. It was noted that participants gave a high number of "*don't know*" responses to items depicting physically aggressive responses. The researcher gained the impression that participants may be answering defensively as they did not wish to be associated with physically aggressive behaviour, or to appear to condone physical aggression. Changes were necessary to avoid participants becoming disengaged or uncomfortable with questions being asked, and to ensure that participants did not get caught in a pattern of socially desirable responding. Therefore, it was decided to exclude the condition requiring participants to imagine themselves using physically aggressive strategies and focus solely on verbal aggression.

Hypothetical Assertive Strategies. In an early draft participants were asked to imagine responding assertively to hypothetical hostile situations. However, in piloting participants anticipated exclusively positive social outcomes of assertiveness (i.e., peer approval, authority approval, instrumental reward etc), suggesting that these questions were somewhat transparent to participants. Hence, it was decided to exclude the section on assertiveness.

Social Goals. In order to explore possible differences in the goals underlying participants' social strategies participants were asked to imagine a situation where someone treated them in a hostile manner. They were firstly asked what they would

DO and then asked to say WHY they would choose to respond in this manner. Considerable difficulties were noted on the administration of these questions regarding salient goals. Responses to the question "*why* would you choose to do that?" revealed that participants commonly mistook the question to mean "what *caused* you to do that. Accordingly, participants often responded by simply referring back to the hostile situation, i.e., "*because he took my drink*". Another similar problem was that many participants gave responses regarding their emotional motivation for the behaviour, for example, "*because I was angry*". To guide participants to discuss the goals underlying these behavioural strategies a series of prompts were used in line with Renshaw & Asher, (1983) who noted similar problems in his study with children. This was found to be effective in piloting, however, it was recognized that the process of prompting used to explore goals remained demanding for participants. To minimise the demands on participants only one question regarding salient social goals was included in the assessment.

Coding of Social Goals. Exploring salient social goals required an open ended question and the development of coding categories for analysis. Initially it was hoped that these categories would mirror those used for outcomes of aggression and submissivness, allowing comparison across goals and valued outcomes. However, it was noted that no participants identified goals relating to peer approval or self condemnation. Additionally, a number of participants in piloting gave goals that were not represented by the predefined outcome categories, for example, 'getting revenge' and 'avoiding conflict'. As such it was decided that content analysis of the open ended question regarding salient goals would guide categories for coding.

Visual Story-boards for Vignettes. A series of questions were asked of participants to ensure that the visual stimuli that was used to represent the vignettes were clear and accurately represented the storyline, (i.e., *Tell me what is happening in this picture? How do you think this woman/man feels? What is this man/woman holding?)* Piloting highlighted that participants were easily distracted by irrelevant details in the photographs and these were amended accordingly. A number of photos were also excluded as the emotional expressions of the characters depicted were found to be ambiguous or misleading for participants. Other photos failed to represent the events occurring within the scenario and new photos were taken in light of the comments made by participants.

Rating Scales for the Value placed on Outcomes. In order to explore the value participants' placed on the outcomes of aggression and submissiveness a number of rating scales were piloted. In an early draft participants were asked *"how much would you care"* about the outcome, which was rated on a three point scale of: *would not care'/ care a wee bit/ care a lot.* Whilst this approach appeared to work well with some participants, it appeared that others were primed to respond *"I don't care"* when discussing negative outcomes, apparently adopting a defensive stance. For instance, when participants responded that a strategy would lead to 'peer disapproval' they were then asked *"how much would you care about that?"* The researcher noted a common reaction of "*I wouldn't care what they think"*, that appeared to be a defensive response perhaps as a face saving strategy. Also the categories of: *would not care'/ care a wee bit/ care a lot,* appeared less appropriate when discussing positively valenced outcomes such as peer approval, authority approval etc. In a second draft the value of outcomes was rated according to the

emotion that the outcome would evoke in participants according to three categories of *"I would feel happy/not bothered/feel angry*. Firstly an open ended question was asked. It was found that many individuals spontaneously offered answers indicating broadly defined emotional reactions, for example, answering that they would feel "terrible" or "awful" rather than the option of "angry". Others reported more than one emotion responding "sad and angry". Accordingly, for ease of rating, broader options were thought preferable. Accordingly, the options of feeling good/ not bothered/ feeling bad were introduced.

Reducing Options for Rating Likelihood of Outcomes. Early versions of the assessment asked participants to rate the likelihood that defined outcomes of aggression and submissiveness on a three point scale: *(not likely/ quite likely/ very likely*) and then rate the value participants' would place on each anticipated outcome on a different three point scale as described above *(feel good/ not bothered/ feel bad)*. However, using two different three point scales in succession proved confusing to some participants, who appeared to choose the same point on the scale for each question (i.e., lowest point, middle point or highest point), suggesting that they had become stuck on their first response set. It was also found that many participants experienced the repeated rating of questions in this manner as somewhat interrogative and demanding. Accordingly, it was decided that the former rating scale regarding predicted outcomes should be simplified to an either/or choice.

Photographs of Emotion. To aid participants' understanding of the question "*how would that make you feel*?" in piloting, two photographs of facial emotion were shown to participants. Selected photographs from Ekman & Friesen (1976) and Spence (1988) depicting facial expression of emotion were checked for clarity of

understanding. As the participants would be told how the person in the photo was feeling it was necessary only to check for agreement with this emotion rather than requiring the participant to identify the emotion in the photo. However, finding a photograph of a neutral face to depict 'not bothered' proved most problematic. For example, a photograph of a woman who was shrugging shoulders was interpreted in a variety of ways such as "*she is being cheeky*" or "*she is fed up*". Another apparently neutral photograph taken from Spence (1988) was viewed as being '*sad*' by a number of participants in piloting. Thus it was decided that only two photos depicting '*feeling good*' and '*feeling bad*' would be presented as extreme ends of a continuum, (indicated by a drawn line) and '*not bothered*' would be indicated by the researcher pointing to this line 'in the middle' with prompts of '*neither good or bad*' given as necessary to ensure clarity.

2.4. Validity.

Three Clinical Psychologists with specialist experience working with individuals who have an intellectual disability and problems of aggression were asked to comment on the face validity of the assessment materials that were developed. Their views were also sought regarding the comprehensibility of the questions and the rating scales used. A draft version of the assessment was presented and feedback requested regarding the face validity of the assessments at a meeting of Clinical Psychologist who specialize in working with adults with intellectual disabilities. The ecological validity of the assessment materials was also checked during piloting with participants.

2.5. Final Version of the GOAS Assessment.

The final version of the GOAS assessment (Appendix 2) consisted of three vignettes depicting hypothetical situations of inter-personal conflict that were used as a basis for questions regarding predicted outcomes of aggressive and submissive categories. These vignettes depicted (i) being unfairly refused a ticket for the college dance, (ii) someone pushing in front of you to take your chair and (iii) someone stealing your drink. Two versions of each vignette were drawn up, one depicting male characters and the other females, (Appendix 3). Participants were read the story and asked to imagine themselves giving an aggressive response to one of these hostile vignettes and a submissive response to the other. Care was taken to ensure that the hypothetical aggressive response strategies used in the assessment depicted a similar level of aggression. Each included similar content units of emotion (anger), verbal aggression (shouting) and a threatening statement. Similarly hypothetical submissive responses each included content units of negative emotion (upset) paired with passive behaviour ("*imagine you just say nothing*"). A third vignette was presented as an initiating event to explore participants' social goals. Participants were asked to say how they would respond to this hostile situation and crucially to state WHY they would respond in that way to identify the goal underlying this response. To allow internal reliability checks questions about outcomes of aggression and submissiveness were also asked in relation to this vignette and responses were compared with those from previous vignettes. Again participants were asked to imagine themselves at the receiving end of the hostile event and predict the outcomes of aggressive and submissive strategies.

To enhance the ecological and social validity of the assessment care was

taken to use settings and situations familiar to people with a intellectual disability in scenarios. The content of vignettes was partly guided by those used in a previous study looking at cognitive mediators of aggression with individuals who have a intellectual disability (Pert *et al.,* 1999). To aid understanding of the hypothetical vignettes, a series of three photographs were taken to depict the stories (March, 1992). Photos of men were used for male participants and photos of women for female participants to avoid responses being influenced by gender stereotypes and social mores (i.e. men shouldn't bully women).

2.6. Procedure.

The GOAS assessment was administered to participants individually by the researcher, who was blind to the participants' group. The assessment include the following three sections:

2.6.1. Predicted Outcomes Aggression and Submissiveness.

In order to investigate the participants' predicted outcomes of aggression they were presented with two hypothetical conflict situations involving themselves (self referent). In these situations they were depicted at the receiving end of hostility and asked to imagine that they responded to this hostility in a verbally aggressive manner. The hypothetical stories were read out to the participant illustrated by colour photographs shown at the same time. A series of questions were then asked, starting with an open ended question: *"What would happen when you shouted at X?"* A series of forced choice questions were then asked regarding six predicted outcomes of (i) tangible reward (ii) self condemnation; (iii) reduction of aversion in

the future, (iv) effect on victim, (v) peer approval, (vi) authority approval. For example, for authority approval the researcher asked *"When you shouted at him would the staff say you did the right thing /wrong thing?"*

2.6.2. Value Placed On Outcomes.

Immediately following each question regarding a predefined outcome, participants were asked to rate how their anticipated outcome would make them feel. An open ended question was asked first to avoid acquiescence. If the response given was ambiguous or unclear, participants were asked to choose one of three options *"good/not bothered/ bad."* To aid understanding participants were shown photos of two women with happy and sad facial expressions (Appendix 4). Participants were shown two cards on which the photos were printed when first asked the question *"How would that make you feel?"* They were told the emotion depicted by each face as follows: *"The woman in this photograph is feeling good, and this woman is feeling bad"*. Participants were then asked to point to each photograph of emotion and were corrected if they got any emotion incorrect. This was repeated until the researcher was confident that participants correctly identified each of the faces. The researcher then placed the photos on a visual continuum, saying if you feel good point to this photo (pointing), if you feel bad point to this photo (pointing), if you would be 'not bothered' point in the middle (pointing). When responding to the 'emotions' questions participants were free to either point to their chosen response on the visual card, or give a verbal response.

2.6.3. Predicted Outcomes of Submissiveness.

In section two participants were questioned about the outcomes of responding submissively in the face of hostility. Here a hypothetical vignette was read to participants and depicted by photographs. The researcher asked participants to imagine that they reacted in a submissive way, stating; *"Imagine that when this happens, you feel really upset but you don't say anything and you don't do anything about it."* The same procedure as in section one was followed for questions regarding the outcomes of submissiveness (peer view; authority view; tangible reward; reduction of aversive treatment; self condemnation) and feelings about these outcomes. Questions regarding the 'effect on victim' were not included in the submissiveness condition as this outcome was clearly not relevant to submissive responses.

2.6.4. Distribution of Vignettes across Group and Gender.

It was important to ensure that any differences found in Aggressive and Non Aggressive participants' responses to (i) submissive and (ii) aggressive items were not simply due to perceived differences in the levels of threat posed by the hypothetical scenarios presented for each. To avoid this, the scenes used for questions regarding aggression and submissiveness were varied systematically across group and gender. Accordingly, half of the participants in each group were asked to imagine behaving aggressively to the scenario *"Being refused a ticket"*, and behaving submissively to the scenario of *"Someone taking your chair"* with an equal distribution of males and females. The scenes were reversed for the remaining participants in each group who imagined aggressive responding to the scenario

"Someone taking your chair" and submissive responding to the scenario *"Being refused a ticket"*. Similarly, the order of the either/or choices for the questions regarding predicted outcomes were also systematically varied in order to ensure that there was no recency effect for items presented last. To allow checks of internal consistency a second set of questions regarding predicted outcomes of aggression and submissiveness were asked in relation to a third vignette. Here both sets of questions were asked in relation to the same vignette.

2.6.5. Social Goals.

In order to elicit the social goals underlying participants' behaviour within situations of conflict, a third hypothetical hostile situation was presented. Firstly participants were asked to predict what they would do when being treated in a hostile manner. Secondly, to elicit goals, they were asked *why* they would act in that way. A series of prompts guided people towards giving a response related to their goals, (*e.g. Why would you do x instead of doing something else? Why did you think it is a good idea to do x? What were you trying to do when you did x?).*

2.6.6. Strategies to meet Pre-determined Goals.

The aim of this section was to explore whether participants could generate strategies to meet five pre-defined goals within conflict situations (i.e., to avoid trouble; get revenge on the person; show them they can't mess you around; maintain self esteem; keep in with your pals). Participants were asked to say what they would do if they wished to achieve that goal. For example, for the goal of revenge the question posed was: *"If you want to get back at the person what would you do?"*

Finally, to determine participants' ability to identify effective solutions to meet pre-defined goals they were asked to say whether they thought (i) a verbally aggressive strategy (ii) a passive strategy would meet each of the above goals. An either/or question format was used.

2.7. Coding of Responses.

(i) Responses for questions related to the expected outcomes of aggression and submissiveness were coded into two categories which necessarily differed for each outcome. These were: peer approval/ peer disapproval; authority approval/ authority disapproval; tangible gain/ no tangible gain; self condemnation/ self approval; victim upset/ victim not upset.

(ii) Responses to questions regarding how participants would feel about the outcomes of aggression and submissiveness were coded as '*feel good, feel bad* or *not bothered'*.

(iii) Participants' responses regarding salient goals were coded into categories of: *seek revenge; show others they can't mess me around; seek a fair outcome; avoid conflict*. These categories were guided partly by themes emerging during piloting as mentioned previously. At the outset the category of *instrumental gain* was also included in the coding, however it was found that this response category overlapped considerably with that of 'fair outcome'. This was due to the nature of the hypothetical vignettes used in the assessment, where participants had to imagine the protagonist deliberately taking something which rightly belonged to themselves, (*refusal to give ticket, theft of a drink and taking your chair*). Thus an attempt to retrieve this object could depict a goal of instrumental gain but could also be seen as

a goal of achieving justice in retrieving the object. For this reason the instrumental reward category was collapsed with that of 'fair outcome'.

(iv) Participants' responses to question regarding the behavioural strategies they would employ to meet explicit goals were coded into three categories of *passive, assertive* and *aggressive.*

(v) Strategies to meet a predefined pro-social goal were coded by an independent blind rater as *effective* and *ineffective*.

2.8. Reliability.

(i) Inter rater reliability. All open ended responses were second rated by a blind rater. Kappa coefficients showed a rating of .71 for salient social goals; .88 for behavioural responses; .88 for predefined social goals.

(ii) Internal consistency of responses was explored by comparing responses for outcomes of aggression across two hypothetical vignettes and outcomes of submissiveness across two hypothetical vignettes. Findings are shown in Chapter 3.

CHAPTER THREE: STUDY ONE RESULTS.

Goals And Predicted Outcomes Of Aggression And Submissiveness.

The findings of study one will be presented in two sections. In section one Aggressive and Non Aggressive participants' data are compared. This will be followed by gender comparisons in section two. Participants' responses for (i) expected outcomes of aggression, (ii) how participants feel about outcomes of aggression (iii) expected outcomes of submissiveness, (iv) how participants feel about outcomes of submissiveness and, (v) social goals are presented.

Analyses. This is an exploratory study that considers causal factors of aggression not previously studied with participants who have an intellectual disability. As such a power calculation was not carried out to guide participant numbers. It was believed that the findings of studies exploring similar research questions carried out with children could not be referred to for the purpose of power, as individuals with an intellectual disability may differ significantly from non intellectually disabled participants with regards the social cognitive factors being explored. Two tailed tests are used throughout to compensate for problems of low power.

Chi square tests are used as the data are nominal. Whenever the nominal data show lower than the expected number of responses in any category Fisher's Exact tests are used. As more than 20% of the response categories in the data set contained less than the expected frequency of responses, multivariate statistical tests

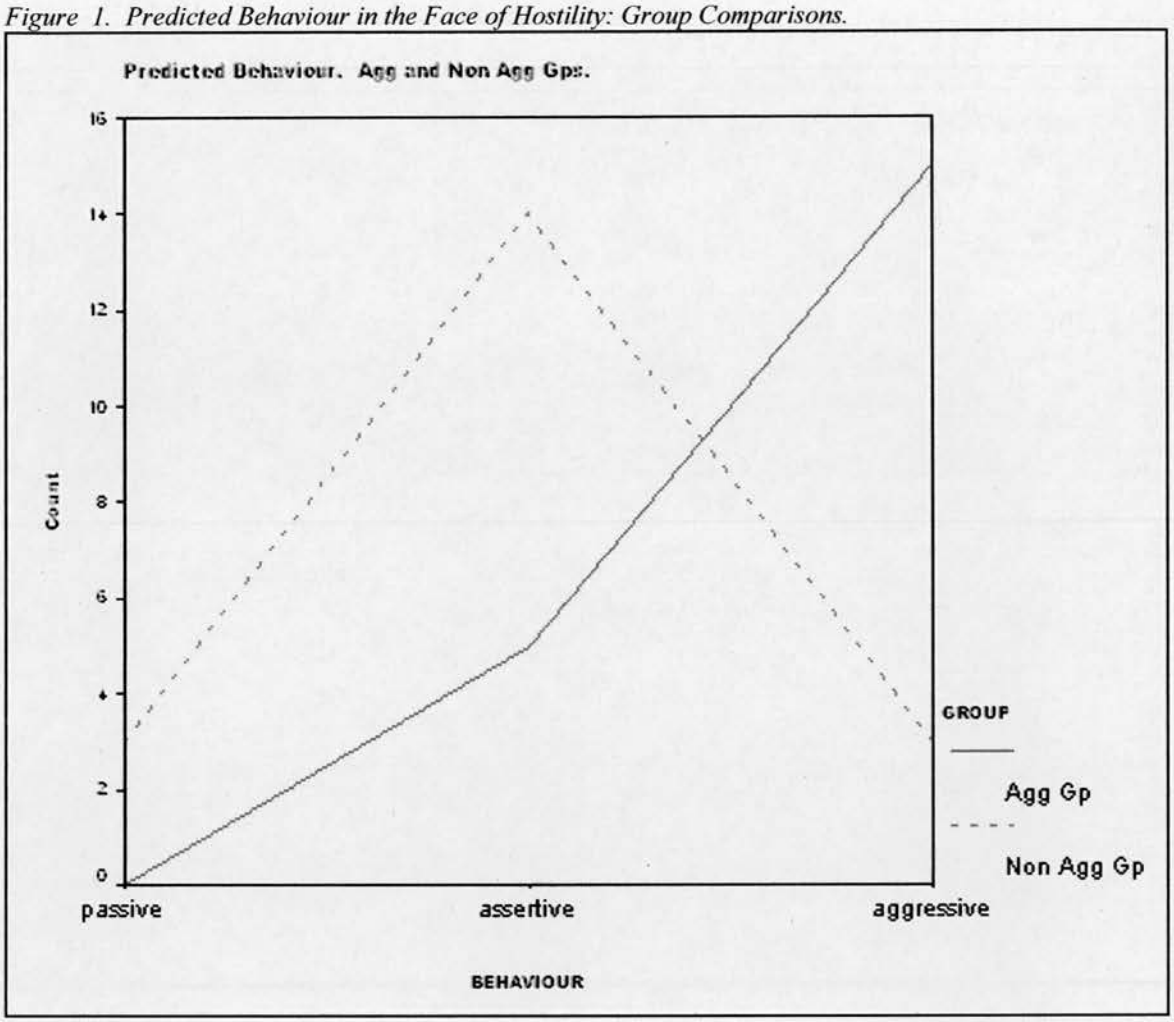
(such as loglinear anlaysis for nominal data) could not be used. As no differences were shown in the descriptive data across gender, multiway frequency analysis that would compute *predicted outcomes; gender; group* were not appropriate as the lack of gender differences would negatively impact on the power of such analyses.

Adjustments for Multiple Tests. Given the exploratory nature of this study a main focus is to explore patterns which may emerge in the data with the aim of influencing future research. A concern is that important differences shown by this study could be overlooked should adjustments such as bonferroni adjustments for multiple tests be made. Perneger, (1998) points out a number of difficulties with Bonferroni adjustments which he states are often used to increase methodological rigour with insufficient understanding of what may be at stake. Perneger points out that the Bonferroni method assumes that the researcher is concerned whether the two groups being compared are identical in *all* independent tests being performed (the universal null hypotheses) without information regarding the particular areas of difference. He argues that in fact the researcher is concerned with assessing *each* variable in its own right. Perneger also argues that by decreasing the likelihood of type I errors the researcher runs the risk of increasing the likelihood of type II errors. This is a problem when researchers are carrying out exploratory studies that are concerned with identifying interesting trends in the data when there is a lack of previous research evidence.

3.1. Comparing Aggressive And Non Aggressive Participants.

Descriptive data showing responses for *predicted behaviour* in the face of hostility are shown in Figure1.

Figure 1. Predicted Behaviour in the Face of Hostility: Group Comparisons.



A significant difference is shown across groups for predicted behaviour when Chi Square analysis is computed. *Chi Square = 0.618, df =2, p =0.001.* Most Aggressive participants stated they would respond aggressively and most Non Aggressive individuals stated they would respond assertively. This direction of difference serves to validate the sampling procedure used for groups, confirming that the Aggressive group choose more aggressive strategies. It is notable that this pattern of responses shows that that Non Aggressive participants in this study select very few passive responses and they should therefore not be viewed as a submissive group despite their lack of aggression.

Participants' were firstly asked an open-ended question regarding the expected outcomes of aggression acted out in response to others hostility, and the responses were then coded into predefined categories as shown in Table 3.

Table 3. Predicted Outcome of Aggression: Open Ended Question.

GROUPS n=20	**Elicited Outcome of Aggression**		
	Agg(m)	***NAgg***	
I Win	*4*	*3*	*Chi sq=.109, df=2,* ***p=0.764***
Unresolved	*7*	*7*	
They Win	*8*	*10*	

(m) = one missing value

Table 3 above shows that most Aggressive and Non Aggressive participants' responses fall in the category '*unresolved*' or '*they win*'. The pattern of responses is similar for each group, showing that very few Aggressive or Non Aggressive participants believe that aggression will lead to positive outcomes for themselves.

3.1.1. Expected Outcomes of Aggression.

Participants were presented with two hypothetical scenarios of conflict and asked to imagine themselves responding aggressively. The scenarios are referred to in the following tables as Sc1 and Sc2. Analysis of the internal consistency of responses across scenarios for aggression showed low consistency in the majority of cases (see Tables 11 and 12, section 3.1.6.). The lack of internal consistency across scenarios suggests that the outcomes expected for aggression are influenced by setting conditions or context. Due to this, total scores for the two scenes were not computed for analysis as the low internal consistency suggests that total scores would not be meaningful. Descriptive statistics showing more detailed information regarding the direction of responses are presented in Appendix 5.

Table 4. Predicted Outcomes of Aggression for Each Scenario– Group Comparisons.

PREDICTED OUTCOMES OF AGGRESSION.		***Chi Square Analysis Agg and NonAgg Groups,*** *n=20*
Peer View	*Sc 1*	*Chi sq =.400, df =1,* ***p=0.527***
	Sc 2	*Chi sq =.902, df =1,* ***p=0.342***
Authority View	*Sc 1*	*Chi sq =.533, df =1,* ***p=0.465***
	Sc 2	*Chi sq =.143, df =1,* ***p=0.705***
Reduce Hostility	*Sc 1*	*Chi sq =.404 df =1,* ***p=0.525***
	Sc 2	*Chi sq =.440, df =1,* ***p=0.507***
View of Self	*Sc 1*	*Chi sq =.960, df =1,* ***p=0.327***
	Sc 2	*Chi sq =.100, df =1,* ***p=0.752***
Instrumental gain	*Sc 1*	*Chi sq =.143, df =1,* ***p=0.705***
	Sc 2	*Chi sq =.440, df =1,* ***p=0.507***
Effect on Victim	*Sc 1*	*Chi sq =.476, df =1,* ***p=0.490***
	Sc 2	*Chi sq =.476, df =1,* ***p=0.490***

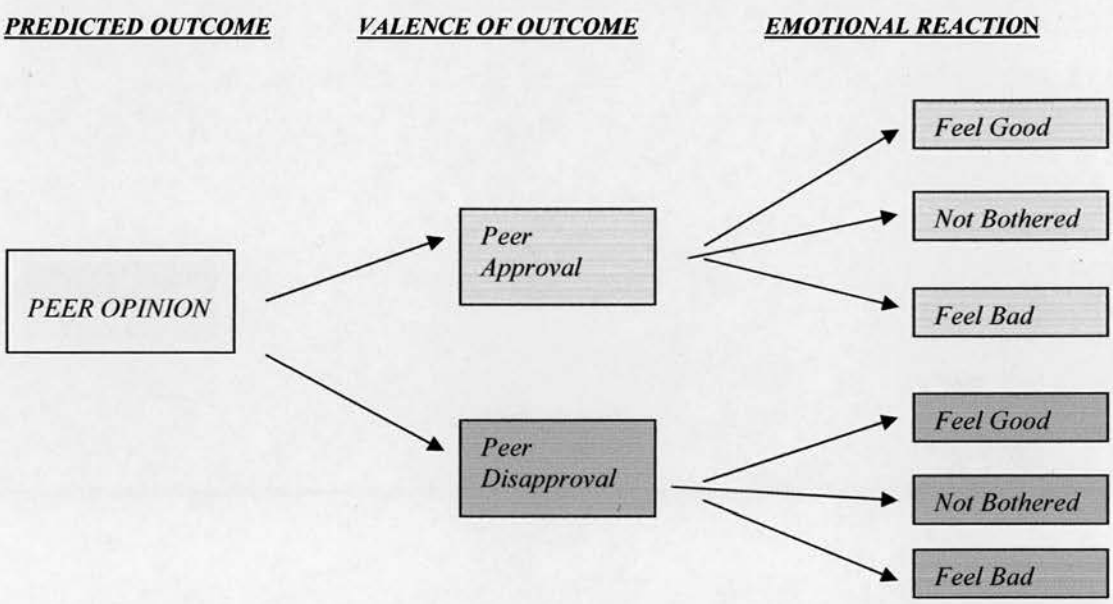
No significant differences were shown across Aggressive and Non Aggressive participants for the predefined outcomes of aggression as shown in Table 4. As shown in Appendix 5 for outcomes concerning *peer view, reduce hostility* and *view of self*, both Aggressive and Non Aggressive participants' responses were spread across positive and negative outcome categories. For the outcomes of *authority view, instrumental reward* and *effect on victim* most participants in each group responded negatively. In relation to the outcome *effect on victim* it should be emphasised that the "victim" in these vignettes was also the original perpetrator of hostility and therefore should not be viewed as a *passive* victim of hostility inline with the more commonly used definition of victim.

3.1.2. How Participants Feel About the Outcomes Of Aggression.

Responses to questions asking how participants' would feel about the outcomes of their aggression are considered in this section. It is recognised that analysis of this data can be approached in two ways.

(i) Emotional Response taking Valence into Account. Firstly, the valence (positive or negative) of responses regarding the expected of aggression may be taken into account when interpreting responses to the question '*How would you feel about that*?' This allows fuller interpretation of the nature of the participants' emotional reaction to their anticipated outcomes. This is illustrated in Figure 2 below.

Figure 2. Emotional Response Depending on the Valence of Outcomes.



If we consider outcomes of aggression in relation to *Peer Opinion*, it can be argued that the meaning of a response of '*feel good*' for a positively valenced outcome of *Peer Approval* (yellow box) must be distinguished from a response of '*feel good*' for the negatively valenced outcome of *Peer Disapproval* (blue box). Clearly the former may suggest pro social tendencies and the latter anti social. When this avenue of analyses was explored descriptive data revealed that responses are markedly skewed with a low number of responses in many categories. As such no inferential analysis was carried out. The descriptive statistics are shown in Appendix

6. To summarise, for the expected outcomes in each category of *peer view, authority view, reducing others hostility and instrumental reward* most participants in both groups who gave a positively valenced response said they would *feel good* and most who gave a negatively valenced response said they would *feel bad.* Overall most '*not bothered'* responses were given in relation to negatively valenced outcomes with the exception of the outcome reduce future hostility.

(ii) Feelings Irrespective of Valence of Outcomes. The second method of analysing the data looks at how participants feel about the outcomes of aggression *irrespective* of the valence of each outcome. This is separate from the question of which *specific* outcomes are of value to participants but rather explores whether aggressive strategies are expected to lead to positive or negative outcomes. Here it is assumed that a response of *'feel good',* for *any* expected outcome of aggression indicates that the individual expects to gain from aggression which in turn suggests a higher likelihood of participants engaging in aggressive strategies. Conversely, a response of *'feel bad'* for expected outcomes of aggression indicates that the participant does not expect to gain from aggression, and it may be assumed that aggression will likely be avoided. Any response of *'not bothered'* suggests that the outcome in question is not important to the individual.

Figure 3. Emotional Response Irrespective of the Valence of Outcomes.

Figure 3 shows that responses relating to positive outcomes presented in the yellow boxes that aggression would lead to valued outcomes whereas responses indicating negative outcomes presented in blue suggest that aggression would lead to outcomes not valued.

Table 5. How Participants Feel Overall Re Outcomes of Aggression: Group Comparisons

OUTCOMES OF AGGRESSION	***EMOTIONAL RESPONSE***						
	Feel Good		***Not Bothered***		***Feel Bad***		***Chi Square Analysis***
Either Valence.	*Agg*	*NAg*	*Agg*	*NAg*	*Agg*	*NAg*	
Peer View	*8*	*10*	*4*	*4*	*8*	*6*	*Chi sq= .145, df=2* ***p=0.649***
Authority View	*6*	*4*	*6*	*5*	*8*	*11*	*Chi sq =.139, df=2* ***p=0.617***
Reduce Hostility (mAg)	*7*	*11*	*4*	*0*	*8*	*9*	*Chi sq= 1.757 df=2* ***p=0.173***
Instrument Reward	*4*	*5*	*5*	*3*	*11*	*12*	*Chi sq= .109 df=2* ***p=0.721***
Effect on Victim	*3*	*4*	*7*	*6*	*10*	*10*	*Chi sq= .101, df=2* ***p=0.789***

NAg = Non Aggressive; Agg= Aggressive; (mAg) = missing value for Agg group

The distribution of scores according to the three emotional categories for outcomes of aggression for each group is shown in Table 5. A similar distribution of scores is shown for Aggressive and Non Aggressive participants. It should be re-emphasised that all responses relate to aggression in the face of hostility from others.

(iii) Comparison of Total Scores for Aggressive and Non Aggressive Participants. To establish an overall 'score' with regards the emotional impact of predicted outcomes of Aggression all responses were scored as follows; *feel bad =1; not bothered =2* and *feel good =3*. Totals were then computed for each participant and comparisons made across Aggressive and Non Aggressive participants. No difference was shown across Aggressive and Non Aggressive groups using the *Mann Whitney U test, Z= -.168,* ***p= 0.896,*** *Mean Rank, Agg=81.34, Non Agg=79.59.*

3.1.3. Expected Outcomes of Submissiveness: Group Comparisons.

In this sub-section responses to vignettes depicting submissive responses to hostility are presented. Here participants were asked to imagine themselves responding submissively within two hypothetical scenarios of conflict. Questions regarding the outcome '*effect on victim*' were not asked for this section as this question was not appropriate in relation to submissive responding.

(i) Elicited Outcomes of Submissiveness. Responses to an open ended question regarding outcomes of submissiveness are shown in Table 6.

Table 6. Predicted Outcome of Submissive Responding: Open Ended Question.

GROUPS n=20	**Elicited Outcome of Submissiveness**		
	Agg(m2)	*NAgg*	*Chi Sq = 11.259, df=2,* ***p=0.001****
I Win	*0*	*0*	
Unresolved	*8*	*1*	
They Win	*10*	*19*	

***= p<0.005; (m2) two missing values*

More Aggressive participants expected that conflict would continue if they responded passively to provocation. No participants in either group predicted that submissiveness would lead to their own advantage. Differences reached statistical significance.

(ii) Predefined Outcomes of Submissiveness. Significance levels of the five pre-defined outcomes for each of the two vignettes Sc1 and Sc2, are shown in the tables below. Appendix 7 shows the pattern of responses given by Aggressive and Non Aggressive participants for each hypothetical vignette.

Table 7 . Predicted Outcomes of Submissiveness: Group Comparsions.

PREDICTED OUTCOMES OF SUBMISSIVENESS		***Chi Square Analysis Agg and Non Agg n=20***
Peer View	*Sc 1*	*Chi sq =6.465, df=1,* ***p=0.011****
	Sc 2	*Chi sq =0.404, df=1,* ***p=0.525***
Authority View	*Sc 1*	*Chi sq =0.921, df =1,* ***p=0.337***
	Sc 2	*Chi sq =0.440, df =1,* ***p=0.507***
Reduce Hostility	*Sc 1*	*Fishers Exact,* ***p=0.028****
	Sc 2	*Fishers Exact,* ***p=0.077***
View of Self	*Sc 1*	*Fishers Exact,* ***p=0.041****
	Sc 2	*Chi sq =1.616, df=1,* ***p=0.204***
Instrumental Gain	*Sc 1*	*Fishers exact* ***p=1.000***
	Sc 2	*Fishers exact* ***p=1.000***

**= p< 0.05*

Table 7 shows a difference for *peer view* with more Aggressive participants expect *peer disapproval* for submissiveness. No differences were shown in responses for *authority view* with most Aggressive and Non Aggressive participants expecting *authority approval* for submissive responding for each scene. For the outcome *reduce hostility,* there was a significant difference shown for Sc1 and a trend towards significance in Sc2. In each case more Aggressive participants expected that submissiveness would fail to *reduce hostility.* For *view of self,* comparison of responses for submissive Sc1 and Sc2 show that more Aggressive participants expected that they would *feel bad about self* if they behaved submissively. Statistical significance was shown across groups for Sc1 but not for Sc2. Again, this highlights the situational specificity of responses. For *instrumental gain* most Aggressive and Non Aggressive participants expected *no instrumental*

reward for submissive responding with very few responses indicating instrumental gain.

3.1.4. How Participants Feel about Outcomes. Of Submissiveness.

Two approaches to analysis will be considered for the feelings participants have regarding outcomes of submissiveness. This is in line with the analysis presented in relation to feelings regarding aggression.

(i) Feelings About Submissiveness According to Valence of Outcome. Again, responses for feelings regarding submissiveness are shown to be skewed when the valence of outcome responses was taken into account. As such no inferential statistics was carried out. Appendix 8 presents the descriptive data. The majority of participants in each group who gave a positively valenced response in relation to the outcomes of submissiveness said they would *'feel good'* and those who gave a negatively valenced response said they would *'feel bad'*. For *peer view* slightly more aggressive participants said they would be *'not bothered'* by an outcome of *peer disapproval.*

(ii) Feelings About Submissiveness Irrespective of Valence of Outcomes. Comparison of emotional responses is presented as described in Section 3.1.2., to look at the overall frequency of *'feel good'*, *'feel bad'* and *'not bothered'* responses for submissiveness. To recap, if participants' responses fall in the category of *'feel good'* for outcomes of submissiveness (irrespective of the valence of responses), this is taken to indicate a higher likelihood of participants engaging in submissiveness. Conversely, any response of *'feel bad'* indicate that submissive strategies will be avoided. Any response of *'not bothered'* is assumed to show that the particular

outcome in question is not important to the individual. Table 8 shows the distribution of scores according to the three emotional categories for outcomes of submissiveness for each group.

Table 8. Emotional Outcomes of Submissiveness: Group.

OUTCOMES OF SUBMISSIVENESS	***EMOTIONAL OUTCOMES OF SUBMISSIVENESS***						
	Feel Good		***Not Bothered***		***Feel Bad***		
	Agg	*NAg*	*Agg*	*NAg*	*Agg*	*NAg*	***Chi Square***
Peer View	6	13	5	2	9	5	*ChiSq=.368,df=2* ***p=0.143***
Authority View	11	8	5	6	4	6	*ChiSq=.130,df=2* ***p=0.879***
Reduce Hostility (mNag)	1	7	1	1	18	11	*ChiSq=.404,df=2* ***p=0.038 ****
Instrumental Reward	1	1	7	7	12	12	*ChiSq=.000,df=2* ***p=1.000***

**= p< 0.05; (mNag) = missing value in the Non Aggressive group.*

Chi square tests showed a statistically significant finding for submissiveness and the outcome *reduce hostility*. Significantly More Aggressive participants stated that they would *'feel bad'* about this outcome.

(iii) Comparison of Total Scores for Submissiveness – Group Comparisons. To establish an overall 'score' with regards the emotional impact of predicted outcomes of submissiveness all responses were scored as before (see section 3.1.2.). Totals were then computed for each participant and comparisons made across Aggressive and Non Aggressive participants using the Mann Whitney U test. There was no significant difference across groups with regards the emotional consequences of submissive strategies when overall ratings are analysed. Although a trend indicates that more Aggressive participants *'feel bad'* about the outcomes of submissiveness more often than Non Aggressive participants, *Mann Whitney U test, Z= -1.673,* ***p= 0.094,*** *Mean Rank, Agg=85.59, NonAgg=74.34.*

3.1.5. Social Goals.

In this section Aggressive and Non Aggressive participants' responses relating to social goals are compared. Responses to an open ended question are shown first followed by responses to predefined social goals.

(i) Salient Social Goals. Aggressive and Non Aggressive participants' salient goals within a hypothetical situation of conflict are shown in Figure 4. It is important to re-emphasis the distinction between the participants' behavioural strategies and their underlying goals. As discussed previously differing behavioural strategies, such as aggression, may be intended to reach a range of goals and vice versa.

Participants' responses for salient social goals were categorised into four response categories: avoid conflict; achieving a fair solution; showing them they can't mess me around; revenge. The goal of '*achieving a fair solution'* must be understood within the context of the hypothetical vignette that was used as a basis for questions regarding social goals. This vignette depicts a drink being stolen by the protagonist (Appendix 3). Within this context, the goal of having the money for the drink re-imbursed, was given by a number of participants. This overlaps with an outcome of instrumental gain to an extent. The goal of '*revenge'* was defined as hostile behaviour which aimed to '*get back at'* the other individual using strategies which may cause distress or harm. The goal of '*showing them they can't mess me around*' (showing strength) was defined as any goal which aims to prevent hostility to self from others, and is similar to the predefined outcome of reducing future aversion.

Figure 4. Social Goals. Group Comparisons.

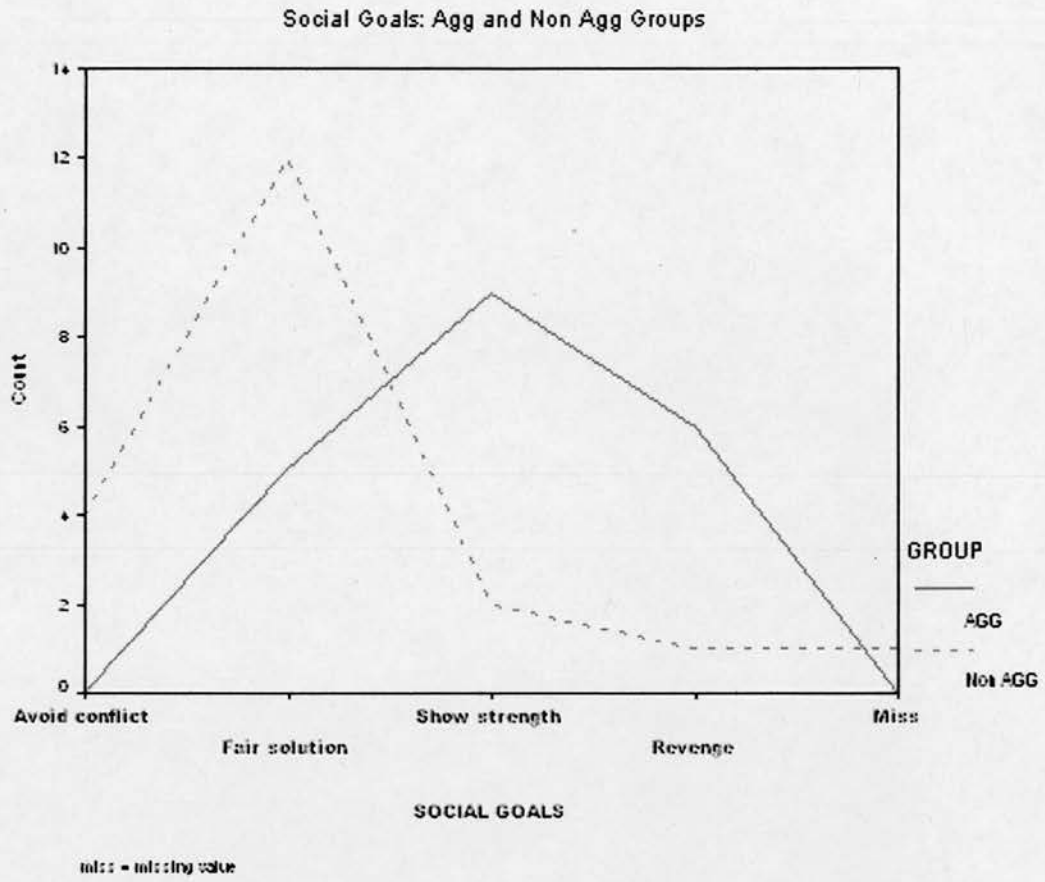


Figure 4 shows Aggressive and Non Aggressive participants' responses for social goals in the categories of Avoid Conflict; Fair Solution; Show Strength; Revenge. Statistically significant differences were shown with *Chi Square 0.612, df=3, p=0.006.* Compared with Non Aggressive participants, most Aggressive participants said their goal was to '*show them they can't mess me around*', (described as 'show strength' on the above graph). Aggressive participants' remaining responses fell in the categories of '*achieving a fair outcome*' and '*revenge*'. Non Aggressive participants gave a goal of '*avoiding conflict*'.

(ii) Pre-defined Social Goals: Group Comparisons. Table 9 shows no differences in Aggressive and Non Aggressive participants' strategies to meet predefined goals.

Table 9. Social Goals: Group Comparisons.

SOCIAL GOALS	*Chi Square Analysis, n=20*
Feel Good About Self	*Chi Sq, 0.157, df=2,* ***p=0.627.***
Peer Approval	*Chi Sq, 0.332, df=2,* ***p=0.116***
Show Can't Mess Me Around	*Chi Sq, 0.317, df=2,* ***p=0.133***
To Get Back at Them	*Chi Sq, 0.180, df=2,* ***p=0.540***
To Stay Out Of Trouble	*Chi Sq, 0.244, df=2,* ***p=0.303***

Most participants in each group gave a spread of passive, assertive and aggressive strategies for the goals of '*peer approval; 'feel good about self';* and *'show them they can't mess me around'*. Detailed descriptive data can be seen in Appendix 9. Slightly more Aggressive participants gave an aggressive response for the goal of '*peer approval'*, although analysis showed that the difference was not statistically significant. For the social goal '*to get back at them'* most participants in both groups gave aggressive strategies. For the goal '*stay out of trouble'* most participants in both groups gave a passive response.

(iii) Effectiveness of Strategy 'To Stay Out Of Trouble'. Participants' responses regarding the strategy '*to stay out of trouble'* were categorised according to the effectiveness or ineffectiveness of the strategy chosen.

Table 10. Effectiveness of Strategy for Goal -To Stay Out of Trouble: Group.

BEHAVIOURAL STRATEGY	***Group n=20***		***Analysis***
	Agg(m)	*Nag(m)*	*Fishers Exact,* ***p=1.00***
Effective	*16*	*18*	
Ineffective	*3*	*1*	

(m) = missing value.

Table 10 shows that most participants in each group were able to generate effective strategies for this goal, showing that the Aggressive group are no less capable of generating strategies to meet pro-social goals than their Non Aggressive peers. The majority of participants in each group gave a passive response of 'just walk away'.

3.1.6. Internal Consistency: Outcomes of Aggression and Submissiveness.

The internal consistency of participants' responses for the predicted outcomes of aggression and submissiveness across Sc1 and Sc2 was explored using Spearman's Rho Correlations test.

Table 11. Internal Consistency : Responses for Predicted Outcomes of Aggression,

PREDICTED OUTCOMES AGGRESSION *n=40*	**Peer View**	**Authority View**	**View of Self**	**Instrumental Reward**	**Reduce Future Aversion**	**Effect on Victim**
Spearman's Rho Correlation coefficient, r=	.042	-.035	.297	.107	.179	.101
P value	.810	.832	.062	.512	.269	.673

Table 11 shows that, when participants' responses for Aggression across Scenes 1 and 2 are compared, none of the six predefined outcomes of Aggression are shown to be rated similarly across these two scenes, although there is a strong trend for *view of self* for aggression. This suggests that participants' predicted outcomes of aggression cannot be assumed to remain constant across varying situations, or in other words that the setting conditions influence participants' expectations regarding outcomes.

Table 12. Internal Consistency: Response for Outcomes of Submissiveness,

PREDICTED OUTCOMES SUBMISSIVE *n=40*	**Peer View**	**Authority View**	**View of Self**	**Instrumental Reward**	**Reduce Hostility**
Spearman's Rho Correlation coefficient	.685	.800	.101	-.076	.901
P value	.001**	.000**	.673	.749	.000**

***= p<0.005*

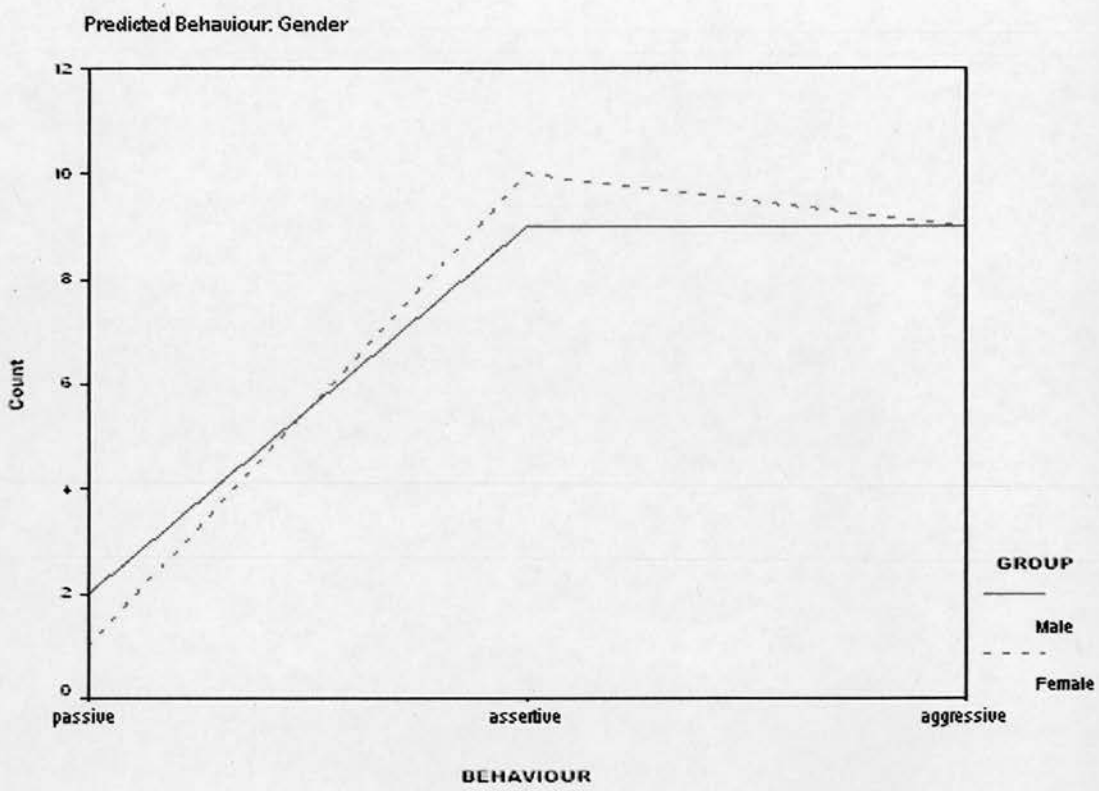
In contrast Table 12 shows that participants' responses to predefined outcomes of submissiveness show high internal consistency for *peer view, reduce hostility* and *authority view*. This pattern of findings suggests that participants' beliefs about aggression are influenced more by the setting conditions within which the aggression occurs than are their beliefs about submissiveness. However, it may be that the internal consistency across submissive situations is specific to the hypothetical situations used in this assessment.

3.2. SECTION TWO: GENDER COMPARISONS

This section presents comparisons of male and female participants' responses. Descriptive data shows no differences in expected outcomes of aggression, expected outcomes of submissiveness and social goals. As such the main focus in this section is to illustrate the pattern of responses and notable directions in the data. The full descriptive data set can be seen in Appendix 10.

Firstly male and female participants' responses for *predicted behaviour* in the face of hostility are shown in Figure 5.

Figure 5. Predicted Behaviour in the Face of Hostility.



Male and female participants' both gave an equal spread of assertive and aggressive strategies and very few passive strategies. This is in contrast to the common finding that men are more aggressive than women. Perhaps this atypical pattern of responding shown in relation to aggressive behaviour goes some way to explain the lack of gender differences found in this study in relation to expected outcomes of aggression and submissiveness and social goals.

3.2.1. Expected Outcomes of Aggression - Gender comparisons.

As indicated in Table 13 below, no significant differences were shown in male and female participants' responses to an open question regarding expected outcomes of aggression.

Table 13. Predicted Outcome of Aggressive Responding: Open Ended Question. Gender.

GROUPS n=20	**Elicited Outcome of Aggressiveness**		
	Male	*Female (m)*	
I Win	*3*	*2*	*Chi Sq, 0.647, df=2,* ***p=0.724.***
Unresolved	*9*	*7*	
They Win	*8*	*10*	

(m) = missing value.

Few male or female participants anticipated that aggression would lead to their own advantage, with most responses for each gender split across the categories 'not resolved' and 'they win'. A similar pattern of responding is shown across male and female participants' responses. This suggests that the men taking part in this study do not expect more gains from aggression than women, in contrast to findings from studies carried out with non-learning disabled participants

(i) Predefined Outcomes of Aggression: Gender Comparisons. Responses to the six predefined outcomes of aggression are compared across male and female participant in Table 14.

Table 14. Predicted Outcomes of Aggression: Gender.

PREDICTED OUTCOMES OF AGGRESSION.		***Chi Square Analysis Gender,*** *n=20*
Peer V iew	*Sc 1*	*Chi sq=.100, df=1,* ***p=0.752***
	Sc 2	*Chi sq =.092, df =1,* ***p=0.342***
Authority V iew	*Sc 1*	*Chi sq =.533, df =1,* ***p=0.465***
	Sc 2	*Chi sq =.143, df =1,* ***p=0.705***
Reduce Hostility	*Sc 1*	*Chi sq =.404 df =1,* ***p=0.525***
	Sc 2	*Chi sq =1.758 df =1,* ***p=0.185***
View of Self	*Sc 1*	*Chi sq =.107, df =1,* ***p=0.744***
	Sc 2	*Chi sq =.100, df =1,* ***p=0.752***
Instrumental gain	*Sc 1*	*Chi sq =.143, df =1,* ***p=0.705***
	Sc 2	*Chi sq =.404, df =1,* ***p=0.567***
Effect on Victim	*Sc 1*	*Chi sq =.476, df =1,* ***p=0.690***
	Sc 2	*Chi sq =.000, df =1,* ***p=1.000***

When the outcomes of aggression were pre-defined and participants were asked to choose from two categories, male and female participants' responses showed a similar distribution for all predefined outcomes of aggression. Responses are spread quite evenly across positive and negative valenced outcomes for *'peer*

view, view of self and *reduce hostility*, although slightly more men responded that aggression would lead to a '*reduction in others hostility'* for Sc2. Both men and women expected mainly negatively valenced outcomes for '*instrumental reward, authority view* and *effect on victim'*. The latter indicates that neither men nor women expect that the victim of aggression would be upset. However, as previously highlighted this must be viewed within the context of reactive aggression where the 'victim' was also depicted as the original perpetrator of hostility. Descriptive data is shown in Appendix 11.

3.2.2. How Participants Feel About Outcomes Of Aggression - Gender Differences.

When male and female participants' were asked how these expected outcomes of aggression would make them feel, again no differences were shown. Firstly, emotional responses are considered taking into account the valence of responses for predicted outcomes. As before, data was skewed and therefore no inferential statistical analysis was computed. Descriptive data is shown in Appendix 12. As previously noted, the question regarding emotion was not asked in relation to outcomes of *view of self.* For the outcome of *effect on victim* the overall pattern of responding for both males and females spread across a broad range of categories, although the pattern of responding showed no difference across gender

(i) Feelings Irrespective of Valence: Outcomes of Aggression for Gender.

The overall frequency of responses for emotional outcomes according to the three categories of '*feel good / not bothered / feel bad'* indicates the likelihood of men and women engaging in aggression in the future as previously discussed.

Table 15. How Feel About Outcomes of Aggressions : Gender.

OUTCOMES OF AGGRESSION	***EMOTIONAL RESPONSE***						
	Feel Good		***Not Bothered***		***Feel Bad***		***Chi Square Analysis Gender,*** *n=20*
	Male (m)	*Fem*	*Male*	*Fem*	*Male*	*Fem*	
Peer View	*9*	*10*	*5*	*2*	*6*	*8*	*ChiSq= .230, df=2,* ***p=0.559***
Authority View	*4*	*6*	*7*	*4*	*9*	*10*	*ChiSq=.185, df=2,* ***p=0.714***
ReduceHostility	*10*	*10*	*1*	*2*	*8*	*8*	*ChiSq =.104,df=2,* ***p=0.811***
Instrument Reward	*4*	*5*	*5*	*2*	*11*	*13*	*ChiSq=.192,* ***df=2, p=0.721***
Effect on victim	*3*	*4*	*7*	*6*	*10*	*10*	*ChiSq=.701, df=2,* ***p=0.802***

Key. (m) = missing value

Table 15 above shows that there were no differences for any of the predefined outcomes. When totals are calculated it is shown that most male and female participants said they would *feel bad* about the outcomes of aggression indicating that neither men nor women expect benefits from aggression. Slightly more male than female participants said they would feel *not bothered* about the outcomes of aggression.

(ii) Comparison of Total Scores for How Feel About Aggressiveness: Gender Comparisons. Again an overall 'score' with regards the emotional impact of the predicted outcomes of Aggressiveness was computed (see section 3.1.2.). Totals were then computed for each participant and comparisons made across male and female participants using the Mann Whitney U test.

Table 16. Overall Emotional Consequences of Aggression: Gender.

Gender Comparisons *n=20*	***EMOTIONAL CONSEQUENCES OF AGGRESSION – Total Score***			
	Mann Whitney		***Mean rank***	
	Z =	*p=*	*Male*	*Female*
	-.058	***0.954***	*100.72*	*100.28*

Table 16 above shows that no significant differences were found in the overall scores assigned to male and female participants responses regarding the emotional impact of Aggression.

3.2.3 Expected Outcomes of Submissiveness - Gender Comparisons.

Male and female responses to an open-ended question regarding the expected outcomes of submissiveness are shown in Table 17.

Table 17. Effectiveness of Predicted Outcome of Submissive Responding: Gender.

GENDER *n=20*	**Elicited Outcome of Submissiveness**		
	Male (m)	*Female*	
I Win	*2*	*3*	*Chi Sq = .104, df=2,* ***p=0.765***
Unresolved	*7*	*9*	
They Win	*10*	*8*	

(m)= missing values

Male and female participants' responses regarding the predicted outcomes of behaving submissively in the face of hostility are presented in this section.

Table18 . Predicted Outcomes of Submissiveness: Gender.

PREDICTED OUTCOMES OF SUBMISSIVENESS		***Chi Square Analysis*** ***Gender*** *n=20*
Peer View	*Sc1*	*Chi sq =0.000, df=1,* ***p=1.000***
	Sc2	*Chi sq =0.404, df=1,* ***p=0.525***
Authority View	*Sc1*	*Chi sq =0.000, df=1,* ***p=1.000***
	Sc2	*Chi sq =0.440, df=1,* ***p=0.741***
Reduce Hostility	*Sc1*	*Fishers Exact,* ***p=0.480***
	Sc2	*Chi sq = 0.784, df=1* ***p=0.364***
View of Self	*Sc1*	*Chi sq = 1.026, df=1* ***p=0.311***
	Sc 2	*Chi sq =0.404, df=1,* ***p=0.525***
Instrumental Outcome	*Sc1*	*Fishers Exact* ***p=1.000***
	Sc2	*Fishers Exact* ***p=1.000***

When participants were asked to consider whether submissive responding would lead to outcomes of *peer view* and *authority view* both male and female participants gave an even distribution of responses for each valence of outcome. For *views of self* again both male and female participants' responses were generally evenly distributed, although for scenario two there are slightly more responses of *feel bad about self* for scene one. For the outcome of *reduce hostility* most male and female participants expected that submissiveness would *not reduce others hostility.*

Similarly the majority of male and female participants responded that submissiveness would *not* lead to *instrumental reward* for both scenes (see Appendix 13).

3.2.4. How Feel About Outcomes Of Submissiveness: Gender Comparisons.

For the pre-defined outcomes of submissiveness items regarding '*effect on victim'* were excluded for submissive responding. Again no significant differences were shown across male and female participants' responses for any of the predefined predicted outcomes of submissiveness.

(i) Feelings When Valence Taken Into Account. Descriptive data when the valence of outcomes is taken into account shows a similar spread of responses across gender. A similar pattern of responding is indicted for outcomes of *peer view* and *authority view* and *reduce hostility.* Of those male and female participants who gave a positively valenced response, the majority said that they would *feel good.* Most male and female participants who gave a negatively valenced response said they would *feel bad.* An equal number of men and women said they would be *not bothered* about a negative outcome of *peer disapproval* and *authority disapproval.* The pattern of responding was slightly different in relation to the outcome of *instrumental reward* with more *not bothered* responses for this outcome. Most male and female participants said they would not expect submissiveness to lead to instrumental reward and most males said this would make them *feel bad.* However, women's responses were almost equally spread across the categories of *feel bad* and *not bothered.*

(ii) Feelings Irrespective of Valence of Outcomes of Submissiveness. The overall distribution of male and female participants' responses for the three

categories of *feel good /not bothered /feel bad* are shown in Table 19. To recap, it is assumed that *feel good* responses indicates a greater likelihood of future submissive behaviour, *feel bad* responses a lower likelihood of submissiveness and a response of *not bothered* indicates that the outcome in question is unlikely to influence future behaviour.

Table 19. How Participants Feel Overall about Outcomes of Submissiveness: Gender.

OUTCOMES OF SUBMISSIVENESS	***EMOTIONAL RESPONSE***						
	Feel Good		***Not Bothered***		***Feel Bad***		***Chi Square***
	Male	*Fem*	*Male*	*Fem*	*Male*	*Fem*	
Peer View	*8*	*10*	*4*	*3*	*8*	*7*	*Chi=.143, df=2,* ***p=0.714***
Authority View	*10*	*10*	*5*	*5*	*5*	*5*	*Chi= .123, df=2,* ***p=0.924***
Reduce Hostility (m)	*7*	*1*	*2*	*0*	*10*	*19*	*Chi= .414,df=2,* ***p=0.035****
Instrumental Reward	*1*	*1*	*5*	*9*	*14*	*10*	*Chi= .190, df=2,* ***p=0.405***

(m) = missing value for male participants

When responses for each outcome are considered individually, a significant difference was shown in how males and females said they would feel regarding the outcome of *reduce hostility* for submissive responding. More female participants said they would *feel bad* in relation to this outcome and more male participants said they would *feel good.* Table 19 shows the direction of responses, suggesting that females are less inclined to expect a reduction in future hostility associated with submissiveness. Again this goes against evidence from a number of studies and reinforces the notion that the sample may be atypical in respect of gender differences. When totals are computed no differences were shown across gender.

(iii) Comparison of total scores for Submissiveness: Gender Comparisons. The overall 'score' assigned to responses regarding the emotional consequences of Submissiveness (see section 3.1.4.) was explored as before using the Mann Whitney U test.

Table 20. Overall Emotional Consequences of Aggression – Gender Comparisons.

TOTAL SCORES	***EMOTIONAL CONSEQUENCES OF AGGRESSION***			
	Mann Whitney		*Mean Rank*	
Gender *n=20*	*Z =*	***P =***	*Male*	*Female*
	-1.167	***0.243***	*75.99*	*83.96*

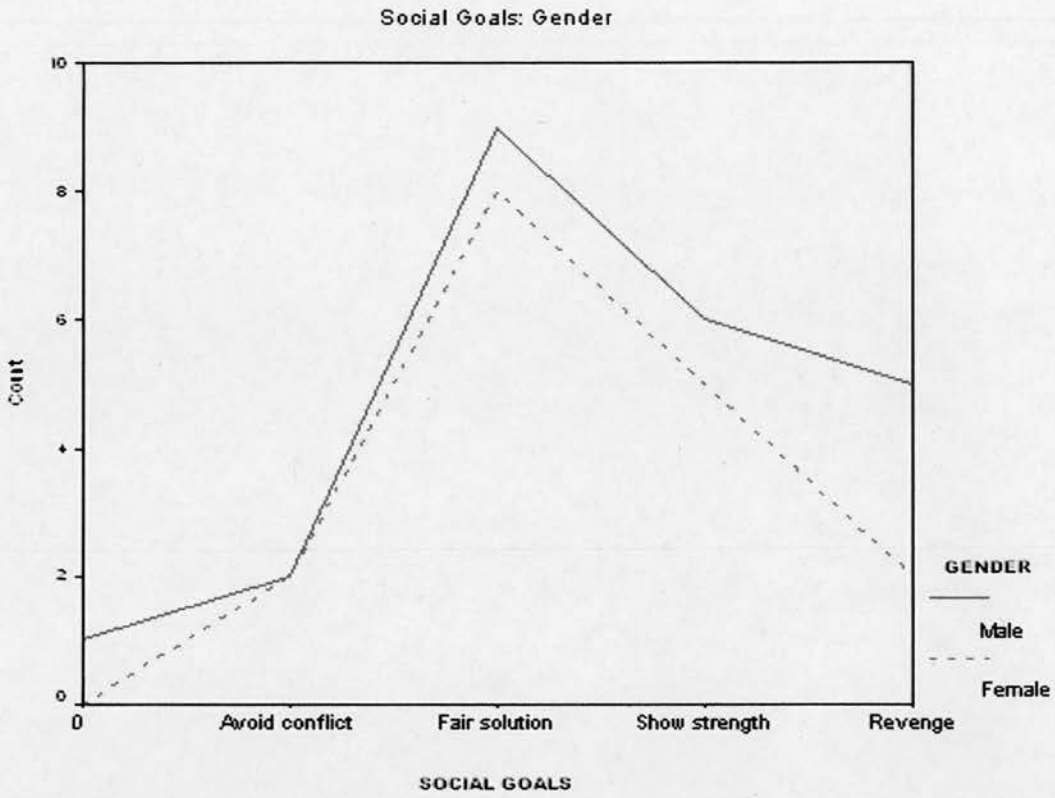
Table 20 above shows that there was no difference across male and female participants for the overall emotional consequences of submissiveness.

3.2.5. Social Goals Within Situations Of Conflict - Gender Comparisons.

In this section male and female participants' responses relating to social goals are compared. Again responses to an open ended question are shown first followed by responses to predefined social goals.

(i) Salient Social Goals: Gender Comparisons. No statistically significant differences are shown in male and female participants' responses regarding their social goals within hostile situations. There is a similar distribution of responses across all categories, although slightly more males than females held a goal of '*revenge*' as shown in Figure 6.

Figure 6. Salient Social Goals: Gender Comparisons



0= missing value

(ii) Predefined Goals: Gender Comparisons. Analysis of participants responses regarding the strategies they would choose to meet goals predefined by the researcher are shown in Table 21 below.

Table 21. Strategy for Goals: Gender.

SOCIAL GOALS	***Chi Square*** *Gender, n=20*
Feel Good About Self	*Chi sq=2.187, df=2,* ***p=0.582***
Approval from Peers	*Chi sq=1.737, df=2,* ***p=0.422***
Show Can't Mess Me Around	*Chi sq=1.794, df=2,* ***p=0.408***
To Get Back at Them	*Chi sq=1.437, df=2,* ***p=0.487***
To Stay Out Of Trouble	*Chi sq=1.961, df=2,* ***p=0.375***

Table 21 shows no differences are found in the strategies men and women generated to meet any of the predefined goals. Detailed descriptive data revealing the pattern of responses across groups is shown in Appendix 14. For the social goals of

feel good about self, peer approval and *show strength,* responses were spread across passive, assertive and aggressive strategies for both males and females. As might be expected, for the goal to *'get back at them'*, most participants suggested aggressive strategies. Again male and female participants gave a similar distribution across all categories. For the goal *stay out of trouble,* the majority of male and female participants suggested passive strategies.

(iii) Effectiveness of Strategy to 'Stay Out of Trouble'. Gender Comparisons. The strategy participants gave to meet the goal *'stay out of trouble'* was rated by two blind raters into two rating categories of effective and ineffective. Table 22 shows no differences in the ability of men and women to generate effective strategies for the pro social goal of *'staying out of trouble'*.

Table 22. Effectiveness of Strategy for Goal -To Stay Out of Trouble. Gender.

EFFECTIVENESS OF STRATEGY	**Gender n=20**		***Analysis***
	Males (m)	*Females (m)*	***Fishers Exact, p=0.318***
Effective	*16*	*18*	
Ineffective	*3*	*1*	

(m) = missing value

3.3. Gender Comparisons Within Aggressive Group.

As there were no gender differences revealed in the descriptive data within the Aggressive group alone, with a similar pattern of responding compared with overall gender comparisons, the data for gender differences within the Aggressive group alone does not merit further discussion.

CHAPTER FOUR: DISCUSSION STUDY ONE.

Goals and Expected Outcomes of Aggression and Submissiveness.

In this chapter a brief overview of findings will be presented before going on to discuss the key findings in detail. Common themes that emerge in the findings regarding Aggressive participants' social goals and their beliefs about aggression and submissiveness are highlighted.

4.1. Overview of Findings.

Clear differences are shown in Aggressive and Non Aggressive participants predicted behaviour within hypothetical conflict situations, with Aggressive participants anticipating more aggressive reactions to conflict. This finding confirms that participants were accurately assigned to the aggressive and non aggressive groups and also provides reassurance that Aggressive participants' responses to questions were not influenced by a desire to respond in a socially desirable manner. However, the surprising lack of gender differences is in contrast to the common finding that men are more aggressive than women. In this study the same proportion of men and women responded that they would employ aggressive, assertive and passive responses when in situations of conflict, suggesting that the sample used in this study may be atypical in respect of gender differences.

The significant difference found in Aggressive and Non Aggressive participants' salient social goals is a notable finding that demonstrates the need for

broad clinical assessments. Interestingly, despite this clear difference in salient goals, no differences were found in strategies that Aggressive and Non Aggressive participants' generated to meet five pre-defined goals. In keeping with this, no differences were shown in the effectiveness of strategies generated to meet the predefined goal of '*staying out of trouble'* across group or gender. The lack of differences found in Aggressive and Non Aggressive participants' predicted outcomes of aggression, and how they said they would feel in relation to these outcomes is also a somewhat surprising finding which will be discussed in more detail later in this chapter.

A few tentative differences are found in relation to Aggressive and Non Aggressive participants' expected outcomes of submissiveness, indicating that Aggressive participants expect more negative outcomes of submissiveness. The implications of patterns emerging in participants' responses for expected outcomes of aggression and submissiveness are interpreted within the context of their social goals later in this chapter. This allows some insight into which social outcomes are most important to participants, and therefore most likely to influence their behaviour.

4.2. Salient Social Goals.

Significant differences in the social goals held by Aggressive and Non Aggressive participants' show that within hostile situations most Non Aggressive participants have goals of *'achieving a fair outcome*', whilst most Aggressive participants identified a salient goal of '*showing them they can't mess me around'*. It is important to re-emphasise that these goals were elicited in relation to conflict situations where participants imagined themselves being treated in a hostile fashion.

Aggressive participants' goals within that context suggest that they are concerned with presenting themselves as being *'strong'* in the face of conflict, or saving face. This suggests that Aggressive participants seek to establish a position of interpersonal power or to avoid a position of social vulnerability.

It is notable that the social goal of '*showing them they can't mess me around'* which is held by a small majority of Aggressive participants is in keeping with social constructionist theories of aggression. As previously discussed, social constructionist theorists emphasise the interpersonal function of aggression and commonly perceive aggression as a way of gaining social power (Tedeschi *et al.,* 1977). Considering this finding within a cognitive framework, it could be argued that those participants who have a social goal of '*showing they can't mess me around'* may become especially *vigilant* to incidences of being *'messed around'* when in social situations. This fits with a well replicated finding of Dodge and Frame's (1982) study with children, showing that aggressive boys have a cognitive bias, tending to perceive others motives towards themselves as hostile. Pert *et al*'s (1999) study showed similar findings with participants who have a mild to moderate intellectual disability as previously discussed. The finding that Aggressive participants more often hold a social goal of *showing strength* is in keeping with differences shown in the outcomes they expect of submissiveness.

The need to identify Aggressive individuals' *salient* social goals, as opposed to their views regarding imposed goals (those selected by a researcher) is highlighted in this study. In contrast to the significant difference shown in Aggressive and Non Aggressive participants' salient goals no differences were shown in the strategies participants gave to meet imposed goals.

The finding that Aggressive participants showed no differences in the strategies they generated to meet imposed goals undermines the notion that their aggression is due to cognitive skills deficits. Notably, both Aggressive and Non Aggressive participants were able to provide appropriate passive and assertive strategies to meet a pro social goal of *'staying out of trouble'*. Interestingly, only one Aggressive participant identified this as a salient goal in conflict situations, showing that the ability to negotiate goals has little bearing on the goals people hold in real life.

4.3. Predicted Outcomes of Aggressiveness and Submissiveness.

Both groups predicted mainly negative outcomes of aggression, undermining the notion that aggressive individuals with an intellectual disability are influenced by the expectation of benefits of their aggression. Also, as both groups anticipated that they would *'feel bad'* about negative outcomes of aggression, this contradicts the argument that Aggressive participants may simply not care about the consequences of their behaviour. It is worth emphasising that participants responses to the two items presented for each predefined outcome of aggression were not shown to be significantly correlated across vignettes. This highlights the situational specificity of participants' views of aggression and demonstrates the benefits of using individualised provocation inventories when working with clients with anger problems. Interestingly participants' views of submissiveness were more constant across vignettes.

The disparity between this finding and those of previous research studies with children must be highlighted. The possibility that the two groups in this study are

simply not adequately differentiated should be acknowledged, however this explanation is undermined by the significant differences shown across groups with regards their anticipated behavioural reaction to situations of conflict as noted earlier in this chapter. The impact of the distinct social experiences of people with an intellectual disability may go some way to explain the disparity between the findings of this study and studies carried out with children. However this explanation would not account for the difference found across Aggressive and Non Aggressive groups in this study, who may be assumed to have similar social experiences linked with their disability, although this was not explored in this study. Neither does it explain why Aggressive participants continue to behave aggressively despite their acknowledgement of a range of negative outcomes.

At first sight, evidence that Aggressive participants recognise a range of negative consequences of aggression might lead to an assumption that their aggressive behaviour is impulsive and that they simply do not stop to think through the consequences of their actions. However, whilst this may be true for some individuals, alternative causal explanations are also possible. Perhaps the implications of this somewhat surprising finding can be better understood when viewed alongside the finding of Aggressive participants more negative views of submissiveness compared with Non Aggressive participants.

Aggressive participants have been shown to have a higher expectation that submissiveness will lead to *peer disapproval* and *self condemnation.* Also, Aggressive participants believe that submissiveness is less likely to '*reduce others hostility'* towards self. So, one reason why Aggressive participants may continue to behave aggressively, despite acknowledging a range of negative outcomes of their

aggression, may be that their negative beliefs about submissiveness are *more salient* than their negative views of aggression. Aggressive participants might be *more* concerned with avoiding a submissive position than avoiding the negative outcomes they expect to follow aggression. Consequently they may be more focussed on avoiding a submissive position when dealing with conflict. Cognitive theorists have shown that if an individual frequently has repeated experiences, within which the same schema are activated, aspects of these schema may become 'chronically accessible', (Bugental 1991; Bargh, *et al.,* 1986). To give an example, repeated experiences of bullying may activate a belief *'they think I'm worthless'* which in turn leads to aggression. Over time this belief may be automatically activated in conflict situations and influence aggressive behaviour, irrespective of the individuals' beliefs about the wider consequences of aggression. It could be argued that Aggressive participants' with an intellectual disability may be particularly aware of the negative outcomes of submissive behaviour due to frequent experiences of domination from others and experiences of low interpersonal power. However, this explanation does not tell us why Aggressive participants have more negative views of submissiveness than their Non Aggressive peers, who may of course have similar experiences of low power. To clarify this it would be useful to explore whether differences exist in Aggressive participants' *experiences* of power as well as their expectations of power.

4.4. Outcomes of Submissiveness Linked with Social Goals.

A third explanation of why Aggressive participants' apparently choose aggressive strategies, despite their mainly negative views of aggression, is evident when their beliefs about aggression and submissiveness are viewed alongside their

social goals. As previously mentioned Aggressive participants' expect that submissive responses to conflict will not achieve the outcome of '*reduce hostility from others'* significantly less often than Non Aggressive participants. This is worthy of further discussion as this outcome (*reduce hostility)* is similar in nature to the social goal which is held by most Aggressive participants of *'showing others they can't mess me around'.* Notably the latter is also concerned with the avoidance of future hostility from others. Non Aggressive participants' common social goals of '*avoiding conflict'* or '*achieving a fair outcome'* also suggest that they will be *less* concerned with this outcome. Clearly, as this is not a statistically strong finding it must be interpreted extremely cautiously, however the finding is backed up by some common themes emerging in the data. For example, of those participants who believe that submissiveness will *not* reduce future hostility, significantly more Aggressive participants said that this outcome would make them *'feel bad'.* Thus it may be argued that Aggressive participants may avoid behaving submissively, firstly because submissiveness does not fit with their social goals, and also in order to avoid 'feeling bad'. The consistency of themes running across responses regarding social goals and outcomes of submissiveness offers encouragement, adding to the evidence that Aggressive participants' are motivated to gain a sense of interpersonal power. However, the descriptive data shows that many Aggressive participants say that they would feel *'not bothered'* whether aggression leads to a reduction in future hostility towards themselves, undermining the notion that they view this to be an important outcome. The researcher notes however that she gained the impression that a response of '*not bothered'* was given defensively by some participants, with a possible aim of denying the emotional impact on negative outcomes. This pattern of

responding appeared in itself to be used as a face saving strategy by some individuals, similar to a defiant response of "I don't care".

When descriptive data is explored, slightly more participants in both the Aggressive and Non Aggressive groups believe that the outcome *'reducing future hostility towards self'* would be achieved by aggression. Although Aggressive participants' do not have a higher expectation than Non Aggressive participants that aggression will *'reduce others hostility'*, they may however be more concerned with this outcome as it is relevant to their social goal. Furthermore, post hoc analysis reveals that when Aggressive participants' responses regarding whether (i) aggression and/or (ii) submissiveness will *'reduce hostility towards self'* were compared, Aggressive participants expected aggression to reach this outcome significantly more often than they expected submissive behaviour to do so. Following this line of argument Aggressive participants may be influenced to act aggressively as they would expect aggression to *reduce hostility* towards self and this would meet their social goal. This consistency in the pattern of findings is encouraging despite the modest level of significant differences shown and the small number of participants taking part in this study. It would be useful for future research studies to consider in detail whether there is an association between the social goals underlying aggression and the expected outcomes of aggression.

4.5. Lack of Gender Differences

Interestingly, there was no difference shown across male and female participants' social goals, with a similar number of each holding goals of *'showing them they can't mess me around'*. This is in contrast to evidence from research

looking at gender differences in the non learning disabled population, which has shown that females are less likely to use aggression as a face saving strategy (Campbell and Muncer, 1987). No gender differences were shown in beliefs about the outcomes of aggression, or feelings about these outcomes. Only one significant finding was shown across gender in relation to beliefs about submissiveness, with those females who expected that submissiveness would fail to '*reduce hostility from others'* giving a more negative emotional reaction. This lack of gender differences is in contrast to widely evidenced findings of differences in non learning disabled men and women's beliefs about aggression, which point to men's higher expectation of instrumental reward for aggression and women's greater expectation of self condemnation for aggression, (Perry *et al.,* 1988). In this study both male and female participants were shown to hold generally negative views of aggression. Thus the difference shown in this population is that male participants expect more negative outcomes of aggression than expected of non learning disabled males. However, this is clearly speculative as this study did not explore differences in intellectually disabled and non disabled individuals.

4.6. Conclusions

These findings highlight the need for more creative methods of assessment for problems of aggression presented by people with an intellectual disability. Participants with mild intellectual disabilities who took part in this study were able to talk about the predicted outcomes of hypothetical situations, and with careful prompting were able to identify the goals underlying their strategies. Thus the benefit of involving people with intellectual disabilities fully in the assessment

process rather than relying on carer's views or behavioural functional analysis of behaviour is obvious. It is also worth emphasising that Aggressive participants' ability to generate strategies to meet a range of pre-defined goals, including pro-social goals, suggests that problems of aggression cannot simply be attributed to a lack of skills linked with the individuals intellectual disability (Jahoda *et al.*, 1998; Pert *et al.,* 1999).

A key conclusion that can be drawn from these findings is the strong influence of social goals on behaviour and the need for clinicians to be aware of the social goals that clients value within a social cognitive model of aggression. Whilst many clinical interventions focus on the individual's ability to think through the consequences of aggression, these findings show that it is firstly important to discern which social consequences are important to the individual. Indeed, these findings show that to consider participants' views regarding the outcomes of aggression without exploring which outcomes are most important to them, and therefore most likely to guide their behaviour, will likely be misleading. Furthermore, it has been suggested in this thesis that participants' beliefs about submissiveness can offer clinicians insight into why aggressive individuals behave aggressively, and that this line of inquiry may be as useful, or perhaps more useful, than exploring the expected outcomes of aggression. Clearly, this highlights a significant gap in the existing research literature on aggression. Thus, insights into the social outcomes which aggressive individuals seek to avoid may be as clinically important as understanding the social outcomes they value. The wider clinical implications deriving from this study will be drawn together with those of study two and discussed fully in chapter eight.

CHAPTER FIVE: METHODS STUDY TWO.

Assessment of Self Perceptions and Views of an Aggressive Identity.

5. 1. Aims of Study Two.

A main aim of this exploratory study was to develop the 'Self Perceptions and Aggressive Identity' (SPAGI) assessment. This assessment was used in this study to explore three main areas. Firstly the self perceptions of Aggressive and Non Aggressive individuals were considered according to predefined descriptors. Secondly, Aggressive and Non Aggressive participants' perceptions of aggressiveness were explored by comparing their views of a stereotyped aggressive character (SAG). Thirdly, by comparing participants' ratings of each descriptor across Self and the SAG character it was be possible to identify whether Aggressive participants see more similarities between themselves and the SAG character. The study also aimed to identify whether gender differences could be identified for each of these questions.

5.1.1. Research Questions:

Specific research questions are as follows and will be explored in relation to group and gender differences.

- Do differences exist between Aggressive and Non Aggressive participants' self perceptions on a range of pre-defined descriptors?
- Do differences exist between male and female participants' self perceptions on a range of pre-defined descriptors?
- Do differences exist between Aggressive and Non Aggressive participants' views of a stereo-type aggressive character for these pre-defined descriptors?

- Do differences exist between male and female participants' ratings of a stereotype aggressive character on a range of pre-defined descriptors?
- What similarities and/or differences exist between participants' views of themselves and their views of a stereotyped aggressive character, and do these vary across Aggressive and Non Aggressive participants or across gender?

5.2. Participants.

As the same participants were used in study one and study two, socio-demographic information along with sampling and inclusion criteria will not be repeated here (see Chapter 2).

5.3. Development and Piloting of the Assessment

During the development of the SPAGI assessment it was piloted with twenty three individuals who have an intellectual disability. Individuals involved in piloting were not included in the study proper. The main aim of piloting was to ensure the comprehensibility of the descriptors and the rating scale used. The first two drafts were piloted with ten individuals, a third draft with five individuals and the final draft with eight individuals.

5.3.1. Draft Versions of the SPAGI Assessment: Changes Made During Piloting.

Again, as these research questions have not previously been explored with individuals with an intellectual disability the piloting phase represented an important ingredient of the study. Piloting aimed to ensure the comprehensibility and clarity of the concepts and language used in the assessment. Piloting also allowed the researcher to ensure that the assessment was engaging for participants and that the process of assessment was not overly interrogative or demanding. Again those

individuals who took part in piloting were not included in the study proper. A total of ten individuals took part in piloting (six men and four women.) Due to time limitations and limited resources it was not possible to distinguish participants of piloting with regards problems of aggression.

The study was influenced by Kelly's Personal Construct Approach (1955), and the social cognitive theoretical model of 'interpersonal schema'. At the outset the intention was to draw on personal construct assessments methods to identify views of (i) an aggressive character (ii) a submissive character and (iii) self perceptions, including views of 'interpersonal self'. The process of piloting led to substantial changes to the scope and focus of the research. These were found to be necessary in order to accommodate the needs of people with an intellectual disability. This will be discussed in the following section.

Eliciting Constructs. In an early draft of the SPAGI assessment participants were encouraged to identify core self constructs (rather than using predefined constructs). There are clear benefits in identifying constructs which are salient to participants. By using this approach it was hoped that ways of eliciting constructs could be identified, and that insights may be gained from common themes which emerged in the constructs. For this purpose, open-ended questions were used. However, it was found that most participants responded to the open ended questions "*Tell me a bit about yourself*"; "*How would other people describe you?"* by simply giving demographic details regarding where they lived, who they lived with and other such information. The use of prompting did not sufficiently widen the range of responses given. Five out of ten participants responded "*don't know"* to the prompt question *"Tell me a bit about the kind of person you are*".

Predefined Constructs/Descriptors. Due to the difficulty experienced when attempting to elicit core constructs it was thought necessary to select predefined descriptors for the assessment. The constructs chosen were influenced by work carried out by Emler (1983) with male adolescents who had problems of aggression and other anti-social behaviours. Emler explored participants' self perceptions and identified descriptors which were pertinent to their aggressive identities. These included perceptions of personal power as well as social accomplishments and personal attributes such as intelligence and honesty. However, piloting showed that many of these characterstics were not accessible and/or ecologically valid for people with an intellectual disability. Descriptors for piloting were also influenced by focus group discussions for another study looking at causes of aggression with adults who have an intellectual disability.

Comparing Identities. At the outset four possible hypothetical characters were identified for comparison with self as follows: aggressive person, submissive person, victim of aggression, ideal self. However, it was found that when more than two identities were presented sequentially, many participants appeared to become stuck on previous response sets. There was little variance across participants' rating on "ideal self" items with most participants' rating all positive constructs as equally desirable and negative constructs as equally undesirable. Piloting showed that participants were best able to rate descriptors for the aggressive character and current self.

Ranking 1. Again influenced by the Personal Construct approach, in early drafts of the assessment an attempt was made to adapt a ranking system to determine which descriptors (constructs) were the *most* and *least* important when rated for Self and the Aggressive character. However the recognised procedures for ranking constructs, according to the personal construct approach, required considerable adaptation for adults with moderate to mild learning disabilities. It was recognised

that this assessment process may be difficult for people with an intellectual disability as ranking requires the understanding of relative concepts such as most/least and more/less. For this reason the number of constructs to be compared was kept low. However, even with a short list of four constructs a ranking procedure proved too demanding for most participants. Six out of ten participants with whom the ranking approach was attempted answered 'don't know' when asked which of four constructs applied to them least. Two participants appeared to be answering randomly to all questions. Most participants appeared to have difficulty selecting a second and third construct.

Ranking 2. To overcome the difficulty participants experienced with ranking constructs according to importance an alternative procedure of ranking was piloted. This involved taking a list of constructs and presenting all possible pairings of these constructs to the participant, who was asked to say which of the pair was most applicable to self. This process required repeated presentation of each construct with a different construct partner. This would allow each descriptor to be ranked against all other descriptors. For example, the researcher asked the question "Which of these would you choose to describe yourself" and presented pairings of all constructs such as: a) *I am popular OR I am clever*; b) *I am popular OR I am a bully;* c) *I am popular or I am kind* etc. A number of problems were identified with this approach. As the construct pairings were not opposite poles it was found that participants often responded that both options were equally applicable, or that neither were applicable. Also, the researcher gained the impression that the repetition of constructs caused some individuals to become caught in previous response sets. An added problem was that the process seemed somewhat interrogative and demanding for participants. Overall, it appeared that a ranking procedure was not accessible for clients with an intellectual disability, or at least would significantly restrict the number of descriptors to be explored in the assessment, and that this would be too limiting for

an exploratory study.

Binomial constructs. An instrument using binomial constructs was piloted by presenting each construct in bipolar word pairings such as tough/weak, friendly/unfriendly, stupid/clever etc. A number of problems emerged with this approach. Firstly, it was unclear whether participants held comparable definitions of the constructs presented, or whether each item of the pairs used were viewed as opposites by participants. A second difficulty was that a number of participants were resistant to choosing one or other of the poles presented. For example, four out of seven participants persistently gave a response of "in the middle" or stated "sometimes" for each category.

5.4. Validity.

As previously discussed the choice of descriptors for the SPAGI was partly influenced by a study carried out by Emler (1983), although piloting revealed that many descriptors were not familiar to people with an intellectual disability. To ensure the content validity of the descriptors included in the SPAGI assessment for individuals with intellectual disabilities transcripts of semi-structured interviews regarding experiences of conflict, carried out in a previous Scottish Office funded study, were reviewed and common themes extracted (Jahoda, Pert, Squire & Trower, 1998). Also transcripts from six focus groups each consisting of approximately 5-6 adults with an intellectual disability which were carried out as part of a separate study were reviewed. The aim was to identify commonly held constructs linked with aggression for people with an intellectual disability. This process highlighted broad themes of aggressiveness linked with subordination *('being treated like a child, not being listened to, treated like I am stupid'.)*

Three Clinical Psychologists with specialist experience working with people with learning disabilities who behave aggressively were consulted regarding the content

validity of constructs used and the comprehensibility of rating scales. Feedback regarding the content validity was received following a presentation of the assessment to Clinical Psychologist working within the Learning Disability Division in Glasgow.

5.5. Final Version of the SPAGI Assessment Used in this Study.

The SPAGI assessment has two sections relating to (i) a stereotyped aggressive character (SAG), and (ii) current self perceptions (Appendix 15). For both sections, a series of seventeen descriptors, falling into three categories of (i) Interpersonal Power, (ii) Social Identity, and (iii) Emotion were the basis of questioning. The aggressive character was represented by a colour photograph of a young man behaving in an overtly aggressive manner (Appendix 16). A visual rating scale was devised to represent the relative concepts of the response categories *not at all / a wee bit / a lot.*

5.6. Procedure

Descriptors for the Aggressive character were presented first followed by self perceptions. The researcher was blind as to whether the participants belonged to the Aggressive or Non Aggressive group.

5.6.1. Stereotyped Aggressive Character.

A colour photograph of a young man acting aggressively was shown and a brief description of this aggressive character (Gary) was read to the participants', including an account of the character's frequent aggressive behaviour. The character was described as attending a day centre to indicate that he had an intellectual disability. To ensure that the Aggressive character was correctly perceived as being aggressive they were asked *"Do you know anyone who behaves like that?"* followed

by an open discussion to allow the researcher to confirm the participant's accurate understanding. If required, the researcher corrected participants' misconceptions and read the character description again.

Participants were read each item on the list of descriptors of (i) Interpersonal Power, (ii) Social Identity, and (iii) Emotions. They were asked whether the descriptor applied to the aggressive character, i.e., "*Do you think Gary is popular*?" by giving a *yes/no* response. If participants answered "*no*" the interviewer moved on to the next item. However, if participants responded '*yes*', they were asked to further rate the construct as *"a wee bit OR a lot*". A visual analogue scale was used depicting two boxes of increasing size to aid understanding and the researcher used gestures to emphasise the comparative size of these categories in line with Dagnan & Ruddick (1995). Participants were free to either point to the visual stimuli or respond verbally.

5.6.2. Self Identity. In section two self perceptions were explored following the same procedure. The researcher emphasised the change of focus by saying *"We have finished talking about Gary now and I would like to ask you some questions about yourself"*. Again descriptors in the sections (i) Interpersonal Power, (ii) Social Identity, and (iii) Emotion were read to the character. At the end of the assessment the researcher asked participants to identify positive self attributes, by asking the open ended question *"Can you tell me about some things that you are good at* and *some things you enjoy doing*?" The aim was to ensure that the process was not distressing for those participants who rated themselves negatively on some or all of the constructs. Responses were not included in the analyses.

5.7. Coding

All constructs were assigned a number to create an ordinal rating category. A response of 'none' = 1; 'a wee bit' = 2; and 'a lot' = 3.

CHAPTER SIX: RESULTS STUDY TWO.

Perceptions Of Self And A Stereotyped Aggressive Character.

This chapter falls into two main sections. Section one presents data comparing Aggressive and Non Aggressive participants' ratings of descriptors, and section two presents gender comparisons. Both sections comprise of three sub-sections exploring (i) views of a stereotyped Aggressive (SAG) character, (ii) views of Self, and (iii) within subject analysis comparing rating of Self with those of the SAG character.

Analyses. As no previous studies have explored these research questions with people with an intellectual disability, information was not available to carry out a power calculation, (see chapter 3, page 71). Mann Whitney U tests were used to compare group (Aggressive and Non Aggressive) and gender ratings of the predefined descriptors for the SAG character and Self. As noted previously a three point ordinal scale was used for ratings. Participants' ratings of Self and the SAG character were compared in two ways. Firstly, Wilcoxon Signed Rank tests were used for within subject differences. This allowed exploration of patterns of responses within each group. To consider whether there were differences across group or gender in this respect, 'difference scores' were allocated to represent participants' ratings of SAG and Self on each descriptor, (see section 6.1.3.) and Mann Whitney U tests were used to compare these 'difference scores'.

To confirm that the descriptors in the Interpersonal Power domain were appropriately grouped together post hoc analyses were carried out to explore

correlations in participants' ratings of these descriptors using Spearman's Correlation tests. Descriptors in the Social identity and Emotions domain descriptors represented distinct 'categories' and were not expected to correlate with each other. As in study one, multiple comparisons were not carried out, (see page 72.)

6.1. Aggressive and Non Aggressive Participants' Ratings of Constructs.

Data comparing Aggressive and Non Aggressive participants' responses in this section includes descriptive data and statistical findings.

6.1.1. Views of the Stereotyped Aggressive Character : Group Comparisons.

Aggressive and Non Aggressive Participants' views of the SAG character will be considered first. Descriptive data showing the frequency of ratings that fall in each of the three categories of *'not at all/ a wee bit/ a lot'* are shown in the following tables for (i) Interpersonal Power, (ii) Social Identity (iii) Emotions. Statistical findings using the Mann Whitney U test are also shown.

Table 23. Interpersonal Power: Views of the SAG Character: Group.

SAG Interpersonal power	***Mann Whitney***				***AGG n=20***			***NonAGG n=20***		
			Mean rank			*wee*	*a*		*wee*	*a*
	Z=	**p=**	Agg	NAgg	*no*	*bit*	*lot*	*no*	*bit*	*lot*
Stick Up For Self	*-1.451*	*0.147*	*22.71 (m)*	*17.90*	*1*	*2*	*16*	*5*	*3*	*12*
Get Into Trouble	*-1.901*	*0.057*	*23.05*	*17.95*	*0*	*1*	*19*	*1*	*5*	*13*
Get Own Way	*-.713*	*0.476*	*19.27*	*21.73*	*8*	*4*	*8*	*7*	*3*	*10*
Treated Like Child	*-.410*	*0.682*	*21.20*	*19.80*	*7*	*8*	*5*	*9*	*8*	*3*
Get Listened To	*-.751*	*0.453*	*19.45*	*21.55*	*14*	*3*	*3*	*14*	*4*	*2*

(m)=missing value.

(i) Interpersonal Power. As can be seen in Table 23 above, no differences are shown in Aggressive and Non Aggressive participants' ratings of the SAG character for descriptors of Interpersonal power. Ratings for the descriptors *gets into trouble*

and *gets listened to,* are polarised similarly in a negative direction for both groups. For the descriptors *'treated like a child'* and '*gets own way*' more of a spread of ratings is shown across the three rating categories, with a similar spread evident in both Aggressive and Non Aggressive participants responses.

Table 24. Social Identity. Views of the SAG Character: Group..

SAG Character: Social Identity	***Mann Whitney***				***AGG n=20***			***Non AGG n=20***		
			Mean rank			*wee*	*a*		*wee*	*a*
	Z=	*p=*	**Agg**	**Nag**	*no*	*bit*	*lot*	*no*	*bit*	*lot*
Good fun	*-.459*	*0.646*	*20.66*	*19.38*	*16*	*1*	*3*	*15*	*5*	*0*
Bully	*-.526*	*0.599*	*19.64(m)*	*21.05*	*0*	*2*	*17*	*1*	*2*	*17*
Popular	*-1.207*	*0.228*	*19.02*	*21.98*	*19*	*1*	*0*	*15*	*3*	*2*
Kind	*-2.141*	*0.032*	*17.50*	*23.50*	*17*	*2*	*1*	*12*	*4*	*4*
Lazy	*-.739*	*0.460*	*20.65*	*18.22(m)*	*7*	*3*	*10*	*3*	*5*	*10*
Clever	*-1.168*	*0.243*	*18.67*	*22.33*	*14*	*2*	*4*	*11*	*5*	*4*
Tell lies	*-.415*	*0.678*	*21.10*	*19.90*	*1*	*4*	*15*	*2*	*4*	*14*
Feel Good Self	*-1.370*	*0.171*	*17.26*	*22.60*	*15*	*1*	*4*	*9*	*7*	*4*

(m) = missing value

(ii) Social Identity. No differences are shown across Aggressive and Non Aggressive participants' views of the SAG character for the social identity domain. As shown in Table 24 both groups rate the SAG character in a negative fashion. For all descriptors which represent positive attributes, (*good fun, popular, kind, clever),* both groups gave similarly low ratings, with most ratings from each group falling into the category of '*not at all*'. This negative rating pattern is continued, with most participants in both groups rating the SAG character highly on all negative descriptors (*bully, tells lies, lazy),* again with a similar pattern across the two groups. The descriptor *lazy* shows more of a spread of ratings across categories, but again the pattern is similar across groups.

Table 25. Emotions. Views of the SAG Character: Group.

SAG Character: Emotions	***Mann Whitney***				***AGG n=20***			***Non AGG n=20***		
	Z=	***P =***	***Mean rank***		*no*	*wee bit*	*a lot*	*no*	*wee bit*	*a lot*
			Agg	**Nag**						
Angry	*-.563*	*0.574*	*20.98*	*20.02*	*0*	*1*	*19*	*1*	*0*	*19*
Happy	*-1.438*	*0.150*	*18.98*	*22.02*	*19*	*1*	*0*	*16*	*3*	*1*
Sad	*-.135*	*0.892*	*20.27*	*20.73*	*6*	*5*	*9*	*3*	*6*	*11*
Uptight	*-.611*	*0.541*	*21.35*	*19.65*	*1*	*3*	*16*	*0*	*6*	*14*

(iii) Emotions. No differences are shown in Aggressive and Non Aggressive participants' ratings of the SAG character for Emotion descriptors, again with a negative pattern of responses shown across groups as shown in Table 25. Both groups rate the SAG character very highly on the emotion *'angry'* and *'uptight'* and very low for *'happy'*, showing a similar pattern of responding for each of those descriptors. More of a spread of responses is shown across categories for *'sad'*.

6.1.2. Views of Self - Group Comparisons:

Data presenting Aggressive and Non Aggressive participants' ratings of Self descriptors are shown in this section together with statistical findings of the Mann Whitney U test. Again the data will be presented in three sections for (i) Interpersonal Power, (ii) Social identity, (iii) Emotions.

Table 26. Interpersonal Power. Views of Self: Group.

SELF: Interpersonal Power	***Mann Whitney U test***				***AGG Gp n=20***			***NonAGG Gp n=20***		
	Z=	***p=***	***Mean Rank***		*no*	*wee bit*	*a lot*	*no*	*wee bit*	*a lot*
			Agg	***NAg***						
Stick Up For Self	-.520	*0.603*	*19.70*	*21.30*	*0*	*8*	*12*	*1*	*5*	*14*
Get Into Trouble	-2.355	*0.011**	24.52	16.48	*5*	*5*	*10*	*13*	*4*	*3*
Get Own Way	-2.094	*0.036**	16.85	24.15	*10*	*6*	*4*	*4*	*7*	*9*
Treated Like Child	-.933	*0.351*	21.85	19.15	*10*	*5*	*5*	*16*	*2*	*2*
Get Listened To	-2.380	*0.028**	16.30	24.70	*5*	*9*	*6*	*1*	*6*	*13*

*p<0.05

(i) Interpersonal Power. Some differences are evident in Aggressive and Non Aggressive participants' ratings of Interpersonal Power as seen in Table 26. When asked about views of Self, the Aggressive and Non Aggressive participants gave a significantly different direction of ratings for the descriptors: *get my own way*; *get listened to; get into trouble*. Notably the direction of differences for each indicates that Aggressive participants see themselves as having less interpersonal power than do their Non Aggressive peers. Interestingly, both groups rated Self highly for the descriptor *'stick up for myself'*, showing that neither Aggressive nor Non Aggressive participants view themselves as being submissive. The implications of this pattern of differences will be discussed fully in chapter seven.

Table 27. Social Identity. Views of Self : Group.

SELF: Social Identity	***Mann Whitney***				***AGG Group n=20***			***Non AGG Gp n=20***		
			Mean rank			*wee*	*a*		*wee*	*a*
	Z=	***p=***	Agg	NAgg	*no*	*bit*	*lot*	*no*	*bit*	*lot*
Good fun	*-.611*	*0.541*	*21.35*	*19.65*	*2*	*3*	*15*	*0*	*6*	*14*
Bully	*-.874*	*0.602*	*21.50*	*19.50*	*16*	*4*	*0*	*18*	*2*	*0*
Popular	*.000*	*1.000*	*20.50*	*20.50*	*1*	*2*	*17*	*1*	*2*	*17*
Kind	*-.511*	*0.609*	*21.33*	*19.88*	*1*	*2*	*17*	*3*	*1*	*16*
Lazy	*-.494*	*0.622*	*21.30*	*19.70*	*11*	*7*	*2*	*12*	*2*	*6*
Clever	*-.638*	*0.523*	*19.55(m)*	*21.45*	*2*	*5*	*12*	*2*	*3*	*15*
Tell lies	*-.172*	*0.863*	*20.70*	*20.23*	*10*	*10*	*0*	*12*	*7*	*1*
Feel Good Self	*-.197*	*0.844*	*20.80*	*20.20*	*3*	*4*	*13*	*1*	*6*	*13*

(m) = missing value.

(ii) Social Identity. No differences are shown in Aggressive and Non Aggressive participants' ratings for Social Identity. Table 27 above shows that participants in each group rated themselves highly on positive descriptors (*good fun, popular, kind, clever* and *feel good about self),* and rated themselves low on negative descriptors (*bully, lazy, tells lies).* The ratings of *lazy* show more of a spread across all three categories for both groups. Thus there is no evidence that Aggressive

participants have a more negative view of Self, or see themselves as having a more negative social reputation, than do the Non Aggressive participants.

Table 28. Emotions. Views of Self:Group Comparisons .

SELF:	***Mann Whitney***				***AGG Group n=20***			***Non AGG Gp n=20***		
			Mean Rank			*wee*	*a*		*wee*	*a*
Emotion	***Z=***	***p =***	***Agg***	***NAgg***	*no*	*bit*	*lot*	*no*	*bit*	*lot*
Angry	*-.502*	*0.616*	*21.38*	*19.63*	*6*	*6*	*8*	*5*	*10*	*5*
Happy	*-.280*	*0.780*	*20.88*	*21.12*	*2*	*3*	*15*	*0*	*5*	*15*
Sad	*-1.056*	*0.291*	*22.23(m)*	*18.75*	*7*	*10*	*2*	*9*	*10*	*1*
Uptight	*-2.699*	*0.007***	*25.20*	*15.80*	*4*	*4*	*12*	*10*	*8*	*2*

*** p<0.001; (m) = missing value*

(iii) Emotions. Only one difference is shown in Aggressive and Non Aggressive participants' ratings of emotion descriptors as shown in Table 28. Surprisingly there is no difference across groups in their ratings of the emotion '*Angry*', with a spread of ratings across categories given by each group. Indeed, six Aggressive participants rated Self as *'not at all'* for this emotion. However, for the emotion '*uptight'* a significant difference was shown across the groups with more Aggressive participants rating themselves as *'uptight'* .

6.1.3. Comparing Views of Self and the SAG Character: Group Comparisons.

Data comparing participants' ratings for Self with those of the SAG character are presented in this section. As noted earlier in this chapter this data is analysed in two ways. Firstly, within group comparisons are computed using the Wilcoxon test. This approach requires that each group (and gender) are analysed separately. Clearly this does not allow identification of whether there are statistically significant group or gender differences in this respect. A description of the findings follows and more detailed descriptive data and findings of statistical analysis are shown in Appendix 17.

(i) Interpersonal Power Within Subject Comparisons. Aggressive participants rate themselves similarly to the SAG character for all of the descriptors of Interpersonal power. For the descriptor *'stick up for self'* high ratings are shown for both Self and the SAG character, mostly in the category of *'a lot'*. For *'gets into trouble'* again most ratings for each group are in the category *'a lot'*, although there are again higher ratings for the SAG character in this category, and more ratings of the category *'a wee bit'* for Self. More of a spread of ratings across categories is given for *'get my own way'* and *'treated like a child'* for both groups.

Non Aggressive participants' ratings of the Self and the SAG character show differences for three descriptors. Non Aggressive participants believe that the SAG character *'gets into trouble'* more and is *'treated like a child'* more than they believe themselves to be. Ratings for the descriptor *'gets listened to'* show that Non Aggressive participants believe that they are listened to more than the SAG character. The ratings of the descriptor *'stick up for self'* and *'gets own way'* show no difference across identities.

(ii) Social Identity: Within Subject Comparisons. Aggressive participants rate themselves differently from the SAG character on all of the descriptors in the Social Identity domain. Aggressive participants' ratings for Social identity are polarised in opposite directions for each of the two identities. Ratings of positive descriptors (*good fun; popular; kind; clever* and *feel good about self*) mostly fall in the category of *'a lot'* for Self and *'not at all'* for the SAG character. For negative descriptors, *(bully; lazy; tells lies)* there is a contrasting pattern of responding, although the ratings of *'lazy'* show more of a spread across rating categories for both identities.

The Non Aggressive group also rate all descriptors of Social Identity differently for Self and the SAG character. Again the direction of differences show that Non Aggressive participants view themselves more positively than the SAG character depicted in the assessment.

(iii) Emotions: Within Subject Comparisons. There is a clear difference in Aggressive participants ratings of Self and the SAG character for the emotion 'angry' with Aggressive participants rating the SAG character as more angry than themselves. There is also a clear difference in ratings of 'happy' with Aggressive participants rating themselves highly and the SAG character very low on this emotion. Non Aggressive participants rate all emotion descriptors differently for Self and the SAG character.

(iv) Overview of Differences in Ratings of Self and the SAG Character. Aggressive and Non Aggressive participants ratings for each of the seventeen descriptors were assigned a score of *zero*, *one* or *two* depending on whether the ratings for Self and the SAG character were the same or different, and the extent of the difference. If the same rating was given for Self and the SAG character a score of 0 was assigned. Where there was a difference of one ordinal category a score of 1 was given. A difference of two ordinal categories was given a score of 2. A Mann Whitney U test was then computed on total scores across groups.

Table 29. Interpersonal Power. Comparisons of Self and SAG :Gender.

Interpersonal Power	***Differences across Self and SAG***			
	Mann Whitney		***Mean rank***	
	Z =	*p=*	*Agg*	*NAg*
Stick Up For Self	*-.454*	*0.698*	*19.75*	*21.25*
Get In Trouble	*-1.497*	*0.165*	*17.90*	*23.10*
Get Own Way	*0.000*	*1.000*	*20.50*	*20.50*
Treated like a Child	*0.896*	*0.904*	*20.73*	*20.27*
Get Listened To	*-1.141*	*0.301*	*18.55*	*22.45*

Table 30. Social Identity. Comparisons of Self and SAG Character: Gender.

Social Identity	***Differences across Self and SAG***			
	Mann Whitney		***Mean rank***	
	Z=	*p =*	Agg	NAg
Good fun	*0.904*	*0.925*	*20.70*	*20.30*
Bully	*0.795*	*0.862*	*20.15*	*20.85*
Popular	*0.334*	*0.429*	*21.98*	*19.02*
Kind	*0.857*	*0.883*	*20.77*	*20.23*
Lazy	*0.828*	*0.851*	*19.15*	*19.89*
Clever	*0.361*	*0.428*	*18.47*	*21.45*
Tell lies	*0.453*	*0.495*	*19.23*	*21.77*
Feel Good About Self	*0.823*	*0.835*	*20.39*	*19.63*

Table 31. Emotions. Comparisons of Self and SAG: Gender. .

Emotion	***Differences across Self and SAG***			
	Mann Whitney		***Mean Rank***	
	Z=	*p=*	Agg	NAg
Angry	*-.850*	*0.429*	*19.02*	*21.98*
Happy	*-.943*	*0.461*	*21.90*	*19.10*
Sad	*-.594*	*0.602*	*19.50*	*21.50*
Uptight	*-1.915*	*0.076*	*17.20*	*23.80*

When difference scores representing within subject comparisons of participants ratings of Self and the SAG character, are compared across groups, no significant differences are shown in any of the three domains as shown in Tables 29 to 31 above.

6.2. SECTION TWO: GENDER COMPARISONS.

The following section shows data comparing all men and womens' responses irrespective of group. Responses for the SAG character will be presented first followed by responses for Self and finally within subject analysis comparing Self and the Aggressive character.

6.2.1. Views Of the SAG Character - Gender Comparisons.

Male and female participants' ratings of the SAG character are shown in Table 32 to Table 34. below.

Table 32. Interpersonal Power. Ratings of SAG Character: Gender.

SAG Character Interpersonal Power	***Mann Whitney***				***Males n=20***			***Females n=20***		
	Z=	***p =***	***Mean rank***		*no*	*wee bit*	*a lot*	*no*	*wee bit*	*a lot*
			Male	*Female*						
Stick up for self	*-.391*	*.771*	*20.55*	*19.42 (m)*	*3*	*2*	*15*	*3*	*3*	*13*
Get into trouble	*-.681*	*.640*	*19.63*	*21.38*	*1*	*2*	*17*	*0*	*5*	*15*
Gets Own Way	*-.572*	*.602*	*21.48*	*19.52*	*8*	*1*	*11*	*7*	*6*	*7*
Treated like a child	*-.815*	*.461*	*19.10*	*21.90*	*9*	*8*	*3*	*7*	*8*	*5*
Gets listened to	*-.101*	*.947*	*20.35*	*20.65*	*14*	*3*	*3*	*14*	*4*	*3*

(m)= missing value

(i) Interpersonal Power: Views of the SAG Character.

No differences are shown in Male and Female participants' ratings for the SAG character in relation to Interpersonal Power. Table 32 shows that both men and women rate the SAG character highly for '*stick up for self*' and '*gets into trouble*'.

More of a spread of ratings are given by men and women for the descriptors '*gets own way*' and '*treated like a child*'. For the descriptor '*gets listened to*' most responses fell into the category '*not at all*'.

Table 33. Social Identity. Ratings of SAG Character: Gender.

SAG Character	**Mann Whitney**				***Males n=20***			***Females n=20***		
Social Identity	***Z=***	***p=***	***Mean Rank***		*no*	*wee bit*	*a lot*	*no*	*wee bit*	*a lot*
			Male	*Fem*						
Good fun	*-.260*	*.862*	*20.85*	*20.15*	*15*	*4*	*1*	*16*	*2*	*2*
Bully	*.000*	*1.00*	*20.50(m)*	*20.50*	*0*	*2*	*17*	*1*	*2*	*17*
Popular	*-.828*	*.620*	*21.45*	*19.55*	*16*	*3*	*1*	*18*	*1*	*1*
Kind	*-.624*	*.647*	*20.85*	*19.11*	*14*	*3*	*3*	*15*	*3*	*2*
Lazy	*-.161*	*.897*	*19.22(2m)*	*19.75*	*5*	*3*	*10*	*5*	*5*	*10*
Clever	*-.205*	*.841*	*20.90*	*20.10*	*12*	*4*	*4*	*13*	*3*	*4*
Tell lies	*-.606*	*.640*	*19.63*	*21.38*	*0*	*5*	*15*	*3*	*3*	*14*
Feels good self	*-1.261*	*.290*	*17.44*	*21.35*	*13*	*5*	*2*	*11*	*3*	*6*

(m) = missing value, (2m) = 2 missing values.

(ii) Social Identity – Views of the SAG Character. Table 33 shows that male and female participants rate the SAG character in a similarly negative fashion for all

the descriptors in the *Social Identity* section. Both genders show highly negative ratings of the positive descriptors *'good fun, popular, kind,* and *clever'* with most ratings falling into the category of *'not at all'*. For the negative characteristics of *'bully, tells lies* and *lazy',* most participants in both groups ratings of the SAG character fall into the category of *'a lot'*.

Table 34. Emotions. Views of SAG Character: Gender.

SAG Character	***Mann Whitney***				***Males n=20***			***Females n=20***		
			Mean rank			*wee*	*a*		*wee*	*a*
Emotions	***Z=***	***P=***	*Male*	*Female*	*no*	*bit*	*lot*	*no*	*bit*	*lot*
Angry	*-.563*	*.799*	*20.02*	*20.98*	*0*	*1*	*19*	*0*	*1*	*19*
Happy	*-.519*	*.779*	*21.05*	*19.95*	*17*	*2*	*1*	*18*	*2*	*0*
Sad	*-1.355*	*.221*	*18.20*	*22.80*	*6*	*6*	*8*	*3*	*5*	*12*
Uptight	*-.090*	*.947*	*20.63*	*20.38*	*0*	*5*	*15*	*1*	*4*	*15*

(iii) Emotions - Views of the SAG Character. Male and female participants rate the SAG character similarly for each emotion descriptor as seen in Table 34 Again ratings suggest a negative view of the SAG character's emotions.

6.2.2. Views Of Self - Gender Comparisons.

Table 35 to Table 37 below show the frequency of ratings for Self across male and female participant

Table 35. Interpersonal Power. Ratings of Self: Gender.

SELF Interpersonal power	***Mann Whitney***				***Males n=20***			***Females n=20***		
			Mean Rank			*wee*	*a*		*wee*	*a*
	Z=	***P=***	*Male*	*Female*	*no*	*bit*	*lot*	*no*	*bit*	*lot*
Stick up for self	*-.144*	*.925*	*20.33*	*20.67*	*1*	*6*	*13*	*0*	*7*	*13*
Get into trouble	*-.480*	*.659*	*19.67*	*21.33*	*9*	*3*	*8*	*9*	*6*	*5*
Own way	*-.186*	*.862*	*20.17*	*20.83*	*7*	*7*	*6*	*7*	*6*	*7*
Treated like a child	*-.278*	*.820*	*20.08*	*20.92*	*13*	*4*	*3*	*14*	*3*	*3*
Get Listened to	*-1.064*	*.341*	*18.70*	*22.30*	*4*	*8*	*8*	*2*	*7*	*11*

(i) Interpersonal Power: Views of Self. Male and female participants showed a similar pattern of responding for all Self descriptors in the Interpersonal Power domain. Table 35 shows that both genders gave high ratings for *'stick up for self'*

and low ratings for *'treated like a child'*. For the descriptor *'get my own way'; 'get into trouble'* and *'get listened to'* there is a similar spread of responses for both males and females.

Table 36. Social Identity. Ratings of Self: Gender.

SELF Social Identity	Mann Whitney		Mean rank		Males n=20			Females n=20		
	Z=	p=	Male	Fem	no	wee bit	a lot	no	wee bit	a lot
Good fun	-.139	.925	20.70	20.30	2	3	15	0	6	14
Bully	-.874	.604	19.50	21.50	16	4	0	18	2	0
Popular	-1.963	.201	22.90	18.10	0	1	19	2	4	14
Kind	-1.248	.414	18.98	22.02	3	2	15	1	1	18
Lazy	-1.734	.083	17.65	23.35	9	5	6	14	4	2
Clever	-.916	.360	19.10	21.90(m)	3	5	12	1	3	15
Tells lies	-.140	.904	20.27	20.73	11	8	1	11	9	0
Feel Good Self	-.803	.512	21.75	19.25	1	5	14	3	5	12

(m) = missing value

(ii) Social Identity: Views of Self. Table 36 shows that both Males and Females rate themselves positively in the Social and Self identity domain. Most ratings given by both Male and Female participants fall in the category of *'a lot'* for positive Self descriptors *(good fun; popular; kind; clever, feel good about self)* and most ratings for the negative descriptors *(bully; lazy; tells lies)* fall into the category of *'not at all'*. Responses for the descriptor *'lazy'* show more of a spread across rating categories for male participants.

Table 37. Emotions. Ratings of Self: Gender.

SELF Emotions	Mann Whitney		Mean Rank		Males n=20			Females n=20		
	Z=	p=	Male	Female	no	wee bit	a lot	no	wee bit	a lot
Angry	.374	.414	22.05	18.95	5	7	8	6	9	5
Happy	-.1.361	.314	18.60	22.40	1	6	13	1	2	17
Sad	-.375	.738	21.13 (m)	19.88	8	9	2	8	11	1
Uptight	.709	.738	21.15	19.85	6	7	7	8	5	7

(m) = missing value

(iii) Emotions: Views of Self. No differences are shown in male and female participants' ratings of emotions for Self. Table 37 above shows that most Male and Female participants rate Self as h*appy*. For the emotion s*ad* there is a similar spread

of ratings across categories. There is a reasonably even spread of ratings for the emotion '*angry*' and '*uptight*' for each group.

6.2.3. Comparing Views of Aggressive Character and Self: Gender Comparisons.

Data comparing participants' ratings for Self and the SAG character is discusssed for Interpersonal Power, Social Identity and Emotions in the following sections. Tables are shown in Appendix 18.

(i) Interpersonal Power: Within Subject Comparisons. For Interpersonal Power, male participants rate two of the descriptors significantly differently for Self and the SAG character. For the descriptors '*gets into trouble*', male participant's ratings for Self are significantly lower than their ratings of the SAG character. Similarly, for the descriptor '*get listened to*' males rate themselves significantly lower. For the descriptor '*stick up for self*' and *'gets own way'* and *'treated like a child'* men's ratings for Self and the SAG character show a similar spread across the three categories of responses for each identity.

Female participants rate three descriptors differently for Self and the SAG, as shown in Appendix 18. Ratings for the descriptor '*treated like a child*' *'get listened to'*, and '*gets into trouble*' suggest a more positive view of Self than the SAG character for descriptors of Interpersonal Power.

(ii) Social Identity: Within Subject Comparison. Men's ratings of descriptors for Self compared with those for the SAG character in the domain of '*Social identity*' show clear differences on all descriptors except '*lazy*'. The direction of differences is consistent, with men giving more positive rating for Self than the SAG character.

Female participants' ratings of all descriptors of *Social Identity* show differences across Self and SAG. Again in each case Self is rated more positively than SAG.

(iii) Emotions: Within Subject Comparison for Gender. Significant differences are shown in Male participants' ratings of all descriptors of emotion except '*Sad*' which shows a spread of ratings across the response categories as seen in Appendix 18. Ratings for *'happy'* are polarised, with very high ratings for Self and very low ratings for the SAG character.

A significant difference is shown in Female participants' ratings of all four emotions descriptors for Self and the SAG character as can be seen in Table 38 below. Negative emotions of angry, sad and uptight are rated more highly for the SAG character than Self. The emotion happy is rated more highly for Self.

(iv) Overview Of Male And Female Responses: Within Subject Analysis.

As for group comparisons, male and female participants ratings for each of the seventeen descriptors were assigned a score of *zero*, *one* or *two* depending on whether the ratings for Self and the SAG character were the same or different, and the extent of the difference. If the same rating was given for Self and the SAG character the score = 0, where there was a difference of one ordinal category =1, and where there were two ordinal categories of a difference =2. A Mann Whitney U test was then computed on these scores to identify differences across groups.

Table 39. Interpersonal Power. Comparing Self and SAG: Gender.

Interpersonal power	***Differences across Self and SAG***			
	Mann Whitney		***Mean rank***	
	Z =	*p=*	*Male*	*Female*
Stick Up For Self	*-.454*	*0.650*	*21.25*	*19.75*
Get In Trouble	*-.461*	*0.645*	*21.30*	*19.70*
Get Own Way	*-.501*	*0.616*	*21.35*	*19.65*
Treated like a Child	*-.233*	*0.816*	*20.90*	*20.10*
Get Listened To	*-1.594*	*0.111*	*23.23*	*17.17*

Table 40. Social Identity. Comparing Self and SAG: Gender.

	Differences across Self and SAG			
	Mann Whitney		***Mean rank***	
Social Identity	*Z=*	*p =*	*Male*	*Female*
Good fun	*-.394*	*0.738*	*19.85*	*21.15*
Bully	*-.260*	*0.862*	*20.85*	*20.15*
Popular	*-.9666*	*0.429*	*19.02*	*21.98*
Kind	*-.966*	*0.429*	*21.98*	*19.02*
Lazy	*-.186*	*0.874*	*19.80*	*19.17*
Clever	*-.142*	*0.901*	*19.76*	*20.23*
Tell lies	*-.589*	*0.602*	*19.50*	*21.50*
Feel Good About Self	*-.582*	*0.588*	*19.02*	*21.03*

Table 41. Emotions. Comparing Self and SAG: Gender.

	Differences across Self and SAG			
	Mann Whitney		***Mean Rank***	
Emotion	*Z=*	*p=*	*Male*	*Female*
Angry	*-.403*	*0.718*	*21.20*	*19.80*
Happy	*-1.347*	*0.289*	*22.50*	*18.50*
Sad	*-.297*	*0.799*	*20.00*	*21.00*
Uptight	*-.638*	*0.565*	*21.60*	*19.40*

When total 'difference' scores representing within subject comparisons of participants ratings of Self and the SAG character, are compared across groups, no significant differences are shown in any of the three domains as shown in Tables 39 to 41 above.

6.3. Are Descriptors Of Interpersonal Power Correlated?

As these findings show that descriptors of Interpersonal Power mainly distinguished Aggressive and Non Aggressive participants, it is useful to carry out Post Hoc analysis to explore whether participants' responses to these descriptors are associated. Significant correlations will serve to confirm the grouping of these descriptors under a single category of Interpersonal Power.

Table 42. Interpersonal Power: Spearman's Correlations Across Descriptors

	Stick up for self	***Gets into trouble***	***Gets own way***	***Treated like child***	***Get listened to***
Stick up for self		r=.193 p=0.232	r=.183 p=0.259	r=.137 p=0.401	r=.091 p=0.578
Get in trouble	r=.193 p= 0.232		r=.496 p=0.001**	r=.275 p=0.08 (t)	r=.360 p=0.022*
Get own way	r=.183 p=0.259	r=.496 p=0.001**		r=.288 p=0.074(t)	r=.423 p=0.007*
Treated like child	r=.137 p=0.401	r=.275 p=0.08 (t)	r=.288 p=0.074(t)		r=.449 p=0.004**
Get listened to	r=.091 p=0.578	r=.360 p=0.022*	r=.423 p=0.007*	r=.449 p=0.004**	

**=p<0.05, **p<0.005; (t) = trend towards significance.*

As can be seen in Table 42 above, Spearman's Correlations show that with the exception of the descriptor '*stick up for self*' all descriptors in the Interpersonal Power domain are either significantly correlated, or show a strong trend towards significance. This validates the grouping of descriptors said to represent Interpersonal Power in this exploratory assessment. It is notable that the descriptor '*sticks up for self*' can be distinguished from the others in this domain as it refers to perceptions of 'personal powerfulness' whereas all other descriptors in this domain refer to power afforded *by others*.

Gender Comparisons Within The Aggressive Group.

As in study one there were no gender differences revealed in the descriptive data within the Aggressive group alone. A similar pattern of responding was shown when compared with overall gender comparisons. As such the data for gender differences within the Aggressive group will not be presented for further discussion.

CHAPTER SEVEN: DISCUSSION STUDY TWO.

Perceptions of Self and the Aggressive Identity.

In this chapter key findings are discussed within the context of the existing research literature and theoretical models of aggression. Differences in the self perceptions of Aggressive and Non Aggressive participants are discussed, and the implications of Aggressive participants' essentially negative views of the SAG character are considered.

7.1. Brief Overview of Findings.

The findings of study two offer tentative evidence that Aggressive and Non Aggressive participants hold different beliefs about the 'interpersonal self' pertaining specifically to interpersonal power. In keeping with the findings of study one, a surprising lack of differences are shown in Aggressive and Non Aggressive participants' views of the SAG character. Participants' largely negative ratings of this character run counter to the notion that Aggressive participants may attach more positive qualities to aggressiveness. Likewise, no clear evidence is shown that Aggressive participants view themselves as being more like the SAG character than do their Non Aggressive peers.

7.2. Self Perceptions.

It is notable that three of the Self descriptors which differentiate Aggressive

and Non Aggressive participants fall into the category of Interpersonal Power, (i.e., *I get listened to; I get my own way; I get into trouble*). Post hoc analysis showing that the responses to descriptors in the interpersonal power domain are in the main highly correlated confirms the grouping of these descriptors in one category. The direction of differences indicates that Aggressive participants expect themselves to be afforded less power than do Non Aggressive participants. This fits well with the finding from study one that Aggressive participants more often have goals aimed at 'showing strength' within an interpersonal context, which may be aimed at pushing against perceived powerlessness. The suggestion that Aggressive participants hold perceptions of low interpersonal power makes intuitive sense in relation to people with an intellectual disability who commonly experience a lack of autonomy and control in their lives. However, the question of why differences exist across Aggressive and Non Aggressive groups remains.

It is notable that each of the three descriptors in the interpersonal power domain which are rated significantly lower by Aggressive participants represent expectations of 'how others treat me' rather than denoting participants' views of self or their beliefs about their ability to exert power. Indeed, there is some suggestion that the low power Aggressive participants believe they are given is *discordant* with their view of self. It would appear from the relatively high ratings of the descriptor '*I stick up for myself*' that Aggressive participants do not view themselves as lacking the ability to assert power. As such, the findings that Aggressive participants expect little power to be given to them may be in keeping with Allan & Gilbert's (1995) social ranking theory. As mentioned previously in chapter one, there is an acknowledged link between negative social comparison and psychological problems

of depression, (Allan & Gilbert, 1995; Gilbert & Allan, 1994; Dagnan & Sandhu, 1999). The findings of this study suggests that it may be worth exploring the link between social comparison and aggression. Allan & Gilbert (1995) highlight the difference between voluntary and involuntary subordinate interpersonal positions, with the latter meaning that people feel they have been 'put down' by others against their will. Interestingly, this imposed status is said to be associated with a sense of vulnerability, expectations of being attacked by others, a feeling of being 'thwarted in aspiration' and trapped.

Within a cognitive model the descriptors found to distinguish Aggressive participants' in this study can be conceptualised as 'interpersonal schema' (Baldwin (1992). Whilst the findings of this study must be viewed as tentative, the possibility of differences in those aspects of interpersonal schema concerning power and control deserves further attention. Bugental, Blue, Cortez, Fleck, Kopeikin, Clayton & Lyon, (1991) gave an illuminating example of how interpersonal schema of low power can impact on an individual's interactions with others. The authors cited a study carried out with abusive parents who were shown to have expectations of 'low perceived control' in their relationships with their children. The parents were noted to become heavily engaged with threat relevant features of the environment and consequently focus their efforts on protecting against lost control. Paradoxically, individuals who believed themselves to be at a power disadvantage often exerted unusual levels of coercion in an attempt to redress this lack of control.

The suggestion of perceived differences in Aggressive participants' relational schema is also in line with the findings of Pert *et al.* (1999) who showed that Aggressive participants have a cognitive bias towards viewing others as hostile

towards self. The authors pointed to the possibility that these cognitive biases may be due to aspects of Aggressive participants' views of self. Yet, their findings also indicate differences in relational schema, as participants' were shown to expect hostile treatment *from others* within interpersonal contexts in much the same way as participants in the current study expect to be dominated by others. Other indicators that Aggressive participants resist a social identity of powerlessness have already been demonstrated by the findings of study one, which found that Aggressive participants have more negative associations with submissiveness. Responses show that behaving passively in the face of others hostility is more likely to leave Aggressive participants feeling bad about themselves compared with their Non Aggressive peers. These common themes will be returned to in chapter eight.

The proposed discrepancy between Aggressive participants' views of Self and their expectations of 'others treatment of self' in this discussion also fits well with the model proposed by Trower & Chadwick, (1995) for individuals diagnosed with psychosis. They suggest that strong emotions may be evoked when others attempt to impose a definition of Self that does not fit with the individuals' own self perceptions. Clearly this is a speculative interpretation based on descriptive data, and does not explain why aggressive individuals behave aggressively rather that assertively. Although one possible explanation is that when Aggressive participants' significantly lower ratings of the descriptor *'I get listened to'*, are considered, it could be argued that Aggressive participants may believe that assertive strategies will go unheard and be ineffective.

In light of the tentative finding that views of 'self in relation to others' may distinguish Aggressive and Non Aggressive participants, Trower & Chadwick's

(1995) cognitive behavioural interview deserves further consideration. As previously mentioned, this interview explores the individual's 'views of self'; 'others view of self'and 'view of other' and has been adapted for assessment of people with an intellectual disability who have problems of aggression, (Jahoda *et al.,* 1998). Also, Kelly's Personal Construct Approach (Kelly 1955) offers a clear framework of assessment representing the self system more explicitly than other cognitive approaches. Whilst the piloting has shown that many of the methods used in the Personal Construct Approach are not accessible for this client group, some encouraging insights have been gained by way of a relatively straightforward rating of descriptor items. Thus, researchers and clinicians alike may achieve a better understanding of the causes of aggression by drawing on different methods, such as the structured assessments used in these studies, alongside individualised structured interviews which focus on real life experiences.

7.2.1. Social Identity.

When descriptors outwith the domain of Interpersonal Power are considered, Aggressive and Non Aggressive participants' ratings reveal largely positive self perceptions. One of the most notable findings is that there are no differences in the Aggressive and Non Aggressive participants' ratings of the descriptor *'I feel good about myself'*, with both groups giving mainly positive ratings. Positive ratings were also shown across groups for descriptors of social reputation such as *'I am popular'*, *'I get on easily with others'* and socially esteemed qualities such as *'I am kind'*. The apparently positive self perceptions shown by Aggressive participants' undermines the notion that aggression is linked with low self esteem. As noted in the earlier

discussion of the findings of study one, the notion that these positive ratings are simply due to socially desirable responding is weakened by Aggressive participants' apparent willingness to answer honestly about aggressive behavioural strategies in that study.

7.2.2. Emotional Self.

A most surprising finding is the lack of differences in Aggressive and Non Aggressive participants' ratings of Self for the emotion of anger. It is important to note that this assessment did not explore participants' current feelings of anger but rather questions relate to a global view of Self as being 'an angry person'. Thus the findings suggest that Aggressive participants do not have an angry identity. The finding that Aggressive participants' view themselves as being '*uptight*' significantly more often than do their Non Aggressive peers is less surprising. It is recognised that anger and anxiety commonly co-exist, with most anger management programmes incorporating anxiety management strategies and relaxation instruction. Anxious individuals are widely recognised to present an exaggerated tendency to make threat appraisals in interpersonal situations, which fits with a cognitive model of aggression (Lazarus & Folkman, 1984). Aggressive participants' greater anxiety is consistent with the premise that aggression may be an attempt to defend oneself against the perceived threat of others, in line with the previously discussed model of Trower & Chadwick (1995). The threat of being in a position of low power and control could reasonably be assumed to lead to anxiety, especially if this contrasts with Aggressive participants' social goals as indicated by the findings of study one which show Aggressive participants to frequently hold goals of 'showing strength'.

7.3. Views of the Stereotyped Aggressive Character.

No significant differences were found in Aggressive and Non Aggressive participants' ratings of a SAG character. Notably, Aggressive and Non Aggressive participants did not rate the Aggressive character differently with regards interpersonal power. The direction of participants' ratings show that both groups view the Aggressive character as having low power. Similarly, in terms of social reputation both groups believe that aggression is associated with a lack of popularity. This suggests that Aggressive participants do not anticipate gains from aggression and do not expect aggression to lead to enhanced power, backing up the findings of study one that Aggressive participants have largely negative expected outcomes of aggression. Another notable finding is that both groups believe that the aggressive character *'feels bad about himself'*. This offers tentative evidence that Aggressive participants do not believe that the SAG character gains esteem from aggression. Also, this confirms the finding of study one that aggression is expected to lead to self-condemnation for both Aggressive and Non Aggressive participants. Whereas in study one an outcome of self condemnation was explored in relation to participants own hypothetical aggressive behaviour, this finding shows that participants expect self condemnation to be experienced by others, or at least a stereotyped aggressive others.

7.4. Comparing Views of Self and the SAG Character.

When participants' views of Self are compared with their views of a SAG character, a similar pattern of ratings is shown across Aggressive and Non Aggressive groups. No significant statistical differences were shown across groups

when scores were assigned to represent differences in participants rating of Self and the SAG character. This undermines the relevance of social constructionist theories of impression management suggesting that Aggressive participants have not adopted an aggressive identity. However it may be that the stereotyped aggressive character (Gary) is presented as being at fault with regards aggressiveness as he is described as "bullying" which clearly has negative connotations. Perhaps Aggressive participants would have viewed themselves as having more in common with the Aggressive character had he been described as presenting reactive aggression in the face of conflict. When differences are considered within the Aggressive group significant differences are shown for nine descriptors when ratings for Self are compared with the same ratings for SAG Character. For the Non Aggressive group fifteen descriptors are rated differently across the two identities. When the domain of Interpersonal Power is considered, whilst the extent of differences in ratings of Self and SAG show no significant difference across groups, within subject analysis reveals that the Non Aggressive group rate three of descriptors of Interpersonal power differently (Self vs SAG), whilst there are no significant differences shown in Aggressive participants ratings of Self and the SAG character. There ratings show that they view the SAG character as having low power, similar to themselves. In contrast, Non Aggressive participants see themselves as being assigned more power than the SAG character. Aggressive participants' rate themselves more favourably than the SAG character on the descriptor *'I get listened to'* and lower on negative descriptors *'treated like a child'* and *'gets into trouble'*. When considering this pattern of responses we cannot conclude that Aggressive participants see themselves as being more alike the SAG character than do Non Aggressive participants as the

extent of within subject differences was not found to be significantly different *across* groups.

When the pattern of responses given by Aggressive participants is considered it is notable that the Aggressive group rate the descriptors of interpersonal power similarly for Self and the SAG character. As noted however these descriptors represent participants views of 'others treatment of self' rather than views of self. Thus rather than suggesting that the Aggressive participants view themselves as being alike the SAG character, this pattern of responding suggests that they see themselves as *being treated like* the SAG character. Another interpretation is that Aggressive participants have a *global* expectation of low power and control. In other words they may expect that low interpersonal power is something that is experienced generally, rather than being specific to themselves and/or the stereotyped aggressive character. To test out this hypothesis, further exploration of Aggressive participants' views regarding a range of hypothetical characters would be necessary.

Finally, it should be recalled that the SAG character in this assessment is depicted as having an intellectual disability. The character description states that the character attends a "day centre", which was intended to be a clear marker of his intellectual disability to participants. Taking this into account, and in contrast to the notion that Aggressive participants may have a general expectation of 'low power', it may be that Aggressive participants have a more specific expectation that *people with an intellectual disability* are afforded low power. Possibly the SAG character's intellectual disability was particularly salient to Aggressive participants and influenced their ratings of descriptors of 'interpersonal power'. It is also possible that Aggressive participants have different views of the intellectually disabled

identity compared to Non Aggressive participants.

The overall direction of both Aggressive and Non Aggressive participants' ratings of descriptors excluding descriptors of 'interpersonal power' indicate that both groups view themselves as possessing more positive attributes than the stereotyped aggressive character. Both Aggressive and Non Aggressive participants believe themselves to be more popular than the Aggressive character, which again undermines the social constructionist theory that Aggressive individuals aspire to an aggressive identity to gain social status. In terms of emotional well-being, Aggressive participants view themselves as significantly less angry than the stereotyped aggressive character. Aggressive participants' ratings of *'uptight'* and *'sad'* do not differ across Self and the stereotyped aggressive character. As previously discussed, Aggressive participants view themselves as significantly more *uptight* than do Non Aggressive participants, and also view Aggressive participants as being similarly uptight.

7.5. Lack of Gender Differences.

A puzzling aspect of these findings is the lack of gender differences shown. No significant differences were found for self perceptions or perceptions of the stereotyped aggressive character. When gender differences are explored for comparisons of Self and the aggressive character, the diverse nature of the three distinguishing descriptors found (*treated like a child, kind, sad*) suggests no clear pattern of differences. Similarly when gender differences are explored within the Aggressive group alone, only two descriptors (*get into trouble, lazy*) show real statistically significant differences. Whilst this lack of differences accords with the

findings of study one, it is in conflict with the wider findings from the child and adult literature.

7.6. Conclusions

In conclusion, findings of a difference in Aggressive and Non Aggressive participants' views of their own interpersonal power are presented within a social cognitive framework of interpersonal schema. It is suggested that Aggressive participants' beliefs about the 'interpersonal self' may be a driving force in aggression for some individuals with an intellectual disability. The largely negative views of a SAG character held by both Aggressive and Non Aggressive participants undermines the notion that Aggressive participants are motivated by perceived benefits of aggression.

Whilst the role of the self concept in aggression has been widely cited, these findings go some way to advance the previously ill defined conceptual link, and throw some light on specific aspects of the self system which may differentiate aggressive and non aggressive individuals, specifically the interpersonal self. In terms of theoretical implications, at first sight the finding of Aggressive participants' lower expectation of interpersonal power may appear to uphold social interactionist theories of aggression, suggesting that aggressive individuals are aiming to enhance power and esteem by aggressiveness. However, when it is considered that Aggressive participants expect the SAG character to have low power similar to themselves, some doubt is thrown on this. The suggestion of a conflict between participants' own constructed self and that assigned by others may suggest they are acting defensively to refute an undesired identity of low power in the same way

Trower & Chadwick, (1995) argue that people may be driven to defend their self construction. This notion of defending against 'threats to self' may go some way to explain the finding that Aggressive participants rate themselves as more anxious than Non Aggressive participants. Finally, Aggressive participants high ratings of positive self descriptors such as *popular, kind* and *'feels good about self'* undermines the notion of aggression being linked with global low self esteem.

To conclude, these findings show the benefit of considering the self concept within a social cognitive framework. Also, whilst previous studies have focussed on participants' appraisal of specific interpersonal situations, the benefit of developing tools to tap into generalised beliefs has been enforced. The striking finding that Aggressive participants did not rate Self as being more angry than Non Aggressive participants highlights the necessity of formulation driven interventions. In the following chapter the findings of the two studies presented in this thesis will be pulled together to offer a brief overview of findings to demonstrate the cohesiveness of the results across studies. The clinical implications of the overall findings will then be discussed.

CHAPTER EIGHT: OVERVIEW AND CLINICAL IMPLICATIONS.

8.1. Overview of Both Studies.

The findings discussed in the previous chapters must be viewed tentatively due to the modest levels of significance shown in many cases and the small number of participants who took part in these studies. However, there is an encouraging coherence shown in the findings within and across each of the studies that suggests these are not simply random differences. Considering these key findings in conjunction, further insights into the possible causes of aggression for this client group can be explored in this chapter. The clinical implications of these findings will be considered and directions for the future development of clinical interventions discussed.

Taking an overview of the two studies, the main findings shown to distinguish Aggressive participants' from their Non Aggressive peers are their (i) social goals, (ii) their more negative beliefs about submissiveness and (iii) their expectation of low interpersonal power. The findings of both study one and study two have shown that participants in each group have mainly negative views about aggression. Study one has highlighted the mainly negative outcomes that Aggressive and Non Aggressive participants associate with aggressiveness, and study two has shown their more negative views of a hypothetical aggressive character. The nature of Aggressive participants' social goals of 'showing strength', are in keeping with their more negative views of submissiveness, as discussed in

chapter four. For example, the common goal of '*showing others they can't mess me around*' suggests a preference for active, rather than passive coping strategies within situations of conflict. Similar consistency is indicated when the finding that Aggressive participants' expect low interpersonal power is viewed alongside their more forceful social goals as the latter could be aimed at counteracting this perceived powerlessness. Indeed, the expectation that others allow them little power may drive Aggressive participants' to aim for social goals such as '*showing others they can't mess me around'*. This possible sense of powerlessness may in turn fit with the finding that Aggressive participants rate themselves as more '*uptight*' than do the Non Aggressive group. This anxiety may be associated with an exaggerated sense of social threat which fuels their goal of *'showing others they can't mess me around'*. The tentative evidence of a conflict between Aggressive participants' views of self (from the descriptor '*I stick up for myself*'), and 'self as defined by others' in respect of low interpersonal power, suggest they may push against this position of perceived powerlessness.

Patterns emerging in the nature of Aggressive participants' social goals and their expected outcomes of aggression relating to '*reducing hostility from others'* have been discussed in chapter four. To draw the broad findings together it is worth recapping here. Aggressive participants' most frequent social goal of *'showing others they can't mess me around'*, arguably has most in common with the expected outcome of '*reducing hostility from others'*, as both are concerned with preventing future ill treatment from others. Aggressive participants' mainly affirmative rating of this outcome shows that a slight majority of this group believe that aggression '*stops others messing you around*'. This is an important point that deserves further

exploration as it may go some way to explain why Aggressive participants behave aggressively despite their otherwise largely negative views of aggression. In keeping with this idea, it is notable that significantly more Aggressive than Non Aggressive participants believe that submissiveness *will not* stop others from messing you around. This pattern of responding suggests that submissiveness would be seen by many Aggressive participants as an *ineffective* strategy to meet their preferred social goal within situations of conflict, and that aggression is viewed by most Aggressive participants as being successful in achieving their goals.

To sum up, when the findings are drawn together, the overall picture that emerges is one where Aggressive participants expect themselves to be afforded little power within an interpersonal context. At the same time their negative views of submissiveness suggests that they are likely to shun a social identity of powerlessness, believing that a strategy of '*doing nothing*' would lead to negative outcomes. Taken together, Aggressive participants' expectations that they may be dominated by others, and their negative views of submissiveness could lead them to establish forceful social goals that push against perceived threats to their self identity.

8.2. Clinical Implications.

As well as highlighting the need for sound clinical formulations, these findings also undermine some common assumptions presented in the literature regarding the causes of aggression for individuals with a learning disability. In study one no evidence was found that Aggressive participants were less able to generate a range of passive and assertive strategies to meet predefined goals. Aggressive

participants showed a similar ability to think through the consequences of their actions as did their Non Aggressive peers. This highlights that, although psycho-educational approaches aimed at teaching cognitive skills may be appropriate for some individuals with a learning disability who present aggression, clinicians cannot assume that this approach is relevant for all individuals.

Where aggression is motivated by social goals, which aim to *'show strength'* or to *'reduce hostility'*, the client will likely be resistant to behavioural self control strategies as these may conflict with these goals and leave them feeling socially impotent. Similarly, where aggression is aimed at counteracting a sense of social powerlessness the use of relaxation or distraction techniques within conflict situations may simply leave the person feeling more ineffectual in the long term and exacerbate their sense of powerlessness. The findings of this study suggest that, some individuals may be more concerned with pushing against a sense of imposed powerlessness than remaining calm. Behavioural programmes that impose sanctions following aggression such as exclusion from day or residential services, may further reinforce a perceived lack of interpersonal power. As many Aggressive participants in this study have been shown to already expect a range of negative outcomes of aggression, sanctions may have little effect from a social learning perspective.

Where aggressive individuals' social goals and their views of the 'interpersonal self' are relevant to their aggression as suggested by these findings, there is a good argument for using cognitive interventions that explore how the person views themselves within their social world. In particular the possible benefit of using cognitive restructuring techniques is suggested. As noted in the introduction chapter of this thesis there has been a lack of research looking at whether these more

'complex' schema based components of treatment can be adapted for use with people with a learning disability. Further exploration of the efficacy of these methods could inform clinical interventions used with clients with a learning disability presenting a range of emotional problems.

These findings highlight the need for formulation driven interventions and suggest that the commonly used 'packages' such as anger management programmes, that assume common underlying causal factors of anger and aggression, may not adequately reflect the heterogeneous causes of anger problems, (Howells, 1996; Howells *et al.,* 1997). Indeed, recent refinements of Novaco's anger management model highlight a distinction between two levels of treatment referred to as (i) anger management and (ii) anger treatment to address this recognised limitation of 'packages' with a forensic population, (Novaco, Black, Ramm *et al.,* 1997, 2000). The former anger management package follows a standard psycho-educational approach whilst the latter 'anger treatment' integrates assessment and formulation, focussing more fully on the cognitive elements of treatment.

In light of the tentative finding that views of self in relation to others may be a useful focus of cognitive interventions for problems of aggression, Trower & Chadwick's (1995) cognitive behavioural interview deserves further consideration. As previously mentioned, this interview explores the individual's 'views of self' and 'others view of self' and has been adapted for use with people with an intellectual disability who have problems of aggression, (Jahoda *et al.,* 1998). Also, the personal construct approach offers a clear framework of assessment representing the self system more explicitly than other cognitive approaches. Whilst the piloting of study two has shown that many of the methods used in the personal construct

approach are not accessible for this client group, some encouraging insights have been gained by way of a relatively straightforward rating of descriptor items. Thus, clinicians may achieve a better understanding of the causes of aggression by drawing on different methods, such as the structured assessments used in these studies, alongside individualised structured interviews which focus on real life experiences. If we can understand more about the belief systems of people with a learning disability who present frequent aggression, including their beliefs about self and the interpersonal self, and tap into their valued social outcomes, it may be possible to enhance the effectiveness of clinical interventions.

For individuals whose aggression is influenced by a sense of low interpersonal power, the inclusion of 'significant others' in treatment may be helpful, (Rose *et al.,* 2000). Whilst this may appear to be restricting the individuals' autonomy in some ways, on the other hand, staff and carers often have more scope to influence lifestyle changes. This would allow carers to gain insight into the clients' perspective and preventative strategies could be negotiated to overcome these feelings of powerlessness. Staff may be in the best position to ensure opportunities for increased responsibility and valued roles, which may in turn increase a sense of social control.

Where Aggressive individuals believe that aggressive strategies help them achieve their social goals they may be unwilling to change their aggressive behaviour. The need to assess the clients' motivation to overcome their aggressiveness has been widely acknowledged in anger management treatment in recent years, with the inclusion of preparatory phase in treatment programmes to address motivational issues. The consideration of social goals may help to further

clarify possible barriers to change. With a greater understanding of the persons' motives therapists can ensure that they do not fall into the trap of establishing treatment goals which conflict with the persons' valued social outcomes. By so doing it may then be possible to work with the individual to establish more adaptive methods of achieving desired goals, or where necessary shape maladaptive goals.

The findings of these studies suggest that broad clinical assessments that reflect the complex causal pathways that lead to aggression should be developed for use with adults with an intellectual disability. Thoughtful assessments that focus on the 'person' rather than the 'problem' will enhance clinical formulations, and guide effective interventions.

CHAPTER NINE: LIMITATIONS AND FUTURE RESEARCH.

In this final chapter the methodological limitations of these studies are discussed. Helpful directions for future research are considered.

9.1. Critical Review and Future Research.

A clear limitation of these studies is the low number of participants who took part and the implications this has for the statistical power of the findings. However, as has been emphasised previously, it is important to acknowledge the consistent themes emerging from the data. As these are exploratory studies intended to inform the direction of future research particular care was taken to avoid type II errors. It is hoped that future research can be carried out with a larger sample.

The GOAS assessment explores incidents of reactive aggression alone, depicting hypothetical situations where the participant is at the *receiving end* of unfair treatment from others and responds aggressively to the hostile act. It may be that participants would expect more negative consequences for proactive aggression. In particular, proactive acts of aggression might be expected to lead to more peer disapproval and more authority disapproval. Also, the aggressive behaviour depicted in the GOAS assessment was limited to verbal aggression. Perhaps more differences would be shown across Aggressive and Non Aggressive participants' and/or gender for views regarding the outcomes of physical aggression. These limitations were recognised when devising the study, however difficulties shown when exploring proactive aggression and physical acts of aggression in the piloting phase led to their

exclusion as previously discussed in the methods section of Chapter two.

The GOAS assessment only incorporated one question relating to salient goals, and as such the findings must be considered tentative. Again this choice of methodology was a necessary decision made at piloting due to the difficulty people with an intellectual disability had in answering the question regarding salient goals.

As social goals were explored alongside expected outcomes in this study it was important to ensure that the assessment did not become too demanding, causing participants to disengage. For future research it may be preferable to focus solely on the exploration of salient goals and consider these in more depth. Another useful adaptation to the assessment would be to explore the saliency of beliefs regarding aggression and submissiveness, (Slaby & Guerra, 1988). Finally, the decision to match the gender of characters in hypothetical scenarios may be flawed as pointed out by Perry *et al.,* (1986), who argued that this methodology does not compare like with like across gender. It may have been preferable to question male and female participants about hypothetical scenarios depicting male characters.

Themes emerging from the findings of the SPAGI assessment suggest that it would be fruitful to include more descriptors for 'interpersonal self' in the assessment. It would also be useful to explore the perceptions of 'interpersonal self' within the context of real life significant relationships. Exploration of ways of eliciting constructs of 'ideal self' or 'undesired selves', (Markus & Nurius, 1986) would also be beneficial. These constructs would offer useful insights into aspects of the self identity which participants most, and least value. Perhaps one way of exploring 'ideal and/or undesired self' would be to present a range of hypothetical characters and ask the participants' whether they would wish to "be like" each

character. Also, a straightforward extension of the SPAGI assessment would be to include a hypothetical submissive character. This would allow further exploration of differences which may exist in Aggressive and Non Aggressive participants' views of submissiveness. An additional benefit of including a hypothetical submissive character would be to allow within subject comparison of views of Self compared with 'submissive character'.

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GREATER GLASGOW COMMUNITY AND MENTAL HEALTH SERVICES NHS TRUST

EMOTIONAL MANAGEMENT PROBLEMS OF PEOPLE WITH MODERATE TO MILD LEARNING DISABILITIES

CONSENT FORM

(A MEMBER OF THE MANGEMENT AT THE ADULT TRAINING CENTRE SHOULD COMPLETE THIS FORM WITH THE INDIVIDUAL CONCERNED)

	PLEASE CROSS OUT AS NECESSARY
I have read and understood the Information Sheet	**Yes/No**
I have received my own copy of the Information Sheet	**Yes/No**
I have had an opportunity to ask questions and to discuss the research	**Yes/No**
I have received satisfactory answers to all of my questions	**Yes/No**
I have received enough information about the research	**Yes/No**
I have spoken to:	**My Keyworker Centre Manager Other**
I understand that I am free to withdraw from the research: • **at any time** • **without having to give a reason for withdrawing** • **without it affecting my medical care**	**Yes/No**
I understand that whatever I say is confidential	**Yes/No**
I agree to take part in the research	**Yes/No**

Participant's name in block letters .....

Participant's signature .....

Carer's signature (if required)* .....

ARC Managers'/Keyworker's signature.

Date .....

* Carer's signature is only required if the participant is unable to independently give consent

Appendix 2

NAME: _____ Date: _____ Code no. _____ Version 1

Comments: _____

SOCIAL GOALS AND PREDICTED OUTCOMES OF AGGRESSION AND SUBMISSIVENESS.

1A. PREDICTED OUTCOMES OF AGGRESSION.

Read vignette and show storyboard.

"Imagine that you are at college. Someone in the class has been told to hand out free tickets for the college dance. You ask him/her for a ticket but (s)he won't give you one.. You say you really want to go but (s)he says that's just your tough luck and (s)he still won't give you a ticket.

IMAGINE YOU GET REALLY MAD. YOU SHOUT AT HIM/HER AND YOU TELL HIM/HER THAT (S)HE BETTER GIVE YOU A TICKET OR ELSE."

1a. What do you think would happen when you shout at the other person?

_____

_____

1b. If that happened how would you feel?

_____

2a. When you shout at him/her would the other people in the class (*your friends*) say you did the

(i) Right thing?

OR

(ii) Wrong thing?

(PA)

2b. How would it make you feel when your friends say you did _____.

Show emotion photos and circle options as appropriate.

feel good *not bothered* *feel bad*

3a. When you shout at him/her would the staff at the centre say you did the

(i) Right thing?

OR

(ii) Wrong thing? *(AA)*

3b. How would you feel about that? *Show emotion photos and circle options as appropriate.*

feel good *not bothered* *feel bad*

4a. Would the person you shouted at feel

(i) Not bothered

OR

(ii) Upset

(EV)

4b. How would you feel when he/she feels_____?

Show emotion photos and circle options as appropriate.

feel good *not bothered* *feel bad*

5a. If you shout at him/her will she

(i) Give you the ticket.

OR

(ii) Keep the ticket?

5b. How would you feel about that?

Show emotion photos and circle options as appropriate.

feel good *not bothered* *feel bad*

6a. When you shout at the other person will that make him/her

(i)Stop treating you badly (realise (s)he can't get away with it again)?

OR

(ii)Keep on treating you badly (keep on messing you around)

(RAT)

6b. How would you feel about that?

Show emotion photos and circle options as appropriate.

feel good *not bothered* *feel bad*

(SC/SR)

7a. When you shout at him/her, would you feel

(i) Good

OR

(ii) Feel bad

1B. PREDICTED OUTCOMES OF SUBMISSIVENESS.

(Show photos to depict story.

You are in the café at the centre and you have just bought your lunch. You can't find a seat so you have to wait. Then you notice that there is one empty seat beside some people you know. When you go to sit down someone jumps the queue and pushes in front of you and takes your seat.

IMAGINE THAT YOU ARE UPSET BUT YOU JUST LET IT GO AND DON'T SAY ANYTHING.

1. What do you think would happen when you don't say anything?

_____

_____

1b. If that happened how would you feel ? _____

2a. When you just let the person take your seat and don't say anything would the other people in the class say you did the

(i) Right thing?

OR

(ii|) Wrong thing?

(PA)

2b. How would you feel when the other people in the class (*your friends*) say _____?

Show emotion photos and circle options as appropriate.

feel good *not bothered* *feel bad*

3a. When you just let him take your seat and don't say anything would the staff at college say you did the

(ii) Right thing?

OR

(ii|) Wrong thing?

(AA)

3b. How would you feel when the staff say _____?

Show emotion photos.

feel good *not bothered* *feel bad*

4a. If you let it go and saying nothing will he/she

(i) Give you the seat back?

OR

(ii) Not give you the seat back? *(IR)*

4b. How would you feel when you get the seat /don't get the seat?

Show emotion photos and circle as appropriate.

feel good *not bothered* *feel bad*

5a. If you don't say anything and just let her/him take your seat, do you think (s)he will

(i) Stop treating you badly (stop messing you around)

OR

(ii) Keep treating you badly (keep on messing you around)

(RAT)

5b. How would you feel when (s)he stops/ doesn't stop treating you like that ?

Show emotion photos.

feel good *not bothered* *feel bad*

6. When you let it go and don't say anything to the person who took your seat, would you feel

(i) Good about not saying anything to him/her?

OR

(ii) Feel bad about not saying anything to him / her? *(SC/SR)*

2A. SALIENT GOALS AND PRE-DEFINED GOALS

(Read vignette and show photographs)

"You are at the day centre. You have just bought a drink and yo put it down and go to the toilet. When you come back you see that someone else is sitting holding your drink. You tell her/him it's yours but s/he ignores you and opens the bottle and starts pouring it into the glass".

1. What would you do or say when the person takes your drink? *(prompt for what would DO, not feel)*

_____

_____

_____

_____

2. Can you tell me WHY you would do (or say) that?

Use prompts. "People would do different things. I am trying to work out why you would choose to do that instead of something else?" " Why do you think that is the right thing to do" " What do you hope would happen when you do (or say) those things". "What would be the point of doing that?"

_____

_____

_____

_____

2B. GENERATING STRATEGIES FOR PRE-DEFINED GOALS.

Read the same vignette and show photographs.

"Imagine that you are in the day centre. You have just bought a drink and you put it down and go to the toilet. When you come back you see that someone else is sitting holding your drink. You tell her/him it's yours but s/he opens the bottle and starts pouring it into the glass".

1. If you want to get back at the person for stealing your drink what will you do? *(REV)*

_____

_____

_____

2. If you want to stay out of trouble what will you do? *(AA)* _____

_____

_____

_____

3. When he/she steals your drink, what would your friends say you should do? (If you want to keep in with your friends what will you do?) *(PA)*

_____

_____

_____

4. If you want to feel good about yourself afterwards (feel good about how you handled it) what should you do? *(SC/SR)*

_____

_____

_____

5. If you want to make sure s/he doesn't keep treat you like that again what should you do? *(RAT)*

_____

_____

_____

2C. EVALUATION OF PREDEFINED STRATEGIES AND GOALS - AGGRESSION

"I want you to imagine yourself in the same situation again. Imagine that you are in the day centre. You have just bought a drink and you put it down and go to the toilet. When you come back you see that someone else is sitting holding your drink. You tell her/him it's yours but s/he opens the bottle and starts pouring it into the glass."

WHAT WOULD HAPPEN IF YOU GO OVER AND SHOUT AT HIM AND START ARGUING ABOUT IT?

1. Will shouting at him/her make him/her

(i) Give you the drink back?

OR

(i) Keep the drink.

2. If you shout at him will that

(i) Stop him/her treating you like that again?

OR

(ii) Not stop him/her treating you like that?

3. If you shout at him will your friends say you did the

(iii) Right thing?

OR

(ii|) Wrong thing?

4. If you shout at him will the staff say you did the

(i) Right thing?

OR

(ii|) Wrong thing?

5. If you shout at him will you feel

(i) Good about shouting.

OR

(ii) Bad about shouting.

2D. **EVALUATION OF PREDEFINED STRATEGIES AND GOALS –SUBMISSIVENESS.**

"I want you to imagine yourself in the same situation again. Imagine that you are in the day centre. You have just bought a drink and you put it down and go to the toilet. When you come back you see that someone else is sitting holding your drink. You tell her/him it's yours but s/he opens the bottle and starts pouring it into the glass."

WHAT DO YOU THINK WOULD HAPPEN IF YOU JUST LEAVE IT, YOU SAY NOTHING AND JUST LET HIM/HER TAKE THE DRINK?

1. If you just leave it and don't say anything will he/she

(i) Give you the drink back?

OR

(ii) Not give you the drink back?

2. If you just leave it and don't say anything will he/she

(i) Stop treating you like that (messing you around) ?

OR

(ii) Keep on treating you like that (messing you around)?

3. If you just leave it and you don't say anything will your friends say you did the

(i) Right thing?

OR

(ii|) Wrong thing?

4. If you just leave it and don't say anything will the staff say you did the

(i) Right thing?

OR

(ii|) Wrong thing?

5. If you just leave it and don't say anything will you feel

(i) Good about just letting it go?

OR

(iii) Feel bad about just letting it go?

End of Assessment.

FEMALE: REFUSING TO GIVE YOU A TICKET

You are at college and someone in the class has been told to hand out free tickets for the college dance.

You ask for your ticket but she won't give you one.

You say you really want to go, but she says that's just your tough luck and still won't give you one.

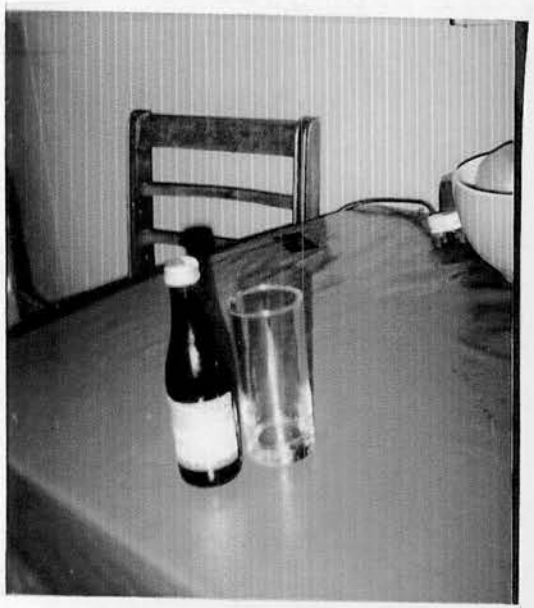
FEMALE: STEALING YOUR SEAT

You have just bought lunch at the coffee bar at the centre.

There are no empty seats so you have to wait. Then you see a seat beside some people that you know.

You go sit on the seat but someone jumps the queue. She pushes in front of you and takes the seat.

FEMALE: STEALING YOUR DRINK



You have just bought a drink and you put it down to go to the toilet.

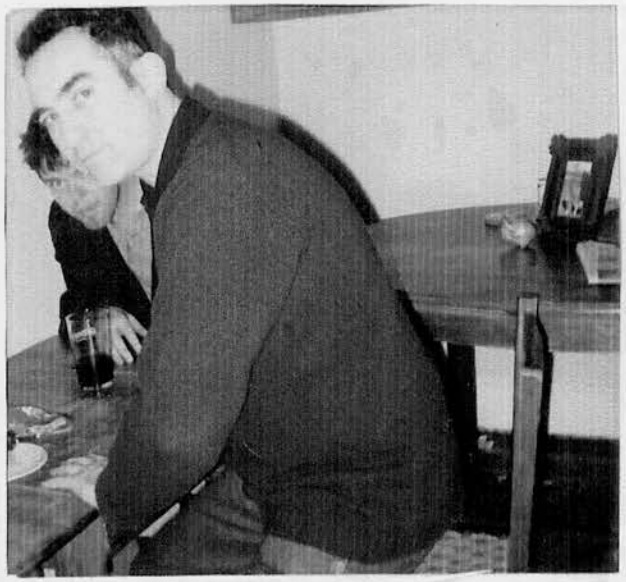
When you come back someone is sitting holding your drink.

You say that it is your drink, but she says 'so what' and starts pouring it into a glass.

MALE: STEALING YOUR SEAT

You have just bought lunch at the coffee bar at the centre.

There are no empty seats so you have to wait. Then you see a seat beside some people that you know.



You go sit on the seat but someone jumps the queue. He pushes in front of you and takes the seat.

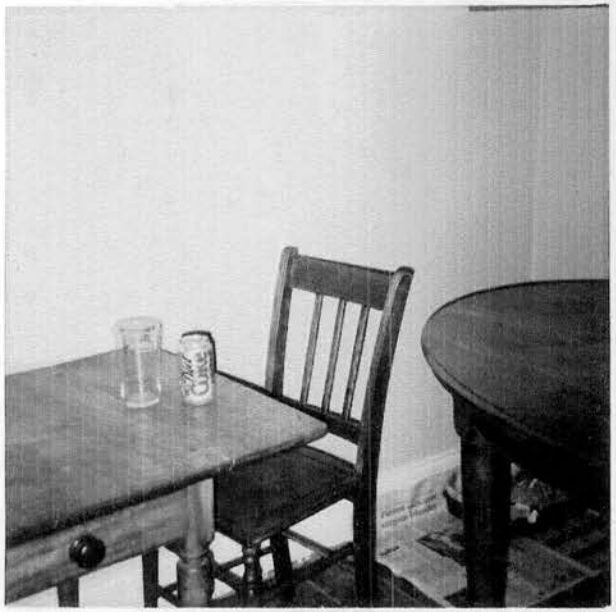
MALE: REFUSING TO GIVE YOU A TICKET

You are at college and someone in the class has been told to hand out free tickets for the college dance.

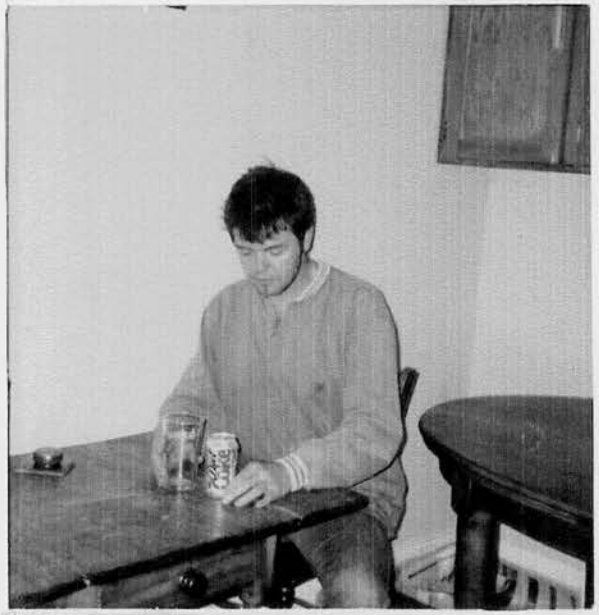
You ask for a ticket but he won't give you one.

You say you really want to go but he says 'tough luck' and still won't give you a ticket.

MALE: STEALING YOUR DRINK



You have just bought a drink and you put it down to go to the toilet.



When you come back someone is sitting holding your drink.

You say that it is your drink but he says 'so what' and starts pouring it into a glass.

FEEL
GOOD

FEEL
BAD

Predicted Outcomes of Aggression – Group Comparisons

Table 5.1. Predicted Outcomes of Aggression - Peer Approval.

Does Aggression lead to Peer Approval?		***AGG n=20***	***Non AGG n=20***	***Significance***
Yes	*Scene 1*	*9*	*11*	*Sc1, Chi Sq=.400, df =1,* ***p=0.527***
	Scene 2	*9*	*12*	
No	*Scene 1*	*11*	*9*	*Sc 2, Chi Sq =.902, df =1,* ***p=0.342***
	Scene 2	*11*	*8*	

Table 5.2. Predicted Outcomes of Aggression - Authority Approval.

Does Aggression lead to Authority Approval?		***AGG n=20***	***Non AGG n=20***	***Significance***
Yes	*Scene 1*	*6*	*4*	*Sc1, Chi Sq =.533, df =1,* ***p=0.465***
	Scene 2	*5*	*4*	
No	*Scene 1*	*14*	*16*	*Sc2, Chi Sq =.143, df =1,* ***p=0.705***
	Scene 2	*15*	*16*	

Table 5.3. Predicted Outcome of Aggression - 'Reducing others Hostility'.

Does Aggression Reduce Future Hostility?		***AGG n=20***	***Non AGG n=20***	***Significance***
Yes	*Scene 1*	*11*	*12*	*Sc1,Chi sq =.404,df =1,* ***p=0.525***
	Scene 2	*12*	*14*	
No	*Scene 1*	*9*	*8*	*Sc2, Chi sq =.440, df =1,* ***p=0.507***
	Scene 2	*8*	*6*	

Table 5.4. Predicted Outcome of Aggression - 'Self Condemnation'.

Does Aggression make you Feel Good about Self?		***AGG n=20***	***Non AGG n=20***	***Significance***
Yes	*Scene 1*	*14*	*11*	*Sc1, Chi sq =.960, df =1,* ***p=0.327***
	Scene 2	*10*	*11*	
No	*Scene 1*	*6*	*9*	*Sc2, Chi sq =.100,df =1,* ***p=0.752***
	Scene 2	*10*	*9*	

Table 5.5. Predicted Outcome of Aggression - 'InstrumentalReward'.

Does Aggression lead to Instrumental Gain?		***AGG n=20***	***Non AGG n=20***	***Signif***
Yes	*Scene 1*	*4*	*5*	*Sc1, Chi sq =.143*
	Scene 2	*6*	*8*	*df =1,* ***p=0.705,***
No	*Scene 1*	*16*	*15*	*Sc2, Chi sq =.440b*
	Scene 2	*14*	*12*	*df =1,* ***p=0.507***

Appendix 5

Table 5.6. Predicted Outcome of Aggression - 'Effect on victim'.

Does Aggression Upset Victim?		***AGG n=20***	***Non AGG n=20***	***Significance***
Yes	*Scene 1*	*7*	*5*	*Sc1, Chi sq =.476,df =1,* ***p=0.490***
	Scene 2	*6*	*4*	
No	*Scene 1*	*13*	*15*	*Sc2, Chi sq =.476,df =1,* ***p=0.490***
	Scene 2	*14*	*16*	

How Feel About Outcomes of Aggression Taking Valence into Account – Group Comparisons

Table 6.1. How feel about Aggression: Peer approval.

How Feel about Aggression PEER VIEW		***AGG*** *n=20*	***Non AGG*** *n=20*
Peer Approval	*Feel Good*	*8*	*10*
	Not Bothered	*1*	*1*
	Feel Bad	*0*	*0*
Peer Disapproval	*Feel Good*	*0*	*0*
	Not Bothered	*3*	*3*
	Feel Bad	*8*	*6*

Table 6.2. How feel about Aggression: Authority approval..

How Feel about Aggression AUTHORITY VIEW		***AGG*** *n=20*	***NonAGG*** *n=20*
Authority Approval	*Feel Good*	*6*	*4*
	Not Bothered	*0*	*0*
	Feel Bad	*0*	*0*
Authority Disapproval	*Feel Good*	*0*	*0*
	Not Bothered	*6*	*5*
	Feel Bad	*8*	*11*

Table 6.3. How feel about Aggression; Reducing hostility

How Feel about Aggression REDUCE HOSTILITY		***AGG*** *n=20 (m)*	***Non AGG*** *n=20*
Aggression Reduce Hostility	*Feel Good*	*7*	*11*
	Not Bothered	*3*	*1*
	Feel Bad	*1*	*0*
Aggression Not Reduce Hostility	*Feel Good*	*0*	*0*
	Not Bothered	*1*	*0*
	Feel Bad	*7*	*8*

(m) = missing value

Table 6.4. How feel about Aggression leading to Instrumental Reward .

How Feel about Aggression INSTRUMENTAL GAIN		***AGG*** *n=20*	***Non AGG*** *N=20*
Instrumental Gain	*Feel Good*	*4*	*5*
	Not Bothered	*0*	*0*
	Feel Bad	*0*	*0*
No Instrumental Gain	*Feel Good*	*0*	*0*
	Not Bothered	*5*	*3*
	Feel Bad	*11*	*12*

Table 6.5 How feel about Aggression : Effect on Victim.

How Feel about Aggression EFFECT ON VICTIM.		***AGG*** *n=20*	***Non AGG*** *n=20*
Victim Upset	*Feel Good*	*1*	*0*
	Not Bothered	*2*	*2*
	Feel Bad	*4*	*3*
Victim Not Upset	*Feel Good*	*3*	*3*
	Not Bothered	*4*	*5*
	Feel Bad	*6*	*7*

Appendix 7

Predicted Outcomes of Submissiveness – Group Comparisons

Table 7.1. Predicted Outcomes for Submissiveness - 'Peer Approval'.

Does Submissiveness lead to Peer Approval?		***AGG*** *n=20*	***Non AGG*** *n=20*	***Significance***
Yes	*Scene 1*	*5*	*13*	*Sc1 Chi sq =6.465, df=1,* ***p=0.011****
	Scene 2	*12*	*12*	*Sc2, Chi sq = 0 .404, df=1,* ***p=0.525***
No	*Scene 1*	*15*	*7*	
	Scene 2	*8*	*8*	

** = p<0.05*

Table 7.2. Predicted Outcomes For Submissiveness - 'Reducing Others Hostility'

Does Submissiveness Reduce Future Hostility?		***AGG*** *n=20*	***Non AGG*** *n=20*	***Significance***
Yes	*Scene 1*	*1*	*8*	*Sc1,Fishers Exact,* ***p=0.028****
	Scene 2	*1*	*5*	*Sc2, Fishers Exact* ***p=0.077***
No	*Scene 1*	*19*	*12*	
	Scene 2	*19*	*15*	

** = p<0.05*

Table 7.3. Predicted Outcomes For Passivity - 'Authority Approval'.

Does Aggression lead to Authority Approval?		***AGG*** *n=20*	***Non AGG*** *n=20*	***Significance***
Yes	*Scene 1*	*13*	*10*	*Sc 1, Chi sq =.921, df =1,* ***p=0.337***
	Scene 2	*12*	*14*	
No	*Scene 1*	*7*	*10*	*Sc 2, Chi sq =.440, df =1,* ***p=0.507***
	Scene 2	*8*	*6*	

Table 7.4. Predicted Outcomes for Submissiveness - 'Self Condemnation'

Does Submissiveness make you feel good about self?		***AGG*** *n=20*	***Non AGG*** *n=20*	***Significance***
Yes	*Scene 1*	*3*	*10*	*Sc1, Fishers Exact,* ***p=0.041****
	Scene 2	*7*	*11*	*Sc 2, Chi sq =1.616, df=1,* ***p=0.204***
No	*Scene 1*	*17*	*10*	
	Scene 2	*13*	*9*	

** = p<0.05*

Table 7.5. Predicted Outcome for Submissiveness - 'Instrumental Reward'

Does Submissiveness lead to Instrumental Gain?		***AGG*** ***n=20***	***Non AGG*** ***n=20***	***Statistics***
Yes	*Scene 1*	*1*	*1*	*Sc1, Fishers exact* ***p=1.000***
	Scene 2	*2*	*2*	
No	*Scene 1*	*19*	*19*	*Sc2,,Fishers exact* ***p=1.000***
	Scene 2	*18*	*18*	

Appendix 8

How Feel About Predicted Outcomes of Submissiveness Taking Valence of Outcomes Into Account. Group Comparisons.

Table 8.1 . How feel about Peer Approval Leading to Submissiveness.

How Feel about Submissiveness - PEER APPROVAL		***AGG*** *n=20*	***Non AGG*** *n=20*
Peer Approval	*Feel Good*	*5*	*12*
	Not Bothered	*0*	*1*
	Feel Bad	*0*	*0*
Peer Disapproval	*Feel Good*	*1*	*0*
	Not Bothered	*5*	*1*
	Feel Bad	*9*	*6*

Table 8.2 . How feel about Authority Approval Leading to Submissiveness.

How Feel about Submissiveness – AUTHORITY APPROVAL		***AGG*** *n=20*	***NonAGG*** *n=20*
Authority Approval	*Feel Good*	*11*	*8*
	Not Bothered	*2*	*2*
	Feel Bad	*0*	*0*
Authority Disapproval	*Feel Good*	*0*	*1*
	Not Bothered	*3*	*3*
	Feel Bad	*4*	*6*

Table 8.3 . How feel about Submissiveness Reducing Future Hostility.

How Feel about Submissiveness – REDUCE HOSTILITY		***AGG*** *n=20*	***NonAGG(m)*** *n=20*
Submissiveness to Reduce Hostility	*Feel Good*	*1*	*7*
	Not Bothered	*0*	*0*
	Feel Bad	*1*	*0*
Submissiveness Not to Reduce Hostility	*Feel Good*	*0*	*0*
	Not Bothered	*1*	*1*
	Feel Bad	*17*	*11*

(m) missing value

Table 8.4 . How feel about Submissiveness leading to Instrumental Reward.

How Feel Submissiveness- INSTRUMENTAL REWARD		***AGG*** *n=20*	***Non AGG*** *n=20*
Instrumental Reward	*Feel Good*	*1*	*1*
	Not Bothered	*0*	*0*
	Feel Bad	*0*	*0*
No Instrumental Reward	*Feel Good*	*0*	*0*
	Not Bothered	*7*	*7*
	Feel Bad	*12*	*12*

Appendix 9

Social Goals: Group Comparisons.

Table 9.1.. Strategy for Goal - To feel good about self.

BEHAVIOURAL STRATEGY	**GROUP n=20**		***Significance.***
	Agg	***Non Agg***	*Chi sq, 0.157*
Passive	*7*	*9*	***p=0.627,*** *df=2.*
Assertive	*6*	*8*	
Aggressive	*7*	*3*	

Table 9.2. Strategy for Goal - To get approval from peers

BEHAVIOURAL STRATEGY	**GROUP n=20**		***Significance.***
	Agg (m)	***Non Agg***	
Passive	*6*	*7*	*Chi sq=0.332, df=2,*
Assertive	*2*	*7*	***p=0.116.***
Aggressive	*11*	*6*	

(m) missing value

Table 9.3. Strategy for Goal -Show They Can't Mess me Around

BEHAVIOURAL STRATEGY	**GROUP n=20**		***Significance.***
	Agg	***Non Agg***	
Passive	*5*	*5*	*Chi sq =0.317,*
Assertive	*7*	*10*	***p=0.133,*** *df=2.*
Aggressive	*8*	*5*	

Table 9.4.. Strategy for Goal - To Get Back at Them.

BEHAVIOURAL STRATEGY	**GROUP n=20**		***Significance.***
	Agg	***Non Agg(2m)***	
Passive	*0*	*1*	*Chi sq =0.180*
Assertive	*4*	*5*	***p=0.540,*** *df=2.*
Aggressive	*16*	*12*	

(2m)= 2 missing values

Table 9.5. Strategy for Goal -To stay out of trouble

BEHAVIOURAL STRATEGY	**GROUP n=20**		***Significance.***
	Agg	***Non Agg***	
Passive	*12*	*16*	*Chi sq =0.244*
Assertive	*6*	*4*	***p=0.303,*** *df=2.*
Aggressive	*2*	*0*	

Appendix 10

Predicted Behaviour in the Face of Hostility – Gender.

Table 10.1. Predicted behaviour in the face of hostility- Gender Differences

	Predicted Behaviour			
	Passive	***Assertive***	***Aggressive***	*Chi sq=.386,*
Females n=20	*1*	*10*	*9*	***p=0.824***, df=2
Males n=20	*2*	*9*	*9*	

Appendix 11

Predicted Outcomes of Aggression – Gender Comparisons.

Table 11.1. Peer Approval for Aggression – Gender.

Does Aggression lead to Peer Approval?		***Males n=20***	***Female n=20***	
Yes	*Scene 1*	*12*	*10*	*Sc 1, Chi sq=.100, df=1,* ***p=0.752.*** *Sc 2, Chi sq =.092, df=1,* ***p=0.342***
	Scene 2	*15*	*11*	
No	*Scene 1*	*8*	*10*	
	Scene 2	*5*	*9*	

Table 11.2. Authority Approval for Aggression - Gender.

Does Aggression lead to Authority Approval?		***Males n=20***	***Female n=20***	
Yes	*Scene 1*	*12*	*10*	*Sc 1, Chi sq =.533, df=1,* ***p=0.465*** *Sc 2, Chi sq =.143, df=1,* ***p=0.705***
	Scene 2	*14*	*12*	
No	*Scene 1*	*8*	*10*	
	Scene 2	*6*	*8*	

Table 11.3. Aggression to Reduce others Hostility- Gender.

Does Aggression Reduce Future Hostility?		***Males n=20***	***Females n=20***	
Yes	*Scene 1*	*11*	*11*	*Sc 1, Chi sq =.404, df=1,* ***p=0.525*** *Sc 2, Chi sq =1.758, df=1,* ***p=0.185***
	Scene 2	*15*	*11*	
No	*Scene 1*	*9*	*9*	
	Scene 2	*5*	*9*	

Table 11.4. Self Condemnation for Aggression – Gender.

Does Aggression make you feel good about self?		***Males n=20***	***Females n=20***	
Yes	*Scene 1*	*8*	*7*	*Sc 1, Chi sq =.107, df=1,* ***p=0.744*** *Sc 2, Chi sq =.100, df=1,* ***p=0.752***
	Scene 2	*9*	*10*	
No	*Scene 1*	*12*	*13*	
	Scene 2	*11*	*10*	

Table 11.5. Instrumental Gain for Aggression – Gender.

Does Aggression lead to Instrumental Gain?		***Males n=20***	***Females n=20***	
Yes	*Scene 1*	*4*	*5*	*Sc 1, Chi sq =.143, df=1,* ***p=0.705*** *Sc 2, Chi sq =404, df=1,* ***p=0.567***
	Scene 2	*6*	*6*	
No	*Scene 1*	*16*	*15*	
	Scene 2	*14*	*14*	

Table 11.6. Effect onVictim for Aggression – Gender.

Does Aggression upset victim?		***Males n=20***	***Females n=20***	
Yes	*Scene 1*	*7*	*5*	*Sc 1, Chi sq =0.476, df=1,* ***p=0.690*** *Sc 2, Chi sq =.000, df=1,* ***p=1.00***
	Scene 2	*5*	*5*	
No	*Scene 1*	*13*	*15*	
	Scene 2	*15*	*15*	

Appendix 12

How Feel About Predicted Outcomes of Aggression – Gender Comparisons

Table 12.1. How Feel about Aggression - Peer approval.

How Do You Feel about Outcomes of Aggression- Peer Approval		***Males n=20***	***Females n=20***
Peer Approval	*Feel Good*	*9*	*9*
	Not Bothered	*1*	*0*
	Feel Bad	*0*	*0*
Peer Disapproval	*Feel Good*	*0*	*1*
	Not Bothered	*4*	*2*
	Feel Bad	*6*	*8*

Table 12.2. How Feel about Aggression - Authority approval.

How Do You Feel about Outcomes of Aggression- Authority Approval		***Males n=20***	***Females n=20***
Authority Approval	*Feel Good*	*4*	*6*
	Not Bothered	*0*	*0*
	Feel Bad	*0*	*0*
Authority Disapproval	*Feel Good*	*0*	*0*
	Not Bothered	*7*	*4*
	Feel Bad	*9*	*10*

Table 12.3. How Feel about Aggression - Reduces Others Hostility.

How Do You Feel about Outcomes of Aggression- Reduce Others Hostility		***Males n=20(m)***	***Females n=20***
Reduce Others Hostility	*Feel Good*	*9*	*10*
	Not Bothered	*0*	*0*
	Feel Bad	*1*	*0*
Not Reduce Others Hostility	*Feel Good*	*1*	*0*
	Not Bothered	*1*	*2*
	Feel Bad	*7*	*8*

(m) = missing value

Table 12.4. How feel about Aggression – Instrumental Reward.

How Do You Feel about Outcomes of Aggression- Instrumental Gain		***Males n=20***	***Females n=20***
Instrumental Reward	*Feel Good*	*0*	*0*
	Not Bothered	*0*	*0*
	Feel Bad	*0*	*1*
No Instrumental Reward	*Feel Good*	*4*	*5*
	Not Bothered	*5*	*2*
	Feel Bad	*11*	*12*

Appendix 12

Table 12.5 How feel about Aggression– Effect on victim -Gender

How Feel about Outcomes of Aggression- Effect on Victim		***Males n=20***	***Females n=20***
Upset Victim	*Feel Good*	*0*	*1*
	Not Bothered	*3*	*1*
	Feel Bad	*4*	*3*
Not Upset Victim	*Feel Good*	*3*	*3*
	Not Bothered	*4*	*5*
	Feel Bad	*6*	*7*

Appendix 13

Predicted Outcomes of Submissiveness: Gender Comparisons.

Table 13.1. Predicted Outcome Of 'Peer Approval' For Submissiveness.

Does Submissiveness Lead to Peer Approval?		***Males n=20***	***Females n=20***	***Significance***
Yes	*Scene 1*	*9*	*9*	*Sc 1,Chi sq = 0.00* ***p=1.000.*** *Sc 2, Pearsons=.404,* ***p=0.525***
	Scene 2	*12*	*10*	
No	*Scene 1*	*11*	*11*	
	Scene 2	*8*	*10*	

Table 13.2. Predicted Outcome Of 'Authority Approval for Submissiveness.

Does Submissiveness Lead to Authority Approval?		***Males n=20***	***Females n=20***	***Significance***
Yes	*Scene 1*	*12*	*12*	*Sc 1, Chi sq =1.00,* ***p=1.00.*** *Sc 2, Chi sq =0.440* ***p=0.741***
	Scene 2	*14*	*12*	
No	*Scene 1*	*8*	*8*	
	Scene 2	*6*	*8*	

Table 13.3. Predicted Outcome Of 'Reducing Others Hostility' for Submissiveness

Does Submissiveness Reduce Future Hostility?		***Males n=20***	***Females n=20***	***Significance***
Yes	*Scene 1*	*7*	*4*	*Sc 1, Chi sq =1.129, Fishers Exact,* ***p=0.480*** *Sc 2, Chi sq = 0.784,* ***p=0.364***
	Scene 2	*2*	*4*	
No	*Scene 1*	*13*	*16*	
	Scene 2	*18*	*16*	

Table 13.4. Predicted Outcome Of 'Self Condemnation' for Submissiveness.

Does Submissiveness Make You Feel Good about Self?		***Males n=20***	***Females n=20***	***Significance***
Yes	*Scene 1*	*8*	*5*	*Sc 1, Chi sq = 1.026* ***p=0.311*** *Sc 2, Chi sq = .404* ***p=0.525***
	Scene 2	*10*	*8*	
No	*Scene 1*	*12*	*15*	
	Scene 2	*10*	*12*	

Table 13.5. Predicted Outcome for Submissiveness - 'Instrumental Reward'

Does Submissiveness lead to Instrumental Gain?		***Males n=20***	***Females n=20***	
Yes	*Scene 1*	*1*	*1*	*Sc1, Fishers exact* ***p=1.000.*** *Sc2,,Fishers exact* ***p=1.00***
	Scene 2	*2*	*2*	
No	*Scene 1*	*19*	*19*	
	Scene 2	*18*	*18*	

Appendix 14

Social Goals – Gender Comparisons

Table 14.1. Strategy for Goal - To feel good about self.

BEHAVIOURAL STRATEGY	**GROUP n=20**		***Significance.***
	Males	***Females***	
Passive	*7*	*9*	*Chi Sq =2.187, df=2,* ***p=0.582***
Assertive	*6*	*8*	
Aggressive	*7*	*3*	

Table 14.2. Strategy for Goal - To get approval from peers

BEHAVIOURAL STRATEGY	**GROUP n=20**		***Significance.***
	Males (m)	***Females***	
Passive	*5*	*8*	*Chi Sq = 1.737, df=2,* ***p=0.422***
Assertive	*6*	*3*	
Aggressive	*8*	*9*	

(m) = missing value

Table 14.3. Strategy for Goal -Show They Can't Mess me Around

BEHAVIOURAL STRATEGY	**GROUP n=20**		***Significance.***
	Males	***Females***	
Passive	*5*	*4*	*Chi Sq = 1.794, df=2,* ***p=0.408***
Assertive	*6*	*9*	
Aggressive	*9*	*7*	

Table 14.4. Strategy for Goal - To Get Back at Them.

BEHAVIOURAL STRATEGY	**GROUP n=20**		***Significance.***
	Males(m)	***Females(m)***	
Passive	*1*	*0*	*ChiSq=1.437,df=2,****p= 0.487***
Assertive	*4*	*6*	
Aggressive	*14*	*13*	

(m) = missing value

Table 14.5. Strategy for Goal -To Stay Out of Trouble

BEHAVIOURAL STRATEGY	**GROUP n=20**		***Significance.***
	Males	***Females***	
Passive	*15*	*13*	*Chi Sq=1.961,df=2,* ***p= 0.375***
Assertive	*4*	*7*	
Aggressive	*1*	*0*	

Appendix 15

NAME: _____ Date: _____ Code no. _____

VIEWS OF SELF AND THE AGGRESSIVE IDENTITY

SECTION ONE: AGGRESSIVE IDENTITY

Show photo. "This is a photograph of someone called Gary. Gary gets into fights a lot and has been in trouble for bullying people at this day centre. Do you know anyone like Gary?
(Discussion to follow to ensure that participant perceives Gary as an aggressive person).

Firstly ask Yes/no. If answer YES, ask whether "a wee bit" OR " a lot". For response SOMETIMES continue to ask whether "a wee bit" or "a lot".

A. *INTERPERSONAL POWER.*

Do you think Gary is the kind of person who:

• ***gets into trouble***	*NO*	*A WEE BIT*	*A LOT*
• ***sticks up for himself***	*NO*	*A WEE BIT*	*A LOT*
• ***gets his own way***	*NO*	*A WEE BIT*	*A LOT*
• ***gets treated like a child***	*NO*	*A WEE BIT*	*A LOT*
• ***do people listen to him***	*NO*	*A WEE BIT*	*A LOT*

B. SOCIAL and SELF IDENTITY. *Do you think Gary is:*

• ***good fun to be with***	*NO*	*A WEE BIT*	*A LOT*
• ***a bully (pick on people)***	*NO*	*A WEE BIT*	*A LOT*
• ***popular (lots of people like him)***	*NO*	*A WEE BIT*	*A LOT*
• ***kind***	*NO*	*A WEE BIT*	*A LOT*
• ***lazy***	*NO*	*A WEE BIT*	*A LOT*
• ***clever***	*NO*	*A WEE BIT*	*A LOT*
• ***cheats/tells lies***	*NO*	*A WEE BIT*	*A LOT*
• ***does he feel good about himself***	*NO*	*A WEE BIT*	*A LOT*

C. EMOTIONS *– Do you think Gary is:*

• ***an angry person***	*NO*	*A WEE BIT*	*A LOT*
• ***happy person***	*NO*	*A WEE BIT*	*A LOT*
• ***sad person***	*NO*	*A WEE BIT*	*A LOT*
• ***uptight person***	*NO*	*A WEE BIT*	*A LOT*

Appendix 15

Page 2. Name.....Code No.....

VIEWS OF SELF AND THE AGGRESSIVE IDENTITY.

SECTION TWO: SELF IDENTITY

Lets move on and talk about you now. I am going to ask you some questions and this time I want to know about you ***NOT*** *Gary. Brief open discussion regarding personal information (where lives, age, day placement etc.,) to help shift set from Aggressive Identity to Self. Rating as before.*

A. INTERPERSONAL POWER. *Do you think you are the kind of person who:*

• ***sticks up for yourself***	*NO*	*WEE BIT*	*A LOT*
• ***gets into trouble***	*NO*	*WEE BIT*	*A LOT*
• ***gets your own way***	*NO*	*WEE BIT*	*A LOT*
• ***is treated like a child***	*NO*	*WEE BIT*	*A LOT*
• ***people listen to you***	*NO*	*WEE BIT*	*A LOT*

B. SOCIAL and SELF IDENTITY. *Do you think you are the kind of person who is:*

• ***good fun to be with***	*NO*	*WEE BIT*	*A LOT*
• ***a bully (pick on people)***	*NO*	*WEE BIT*	*A LOT*
• ***popular (lots of people like you)***	*NO*	*WEE BIT*	*A LOT*
• ***kind***	*NO*	*WEE BIT*	*A LOT*
• ***lazy***	*NO*	*WEE BIT*	*A LOT*
• ***clever***	*NO*	*WEE BIT*	*A LOT*
• ***cheat/tell lies***	*NO*	*WEE BIT*	*A LOT*
• ***do you feel good about yourself***	*NO*	*WEE BIT*	*A LOT*

C. ***EMOTIONS.*** *Are you:*

• ***an angry person***	*NO*	*WEE BIT*	*A LOT*
• ***a happy person***	*NO*	*WEE BIT*	*A LOT*
• ***a sad person***	*NO*	*WEE BIT*	*A LOT*
• ***an uptight person***	*NO*	*WEE BIT*	*A LOT*

End with positive discussion. "What things are your good at?" and "What things do you enjoy doing?

This is a photograph of Gary.

Gary gets into fights a lot and has been in trouble for bullying people at this day centre.

Perceptions of Self Compared with the SAG Character - Group Comparisons.

Table 17.1. Interpersonal Power. Agg Gp within subjects. Self vs SAG character.

AGGRESSIVE Group n=20 Within Subjects analysis: Wilcoxon Test			***SAG Character***			***SELF***		
Interpersonal Power	***p=***	***Z=***	*No*	*Wee bit*	*A lot*	*No*	*Wee bit*	*A Lot*
Stick up for self (m)	*0.285*	*-1.069*	*1*	*2*	*16*	*0*	*8*	*12*
Get into trouble	*0.004***	*-2.889*	*0*	*1*	*19*	*5*	*5*	*10*
Own way	*0.293*	*-1.051*	*8*	*4*	*8*	*10*	*6*	*4*
Treated like a child	*0.125*	*-1.536*	*7*	*8*	*5*	*10*	*5*	*5*
Get listened to	*0.038**	*-2.070*	*14*	*3*	*3*	*5*	*9*	*6*

** = p< 0.05, **p<0.005; (m) = missing value*

Table 17.2. Interpersonal Power. Non Agg Gp within subjects. Self vs SAG Character

NON AGGRESSIVE Group n=20 Within Subjects analysis: Wilcoxon Test			***SAG Character***			***SELF***		
Interpersonal Power	***p=***	***Z=***	*No*	*Wee bit*	*A lot*	*No*	*Wee bit*	*A Lot*
Stick up for self	*0.222*	*-1.222*	*5*	*3*	*12*	*1*	*5*	*14*
Get into trouble (m)	*0.001 ***	*-3.397*	*1*	*5*	*13*	*13*	*4*	*3*
Own way	*0.642*	*-.465*	*7*	*3*	*10*	*4*	*7*	*9*
Treated like child	*0.001 ***	*-3.201*	*9*	*8*	*3*	*16*	*2*	*2*
Get listened to	*0.002 ***	*-3.169*	*14*	*4*	*2*	*1*	*6*	*13*

*** = p<0.005. (m) = missing value*

Table 17.3. Social Identity . Agg Gp within subjects. Self vs SAG Character.

AGGRESSIVE Group n=20 Within Subjects analysis: Wilcoxon Test			***SAG Character***			***SELF***		
Social identity	***P=***	***Z=***	*No*	*Wee bit*	*A lot*	*No*	*Wee bit*	*A Lot*
Good fun	*0.000***	*-3.568*	*16*	*1*	*3*	*2*	*3*	*15*
A bully	*0.000***	*-3.958*	*1*	*2*	*17*	*16*	*4*	*0*
Popular	*0.000***	*-4.001*	*19*	*1*	*0*	*2*	*2*	*16*
Kind (m)	*0.000***	*-3.879*	*17*	*1*	*1*	*1*	*2*	*17*
Lazy	*0.056*	*-1.901*	*7*	*3*	*10*	*11*	*7*	*2*
Clever(m)	*0.008***	*-2.567*	*14*	*2*	*4*	*2*	*5*	*12*
Tell lies	*0.000***	*-3.739*	*1*	*4*	*15*	*10*	*10*	*0*
Feel good self	*0.000***	*-3.750*	*15*	*2*	*3*	*3*	*4*	*13*

** = p< 0.05, **p<0.005; (m) = missing value*

Table 17.4. Social Identity- Non Agg Group within subjects. Self vs SAG Character.

Non AGG RESSIVE Group n=20 Within Subjects analysis: Wilcoxon Test			***SAG Character***			***SELF***		
Social Identity	***p=***	***Z=***	*No*	*Wee bit*	*A lot*	*No*	*Wee bit*	*A Lot*
Good fun	*0.000***	*-3.983*	*15*	*5*	*0*	*0*	*6*	*14*
Bully	*0.000***	*-4.066*	*1*	*2*	*17*	*18*	*2*	*0*
Popular	*0.000***	*-3.787*	*15*	*3*	*2*	*1*	*2*	*17*
Kind	*0.008***	*-2.762*	*12*	*4*	*4*	*3*	*1*	*16*
Lazy(2m)	*0.039**	*-1.698*	*3*	*5*	*10*	*12*	*2*	*6*
Clever	*0.013**	*-2.602*	*11*	*5*	*4*	*2*	*3*	*15*
Cheat	*0.002***	*-3.348*	*2*	*4*	*14*	*12*	*7*	*1*
Feel good self	*0.000***	*-3.741*	*15*	*1*	*3*	*1*	*6*	*13*

** = p< 0.05, **p<0.005; (2m) =2 missing values*

Table 17.5. Emotions. Agg Gp within subjects. Self vs SAG Character..

AGGRESSIVE Group n=20 Within Subjects analysis: Wilcoxon Test			***SAG character***			***SELF***		
Emotions	***P=***	***Z=***	*No*	*Wee bit*	*A lot*	*No*	*Wee bit*	*A lot*
Angry	*0.003***	*-3.701*	*0*	*1*	*19*	*6*	*6*	*8*
Happy	*0.000***	*-3.945*	*19*	*1*	*0*	*2*	*3*	*15*
Sad (m)	*0.279*	*-1.084*	*6*	*5*	*9*	*7*	*10*	*2*
Uptight	*0.100*	*-1.654*	*1*	*3*	*16*	*4*	*4*	*12*

***p<0.005 (m) = missing value*

Table 17.6. Emotions. Non Agg Gp within subjects. **Self vs SAG Character..**

Within Subjects analysis: Wilcoxon Test NON AGG group n=20			***SAG Character***			***SELF***		
Emotions	***P=***	***Z=***	*No*	*Wee bit*	*A lot*	*No*	*Wee bit*	*A Lot*
Angry	*0.001***	*-3.345*	*0*	*1*	*19*	*5*	*10*	*5*
Happy	*0.000***	*-3.879*	*16*	*3*	*1*	*0*	*5*	*15*
Sad	*0.007**	*-2.893*	*3*	*6*	*11*	*9*	*10*	*1*
Uptight	*0.000***	*-3.640*	*0*	*6*	*14*	*10*	*8*	*2*

** = p< 0.05, ** = p<0.005.*

Appendix 18

Perceptions of Self Compared with the SAG Character - Gender Comparisons.

Table 18.1. Comparing ratings of Self and SAG character – Interpersonal Power - Males

MALE, n=20 Within Subjects analysis Wilcoxon Test			***SAG Character***			***SELF***		
Interpersonal Power	***Z=***	***p=***	*No*	*Wee bit*	*A lot*	*No*	*Wee bit*	*A Lot*
Stick up for self	*-.276*	*.783*	*3*	*2*	*15*	*1*	*6*	*13*
Get into trouble	*-2.271*	*0.023**	*1*	*2*	*17*	*9*	*3*	*8*
Get Own way	*1.00*	*1.000*	*8*	*1*	*11*	*7*	*7*	*6*
Treated Like Child	*-2.585*	*0.100*	*9*	*8*	*3*	*13*	*4*	*3*
Get Listened to	*-2.598*	*0.009**	*14*	*3*	*3*	*4*	*8*	*8*

**p< 0.05*

Table 18.2. Comparing ratings of Self and SAG character – Interpersonal Power - Females

FEMALES, n=20, Within Subjects analysis: Wilcoxon Test			***SAG Character***			***SELF***		
Interpersonal Power	***Z=***	***p=***	*No*	*Wee bit*	*A lot*	*No*	*Wee bit*	*A Lot*
Stick up for self (m)	*-1.406*	*0.160*	*3*	*3*	*13*	*0*	*7*	*13*
Get into trouble	*-2.585*	*0.000***	*0*	*5*	*15*	*9*	*6*	*5*
Get Own way	*-.541*	*0.589*	*7*	*7*	*6*	*7*	*6*	*7*
Treated Like Child	*-1.903*	*0.057*	*7*	*8*	*5*	*14*	*3*	*3*
Get Listened to	*-1.964*	*0.005***	*14*	*4*	*3*	*2*	*7*	*11*

**p< 0.05, ** p<0.005, (m)= missing value.*

Table 18.3 Comparing ratings of Self and SAG character. Social Identity - Males.

Within Subjects analysis Self and SAG: MALES n=20, Wilcoxon Test			***SAG Character***			***SELF***		
Social identity	***Z=***	***P=***	*No*	*Wee bit*	*A lot*	*No*	*Wee bit*	*A Lot*
Good fun	*-3.639*	*0.000***	*15*	*4*	*1*	*2*	*3*	*15*
Bully	*-2.810*	*0.004***	*1*	*2*	*17*	*16*	*4*	*0*
Popular	*.000*	*0.005***	*16*	*3*	*1*	*0*	*1*	*19*
Kind	*-1.443*	*0.149*	*14*	*3*	*3*	*3*	*2*	*15*
Lazy(2m)	*-.756*	*0.450*	*5*	*3*	*10*	*9*	*5*	*6*
Clever	*-1.718*	*0.086*	*12*	*4*	*4*	*3*	*5*	*12*
Liar	*-2.516*	*0.012**	*0*	*5*	*15*	*11*	*8*	*1*
Feel good self	*-3.886*	*0.000***	*14*	*3*	*3*	*1*	*5*	*14*

**p< 0.05, ** p<0.005 (2m)= 2 missing values.*

Appendix 18

Table 18.4. Comparing ratings of Self and SAG character. Social Identity - Females.

Within Subjects analysis of Self SAG FEMALES n=20, Wilcoxon Test			***SAG Character***			***SELF***		
Social identity	***Z=***	***p=***	*No*	*Wee bit*	*A lot*	*No*	*Wee bit*	*A Lot*
Good fun	*-3.886*	*0.000***	*16*	*2*	*2*	*0*	*6*	*14*
Bully	*-3.000*	*0.003***	*1*	*2*	*17*	*18*	*2*	*0*
Popular	*-2.598*	*0.009**	*18*	*1*	*1*	*2*	*4*	*14*
Kind (m)	*-2.269*	*0.023**	*15*	*2*	*2*	*1*	*1*	*18*
Lazy	*-.541*	*0.099*	*5*	*5*	*10*	*14*	*4*	*2*
Clever	*-1.960*	*0.050**	*13*	*3*	*4*	*1*	*3*	*15*
Liar	*-2.226*	*0.026**	*3*	*3*	*14*	*11*	*9*	*0*
Feel Good Self	*-3.682*	*0.000***	*11*	*3*	*6*	*3*	*5*	*12*

** = p< 0.05, **p<0.005; (m)=missing value*

Table 18.5 Comparing ratings of Self and SAG character. Emotions - Males.

Within Subjects analysis of Self and SAG Wilcoxon Test MALES n=20			***SAG Character***			***SELF***		
Emotions	***Z=***	***p=***	*No*	*Wee bit*	*A lot*	*No*	*Wee bit*	*A Lot*
Angry	*-2.961*	*0.003***	*0*	*1*	*19*	*6*	*7*	*7*
Happy	*-3.715*	*0.000***	*17*	*2*	*1*	*1*	*6*	*13*
Sad (m)	*-1.033*	*0.302*	*6*	*6*	*8*	*8*	*9*	*2*
Uptight	*-2.801*	*0.006**	*0*	*5*	*15*	*6*	*7*	*7*

*** = p<0.005; (m)=missing value*

Table 18.6 Comparing ratings of Self and SAG character. Emotions - Females.

Within Subjects analysis of Self and SAG Wilcoxon Test FEMALES n=20			***SAG Character***			***SELF***		
Emotions	***Z=***	***p=***	*No*	*Wee bit*	*A lot*	*No*	*Wee bit*	*A Lot*
Angry	*-3.397*	*0.000***	*0*	*1*	*19*	*6*	*9*	*5*
Happy	*-4.065*	*0.000***	*18*	*2*	*0*	*1*	*2*	*17*
Sad	*-3.087*	*0.002***	*3*	*5*	*12*	*8*	*11*	*1*
Uptight	*-2.765*	*0.013 **	*1*	*4*	*15*	*8*	*5*	*7*

** = p< 0.05, ** = p<0.005.*