

**Individual differences in the social expression of aggression:
From social representations to indirect aggression.**

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For my niece, Rebecca Harriet

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PAPERS AND PUBLICATIONS FROM THIS THESIS WORK

Journal articles

- Forrest, S., Shevlin, M., Eatough, V. and Davies, M.N.O. (In preparation). Measuring adult indirect aggression: The development and psychometric assessment of the Indirect Aggression Scales.
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Conference Papers/Posters/Proceedings

- Forrest, S. (2002). Individual differences in indirect aggression: An 'idiothetic' approach. Research seminar paper presented at The Department of Psychology, University of Central Lancashire, Preston, Lancashire, 15th May, 2002.
- Forrest, S. & Eatough, V. (2002). Hurt the ones you love: Indirect aggression in adult primary group relationships. Paper presented at The British Psychological Society Annual Conference, The Hilton and The Imperial Hotel, Blackpool, 13-16th March, 2002.
- Forrest, S., Eatough, V. & Shevlin, M. (2002). Developing a measure of adult indirect aggression. Poster presented at The British Psychological Society Annual Conference, The Hilton and The Imperial Hotel, Blackpool, 13-16th March, 2002.
- Forrest, S. and Eatough, V. (2001). Adult indirect aggression: The many covert ways we hurt our loved ones. Paper presented at the British Psychological Society's Psychology Postgraduate Affairs Group (PsyPAG) Annual Conference, University of Sheffield, July 23-25, 2001.
- Forrest, S. (2001). Measuring indirect aggression in adults: The development of the IAS-A and IAS-T. Paper presented at the Nottingham Trent University Social Science Postgraduate Conference, Cumberland Lodge, Windsor, 30th March-1st April 2001.
- Forrest, S. and Eatough, V. (2001). Indirect aggression in close relationships: A qualitative investigation. *Proceedings of the British Psychological Society*, 9(1): 81.
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Related Papers and Publications

- Forrest, S. and Shevlin, M. (2002/in press). Alternative factor models of the Expagg scale: A re-evaluation using confirmatory factor analysis. *Current Research in Social Psychology*,
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ABSTRACT

This thesis adopts a combination of qualitative and quantitative methods of inquiry to explore individual differences in adult aggressive expression. Based upon an 'idiothetic' orientation, the research explores and measures personal perceptions of direct aggression and indirect aggression. The first stage of research investigates 'social representations' of aggression theory. Participants (N = 337) completed the Expagg and Revised Expagg measuring instrumental and expressive social representations of aggression. The second stage began by examining individual's perceptions of aggression idiographically, and continued to investigate indirect aggression victimisation and utilisation. Using two series of semi-structured interviews ($n_1 = 4$; $n_2 = 8$) interpretative thematic analysis (using the Miles & Huberman approach) was conducted. Perceptions of aggression were argued to be more complex and personal than sets of instrumental/expressive beliefs. Indirect aggression victimisation was related to internalisation and self-blame attributions. Participants comprehend indirect aggression as being about the establishment and maintenance of power and control within specific groups/dyads.

The final stage of research involved the creation of a behavioural typology based upon a descriptive thematic analysis of the interview data. This resulted in the identification of five distinct types of adult indirect aggression, and led to the development of the Indirect Aggression Scales (IAS). These were administered to a large sample (N = 588), and analysed in terms of trends within the data, and psychometric properties. Findings were discussed in terms of how they contributed to existing theory, and the utility of indirect aggression in understanding adult aggressive

expression across a variety of contexts. The implications of this research and plans for future investigation were also comprehensively discussed.

I. INTRODUCTION

The psychological study of human aggression has long been dominated with the issue of sex or gender differences. Traditionally, aggression was largely assumed to constitute physical acts of violence, and this was reflected in the way that studies operationally defined the term 'aggression'. For example, Geen (1970) and Baron (1971) both define aggression in terms of a physical attack inflicted on others. Wallston & Grady (1985) note how this was partly due to the fact that most researchers were male themselves, therefore the definitions they adopted and the research questions they posed were influenced by their own androcentric perspective on aggression. Researchers therefore restricted their samples to male populations, and female aggression was neglected as an area of investigation (Campbell, 1993; White & Kowalski, 1994). It was assumed that women were not physically aggressive, and therefore they had nothing to add to the study of aggression, neither were they valuable in theories trying to account for why people are aggressive.

Gradually, this total neglect of the female in this area of psychology was recognised, and theories about the causes of aggression compared the sexes to explain why males were aggressive and why females were non-aggressive. This was still problematic as research continued to operate on male-biased definitions of aggression. Later definitions were broadened and other forms of aggression were identified. For example Deaux, Dane & Wrightsman (1993) defined aggression as "any behaviour directed toward harming another living being" (p. 254), which leaves sufficient scope for research to go beyond the previous conceptions of 'aggression' as 'physical violence'.

This broadening of the study of aggression was important as psychology began to recognise that females were capable of aggressive behaviour. It has helped to somewhat dispel the very pervasive myth of the 'aggressive male' and the 'passive female' (White & Kowalski, 1994). However, it has not served to diminish the preoccupation of aggression research with gender over any other variable. It merely created new dichotomies moving from the 'male-aggressive/female-passive' distinction, to the idea that men are physically aggressive, whereas women are verbally aggressive (e.g. Feshbach, 1969). Within the past 10-15 years this distinction has been refined somewhat to include 'indirect aggression' (e.g. Björkqvist & Niemelä, 1992; Björkqvist, 1994) or 'relational aggression' (e.g. Crick & Grotpeter, 1995; Crick & Bigbee, 1998). But the preoccupation with gender dichotomies remains – males are now argued to be directly aggressive, and females indirectly aggressive (Paul & Baenninger, 1991; Krahe, 2001).

Research examining the perceptions of aggression also mirrored this fascination with the variable of gender over all other variables. Contemporary research by Anne Campbell has proved very influential in describing and explaining how people perceive aggression. But again, the focus is very much upon sex and gender; with Campbell (1999) arguing that aggression is sex-specific. She claims that the experience of aggression is fundamentally different for men and women, and that therefore they perceive aggression in totally disparate ways, with women holding expressive 'social representations' of aggression, and men holding instrumental ones.

The overwhelming preoccupation with sex/gender in accounting for complex human phenomena is well recognised within Liberal Feminist literature (Unger, 1979; Crawford & Marecek, 1989; Walkerdine, 1990). Nowhere has this preoccupation been more pronounced than in the study of aggression (White, 1983). This tendency to view aggression from a gender dichotomy has hindered psychological research as it caricaturises men and women (Tavris, 1993). Furthermore, sex-specific theories are argued to be essentialist – this is the view that ‘woman’ is essentially and inherently psychologically different from ‘man’. This is a stark contrast to the emphasis on egalitarianism, which typifies Liberal Feminism. Gendered dichotomies serve to perpetuate the myths about men and women (Scott, 1988; Hare-Mustin & Marecek, 1988).

Borrowing from this aspect of Liberal Feminism, this thesis attempts to move beyond grossly over-simplistic dichotomised viewpoints on aggression. It has been acknowledged within Liberal Feminism that individual differences are much more important than sex/gender differences (Unger, 1979, 1981). Within psychology more generally there has been consideration that individual differences greatly outweigh sex differences, and that there is greater variation within the sexes than between them (Plomin & Foch, 1981). These findings have largely not been incorporated into the social psychology of human aggression. This thesis aims to do this by re-examining both perceptions of aggression and aggressive behaviour from this standpoint.

Aggressive behaviour is explored particularly in terms of ‘indirect aggression’, as this is a new and under-researched form of aggression (Björkqvist & Niemelä, 1992). More specifically it is focused upon because this is now theorised to be the preferred

adult form of aggression (Björkqvist, 1994), and there are speculations that it is the preferred form for *both* men and women (Björkqvist *et al.*, 1992a). It therefore provides the ideal forum to shift the balance of research away from sex differences to individual differences.

This current research has a number of research aims. Firstly, it seeks to explore the nature of how people think about and explain aggression generally (their perceptions). Secondly, it explores the subjective experience of indirect aggression in both men and women – how does it feel to be the victim of indirect aggression? How does it feel to use indirect aggression on others? In what circumstances and which types of relationships is indirect aggression experienced? Thirdly, it investigates the forms that indirect aggression takes, and seeks to measure this behaviour. Although the thesis is therefore wide in scope, what unites the different stages of research and different research questions is this search for individual differences in how aggression is expressed. What is the nature and form of the social expression of aggression? How can one research this from an individual differences perspective in psychology?

Each stage of research progresses from the previous stage of research. The thesis is therefore structured around the three different stages of research. A major aim of the research was to address the study of aggression using a mixed methodology design, so that individual differences in the social expression of aggression could be explored in a number of different ways to gain a more holistic picture. This approach to research is quite unusual within the discipline of psychology, where research (and researchers) mostly tend to be *either* quantitative *or* qualitative. This “paradigm purity” (Smith, 1994) – whereby researchers argue that one approach necessarily precludes the

possibility of the other approach – is very prevalent within psychology. Other social and behavioural sciences have been much more open to the idea that mixed methodologies, implementing qualitative and quantitative research in combination, can be very beneficial to research (Tasakkori & Teddlie, 1998).

By combining complementary quantitative and qualitative methods a much more complex and rich conception of human aggression can be formed, all within the framework of individual differences in the experience and expression of aggression. Brannen (1992) argues that mixed methods can greatly compliment each other as long as the paradigmatic/philosophical underpinnings of the research remain compatible. As this research progresses between quantitative and qualitative data collection and analysis, the research as a whole maintains its individual differences framework. Furthermore, the epistemology underlying all stages of research (both quantitative and qualitative) is broadly post-positivist.

By implementing different methods of inquiry to address the research questions of this thesis, individual differences in the expression of aggression are explored from different standpoints. The different stages and methods employed are summarised in table i.i. below.

Table i.i. Outline of studies documented within this thesis.

Study of thesis	Empirical Methods	Analysis
Stage 1. Studies 1, 2 and 3	Psychometric data collection with 3 versions of Expagg.	Confirmatory factor analytic model evaluation within structural equation modelling
Stage 2. Studies 1 and 2	In-depth semi-structured interviews (n ₁ =4; n ₂ =8)	Interpretative thematic analysis using the Miles & Huberman technique
Stage 3. Study 1 Studies 2 and 3	Using data from Stage 2 Scale development of the IAS, and psychometric data collection with 2 versions of IAS	Descriptive thematic analysis (Hayes, 2000) Psychometric assessment using item analysis (reliability), and exploratory and confirmatory factor analysis. Correlations and t-tests to investigate trends in the data (age and sex).

The first stage of the research was primarily concerned with perceptions of aggression. In particular, the work of Anne Campbell and colleagues (e.g. Campbell & Muncer, 1987; Campbell *et al.*, 1992, 1993, 1997, 1999) and their adaptation of the concept of 'social representations'. It was argued that these collective representations, and the focus upon gender differences over individual differences were unrealistic and problematic. The three studies in Stage 1 of research therefore investigated this from a psychometric or 'differential psychology' perspective. Data was collected using existing scales (Expagg and Revised Expagg). Using structural equation modelling the models were evaluated to examine whether people's perceptions were consistent with collective, gender-based social representations.

The analysis from this first series of studies revealed problems with the Expagg measures, but quantitatively the reasons for these problems could not be adequately explored. The second stage consequently aimed to explore people's perceptions of aggression qualitatively, without the *a priori* conviction that an individual's gender

dictates these perceptions. In Study 1, personal perceptions of aggression were investigated using semi-structured interviews.

Study 1 also had a secondary aim – to broaden the investigation of perceptions to indirect aggression, and to explore these experiences in their own right. The emphasis was on an idiographic exploration of what it felt like to be targeted with these types of subtle aggressive behaviours. Study 2 progressed from the findings of Study 1 to continue the investigation of the subjective experience of indirect aggression in a larger group of individuals from wider backgrounds and age groups. It re-explored the previous study's findings and expanded research to the individual experiences of using indirect aggression.

So both studies in Stage 2 were idiographic in orientation, looking at individual differences from a very personal level of analysis. Using the data collected in these studies, the first study in Stage 3 aimed to broaden the scope of the research out again by devising a behavioural typology. After exploring personal individual perceptions, and the subjective experience of indirect aggression, research progressed to looking at the forms indirect aggression takes. Variation in the types of indirect aggression participants experienced and used were evident at this stage. The final series of studies followed up on this finding by developing scales to measure individual differences in the adult expression of indirect aggression. So Stage 3 represents the transition from the idiographic investigation of personal experiences to a differential psychology standpoint using qualitative data analysis, and quantitative data collection and analysis.

This research is therefore very much a progression of different methods of enquiry to holistically explore the expression of human adult aggression. The theoretical and methodological framework is rooted in the psychology of individual differences, but it maintains the importance of social context in aggressive expression by adhering to a mixed methods design. It explores the research questions across a number of different levels and the orientation of the approach shifts throughout firstly from a nomothetic approach (as the orientation of differential psychology), to an idiographic one, and then finally returns to the nomothetic approach again. Looking at individual differences in psychological phenomena very typically works on either one of these levels (Krahe, 1999). This is despite the reports of problems and restrictions that can result from such a tendency (Holt, 1962; Pervin, 1984). Lamiell (1981, 1982, 1987) advocates the combination of orientations in research within an individual difference framework. He suggests that by adopting an 'idiothetic' approach we can recognise the uniqueness and variety of human experience by investigating on a 'person' level, and yet also recognise the importance to make generalisations *between* individuals. This progressive combination of qualitative and quantitative methods, and nomothetic and idiographic orientation, reaches this idiothetic balance in the exploration of adult aggressive experience and expression.

Before embarking on the main body of this thesis, it is important here to define some of the key terms, and to set some boundaries about the scope of this work. Firstly, in light of the contentions about what actually constitutes 'aggression', it is important to be very transparent about how 'aggression' is perceived for the purposes of this research. As the thesis is largely concerned with non-physical aggression, a compatible operational definition of 'aggression' is required. Siann (1985) arrives at a

careful and broad operational definition, which allows scope for other non-physical forms of aggression, and deals with some of the definitional problems.

“Aggression (a) involves the intention to hurt or (b) emerge superior to others. (c) Does not necessarily involve physical injury (violence). (d) May or may not be regarded as being underpinned by different kinds of motives. (e) Aggression is not always negatively sanctioned but is more likely to be so when one of the participants does not enter willingly into the interaction. (f) Applying the label ‘aggressive’ in a pejorative manner to a person or persons is a matter of subjective judgement on the part of the *labeller*. (g) The labeller will be affected both by his or her own value system and by his or her perception of the extent to which the person or persons to whom the label is applied is acting provocatively or defensively” (Siann, 1985: 14).

Siann’s (1985) definition provides a valuable framework for what constitutes ‘aggression’, and how difficult issues such as intent and subjectivity of interpretation can be viewed. Studying non-physical forms of aggression is more difficult as it cannot be so directly observed (Cashdan, 1999). Therefore the issue of whether there is intent behind more subtle aggression is often left to the labeller’s perception of the event.

Burbank (1987) provides a more concise working definition, which can also be used as an operational definition in this research. She states that aggressive behaviour is

“any action undertaken with the apparent intent of causing physical or psychological harm” (p.72). Again, this allows non-physical aggressive actions where the damage is psychological. Such definitions allow a broader conception of aggression, which removes the male-biased definitions of the past. In this way it is possible to study aggression that both men and women can relate to, so it is an ideal working definition for this research.

The other key terms that need addressing here are the concepts of ‘sex’ and ‘gender’. Within the literature, ‘sex’ and ‘gender’ differences are often talked about synonymously. Lerner (1986) sees this as extremely problematic, because “it hides and mystifies the difference between the biological given-sex – and the culturally created-gender” (p.238). She warns that feminists in particular should use both terms appropriately. So throughout this thesis, the usage of the term ‘sex’ refers to research where there is a biological inference of difference. The term ‘gender’ is generally preferred because differences are assumed to be primarily the result of socialisation, rather than an inevitable or ‘natural’ biological sex difference. ‘Gender’ is seen as a social construct, with differences in aggression between men and women, likewise, socially constructed.

This leads to the need to define the limitations of scope in this research. The psychology of human aggression is an enormous area of research. The scope of this research is in the areas concerned with perceptions of aggression, the experience of aggression, and the variation in aggressive expression. Towards the middle of the thesis ‘aggression’ was restricted even further to focus on ‘indirect aggression’. Such limitations are necessary when researching such a broad and complex social

behaviour. Although making some assumptions about the nature of human aggression is inevitable within this research, it is not within the confines of this particular piece of work to explore the theories about the causation of aggression. So although 'gendered aggression' is seen to be a social construction, it is well beyond the boundaries of this research to deal with the origins of aggressive behaviour.

The research is interested in the different settings and relationships in which aggression occurs. So social context is recognised as important, and different contexts explored. There is an emphasis, however, on aggression within close relationships rather than within groups with little or no social and emotional ties. Therefore certain limitations in the scope of investigation are imposed. So, for example, aggression between strangers, indirect aggression in the context of wartime conflict or crime, and the relationship between aggression and class, are not addressed. The research is also only concerned with adult aggression, so although developmental patterns of aggression are referred to in the literature review, research is restricted to adult populations.

**STAGE 1. PERCEPTIONS OF AGGRESSION:
INSTRUMENTAL AND EXPRESSIVE SOCIAL REPRESENTATIONS**

CHAPTER 1. GENDER AND AGGRESSION: DO GENDERED PERCEPTIONS UNDERLIE OUR AGGRESSIVE EXPRESSION?

1.1. GENDER DIFFERENCES IN AGGRESSION

Traditionally aggression research viewed aggression according to a strict sex/gender dichotomy. Like much of psychology, research has been largely polarised in terms of biological sex. There has been an overwhelming emphasis on looking for differences between the sexes. Nowhere has this influence been more evident than in the study of aggression. The most widely reported and consistently established psychological difference between males and females has been in aggression (Maccoby & Jacklin, 1980; Campbell, 1996). Many studies have established this difference by reviewing past empirical aggression research, either by the use of literature reviews (Frodi, Macaulay & Thorne, 1977) or by implementing meta-analytic techniques (Maccoby & Jacklin, 1974; Hyde, 1984; Eagly & Steffen, 1986). Hyde (1990) describes the effect size of gender on aggression to be moderate, rather than large ($d=.50$). In fact research suggests that gender differences are not as great as they once appeared to be (Hyde & Linn, 1986). However, although the effect sizes of the influence of gender on aggression seem small, researchers argue that such differences still have considerable practical importance (Eagly, 1994). Additionally, they have been established across a variety of situations and cultures (Maccoby & Jacklin, 1974). Such research has served to strengthen the prominence of pervasive stereotypes about male aggression, and females relative lack of aggression.

Aggression, therefore, was seen as the sole province of the male. By stark contrast, females were typified as the passive sex (Lindfors, 1992). Earliest explanations for these differences in temperament, and subsequent roles of the sexes, were biological explanations. The male sex being naturally aggressive due to their greater physical strength, their hormones, or their different evolutionary-prescribed roles, etc. Females as being inherently inactive, submissive, powerless and strictly non-aggressive. The assumption of the woman as passive was so strong that traditional aggression research largely failed to include women in their samples (Macaulay, 1985; Björkqvist & Niemelä, 1992). More generally, Crawford & Marecek (1989) discuss this as “womanless psychology”, whereby female experience is ignored and male behaviour is assumed to be the prototype of all human behaviour.

Feminist theory argues that such polarisation of men and women is due to the way that, historically, patriarchal society has resulted in men being the ‘actors’ in society (Lerner, 1986). Men are ‘subject’, whereas women are ‘acted upon’, they are the ‘object’ or the ‘other’ (de Beauvoir, 1949/1997). In this way the differences between men and women are not assumed to be biological, with the implications that it is a natural and inevitable difference. Rather the dichotomy regarding male aggression and female passivity is a social construction (Unger & Crawford, 1992).

There are abundant theories linking the gender differences in terms of aggression to differential socialisation of the sexes (e.g. Block, 1983). For example, the finding that male aggression is condoned to a much greater extent than female aggression from an early age (Tieger, 1980; Condry & Ross, 1985). Differences throughout the lifespan in aggressive behaviour can therefore be explained in terms of gendered upbringing

patterns and pervasive socialising influences (e.g. parental influences, toy preferences, boys greater use of 'rough and tumble' play, education, peer influence, media depictions of men and women, etc.). But these accounts still generally stick to the idea that women are not aggressive. Independent of the type of theory utilised to explain the differences, there is still an overwhelming emphasis on between-gender differences. Liberal Feminists in particular argue that this is at the expense of other variables that also influence the expression of aggression (e.g. class, race, culture, age). Such an emphasis serves to under-emphasise the similarities between men and women (Unger, 1979), and the finding that there is greater variation within the sexes, rather than between them (Plomin & Foch, 1981; Archer, 1987; White & Kowalski, 1994). Gender differences are documented without due consideration given to the importance of individual differences.

The dominant traditional portrayal of women as passive creatures has serious implications (Scott, 1988). This simplified gender dichotomy with regards to such complex social behaviour has had connotations for women who do behave aggressively. Women who do express their anger in the form of aggression are viewed by society as aberrant. Because they are not consistent with the stereotype of women as non-aggressive, any deviation from this stereotype results in societal condemnation. Frequently this has led such 'deviant' women being seen as 'unfeminine', 'unladylike', and alien (Lerner, 1985). In such a way women's aggression has become pathologised, with women who display aggressive behaviour being labelled as 'mad' (Ussher, 1991).

Progress was made in the literature on aggression with the recognition that women experience anger to the same extent as men (Frost & Averill, 1982; Averill, 1983). These findings demonstrate that women have an equal motivation to achieve their own goals, have an equal potential for harm, and that they feel anger as frequently, and with the same intensity, as men. Although women experience the same degree of anger, differences occur in terms of how men and women can express this anger (Lerner, 1985; Tavris, 1989). Men are much more able to express their anger in the form of aggression, because this is quite socially acceptable. Women find aggression more problematic, and so their anger is necessarily manifested in different ways (Thomas, 1993). It has therefore been argued that although men and women both experience the emotion of anger to the same extent, women are not generally aggressive because of societal constraints and social pressures. Furthermore, Campbell (1993) argues that this is because girls are not socialised in terms of how they can express their anger. Whereas boys learn that they can behave aggressively, and that this will resolve their anger, girls have no role models to guide their behaviour when they experience anger. Such differences arise, in part, from the way that girls and boys have quite different social worlds, which become sex-segregated from an early age (Campbell, 1996).

1.2. INVESTIGATING MEN AND WOMEN'S PERCEPTIONS OF AGGRESSION

Anne Campbell and Steven Muncer (1987) investigated how people make sense of aggression in their lives using a series of qualitative interviews with American middle-class professional couples. This was significant in the study of aggression because they recognised that women also experience anger (so were capable of

aggressive expression), and set out to examine the experiences of both sexes. They suggested that men and women perceived and experienced aggression in fundamentally different ways.

Their analysis proposed that women tend to see aggression as a loss of self-control. It is viewed as negative and is a 'no-win' situation. Society has stigmatised aggression for women, so if they aggress they are met with social disapproval. Aggression in women tends to be condemned and is seen as being indicative of irrationality, and even mental instability. Acts of aggression that would be sanctioned in men is seen in terms of a pathological trait for women. Aggressive behaviour generally results in condemnation, but if the woman adheres to society's norms and represses her expression of aggression, her needs remain unfulfilled and she may feel frustrated at her lack of ability to have any control over her situation. When she aggresses she may feel that her actions were not justified and try to excuse what she has done. Typical are feelings of being out of control and then feeling guilty after the event. Aggression is therefore a 'predicament' to women.

Alternatively, men generally perceive their aggression as a means of control over others. In contrast to women's experiences, men's experience of aggression is described as a 'no-lose' situation. Aggression is seen for men as legitimate and normative in given situations, hence it is perfectly acceptable for men to display aggressive behaviours. They expect positive societal responses to their aggressive actions. Instead of feeling they have to excuse and justify their behaviour, they give the explanation that it was the normal reaction to the particular set of circumstances

they were facing. Men's experiences of aggression do not involve a comparable predicament to that felt by women.

Campbell & Muncer (1987) illustrated the differences using extracts from the interviews, and concluded that men think about aggression instrumentally, whereas women think about it expressively. Instrumental perceptions of aggression are typified by viewing aggression as a means to an end. That aggression can be used to achieve certain goals, in certain situations, and can be controlled. Expressive perceptions are typified by seeing aggression as out-of-control and unsanctioned. It is about emotion, as opposed to reason. These differences in perceptions of aggression were implied to be represented in behavioural differences. Importantly, the differences were assumed to be the result of differing sets of 'social representations' of aggression – the male-endorsed instrumental representations and the female-endorsed expressive ones.

This work by Campbell & Muncer (1987) was an important move from the traditional 'womanless' depiction of aggression in that it looked at both men *and* women's experiences. It recognised the finding that women feel anger to the same intensity and frequency as men. In addition it did not assume a *necessary* passivity of women, rather lamenting the dilemma of aggression for women. They instead argued that women's lack of aggression resulted from how society makes it difficult for women to express their anger as aggression.

Campbell, Muncer and Coyle (1992) related their theory to the accounts of aggression causation in past research. They identified that the multitude of theories about what

causes aggression could be separated into instrumental and expressive theories of aggression. Instrumental theories view aggression as a means for the aggressor to achieve their goals and receive the benefits that they have learned accrue from aggressive behaviour. It focuses on the interpersonal outcomes of the aggression. For example, aggression theories derived from operant conditioning (i.e. Bandura's social learning theory, 1973), from social influence processing (Tedeschi, Smith and Brown, 1974) and impression management (Felson, 1982).

Expressive theories view aggression from the perspective of intra-psychic motivations within the individual. For example, Freudian explanations (Freud, 1920/1961, 1933/1950; Zillman, 1979), the frustration-aggression hypothesis (Dollard, Doob, Miller, Mowrer and Sears, 1939; Berkowitz, 1989) and theories that see aggression as a difficulty of self-control (Gottfredson and Hirschi, 1990). Therefore past theories only explained either the male experience of aggression, or the female experience of aggression. As the experience of aggression was thought to be a fundamentally different experience for the sexes, Campbell and colleagues (Campbell *et al.*, 1992; Campbell, 1996, 1999) maintained that aggression needs a sex-specific understanding.

Aggression and social representation theory

Campbell and Muncer (1987) applied social representations theory to explain these differences in how men and women talk about aggression. Moscovici (1984; 1987) developed the concept of social representations from Durkheim's ideas about 'individual' and 'collective' representations (Durkheim, 1953). Social representations were meant to cover the middle ground between focusing on the individual or on society as a whole (thereby, reaching an equilibrium between psychology and

sociology). Moscovici left the definition of social representations intentionally imprecise (Moscovici, 1985). Social representations are “the shared images and concepts through which we organise our world” (Parker, 1987: 448). Different social groups use different social representations, dependent on the situation at hand.

Campbell (1995, 1996) reports how Moscovici often implied that social groups who hold shared social representations are then ‘locked’ into that particular form of understanding. In this way social representations of aggression are seen as quite fixed and rigid, in that an individual cannot hold (or even understand) both opposing sets of representations. Therefore instrumental and expressive representations are mutually exclusive or necessary alternatives.

Campbell’s work on instrumental and expressive aggression is quite heavily dependent upon her application of social representations. The concept of social representations has been subject to considerable discussion and criticism (Potter and Litton, 1985; McKinlay and Potter, 1987; Parker, 1987). More specifically, it is possible to question Campbell and Muncer’s adoption of the term to explain their findings. They propose that being male or female is the most salient group membership to an individual when they are faced with an aggressive situation. The individual’s response in terms of aggression seems to be interpreted principally within the framework of a male/female dichotomy, rather than considering the other social groups to which the individual belongs (i.e. race, class, culture, etc.). As Potter and Litton (1985) consider “Satisfying one index of membership, however objective, does not entail that the individual will identify with, or act in terms of, the specified group” (p.83).

Does this conceptualisation of men and women's social representations of aggression really constitute what Moscovici meant by this term? Men and women as groups may be far too heterogeneous to be the type of social groups that Moscovici envisioned. His theory may not account for such large intra-group differences (Potter & Litton, 1985). Individuals will be part of many different ill-defined and well-defined, cohesive and non-cohesive groups in society. Whilst it is not disputed that gender is a social category of importance when investigating individuals' perceptions of aggression, Campbell & Muncer (1987) provide no empirical evidence that this is the most salient category of group membership. Is there an over-reliance to see differences purely in terms of gender?

Measuring instrumental and expressive social representations of aggression

Ann Campbell continued to explore instrumental and expressive social representations of aggression from a qualitative perspective. This involved analysing how men talk about the meaning of violence (Campbell, 1993; Campbell & Muncer, 1994a), how women perceive aggressive experiences in their life (Campbell, 1993), and applying the concepts to mother-child conflict (Campbell, 1995). Subsequently, Campbell, Muncer & Coyle (1992) went on to develop the Expagg scale, designed to measure these social representations of aggression. The scale consists of 20 items, with each item having an instrumental and expressive ending choice.

Campbell *et al.* (1992) tested the Expagg scale on a small sample of psychology undergraduates (N = 105). The measure was assumed to be a one-dimensional measure of instrumental and expressive social representations of aggression.

Consistent with social representations theory, items were necessary alternatives (therefore individuals could only endorse either the instrumental or the expressive response for each item). They proposed that individuals could hold and use only one or the other social representation of aggression for a given situation. This proposes a single underlying bipolar latent factor, which was supported with principal components analysis (although this solution was not rotated) suggesting unidimensionality.

Social representations v. aggressive beliefs

Following the development of the Expagg scale, Archer, Monks & Connors (1997) suggested that instrumental and expressive representations may not be opposite poles of a single continuum, as Campbell's work proposes (Campbell, *et al.*, 1992; Campbell, Sapochnik & Muncer, 1997). Archer & Haigh (1996, 1997b) developed the Revised Expagg scale, whereby expressive and instrumental responses are not necessary alternatives. The expressive and instrumental endings were separated, so that instead of 20 dichotomous either/or Expagg items, the Revised Expagg consisted of 40 items (20 forming an instrumental sub-scale, and 20 forming the expressive sub-scale). In addition, they improved the quality of the data by adding a Likert response format, and added items asking whether their answers were based upon recent, early or hypothetical experiences, and the type of opponent they were thinking of (same sex, opposite sex non-partner, partner).

Archer and Haigh (1996, 1997b) demonstrated that people were not fixed into using either instrumental or expressive sets of 'social representations', as instrumental and expressive items displayed weak negative correlations with each other. In fact, they

showed that individuals tend to have varying degrees of instrumental and expressive 'beliefs' about aggression. They argued that Expagg misrepresented the underlying psychological construct as gendered social representations, when people can and do use both sets, more accurately portrayed as beliefs. Beliefs about aggression are considerably more dynamic and less restrictive. Such beliefs do not 'lock' us into a particular way of understanding and/or behaving. The main theoretical distinction between 'social representations' and 'beliefs' lies in where the researchers believe our perceptions of aggression originate. 'Social representations' are historically and culturally specific understandings, which are social in nature and represent a 'shared' understanding between social groups (in this case 'men' and 'women'). In contrast, 'beliefs' are individually constructed and held, representing more intricate and personalised perceptions about our social world (and aggression more specifically).

The Expagg research has therefore become separated into two different (sometimes overlapping) strands of research. Campbell and colleagues (e.g. Campbell *et al.*, 1992, 1997; Campbell, Muncer & Gorman, 1993; Campbell & Muncer, 1994b; Campbell, Muncer, Guy & Banim, 1996) continue to use the original bipolar Expagg scale (assuming unidimensionality) to measure social representations, whereas Archer and colleagues (Archer & Haigh, 1996, 1997a, 1997b, 1999; Haigh, 1996), in contrast, use the Revised Expagg (comprising two relatively independent sub-scales) to measure aggressive beliefs. Both groups of researchers seem quite unconcerned about their opposing interpretations, but this must cause confusion in the literature when one group continues to research under the banner of social representations, whilst the other argues strongly for aggressive beliefs which are less static, and significantly moderated by a number of variables. This makes the research quite contradictory,

without the issue of whether people hold restrictive social representations, or more dynamic aggressive beliefs, being effectively resolved.

1.3. STUDYING INSTRUMENTAL AND EXPRESSIVE AGGRESSION

Despite the two contradictory strands of research using instrumental and expressive aggression, this area has generated a great deal of interest, and been used to investigate relationships with a number of different variables. Campbell *et al.* (1996) used Expagg to examine the nature of social representations, in an attempt to further our understanding of social representations more generally. They claimed that individuals do have some access to the opposite sex's set of representations, although the male instrumental social representations appear more coherent to both sexes than the female's expressive ones. This seems somewhat contrary to social representations theory, although Campbell *et al.* (1996) do not consider the possibility that this may be because instrumental and expressive social representations of aggression are not 'social representations' at all.

The theory of instrumental and expressive aggression has been dominated by its emphasis on sex/gender differences, as the theory originated as a way to explain men and women's different experiences of aggression. The research using the Expagg scales has mirrored this emphasis and sought to establish how men think instrumentally, and women think expressively, in terms of aggression. Significant sex differences¹, consistent with this theory, are reported by both groups of researchers to support the validity of the scales (Campbell *et al.*, 1992, 1993, 1997, 1999; Campbell

& Muncer, 1994b; Archer & Haigh, 1997b, 1999). However, what they do not emphasise is how inconsistent these findings are when examined at an item level. For example, only 12 out of the 20 Expagg items (Campbell *et al.*, 1992) and only 16 out of the 40 Revised Expagg items (Archer & Haigh, 1997b) showed significant sex effects. This reveals that there is considerable variation in terms of how affected by sex individual items of the Expagg scales are, which could point to the scales being sex-biased (and therefore the differences being artefactual) rather than reflecting 'real' sex differences (Forrest, 1999; Hambleton, & Swaminathan, 1985).

Campbell *et al.* (1993) used the Expagg scale to examine whether instrumental-expressive social representations of aggression were associated with communal/agentic personalities (as measured by the Personal Attributes Questionnaire or PAQ; Spence and Helmreich, 1986) and gender identity. Although associations between sex-role traits and gender identity, with instrumental and expressive aggression would be expected, no significant relationship could be established. Although, Campbell & Muncer (1994b) did find a significant relationship between Expagg and occupational roles, which they claim provides evidence of Expagg's predictive validity.

If the Expagg scales have predictive concurrent validity they should be significantly related to actual aggressive behaviour. There has been evidence of this using both the Expagg and Revised Expagg scale. Campbell *et al.* (1993) found that Expagg was significantly associated to actual behaviour using the Conflicts Tactics Scale (CTS) (Straus & Gelles, 1990). Similarly, using the Revised Expagg and the Aggression

¹ Here 'sex' (as opposed to 'gender') differences are discussed because Campbell (1999) assumes that

Questionnaire (AQ; Buss & Perry, 1992), Archer and Haigh (1997a and b) found instrumental scores to be positively related, and expressive scores to be negatively related, to physical aggression. More recently this has been examined by Archer (2000) and Graham-Kevan & Archer (2000).

The Expagg measures do demonstrate sufficient evidence of predictive validity, even though the theoretical argument regarding social representations or aggressive beliefs remains unresolved. Certainly the Expagg scales have been very influential in the aggression literature, and have been applied to different areas of research. For example, in recent years, Hardy & Howitt (1998) used it in their research on instrumental and expressive aggression and gender transition, and Paty (1998) examined how aggressive beliefs were associated with teacher burnout (using a French translation of the measure). In fact the Expagg scales have been used extensively all over the world. Studies are reported from France (Paty, 1998; Richardson, Huguet & Schwartz, 2000), Spain (Andreu, Fujihara & Ramirez, 1998) the Czech Republic (Baumgartner, 1995), the USA (Richardson and Latané, 2000; Richardson *et al.*, 2000), the Middle East (Puyat, 2000), and Japan (Andreu *et al.*, 1998).

The importance of mediating variables in interpreting Expagg scores

Research has also examined certain variables found to be important in understanding instrumental and expressive aggression, and are thought to mediate beliefs/representations. The work of Archer and Haigh (1997a, 1997b, 1999), in particular, has identified certain variables that affect the measurement of instrumental

differences are attributable to biological/evolutionary causes, rather than being socially constructed.

and expressive beliefs. Therefore the beliefs change as a result of differences in these variables. Archer & Haigh (1997b) maintain that these variables have an impact on instrumental and expressive beliefs, although are not necessarily causal factors. Causation has not been established, as the research tends to be mostly correlational in nature. However, this evidence tends to support the view that instrumental and expressive aggression constitutes beliefs, in that they are not fixed, but changeable under certain circumstances and situations.

Archer & Haigh (1997b) highlighted the effects on the Revised Expagg of (a) the sex of the target and the subject, (b) the relationship between the target and subject, and (c) the type of situation. These mediating variables were incorporated into the Revised Expagg scale, so that respondents were asked to specify who they were referring to when answering the questions (i.e. a same sex non-partner or an opposite-sex partner), and whether the situation they were thinking of was recent, in the more distant past, or a hypothetical situation. Campbell *et al.* (1992) had also somewhat anticipated these mediating variables in their instructions to the original Expagg scale.

The additional questions on the Revised scale addressing these mediating variables did acknowledge that people's beliefs may change dependent upon certain features of the situation, but did not deal with how people will not rely solely on one aggressive experience across the questionnaire. If the utilisation of instrumental and expressive aggression changes dependent upon such mediating variables, this raises questions about how stable the measures are, and how consistent people's beliefs/social representations are across differing situations.

Duckett, Lance, Pemberton, Raistrick, Campbell and Muncer (1997) examined how the sex of target and subject were associated to Expagg scores, as they were interested in establishing how context-sensitive social representations of aggression are. It was found that men were more instrumental with male targets, and more expressive with a female target. Whereas women's responses were more expressive regardless of the sex of their opponent. It seems from this research that representations are much more flexible and context-sensitive than first hypothesised in the earlier Expagg research.

Campbell *et al.* (1997) and Archer & Haigh (1999) identified another important mediating variable on Expagg scores; the form of aggression being measured. Archer and Parker (1994) had claimed that Expagg presumes direct aggression. Both the original and Revised Expagg items are largely concerned with overt physical aggression experiences, although some questions infer verbal arguments, and other questions are too vague to specify a form of aggression at all. Campbell *et al.* (1997) looked at the relationship between Expagg and a measure of different forms of aggression. Archer & Haigh (1999) considered the effects of form of aggression to be important enough to warrant different versions of the Revised Expagg to measure physical and verbal instrumental and expressive beliefs separately. In addition, they again highlighted the importance of the sex of the opponent and their relationship to the target. They constructed four versions of the Revised Expagg measure – one that measures physical aggression with a partner (PP), one with physical aggression with a same-sex opponent (SP), one with verbal aggression involving a partner (PV), and, finally, verbal aggression with a same-sex opponent (SV). So the mediating variables were seen as essential to understanding instrumental and expressive aggression.

Muncer & Campbell (2000) have doubts about the way that Archer & Haigh (1999) use mediating variables as if they were independent variables affecting the dependent variable of Expagg scores. Additionally, Forrest & Shevlin (2002) questioned the different theoretical propositions implied in Archer & Haigh's (1999) paper about the relationships between the Revised Expagg and the mediating variables. They reanalysed Archer and Haigh's data, finding that none of the assumed models were valid, when more advanced statistical procedures were implemented. Forrest & Shevlin (2002) concluded that such research, which suggests the significance of mediating variables and the flexibility of beliefs in such a way, fails to address how this affects the validity of the measures. If variation in scores is so dependent upon target and respondent characteristics, situational constraints, and the form of aggression, this can serve to confound measurement.

Is the measurement of instrumental and expressive aggression getting too complicated with more and more findings of potentially mediating factors? Perhaps reliance on simple scale measurement and quantitative differences is not the most appropriate way to examine instrumental and expressive perceptions of aggression. Research could benefit from a combination of qualitative idiographic and quantitative nomothetic research (Krahé, 1999; Tashakkori & Teddlie, 1998; Lamiell, 1987). This would allow a balance between emphasising group and individual differences in perceptions of aggression.

The concerns in the literature over a lack of consistency across situations are problematic, because they may affect the reliability and validity of measurements.

Psychometric measurement necessarily presupposes some stability to the constructs being measured (Kline, 1993).

1.4. LIMITATIONS OF THE RESEARCH

Theoretical limitations and concerns

The concern over the form of aggression presupposed by Expagg research has been widely acknowledged (Archer & Parker, 1994; Campbell *et al.*, 1997; Archer *et al.*, 1997; Eatough, Gregson & Shevlin, 1997; Archer & Haigh, 1999). The main criticism is that it does not take into account recent conceptualisations of aggression as being composed of both direct and indirect aggression (e.g. Björkqvist & Niemelä, 1992). Expagg and Revised Expagg focus on experiences of direct forms of aggression – aggression that is easily observable and involves face-to-face confrontation. In particular, there is an emphasis on the experience of direct physical aggression. Direct physical aggression is more relevant to male's experiences of aggression (e.g. Björkqvist, Lagerspetz & Kaukiainen, 1992a), so the Expagg approach to aggression introduces an inherent male bias into research.

There have been attempts to incorporate indirect aggression into the Expagg research, to include aggression that does not involve face-to-face confrontation, and is not so directly observable. For example, Baumgartner (1995) looked at the association between Expagg and different forms of aggression (physical, verbal, indirect aggression and withdrawing from conflict) in a Slovakian population. Paty (1998) added a few items to his French translation of Expagg to cover verbal aggression and revenge tactics. But in these attempts they did not make any recognition that Expagg

itself is biased in terms of how it conceptualises aggression. Archer & Parker (1994) tried to modify Expagg and recognised how previous research presupposes direct aggression experiences. Most recently, Tapper & Boulton (2000) modified measurement to examine social representations of physical, verbal and indirect aggression.

These attempts to modify the Expagg scale do recognise the importance of highlighting the current restrictions and flaws in the Expagg scales. Instrumental and expressive aggression theory was not developed in line with the recent transformation of the aggression literature (which will be detailed in Chapter 3). Trying to combine the existing measures with different forms of aggression has had a limited impact on the research so far. Although they recognise the bias in the measures, they do not consider the implications theoretically in terms of mediating variables and the unresolved argument about what constructs these scales measure (social representations or beliefs?).

The way that the form of aggression may serve to mediate the Expagg scales is very important, but it is more important in that it produces bias in measurement. This established physical aggression bias leads to a strong male bias in the measures, making men more able to relate to the questions, and making it easier for them to respond accurately based upon their own real life experiences. In contrast, the scales, and instrumental and expressive aggression theory more widely, lacks saliency to women. Female respondents may not have sufficient experience of 'male' expressions of aggression to answer the questionnaire adequately.

Although the Expagg research has generated a great deal of interest, and had considerable utility, there is a growing recognition that it has problems. Smith (1997) commends Campbell on her contribution to the aggression literature, but also argues that the instrumental and expressive distinction is probably not the most useful way to conceptualise aggression and gender.

The instrumental and expressive aggression distinction is still a very traditional approach to gender and aggression, because the emphasis is very strongly on viewing men and women's aggressive experiences as fundamentally different. It works upon the idea that aggression theories should be sex-specific, that men and women's aggression should be understood and explained in different ways. These sex-specific approaches serve to perpetuate differences between men and women (Fine & Gordan, 1991; White & Kowalski, 1994), even if they are sympathetic to women's situation. Men and women are still polarised in this theory, even if we are now talking about instrumental v. expressive, rather than male v. female. Such polarised ways of thinking are incapable of representing complex human behaviour, and caricature men and women, without capturing real human experience (Tavris, 1993).

The distinction still maintains the idea that one gender is aggressive, whilst the other is not – even if it does widen this to explain *why* women cannot express their aggression. This still fails to address that women are aggressive, even though they might express their aggression in different ways (White & Kowalski, 1994). In addition, there are political connotations behind such simplistic sex-specific dichotomies (Minow, 1984; Scott, 1988; Crawford & Marecek, 1989). The use of instrumentality and expressiveness to explain gender and aggression has particular

negative connotations, because of the way these terms have been applied in the past. 'Instrumentality' has long been associated with 'masculinity' and 'mastery', whereas 'expressive' has the connotations of 'femininity' and 'emotionality'.

Millet (1977) implied that such terms as 'instrumental' and 'expressive' are just "polite intervening semantics" (p.229); devices to disguise how misogynistic such distinctions are – ascribing control and agency to men, and lack of control and emotional irrationality to women. The instrumental/expressive dichotomy is marred by such connotations, and still uphold this idea that men are in control of their aggression, whereas women are out-of-control and driven by their emotions rather than by reason. What is apparent with such distinctions is that they emphasise gender difference above everything else. In contrast, tenets of Liberal Feminism stress the need to look for the middle ground where most people (regardless of gender) fall (Minnich, 1990), and examine similarities between the genders (Unger, 1981).

Questioning the internal validity of the Expagg scales

Another key theoretical issue with the instrumental and expressive aggression literature is, again, the arguments surrounding the nature of the constructs. There are clearly two opposing viewpoints on this. Firstly, that there is a bipolar set of instrumental-expressive social representations. Secondly that there are two distinct sets of dynamic aggressive beliefs. These positions represent very conflicting views on the content and nature of the internal processes that are theorised to influence the way we think about, perceive, interpret, and act in terms of aggression. If researchers had established the internal factor structure or dimensionality of the Expagg scales this would throw considerable light on this continuing theoretical argument within the

area. The internal construct validity itself is also of primary importance in terms of the psychometric value of the theory, as quantified within these scales.

There have been a number of studies that have addressed the dimensionality or internal construct validity of the Expagg scales. Campbell and colleagues continue to argue that instrumental/expressive aggression represent social representations. This viewpoint is endorsed by other current researchers in the area (e.g. Tapper & Boulton, 2000). Throughout Campbell and colleagues' research they claim strong evidence that the Expagg scale is bipolar and constitutes a single factor. This evidence is cited from their original principal components analysis (Campbell *et al.*, 1992) and a recent exploratory factor analysis (Campbell *et al.*, 1999). However, because the items of the Expagg scale have dichotomous endings, a unidimensional solution is inevitable. The way the scale was constructed dictates that this will be the outcome, and Archer & Haigh (1997b) have already demonstrated that the use of such bipolar items is misleading. Eatough, Forrest, Shevlin & Gregson (in preparation) tried testing this unidimensional interpretation of social representations of aggression underlying Expagg. Using an advanced statistical technique (structural equation modelling) they failed to find any evidence of internal validity (although the sample size was small). Nevertheless, the original Expagg scale is still used in this manner, and researchers still adopt the view that the underlying structure represents validation evidence of social representations.

Archer and Haigh strongly argue in their research that instrumental and expressive beliefs of aggression are more realistic, and that the dimensionality of their scales demonstrates the validity of this interpretation. They contend that their revised

Expagg permits itself more readily to psychometric evaluation (Archer & Haigh, 1996, 1997b), because it is not restricted in the same way that the original dichotomous items are. They theorised that the Revised Expagg represented two separate and distinct sub-scales of instrumental and expressive beliefs about aggression. Evidence of this internal construct validity is claimed using a number of principal components analyses reported in Haigh (1996) and Archer & Haigh (1997b). The sub-scales were separated for these analyses, as analysing the whole scale failed to yield coherent instrumental and expressive factors. Not surprisingly, separating the data into the assumed sub-scales and analysing them separately did make the factor structure much clearer. This allowed them to claim that each sub-scale was unidimensional. They further argue that the instrumental and expressive factors are relatively orthogonal to each other (displaying weak, insignificant correlations between the sub-scales).

Again, when Archer and Haigh analyse the sub-scales separately using principal components analysis essentially unidimensional structures are to be largely expected. Examining the results in more detail reveals that the solution gained from the analysis using data from both sub-scales simultaneously made little theoretical sense. There were items that loaded onto the 'wrong' factor, or the analysis failed to find two distinct dimensions. Even with the sub-scales analysed separately there were inconsistencies across samples (Haigh, 1996) which are noted, but are still taken as evidential of there being, in general, two separate unidimensional scales. Haigh (1996) also analysed the data from the versions of the Revised Expagg modified in terms of form of aggression and type of opponent. Again, these scales were all

claimed to have the same underlying factor structure, although inconsistencies were somewhat apparent.

Campbell *et al.* (1999) also conducted a principal components analysis on the Revised Expagg, and did find a two-dimensional solution, but also argued that there was equivocal evidence that the Revised Expagg is also unidimensional in the same way as the original measure. Campbell *et al.* (1999) used their factor analytic work to devise a shortened Revised Expagg scale consisting of two separate instrumental and expressive sub-scales with just 8 items per sub-scale. Again, arguing that the scale can be interpreted either as measuring one bipolar construct or two distinct constructs. What they fail to consider is the contradictions in their claims that the dimensionality of the scale could just as easily be one- or two-dimensional. This is particularly problematic when you consider that this is at the heart of the issue surrounding the theory of instrumental and expressive aggression – whether there is a single dimension of instrumental/expressive that reflects social representations of aggression, or whether instrumental and expressive beliefs are separate psychological constructs, and individuals therefore hold varying degrees of both. In addition, this research can be argued to rely too heavily on data-driven, atheoretical statistical analysis.

Previous conclusions of Expagg's psychometric properties

Throughout the literature on Expagg conclusions are drawn about the nature of the constructs that the Expagg and the Revised Expagg measure, the sex differences, the mediating effects of certain variables, and the importance of the form of aggression. However, without clear establishment of these measures' reliability and validity, it is

not possible to know if they measure aggression consistently, or exactly what they measure at all (Pedhazur & Schmelkin, 1991). Without establishment of the dimensionality of a measure, conclusions drawn about relationships with other variables are somewhat premature, and findings should be viewed tentatively until studies can prove that such a measure really does reliably quantify instrumental and expressive beliefs/social representations of aggression.

Reliability refers to the internal consistency of the measure; that the items are homogenous throughout the scale. The reliability of the Expagg scales are based on Cronbach's alpha coefficients, a common practice in psychometric assessment. However, alpha is only an accurate indicator of reliability when dimensionality has first been established (Cortina, 1993; Pedhazur & Schmelkin, 1991). In this way researchers must demonstrate the different latent factors underlying the scale, subsequently split the scale into appropriate sub-scales, and then calculate a separate Cronbach's alpha for each sub-scale. The splitting into sub-scales and demonstrating underlying factor structure is a vital pre-requisite to using alpha to report internal consistency. Scales usually measure more than one latent factor, and so ignoring dimensionality issues misrepresents the reliability of measures, rendering alpha virtually meaningless.

Campbell (1996) seems to misinterpret alpha as *demonstrating* unidimensionality, when alpha, in fact, is only justified when unidimensionality has been previously established. Haigh (1996) and Archer & Haigh (1997a, b, 1999) do report adequate alpha coefficients for the different sub-scales established through exploratory factor analysis, suggesting that the Revised Expagg measures are internally consistent. This

level of psychometric evaluation is sufficient for new measures in the initial stages of construction. However, as Expagg has been so widely used for a number of years now, the dimensionality needs to be examined using a more stringent standard, to demonstrate that these sub-scales are well-founded, and therefore that the alpha coefficients are meaningful.

Exploratory factor analytic techniques are used appropriately in the development of the measures, but continue to be solely relied upon for psychometric validation of the Expagg measures, and in establishing relationships with other variables. Although such techniques have value in the early stages of test construction, when the theoretical structure of the measure is usually quite exploratory, researchers should develop a theoretical framework about the dimensionality of the measure. Subsequently, their future validation work should be primarily theory-driven (Pedhazur & Schmelkin, 1991; Kline, 1991; Hoyle, 1995). After all, validation is an ongoing issue that is of primary importance in psychometric measurement (Nunnally & Bernstein, 1994).

In contrast to modern standards for psychometric evaluation, the Expagg scales only implement principal components analysis, despite the inherent problems of this methodology. Principal components analysis (PCA) is not strictly factor analysis at all, and is wrongly used as a factor analytic procedure in establishing the dimensionality of scales (Wolins, 1982). Nevertheless, both Campbell *et al.* (1992) with the original Expagg scale, and Archer and Haigh (1997b; Haigh, 1996) with the instrumental and expressive scales, claim that the results from their respective principal components analysis support that the scales are generally unidimensional.

The evidence for this is provided by the substantial first factor extracted in their analysis. However, principal components analysis *always* yields a huge first factor, due to the how this method mathematically extracts factors (Gould, 1997).

Bearing this in mind, it is hardly surprising that principal components analysis of the Expagg scales yields a generally unidimensional solution. Cattell (1965) pointed out how this type of solution is not the correct representation of the factor structure. The aim of PCA is to explain the maximum amount of variance, not to uncover the underlying structure. The results of a principal components analysis can be very different from those of exploratory factor analysis (Borgatta, Kercher and Stull, 1986). A further serious difficulty of principal components analysis is that it fails to partition variance attributable to the factor from measurement error, resulting in the impression that all the variance in the indicator is explained by the factor (Pedhazur & Schmelkin, 1991).

Examining the previous exploratory factor analytic results reveals inconsistencies. With a scale so well-used in aggression research, it is surprising that these inconsistencies are downplayed, and that no researcher has tried to deal with the essential issue of dimensionality using more appropriate confirmatory techniques that are theory-driven rather than data-driven (Hoyle, 1995). As Eatough *et al.* (1997) comment “the methods of factor analysis used in previous papers have been inappropriately employed on Expagg data and care should therefore be taken in interpreting findings based on its use” (p.384).

The research by Campbell and Archer does suggest the utility of the Expagg scales, and points to predictive validity. But internal construct validity evidence does not meet adequate standards, and this is again a pre-requisite to using the scales to test for relationships with other variables. In this way, at present, the Expagg scales only satisfy very basic standards of validity and reliability. This would be acceptable in a measure in its infancy in terms of development, but is not acceptable in a scale so seemingly well-established.

Does Expagg measure either social representations or aggressive beliefs?

These issues and concerns surrounding psychometric assessment of the Expagg scales are particularly significant because of the way that they are used in such conflicting ways, as a one-dimensional measure of social representations, and as measuring two independent sets of beliefs (by Campbell and colleagues and Archer and colleagues respectively). The overuse of exploratory methods of factor analysis in such measures serves to hide the issues of internal construct validity, and cloud, instead of resolving, the theoretical argument regarding social representations and beliefs. Continuing to use the research in two different contradictory ways merely heightens confusion in the literature, and hinders the research. Both groups of researchers, to some extent, take on board the comments of the other, but without clarifying the issue adequately. These measures have been very influential and continue to be used worldwide, without sufficient psychometric evidence, and without consensus regarding what the Expagg scales actually measure. The first set of studies is primarily concerned with how valuable instrumental and expressive aggression theory is at explaining how people perceive and interpret aggressive experience.

CHAPTER 2. INVESTIGATING THE VIABILITY OF MEASURES OF INSTRUMENTAL AND EXPRESSIVE PERCEPTIONS OF AGGRESSION².

2.1. BACKGROUND AND RATIONALE

2.1.1. *Summary*

The full rationale and review of the relevant literature has been reported in the previous chapter. To summarise, this study examines the utility of the concepts of instrumental and expressive social representations of aggression, from a differential psychology perspective. It tests the usefulness of gendered perceptions of aggression based upon the Expagg scales, testing both the competing theoretical models in this area, and investigating their psychometric worth. Implications for further research into perceptions of aggression are addressed.

2.1.2. *Methodological rationale*

One of the major problems identified with the Expagg measures, and by implication the theory of instrumental and expressive aggression as encapsulated within these measures, is the over-reliance in the literature on very traditional forms of psychometric assessment. As mentioned in the previous chapter, past research using the Expagg scales have assessed the homogeneity of items using Cronbach's alpha coefficients as evidence of sufficient reliability in these measures. Also, in line with

² The three confirmatory factor analytic studies in Stage 1 have already been written up as a paper: Forrest, S., Shevlin, M., Eatough, V., Gregson, M. & Davies, M.N.O. (2002). The factor structure of the Expagg and Revised Expagg: A failure to replicate using confirmatory factor analysis. *Aggressive Behaviour*, 28(1): 11-20.

traditional methodologies, researchers have 'demonstrated' the validity or internal factor structure of the measures using principal components analysis (PCA) and exploratory factor analytic (EFA) methods. The problems associated with these techniques are well documented (Pedhazur & Schmelkin, 1991; Bollen, 1989) and have been outlined in Chapter 1.

Previous research in this area has failed to incorporate the advancements in modern psychometric theory and method. There are alternatives advocated in the psychometric literature (Finch & West, 1997; Judd, Jessor & Donovan, 1986), that allow a more theory-driven approach beneficial to a differential psychology perspective. Contemporary psychometric theory advises that researchers are more stringent in their evaluation of psychometric properties such as reliability and validity. More recent methodologies provide much more realistic solutions of the underlying dimensionality of scales, and their composition in terms of reliable assessment and the effects of measurement error. Traditional procedures such as PCA and EFA have numerous serious problems, which these newer, more powerful alternatives do not. It is a significant limitation that researchers developing and implementing measurement of psychological constructs do not use the more up-to-date methods, and do not recognise the important advancements in the area of scale evaluation.

There are superior and more appropriate techniques available in modern psychometrics, especially since the development of structural equation modelling (SEM) in the 1970s, and the widespread availability of computer programs, such as LISREL, Jöreskog & Sörbom, 1993. Using a structural equation modelling framework within scale evaluation, researchers work on the principles of Classical

Test Theory. Classical Test Theory involves the acknowledgement that an observed score (X) comprises both 'true' score (T) and random error (E). True score can be thought of as the score that would result if the measurement were perfect. It is the variation that is attributable to the construct you are interested in measuring. Methods that incorporate the principles of Classical Test Theory recognise that there is always measurement error, work on the level of latent variables, and partition the sources of error (Pedhazur & Schmelkin, 1991; Saris & Andrews, 1991). This provides a much more realistic representation of the sources of variation within your data and is a vital advantage that structural equation modelling has to offer the study of psychological measurement.

As mentioned previously, traditional forms of factor analysis are data-driven, the solutions are unconstrained and saturated. In contrast to traditional factor analysis, confirmatory factor analysis (CFA), executed in a structural equation modelling framework³, is a theory-driven procedure. This means that models are formulated from existing theoretical contentions. This has benefits in examining the relationship of a measure to other variables over more traditional methods of analysis. Based on previous theory behind the measure's construction, models are formulated *a priori*. The researcher decides which of the parameter estimates are of substantive interest, allowing both a more theoretical and parsimonious explanation of the data. The models are estimated and indicators provided of how reasonable this model is. This is termed the 'goodness-of-fit' of a hypothesised factor model to the observed data in the sample. Such an approach has important advantages over data-driven procedures,

³ CFA is a technique implemented within SEM, forming the measurement model part of the analysis, which specifies the relationship between latent factors and their respective indicators/observed variables. A structural equation model is comprised both of the measurement model and the structural model (which specifies the relationships of the latent factors to other variables of interest).

as in confirmatory factor analysis (and structural equation modelling more generally) the researcher is explicitly formulating substantive hypotheses, which the analysis seeks to confirm. Pedhazur and Schmelkin (1991) discuss how the exploratory v. confirmatory approaches represent the difference between reliance on data-driven statistical significance and substantive importance. The latter emphasis is quintessential to construct validation.

Where there are existing theories regarding the measure, confirmatory factor analysis is more appropriate (Kline, 1991). Without attempts to confirm exploratory factor and principal components analyses findings, the assertions of measure's having demonstrated sufficient validity seems inappropriate. Solutions that are accepted from traditional, exploratory techniques may obscure the fact that they are not accurate representations of the patterns of variation in the data. The use of factor analysis in the previous research on the Expagg measures, as pointed out by Eatough *et al.* (1997), is inappropriate, and the issues of the reliability, and especially validity, remain unresolved.

Confirmatory factor analysis has a number of other benefits to offer the debate on Expagg. This type of analysis provides a wealth of additional information in the form of fit indices to illustrate the magnitude of model fit to data, t-values and standard errors of parameter estimates, direct and indirect effects, regression coefficients, and indications of where misfit occurs from modification indices and residual statistics. The assessment of magnitude of fit is particularly beneficial to the research. Importantly, this allows a test of the magnitude of fit between theory and data which cannot be obtained with exploratory factor analytic procedures. There are established

standards of how well the model fits the data based on general consensus within the structural equation modelling literature. The benefits of confirmatory theory-driven techniques over the traditional data-driven exploratory factor analytic methods are well known within modern differential psychology (Bollen, 1989; Pedhazur and Schmelkin, 1991; Hoyle, 1995). It is also a much more flexible technique, meaning that it operates without the restrictive assumptions of traditional techniques. It is both a powerful and flexible analytic tool, having substantial benefits over the traditional techniques almost exclusively employed in the current research using the Expagg measures.

2.1.3. *Aims*

The aim of the first series of studies is to examine the usefulness of the concepts of instrumental and expressive social representations of aggression. This involves the testing of alternative factor models of the various versions of the Expagg scales using CFA within a structural equation modelling framework. Furthermore, the research aims to assess the psychometric worth of these measures. Using LISREL8.3 (Jöreskog & Sörbom, 1999a) fit indices can be calculated for each model to determine the goodness of fit for each of the models. This will show which, if any, of the *a priori* structures is likely to have given rise to the sample data. In addition, a comparative index is available which allows the assessment of which model is *best* at explaining the sample data.

2.2. METHOD

2.2.1. *Participants*

The sample consisted of 337 participants, all university undergraduates. The range of ages was from 18 to 60. The median age of respondents was 20 with a standard deviation of 7. There were 136 males (40.4%) and 201 females (59.6%).

2.2.2. *Procedure*

All participants completed both the original Expagg (Campbell, Muncer & Coyle, 1992), and the Revised Expagg (Archer & Haigh, 1997b) measure as part of a package of measures. The presentation order of the Expagg measures was counterbalanced.

2.3. STUDY 1: CONFIRMATORY FACTOR ANALYSIS OF THE ORIGINAL EXPAGG SCALE

Measures

Participants completed the Expagg measure (Campbell *et al.*, 1992), a 20-item forced-choice self-report measure of social representations of aggression (see Appendix 1). Statements describe an incident of aggression and participants have to choose to endorse either an 'instrumental' (scored as 0) or an 'expressive' ending (scored as 1). For example "In a heated argument I am most afraid of – saying something terrible

that I can never take back (expressive ending), - being out-argued by the other person (instrumental ending).”

Descriptive statistics

Means and standard deviations were calculated for male and female scores on the Expagg scale. These are presented below in Table 2.1.

Table 2.1. Means (and standard deviations) for males and females on the Expagg scale.

	Instrumental-Expressive
Male	11.16 (3.70)
Female	14.82 (3.43)

The Expagg scale is poled so that a high score represents greater expressive social representations of aggression. The results here show that, consistent with theory and previous findings, females score significantly higher than males on the Expagg scale ($t=-9.280$, $df=305$, $p<.05$)⁴.

Analysis and results

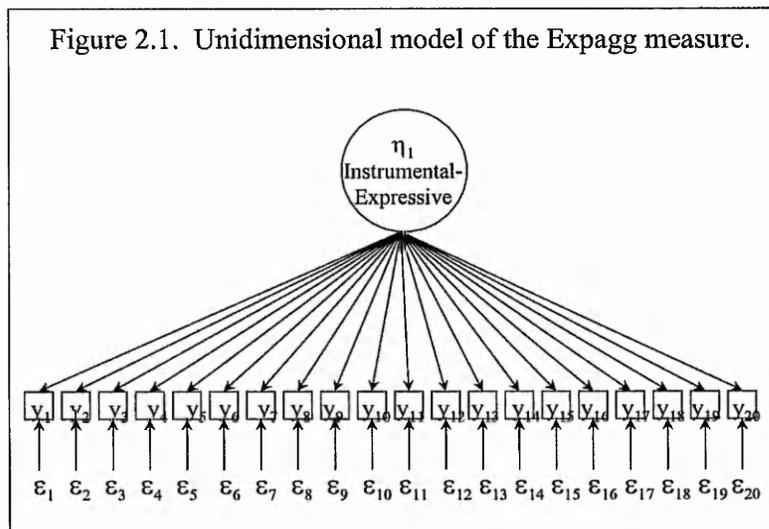
To test the dimensionality of the original Expagg measure, a covariance matrix was computed from the sample raw data using PRELIS2.3 (Jöreskog and Sörbom, 1999b).

The sample of 337 was reduced to 306 after listwise deletion of missing data. The model in Figure 2.1 was specified and estimated using LISREL8.3 (Jöreskog and

⁴ Existing theory suggests that there are important sex differences for scores on Expagg. Descriptive statistics and t-tests are included here to illustrate that the same patterns reported in the previous literature are also apparent with the current population data. Therefore the factor analyses of previous research are directly comparable with the population data collected in this piece of research.

Sörbom, 1999a). The covariance matrix and LISREL syntax are contained in Appendix 3.

The circle represents the bipolar latent factor (η_1) of 'instrumental-expressive social representations of aggression'. This is consistent with the claims of Campbell and colleagues (Campbell *et al.*, 1992, 1997) about the nature of the construct underlying the original Expagg measure. The squares represent the items, or observed variables, labelled Y_1 to Y_{20} . The arrows from the latent factor to the items represent the factor loadings. The arrows underneath the items represent the measurement error, or variance unique to that item (ϵ_1 to ϵ_{20}).



Model fit was assessed using the chi-square, the Root Mean Square Error of Approximation (RMSEA; Steiger, 1990), and the Goodness of Fit Index (GFI). The comparative fit of the models was assessed using the Expected Cross Validation Index (ECVI) (an index used for the purposes of model comparison, with the smallest value being indicative of the best fitting model). The fit indices reveal that the model is a poor fit to the observed data ($\chi^2(170)=645.78$ ($p<.001$); RMSEA=.094; GFI=.83;

ECVI=2.31). This means that a single bi-polar factor is not adequate to explain the sample data: the original Expagg measure cannot be described as unidimensional.

The parameter estimates provided by LISREL8.3 can only be interpreted cautiously due to the lack of fit of the measurement model. The completely standardised lambda coefficients indicate which items are good and poor indicators of the latent factor. However, as the analysis has shown that the latent factor is not a meaningful representation of the underlying dimensionality, it is not appropriate to discuss these estimates further.

The low quality, dichotomous nature of the Expagg scale data makes it untenable to test any other factor structure, or to compare the fit of the model shown in Figure 1 with a two-dimensional model. The modification indices provided in this analysis indicate that the solution contains a lot of residual error and variance not accounted for by the measurement model based on the theorising of Campbell and colleagues (Campbell *et al.*, 1992; Campbell *et al.*, 1997). Again this shows that it is neither realistic nor reasonable to explain the underlying structure of the Expagg scale in terms of a single instrumental-expressive aggression dimension.

2.4. STUDY 2: CONFIRMATORY FACTOR ANALYSIS OF THE REVISED EXPAGG SCALE

Measures

Participants completed the Revised Expagg measure (Archer and Haigh, 1997b). This measure splits the 20 original Expagg measure items into separate instrumental and

expressive items (see Appendix 2). Participants answer on a 5-point Likert scale from “1 - Strongly disagree” to “5 – Strongly agree”. Expressive items are reverse-scored. The measure comprises two sub-scales measuring instrumental and expressive aggressive beliefs. For example, an instrumental item “I believe that physical aggression is necessary to get through to some people” (Item 17) and the ‘matching’ expressive item “I believe that physical aggression is always wrong” (Item 5). In addition to the 40 items, there are a further two items concerning whether the answers have been based upon recent, early or hypothetical experiences of aggression, and whether the respondent was referring to aggression between a same sex opponent, their partner, or an opposite sex non-partner.

Descriptive statistics

Means and standard deviations were calculated for male and female scores on both the instrumental and the expressive sub-scales of the Revised Expagg scale. These are presented below in Table 2.2.

Table 2.2. Means (and standard deviations) for males and females on the Revised Expagg sub-scales.

	Instrumental	Expressive
Male	59.74 (9.24)	63.06 (8.40)
Female	50.75 (10.84)	69.63 (9.85)

The expressive items were not reverse-poled here so that a high score on the expressive scale represents a high level of expressive aggressive beliefs, thus allowing greater clarity when examining the pattern of gender differences. Both males and females score higher on the expressive sub-scale. Comparing male and female scores

it is apparent that males score significantly higher than females on the instrumental sub-scale ($t=7.782$, $df=322$, $p<.05$), and females score significantly higher on the expressive scale ($t=-6.251$, $df=322$, $p<.05$). These findings are consistent with previous findings.

Analysis

The improved data quality of the Revised Expagg allows model comparison in confirmatory factor analysis to test whether the one- or two-dimensional model are accurate representations of what is being quantified in the observed data. It also allows a comparison of which model is better.

A covariance matrix was computed from the sample raw data using PRELIS2.3 (Jöreskog and Sörbom, 1999b). The sample of 337 was reduced to 324 after listwise deletion of missing data. The models in Figure 2.2 and 2.3 were specified and estimated using LISREL8.3 (Jöreskog and Sörbom, 1999a). The covariance matrix and LISREL syntax are contained in Appendix 4.

In Figure 2.2 below, the circle represents the bipolar latent factor of 'instrumental-expressive social representations of aggression' (η_1). The boxes labelled Y_1 to Y_{40} represent the Revised Expagg items, the arrows from these to the latent factor representing the factor loadings (λ_s). The arrows beneath the boxes are unique measurement error (ϵ_1 to ϵ_{40}). This model attempts to explain the Revised Expagg data in terms of a single factor consistent with the original theoretical development of Expagg.

Figure 2.2. Unidimensional model of the Revised Expagg measure.

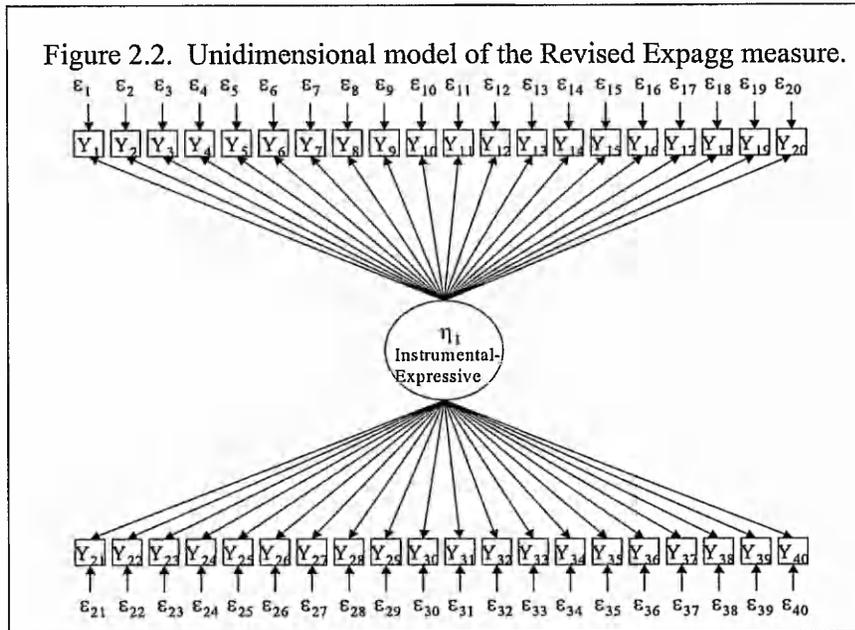
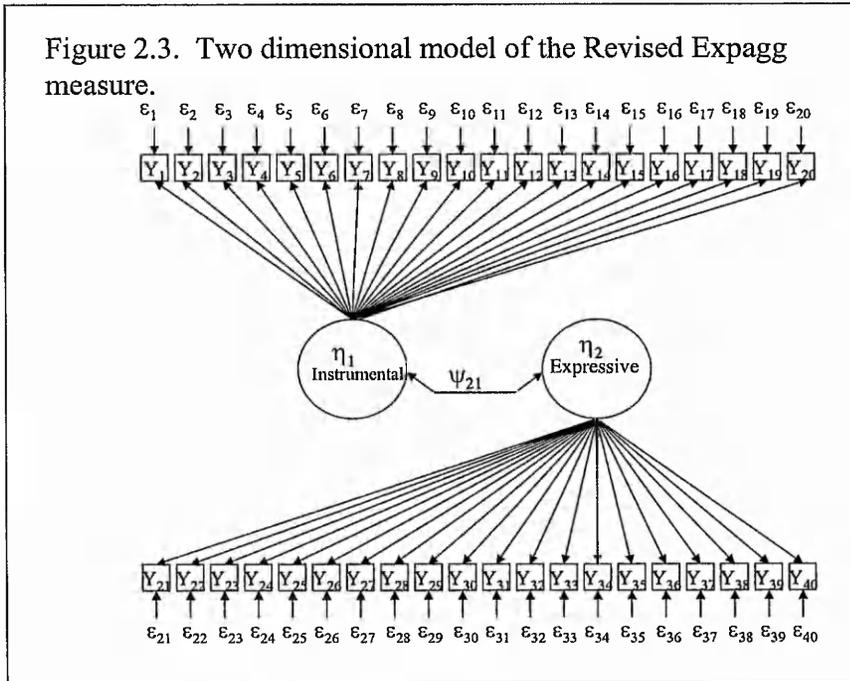


Figure 2.3. Two dimensional model of the Revised Expagg measure.



In Figure 2.3, the circles represent the factors of 'instrumental' and 'expressive' beliefs about aggression (η_1 and η_2 respectively). The boxes represent the instrumental (Y_1 to Y_{20}) and expressive items (Y_{21} to Y_{40}) and the arrows their factor

loadings onto their respective factors. The arrows beneath the boxes are unique measurement error (ε_1 to ε_{40}). The two-headed arrow joining the two latent factors represent the correlation between these factors (ψ_{21}). This model attempts to explain the Revised Expagg data in terms of two correlated factors.

Results

Table 2.3 displays the overall fit indices for the one and two-factor models of the Revised Expagg scale.

Table 2.3. Fit indices for confirmatory factor analysis models of the Revised Expagg scale.

	χ^2 df p	RMSEA	GFI	ECVI
One factor model	2669 740 p<.001	0.11	0.65	11.11
Two factor model	2435 739 p<.001	0.09	0.71	8.68

The fit indices for both models demonstrate that neither model adequately explains the Revised Expagg sample data. The chi-square is large relative to the degrees of freedom, and the RMSEA and GFI indicate that the proposed model does not fit the data. The ECVI indicates that the two-factor model is a better explanation of the data than the one-factor model, although neither is an adequate description of the data. Therefore both the propositions regarding the underlying dimensions of this measure are invalid and such a lack of a well-fitting model points to serious validation problems with this measure.

Looking more closely at the model outputs, the modifications suggested by the two-dimensional model provide evidence that a substantial amount of the items are also indicators of the other latent variable. The solution would benefit in terms of fit if all the items were permitted to cross-load (i.e. if instrumental items were also allowed to load onto the expressive factor, and if the expressive items were also allowed to load onto the instrumental factor). Doing this would improve the fit, but would merely be a *post hoc* modification making little theoretical sense – the items are clearly not bipolar, but they are not indicators of solely instrumental or expressive aggressive beliefs. These findings are evidential of a poor measure. The completely standardised factor loadings of the items that appear to explain variation in both factors are low for their own factor, whilst indicating that they may be indicators of the other factor. This would further suggest that the factors lack clarity (both statistically and theoretically) and that the measure is invalid.

2.5. STUDY 3. CONFIRMATORY FACTOR ANALYSIS OF CAMPBELL *ET AL.*'S (1999) MODIFICATION OF THE REVISED EXPAGG.

Measures

Using the data from study 2 collected using the Revised Expagg measure it was possible to test the dimensionality of the two-scale modification of the Revised Expagg measure suggested by Campbell *et al.* (1999). Campbell *et al.*'s (1999) modification of the measure comprises two 8-item scales of instrumental and expressive social representations of aggression derived from an exploratory factor analysis of the Revised Expagg.

Descriptive statistics

Means and standard deviations were calculated for male and female scores on both the instrumental and the expressive sub-scales of the modified Revised Expagg scale.

These are presented below in Table 2.4.

Table 2.4. Means (and standard deviations) for males and females on the modified Revised Expagg sub-scales.

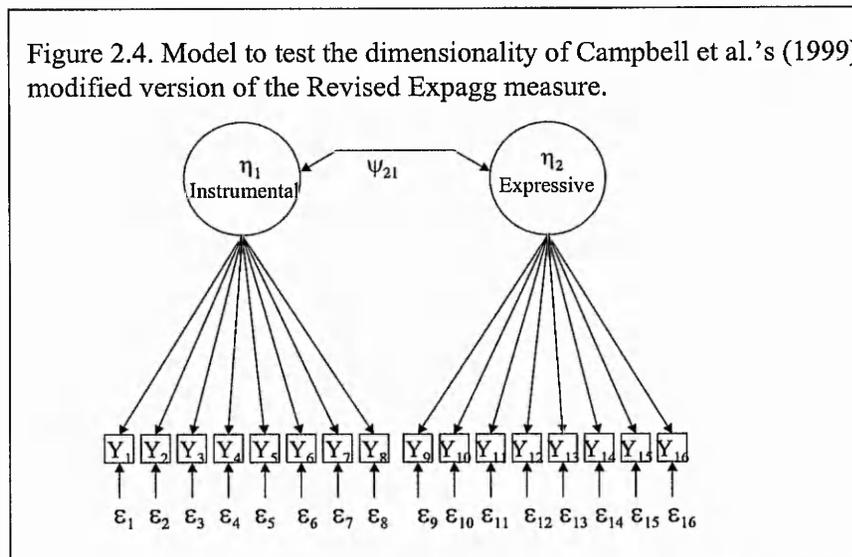
	Instrumental	Expressive
Male	24.95 (4.88)	26.59 (4.31)
Female	19.94 (5.56)	28.32 (4.72)

To demonstrate more clearly the gender differences within the data the expressive items were not reverse-poled here either. Both men and women scored higher on the expressive sub-scale. Males scored significantly higher than females on the instrumental sub-scale ($t=8.313$, $df=322$, $p<.05$), and females scored significantly higher than the males on the expressive sub-scale ($t=-3.351$, $df=322$, $p<.05$). The gender differences identified more generally in the complete Revised Expagg scale are maintained with the shortened modified version suggested by Campbell *et al.* (1999).

Analysis

The covariance matrix computed for study 2 was re-used. Figure 2.4 shows the model specified and estimated in LISREL8.3 (Jöreskog and Sörbom, 1999a). The covariance matrix and LISREL syntax are contained in Appendix 5.

Figure 2.4. Model to test the dimensionality of Campbell et al.'s (1999) modified version of the Revised Expagg measure.



In Figure 2.4, the circles represent the factors of ‘instrumental’ and ‘expressive’ beliefs about aggression (η_1 and η_2 respectively). The boxes represent the instrumental (Y_1 to Y_8) and expressive items (Y_9 to Y_{16}) and the arrows their factor loadings onto their respective factors. The arrows beneath the boxes are unique measurement error (ε_1 to ε_{16}). The two-headed arrow joining the two latent factors represents the correlation between these factors (ψ_{21}).

Results

The fit indices reveal that the model fails to fit the observed data ($\chi^2(103) = 333.16$ ($p < .001$); RMSEA = .082; GFI = .89; ECVI=1.22). The Revised Expagg measure proposed by Campbell *et al.* (1999) does not adequately fit their suggested two-dimensional model.

Additional comments of respondents

In addition to the statistical modelling reported above, it is also important to consider some of the comments respondents made when filling out the Expagg questionnaire.

Respondents later commented that they found the Expagg scales difficult to answer due to a number of reasons.

Firstly, they felt that they could not answer with consistency because their viewpoint on whether they perceive instrumentally or expressively depended too heavily on the context in which aggression is experienced. They noted how in one given situation they might strongly endorse an instrumental response and in a different context they may be equally likely to endorse an expressive one. Secondly, they had difficulty being consistent in their responses because different items made them refer to different points in their life. The mediating variables added to the end of the Revised Expagg were not considered to deal with these issues sufficiently.

Thirdly, and most importantly, females frequently commented on how difficult it was for them to complete the questionnaires with any degree of accuracy because the emphasis on physical aggression meant that the items were not sensitive to female experience. The measures tended to lack saliency for many women trying to complete these questionnaires. Finally, some men and women commented that the items were not sensitive enough to recent experiences of aggression – they were not salient to experiences of aggression experienced during their adult-life.

2.6. DISCUSSION

This study aimed to investigate the usefulness of the concepts of instrumental and expressive perceptions of aggression. In order to do this a psychometric study examining alternative theoretical models and the dimensionality of the Expagg scales

was conducted. Models were based upon existing theory, and previous principal components and exploratory factor analyses. The results raise some serious questions about the construct validity of the Expagg measures.

Study 1 revealed that the one-dimensional model for the original Expagg scale does not fit the observed data. Previous evidence suggesting a single bi-polar instrumental-expressive factor has been based on traditional methods of scale assessment including principal component and exploratory factor analyses. Additionally, evidence for the reliability of the measure has been based upon Cronbach's alpha's without confirmatory evidence that the scale is in fact one-dimensional. A high value for Cronbach's alpha does not necessarily indicate unidimensionality (Shevlin, Miles, Davies & Walker, 2000). The confirmatory factor analysis conducted in this study demonstrates that Expagg cannot be adequately described as measuring one-dimension as previously postulated by Campbell *et al.* (1992, 1997, 1999).

Study 2 involved a model comparison of the two opposing contentions regarding the Revised Expagg's factor structure. Archer & Haigh (1997b) proposed that the scale is essentially two-dimensional, comprising two single-factor sub-scales of instrumental and expressive aggressive beliefs. Recently, Campbell *et al.* (1999) argued that there was evidence that the Revised Expagg could be interpreted as either a uni-dimensional measure or a two-dimensional measure. The model comparison explicitly tested and compared the adequacy of these two conflicting models. The results from the ECVI fit index revealed that the two-dimensional model was a better representation of the data than the one-dimensional model. The global fit indices, however, revealed that neither of these models was adequate in explaining the

underlying factor structure of this measure. Again, as with the original Expagg measure, there is evidence of sufficient disparity between the theoretical factor structure of the scale and the patterns of variation in the observed data. In short, it is apparent from the confirmatory factor analyses that the Revised Expagg is neither one- nor two-dimensional, and therefore lacks validity.

Study 3 tested the factor structure of Campbell *et al.*'s (1999) modification of the revised Expagg. This short scale is claimed by Campbell *et al.* (1999) to be an improved two-dimensional scale. However, again evidence of psychometric properties was based on traditional and therefore limited evidence. Using the more powerful and sophisticated confirmatory factor analytic approach, results indicate that the two-dimensional model does not fit the data. The two-dimensional model of the factor structure of this version of Expagg was not found to be an acceptable fit to the data.

Confirmatory factor analysis, within the structural equation modelling framework, also provided some statistical indications in terms of *why* the factor structure models did not fit. Although it was not appropriate to discuss the parameter estimates of the individual models in any depth, the modification indices do reveal some problems with the data collected using the Expagg measures. As mentioned previously, the modification indices demonstrated that many of the items designed to measure instrumental aggression were found to also measure expressive aggression, and vice versa. This is problematic for the measure because current thinking in the research area argues that instrumental and expressive aggression are relatively orthogonal constructs (Archer & Haigh, 1997b; Haigh, 1996), and yet evidence here reveals that

their items share very significant proportions of common variance with each other. Statistically the fit of the models would improve, and the patterns of data would thereby be better explained, if all the items were unconstrained and free to load on both the instrumental and expressive factors in the two-factor models.

These findings are important because they are indicative of a lack of construct clarity. The factors of instrumental and expressive aggression are not well defined in terms of their items. In addition the research has raised further concerns about the validity in the measurement of these constructs. Although allowing all the items to cross-load would statistically improve the model, and the fit of the implied model to the observed data, theoretically it is unwise to modify the models in such a way. Consensus in the structural equation modelling literature contends that researchers should not atheoretically manipulate their models based upon modification indices (Cliff, 1983; Browne, 1982). If the modification indices suggestions can be argued to make theoretical sense, then a researcher must collect a new sample of data, and be driven by the past indications and a new theoretical understanding (Pedhazur & Schmelkin, 1991). Changing and modifying your model without new data statistically 'capitalises on chance' and should be avoided at all costs. Alternatively, researchers can use a split-sample procedure, whereby they run the statistical model on one half of their data, and then seek use the other half of the sample to test predictions made by the modification indices. This strategy is of great confirmatory value and enhances replicability of findings, but is very demanding in terms of sample size.

In the case of the Expagg data analysed in this research, allowing the items to load on both factors would make no theoretical sense whatsoever. What this has told us

though is further proof that both statistically and conceptually there are serious problems with instrumental and expressive aggression as it is currently understood and quantified within the Expagg measures. It is suggested that the previous reports of the psychometric structure of the Expagg and Revised Expagg are not rigorous enough assessments of the dimensionality of the scales. As is common practice, Campbell *et al.* (1992, 1999) and Archer and Haigh (1997b) have attempted to determine the dimensionality of their measures consistent with their respective theoretical standpoints using exploratory factor analytic procedures. The consensus in the psychometric literature points to the advantages of using confirmatory, rather than exploratory, factor analytic methods (Bollen, 1989; Pedhazur & Schmelkin, 1991), and the failure for this study to replicate previous findings using such methods raise serious questions about the application of the Expagg and Revised Expagg scales.

The findings of this study fail to replicate the previously reported exploratory factor analytic solutions, signifying that the Expagg scales lack validity, which is a serious issue. If the underlying factors cannot be consistently found across different samples using different factor analytic procedures, the nature of the psychological dimension(s) cannot be unequivocally stated.

Although previous researchers, such as Campbell *et al.* (1997, 1999) and Archer and Haigh (1997b and Haigh, 1996), have concluded with some degree of satisfaction that their factor analytic investigations of these measures yield adequate evidence of reliability and validity, using more sophisticated procedures reveal significant problems. Modern psychometric literature (e.g. Finch & West, 1997; Judd, Jessor *et al.*, 1986; Stevens, 1996) urges researchers to be much more rigorous in their

examination of psychometric properties in the both newly-developed and established scales implemented in research.

The resulting scores from the Expagg scales may have utility. Predictions in terms of gender differences and correlates with other variables have generally been found to be consistent with the underlying theory (e.g. Campbell *et al.*, 1992, 1997, 1999; Campbell and Muncer, 1994b; Archer and Haigh, 1997b). It is argued, however, that although the scales generate useful scores, the validity of any interpretations must be treated with caution. If measures are not valid then any conclusions drawn about relationships to other variables based upon these measures are misleading and should be interpreted cautiously.

The Expagg measures and the work on instrumental and expressive aggression have generated a great deal of interest in aggression research. As these measures are quite widely and extensively used the issues surrounding its theoretical basis and psychometric worth becomes very important. Already the scales have been used by a number of different researchers worldwide (e.g. Richardson *et al.*, 2000; Andreu *et al.*, 1998; Paty, 1999; Baumgartner, 1995). Researchers assume that the measures are sound and yield reliable and valid measurements of instrumental and expressive aggression in line with either Campbell and colleagues interpretation or Archer and Haigh's somewhat conflicting viewpoint. Evidence from these series of studies presented in this thesis strongly indicate that the Expagg measures are neither one- nor two-dimensional. Instead the factors of instrumental and expressive aggression lack clarity. The models estimated here using confirmatory factor analysis point to Expagg being composed of poor items. There is evidence of high levels of

measurement error and large amounts of the variation in the data cannot be explained by either the factor of 'instrumental-expressive social representations' or the two factors of 'instrumental' and 'expressive' aggressive beliefs.

The Expagg measures are widely used both more broadly in the context of aggression research, and more specifically to further the theory of instrumental and expressive beliefs about aggression. In the light of the problems established here, such problems of validity, and subsequent lack of conceptual clarity, have repercussions for the previous and ongoing research in this area. Therefore the findings from these studies examining the alternative theoretical models of instrumental and expressive aggression significantly contribute to this area of research.

Indications of why these measures are so problematic can be gained from considering the comments respondents made after completing the questionnaires. Their experience of trying to answer the questions on the various versions of the Expagg scales are very informative in speculating about what is wrong with both the measures specifically and the theoretical constructs proposed to underlie these measures. Although these are only subjective comments, these opinions were quite frequently held, and do prove illuminating.

If respondents find it extremely difficult to answer these questions accurately then the responses they do give contain considerable error. The data collected by the Expagg scales could in some respondents lack saliency to the point that their responses display quite random variation. This would not be identified by traditional scale assessment methods that do not provide an indication of magnitude-of-fit from the

model to the observed data. However, with the confirmatory model testing implemented in this research these problems are brought to attention. These speculations are also consistent with the statistical findings of lack of fit, lack of construct clarity, and the fact that large amounts of error remained unexplainable. Statistically significant amounts of variation could not be attributed to the effects of the factors.

Overall, the findings from this study demonstrate that the *a priori* theoretical models are not consistent with the observed data from the three versions of Expagg. Additionally, the findings allow much greater understanding about why the measures are psychometrically unsound. The evidence points to the constructs of instrumental and expressive aggression being problematic, lacking in conceptual clarity. There are conflicting arguments in the literature about the nature of these constructs, and when the contradictory theoretical models are explicitly tested both were found to be invalid. The performance of the measures points to serious problems with construct validation. At present we do not know what the Expagg scales actually measure. Furthermore, this analysis provides statistical evidence of underlying theoretical problems.

Instrumental and expressive aggressive beliefs have clearly been demonstrated to exist in the background literature, but what may be the case is that they are not the only factors influencing people's perceptions of aggression. There is a lot of variance in people's opinions on aggression within their lives that cannot be explained by these constructs. The mediating variables Archer & Haigh (1997b, 1999) argue affect responses would have considerable bearing on the consistency of the person's

response variation over the course of the scale. Consistency was commented upon frequently as making it difficult to complete the Expagg scales. People's responses do vary dependent upon the situation they choose to refer to. Instrumental and expressive beliefs about aggression may not be sufficiently cross-situationally consistent to measure with any degree of adequacy. There is already the realisation that they are not as rigidly defined as first theorised – they are not fixed and stable sets of social representations (Archer & Haigh, 1997b).

The comments of respondents also point to issues about a lack of saliency to the population. Put simply, Expagg is not sensitive enough to female experiences of aggression. There is a clear physical aggression bias within this measure, which past researchers have attempted to redress (Archer & Parker, 1994; Baumgartner, 1995; Paty, 1998; Tapper & Boulton, 2000). This does not correspond to the cultural norms of physical aggression being prohibited. Women do not generally have enough experience of physical aggression to answer these questions. To some extent this is also a problem to some male respondents who do not have sufficient experience of physical aggression in *adulthood* to draw upon.

In conclusion, the first stage of the research demonstrated important problems with the Expagg scales, yet the basic distinction between instrumental and expressive aggression may still be useful even if the Expagg measures are not. Campbell & Muncer's (1987) study significantly extended our knowledge of individual's perceptions of aggression. Their work proved to be influential in lamenting the 'no-win' situation for women who experienced equal levels of anger to their male counterparts, but faced a dilemma in terms of expressing that anger. In this way,

however, the social representations of aggression theory started from a quite traditional view of females forced by social conditions to be passive and non-aggressive, and males as largely physically aggressive.

There is a lot of merit to the original study by Campbell & Muncer (1987), and there may still be considerable usefulness in the theory of instrumental and expressive aggression. Although the serious problems with the measurement of these constructs have been demonstrated in this series of studies, and some lack of conceptual clarity indicated, the work trying to investigate how men and women seek to understand aggression within their lives was both interesting and informative. The current series of studies suggests that there are problems methodologically and theoretically, but this does not necessarily mean that the whole area of work on instrumental and expressive aggression has no value. It merely means that the Expagg measures are probably not the way to investigate perceptions of aggression.

We clearly need to move beyond Expagg and change our orientation of research. The theoretical models tested in this research highlight some problems, which are too serious to be addressed on a statistical basis. There is a need to return to a more idiographic approach to add greater lucidity to the constructs of instrumental and expressive aggression. Also, on a broader level, there is a requirement to investigate how men and women perceive their aggressive experiences, without first assuming that our gender determines our perceptions. Only then can this research progress to the next stage of research and begin to re-investigate men and women's perceptions of aggression within their own personal experience. In order to look at where research

can go from here it is necessary to review how the understanding of sex/gender difference in aggression has changed dramatically in recent years.

**STAGE 2. RE-EVALUATING PERCEPTIONS OF AGGRESSION,
AND THE SUBJECTIVE EXPERIENCE OF INDIRECT AGGRESSION**

CHAPTER 3. THE RECENT TRANSFORMATION OF AGGRESSION RESEARCH: INDIRECT AGGRESSION

3.1. RE-CONCEPTUALISATION OF AGGRESSION RESEARCH

Campbell's research on instrumental and expressive aggression was an advance from the most traditional aggression research that neglected women all together (Smith, 1997; Charlton, 1999). Crawford & Marecek (1989) had used aggression research as a prime example of 'womanless' psychology, whereby the myth of woman as passive and non-aggressive was so prevalent that women were completely ignored in the study of human aggression. In Campbell & Muncer (1987) the dilemma of aggression for women was lamented. Women were not seen as *necessarily* passive in terms of aggression, and it was recognised that women had the same feelings of anger as men (Averill, 1983; Cahill, Duncan & Campbell, 1997). But although this research was somewhat of a welcome departure from the most traditional research, Campbell and colleagues' research was still problematic in its approach to studying aggressive experience. As Smith (1997) points out, instrumental and expressive social representations are not the most useful distinction in understanding the role of aggression in men and women's lives. It failed to take into account the momentous recent developments in the literature that have re-conceptualised aggression research.

In the series of studies detailed in Chapter 2 it was found that instrumental and expressive aggression failed to account for aggressive experiences salient to women. It was also speculated that some men find this irrelevant to their *adult* experiences of aggression. The physical aggression bias in the Expagg work has been well documented (e.g. Archer & Parker, 1994; Eatough *et al.*, 1997; Tapper & Boulton,

2000), and attempts to incorporate other forms of aggression within the existing Expagg framework have been of limited impact. This theory is therefore restricted in terms of its conception of aggression. But there are wider theoretical problems with this body of research.

Campbell's work is still quite traditional in that it maintains the idea that aggression is a completely different experience for men and women. The theory is based upon the idea of sex-specific aggression, and assumes that male aggression has to be understood in one way, whilst female aggression should be understood in a different way. As Kruttschnitt (1999) notes, sex-specific analyses of aggression are problematic. Additionally, Campbell (1999) argues, not only that the experience of aggression is fundamentally different for the sexes, but also that these differences can be traced back to evolutionary origins. Her sex-specific theory of aggression infers biological causation, with the associated connotations that the differences are inherent and therefore inevitable. Campbell's theory serves to perpetuate the dichotomy between men and women in terms of aggression. Women are still viewed as more passive and non-aggressive, which is consistent with the stereotypes about women's aggression being an emotional reaction, as opposed to a means of asserting control. Women are therefore portrayed as out-of-control, irrational, predominantly emotional beings. Tavis (1993) argues that this caricaturises men and women's aggression. This plays to existing misperceptions of women (Millet, 1977) and is a grossly simplistic representation of the complexity of human aggression. Feminists such as Minow (1984) and Scott (1988) warn of the political implications of simplistic sex dichotomies, and how they hinder, rather than promote, the consideration of female experiences. Campbell's perspective of aggression and gender has also been criticised

as essentialist (Beckerman, 1999). This essentialist perspective reifies the differences between the sexes. Such approaches have been heavily criticised in the past (Tong, 1997).

Like traditional research in aggression, Campbell's sex-specific approach over-emphasises the differences between the sexes, at the expense of the similarities (Unger, 1981). Furthermore, ultimately they continue the myth of women as 'other' (Walkerdine, 1990), and as wholly emotional, yet passive beings (White & Kowalski, 1994; Fine & Gordan, 1991). In contrast, rather than re-enforcing the 'discovery' of significant differences between men and women, some proponents of Liberal Feminism ideology argue for the examination of within-group differences, which tend to greatly outweigh the between-sex differences (Minnoch, 1990). From this perspective the main aim should be to create 'gender justice' (or sexual equality) by removing gender stereotypes, which trap women in oppressive gender roles (Tong, 1997). Sex or gender is not the only determinant of aggressive behaviour, by polarising aggression research in this way our understanding of aggression is detrimentally affected. We need to study aggression that is salient to both sexes, and move away from perpetuating the aggressive-male/passive-female dichotomy. As MacDonald (1999) identified, Campbell's theory fails to devote enough attention to individual differences.

In order to do this we need to re-examine what we mean by the term 'aggression'. Recent research has begun to question whether our understanding of aggression has historically been too narrow and restrictive (Björkqvist & Niemelä, 1992). Past research displayed a male bias in terms of sampling, operational definitions, and

investigators. Investigation was largely by male researchers, examining male-biased expressions of aggression (i.e. direct physical aggression), and only in male participants (Wallston & Grady, 1985). Now it is apparent that we need to also explore female aggressive experience, but research such as Campbell's has done so by using a male-biased idea of what constitutes 'aggression'.

The vastly influential work of researchers such as Björkqvist & Niemelä (1992) has led to the conclusion that we need to change what we mean by 'aggression', to broaden the scope of our investigations, to make our research more relevant to adult aggression of *both* men and women. If we also incorporate this with the egalitarianism of Liberal Feminism, there is a need to not just restrict our emphasis to the search for gender difference, but also similarity and overlap (Tong, 1997). This is consistent with this thesis' focus upon the search for individual differences, within a broad idiographic differential psychology perspective.

As White & Kowalski (1994) stress, we need to stop viewing aggression so simplistically and we need to change the way in which we study aggression. Traditional approaches only lead to misperceptions and serve to perpetuate the myth of submissive, non-aggressive females. The recognition of this need to change has transformed the study of human aggression in recent years.

3.2. INDIRECT AGGRESSION

Recent research now tends to centre on the distinction between direct and indirect forms of aggressive expression. Indirect aggression, however, is by no means a new

term in the aggression literature. Both Buss (1961) and Feshbach (1969) noted how aggressive behaviour takes several different forms, including indirect aggression. The concept of indirect aggression has been used to mean different things throughout the history of the psychology of aggression (Björkqvist, 1994; Ellis, 1999). This has included indirect aggression being equated with verbal aggression, aggression directed towards inanimate objects, or physical aggression perpetrated by a third party. For example, Buss (1961) first introduced the distinction between direct and indirect aggression, although his conception of indirect aggression was very different from its current usage (Österman, 1999). It was the work of Feshbach (1969) that began to regard indirect aggression as involving avoiding and manipulating behaviours. The area of indirect aggression had therefore, until recently, been marred by differing ideas of what it involves.

Although there was some early recognition of indirect aggression, there continued to be a lack of consensus as to what indirect aggression meant, and there was a continuing overwhelming emphasis on physical aggression. It was the work of the Finnish group of researchers, led by Kaj Björkqvist in the late 1980s and early 1990s, which spurred interest in this area. Since the late 1990s research in indirect aggression has become increasingly popular, and has re-shaped quite dramatically our understanding of the range of aggressive behaviour in humans. In addition, indirect aggression has also been witnessed in primates (Holmström, 1992).

Lagerspetz, Björkqvist & Peltonen (1988) noted how indirect aggression had often been neglected in traditional definitions of aggression, and considered it to have been poorly conceptualised, with a lack of measures to tap into this phenomenon

adequately. Their study led to a number of investigations into indirect aggression in children, and to clearer definitions of the concept. Aggression was split into direct and indirect aggression. Direct aggression includes both direct physical aggression (e.g. hitting, kicking, biting) and direct verbal aggression (e.g. shouting, arguing). Indirect aggression can include both physical and verbal actions, and was typified by behaviours that involved social manipulation (such as rumour-spreading, leaving people purposely out of activities, etc.). Björkqvist & Niemelä (1992), in their influential early review of the area, defined indirect aggression as behaviours whereby the “instigator manipulates others to attack the victim, or, by other means, makes use of the social structure to harm the target person” (p.8). Indirect aggression is therefore much more hidden and generally unseen, rather than face-to-face confrontation. The most recent definitions argue that with indirect aggression the harm perpetrated is circuitous (Österman, Björkqvist, Lagerspetz, Kaukiainen, Huesmann & Fraczek, 1994; Richardson & Green, 1997), thus protecting the aggressor from identification and punishment.

As so little was known about indirect aggression, and also because such confusion existed about the nature of indirect aggression, Lagerspetz *et al.* (1988) interviewed children about their aggression so that indirect aggression behaviour could be identified, and then measured. Even at this early stage in the research they observed the difficulties inherent in measuring indirect aggression – because the aggressor disguises their aggression, it is problematic to quantify and observe. If children were asked about their own use of such aggression against their peers, Lagerspetz *et al.* (1988) thought it likely that they would deny being aggressive. Peer estimations were therefore adopted so that all the children in the class rate the level of aggressiveness

of all their classmates, and an average can then be calculated for each child. Preliminary scales of childhood aggression were derived from Lagerspetz *et al.*'s (1988) data using factor analytic methods. These scales were used in subsequent research to examine the extent of direct aggression, indirect aggression and peaceful reconciliation behaviour in children (Björkqvist, Lagerspetz & Kaukiainen, 1992; Björkqvist, Österman & Kaukiainen, 1992). Lagerspetz & Björkqvist (1994) note that this usage of the measures in children of different ages revealed that the direct aggression scale could be further differentiated into direct physical and direct verbal behaviours.

Later these scales became the Direct and Indirect Aggression Scales (DIAS) (Björkqvist, Lagerspetz & Österman, 1992), which are now the most widely used measures of indirect aggression. The DIAS consists of direct physical, direct verbal and indirect aggression subscales. Childhood indirect aggression, as measured by the DIAS, is composed of shutting the other out of the group, becoming friends with another as revenge, ignoring, gossiping, telling bad/false stories, planning secretly to bother the other, saying bad things behind their back, saying 'Let's not be friends with him/her', telling the other one's secrets to a third person, writing notes in which the other is criticised, criticising the other's hair or clothing, and trying to get others to dislike the person.

The DIAS can potentially be used as either a self-report or peer-estimation measure of aggression, from either a perpetrator or victim perspective (Björkqvist *et al.*, 1992a). Although it is predominantly used as a peer-estimation technique, from a perpetrator perspective. It has been used cross-culturally (e.g. Österman *et al.*, 1994; Österman,

Björkqvist, Lagerspetz, Kaukiainen, Landau, Fraczek & Caprara, 1998) and is available in a number of different translations from English to Chinese. Such commitment to examining the universality of indirect aggression and the impact of culture on expression of aggression has led to worldwide investigation of this phenomenon. There is now an established international research team dedicated to ongoing research in this area (Björkqvist, 1999), which currently includes leading researchers from Finland, Russia, Poland, Israel, Italy, India, Puerto Rico and the U.S.A. Although developed via studies on children, the DIAS has also been implemented to measure indirect aggression in adolescent populations (e.g. Björkqvist, Lagerspetz, Österman & Kaukiainen, 1993; Österman, Björkqvist, Lagerspetz, Charpentier, Caprara & Pastorelli, 1999).

In parallel with the recent body of research by the Finnish group of researchers has been the work of Nicki Crick in the U.S.A. In the mid-1990s she began research on 'relational aggression', again recognising that traditional research has focused on quantitative, rather than qualitative, differences between men and women's aggression. Relational aggression or 'social aggression' are both concepts overlapping and quite equivalent to the concept of indirect aggression (Archer, 2001). They also focus upon socially manipulative behaviours of children and adolescents. Crick & Bigbee (1998) define relational aggression as aggression that "harms others through hurtful manipulation of their peer relationships or friendships (e.g. retaliating against a peer by purposefully excluding her from one's social group)" (p.337). Building upon the work of Cairns, Cairns, Neckerman, Ferguson & Gariépy (1989), Crick also set out to develop a measure of 'relational aggression', and to examine differences between girls and boys (e.g. Crick & Grotpeter, 1995). Along with various colleagues

she has examined relational aggression in children of both sexes from preschool (Crick, Casas & Mosher, 1997), throughout childhood (Crick 1995, 1996; Crick & Grotpeter, 1995; Crick & Bigbee, 1998), to late adolescence (Werner, & Crick, 1999).

The research from both Europe and America has led to a growing understanding of when and how indirect aggression develops. This has allowed the formulation of a developmental model, mainly developed from the work of Björkqvist *et al.* (1992a and c), and summarised in Björkqvist (1994) and Österman (1999). In early childhood direct physical aggression is the only aggressive strategy available to both boys and girls (Tremblay, 1999). With the development and refinement of linguistic skills, children develop direct verbal aggression. This is used with more and more frequency once the expression of direct physical aggression has become stigmatised (Rivers & Smith, 1994). In girls physical aggression is quickly condemned, whereas for boys it is reinforced within primary schools (Björkqvist, 1996). Indirect aggression develops at around the age of 11, and is more prevalent among girls. Although, Crick *et al.* (1997) identified some relational aggression in children as young as 3-5 years old, this was probably quite a primitive early form. Research has demonstrated that indirect aggression can only develop once social intelligence skills are acquired (Kaukiainen, Björkqvist, Österman, & Lagerspetz, 1996; Kaukiainen, Björkqvist, Lagerspetz, Österman, Salmivalli, Rothberg & Ahlbom, 1999). As direct forms of aggression (especially physical aggression) become more prohibited for girls at a younger age, it is hypothesised that they need to develop alternative, more covert strategies to aggress at an earlier developmental stage (Björkqvist *et al.*, 1992c).

Research also relates this different maturational development of indirect aggression in boys and girls to the nature of girls' friendship groups. As Björkqvist *et al.* (1992a) conclude, the use of indirect methods "is dependent on maturation and on the existence of a social network that facilitates the usage of such means for inflicting pain on one's enemy" (p.126). Girls, with their more cohesive friendship groups based upon intimacy and self-disclosure, are more susceptible to successful indirect aggression within these groups (Crick, Bigbee & Howes, 1996). Björkqvist (1996) calls this the 'dyadic factor' that accounts for why girls use indirect aggression more, and develop it earlier than boys.

The effects/danger ratio is also used by the Finnish research group to explain why, and under what circumstances, indirect aggression is chosen above other means of conflict resolution and other forms of aggression (Björkqvist, 1994; Björkqvist, Österman & Lagerspetz, 1994). The effects/danger ratio is similar to social exchange theories in that it proposes that individuals weigh up the costs and rewards from adopting certain behaviour in certain situations. It is a subjective estimation of what the likely consequences will be from an aggressive act. In this way the aggressor assesses the effect of the intended action and the danger that is involved. The person wants to find a strategy that is effective, but which also involves as little danger to him/herself as possible. So it is about maximising the effects whilst simultaneously minimising the risks they may incur. As physical aggression is potentially dangerous, once an individual has the necessary skills to use less dangerous, but equally effective, methods they will select these strategies over direct physical aggression. Björkqvist (1994) proposes that indirect aggression has the most beneficial effects/danger ratio because it can prove very effective, whilst being relatively risk-

free. Risks are minimal because the confrontation is not face-to-face and the aggressor often stays out-of-reach from the victim. If used successfully the aggressor can remain completely unidentified, and therefore the danger of counterattack is very low.

The effects/danger ratio is also used to explain why females develop indirect aggression sooner than males (Björkqvist *et al.*, 1994b). Females, being physically weaker than males, tend to prefer verbal and indirect methods to aggress. This is because physical aggression is more dangerous to them, and less likely to be effective. It will only be resorted to when unavoidable or when it is normative. In males, physical aggression is also dangerous when they reach adulthood, both in terms of more severe physical injury and also greater societal condemnation. Therefore in adolescence the extent of physical aggression decreases significantly, even in males (Björkqvist *et al.*, 1992a). Verbal and indirect aggression begins to be used by both adolescent boys and girls as viable alternatives to physical aggression.

Björkqvist (1994) proposes that indirect aggression constitutes the 'true' form of human aggression in that it is most advanced or 'adult'. With increasing age people tend to prefer indirect aggression to other forms, because of the maximisation of success this offers, with the lower associated risks. This view is supported by Rotenberg (1984) who found a positive relationship between age and indirect aggression (although the study was restricted to 6 to 12 year-olds). Research shows that this form of aggression is more apparent in older children and is seen as a mark of social maturation in that the children discard 'obvious' direct aggressive styles in favour of more sophisticated ones (Björkqvist *et al.*, 1992a and c; Birkinshaw & Eslea, 1998).

Lagerspetz & Björkqvist (1994), however, do point out how indirect aggression appears to peak in 11-year-old children, with slightly lower reports of these behaviours in 15- and 18-year-old adolescents. So beyond early adolescence the developmental model is less clear. Whitney & Smith (1993) comment that age differences in indirect aggression are small and somewhat inconsistent. Lagerspetz *et al.* (1988) suggest that the fall in indirect aggression prevalence in older adolescents is merely a sign of a fall in overall aggression at this age. This infers that although overall rates of indirect aggression generally fall after late childhood and early adolescence, it becomes the commonest aggressive style utilised. There is some evidence that as all aggression seems to decrease with age, indirect aggression does become the more typical aggressive strategy when aggression is resorted to (Björkqvist *et al.*, 1992a). But again there are inconsistencies here as some studies found that direct verbal aggression was still more prevalent (Rivers & Smith, 1994; Björkqvist *et al.*, 1992c).

Although there is interest in the developmental patterns of indirect aggression, the research is very largely dominated by investigating gender differences. Indirect aggression is considered a female-preferred form of aggression. Reports of girls (from preschool to mid-adolescence) using indirect aggression to a significantly larger extent than boys are widespread (Lagerspetz *et al.*, 1988; Björkqvist *et al.*, 1992a and c; Kankaanranta, Lagerspetz & Björkqvist, 1994; Cairns *et al.*, 1989; Rigby & Slee, 1991; Owens, 1996; Crick & Grotpeter, 1995; Crick *et al.*, 1996, 1997; Crick & Bigbee, 1998). Findings suggest that girls prefer to use indirect aggression whilst boys are still implementing more direct aggressive strategies. Björkqvist *et al.* (1992a)

report that the gender differences in the usage of direct and indirect strategies are “a definite phenomenon, at least during adolescence” (p.126).

Clearly, however, the gender differences fluctuate with age, and there are inconsistencies in findings regarding indirect aggression and gender, which are largely overlooked. Rivers & Smith (1994) found that the gender differences in indirect aggression are more pronounced in younger children. In contrast, other studies suggest that gender differences do not appear until children reach secondary school age (Lagerspetz *et al.*, 1988; Owens & MacMullin, 1995; Galen & Underwood, 1997). Craig (1998) found no evidence of sex differences in her study (where children were around 9 years of age). Owens (1996) notes that indirect aggression is most salient for girls in the teenage years. Yet Whitney & Smith (1993) found that girls adopted indirect aggression more than boys across ages, from primary to secondary school children.

Olweus (1999) argues that there is evidence that in childhood to adolescence girls tend to use indirect aggression more than boys, but that *both* experience being the victim of indirect aggression to the same extent. Other studies have demonstrated that boys and girls experience indirect aggression with the same frequency (Österman *et al.*, 1994; Sutton, Smith & Swettenham, 1998; Paquette & Underwood, 1999). Although again there are inconsistencies, some studies found that girls experience significantly higher levels of indirect aggression victimisation (e.g. Mynard & Joseph, 2000). Galen & Underwood (1997) have demonstrated that only girls actually see these behaviours as being ‘aggression’. There is also evidence that girls perceive indirect aggression as being more hurtful, and therefore much more memorable, than

boys do (Cairns *et al.*, 1989; Paquette & Underwood, 1999) even though they do experience equivalent levels of it.

There is considerable speculation that males may well 'catch up' with females in their use of indirect aggression, once they too have enhanced their social intelligence skills (Björkqvist *et al.*, 1994b; Lagerspetz & Björkqvist, 1994). Very recent evidence suggests that after adolescence the gender differences in indirect aggression are much less pronounced (Archer, 2002b), or not evident at all (Forrest & McGuckin, 2002). These findings are consistent with the argument that after a certain age indirect aggression should be the preferred form of aggression for both sexes.

The research on indirect aggression has been largely conducted within school children populations. There has been a slow but steady incorporation of the concept in the childhood bullying literature (e.g. Besag, 1989; Craig, 1998; Boulton & Hawker, 1997; Lancelotta & Vaughn, 1998; Birkinshaw & Eslea, 1998; Smith, Morita, Jungertas, Olweus, Catalano, & Slee, 1999). Research on indirect bullying in schools has been carried out internationally, including studies in Scandinavia (Björkqvist & Österman, 1999; Olweus, 1993, 1999), England (Whitney & Smith, 1993; Rivers & Smith, 1994; Stanley & Arora, 1998; Wolke, 1999), Ireland (O'Moore & Hillery, 1989), Australia (Owens & MacMullen, 1995; Rigby & Slee, 1991; Owens, Shute & Slee, 2000) and Canada (Craig, 1998).

The literature on indirect aggression has had a huge impact on how researchers view bullying within schools, resulting in quite widespread changes in how 'bullying' is defined to include psychological harm, 'non-physical', 'relational bullying' or 'social

aggression', and the new term of 'indirect bullying' (Smith, Burton, Liefoghe, Olafsson & Cowie, 1998). For example, Rivers & Smith (1994) conducted a very large-scale study examining the extent, age and sex differences of both direct and indirect bullying. Owens *et al.* (2000) looked specifically at the subjective experience of indirect bullying within adolescent female groups, to try and understand this relatively new concept qualitatively.

Studies have also been concerned with possible psychological consequences resulting from indirect bullying victimisation. For example, Crick & Bigbee (1998) found that relational bullying was associated with internalising problems, although this was related to all types of bullying victimisation rather than being specific to indirect bullying. Boulton & Hawker (1997) found associations between non-physical bullying and detrimental psychological effects, but they caution that this could have been present before the bullying took place. Also Craig (1998) found that being either the bully or the victim of relational bullying was significantly associated with high levels of anxiety. Research into indirect aggression and bullying in children appears to be rapidly growing. As Rivers & Smith (1994) reported "The popular misconception that bullying mainly involves physical aggression can be laid to rest. Bullying can be both subtle and elusive" (p.367). But what about indirect aggression in people beyond school age?

3.3. ADULT INDIRECT AGGRESSION?

The developmental model outlined by Björkqvist and colleagues does consider adulthood patterns of indirect aggression (Björkqvist *et al.*, 1992a; Österman, 1999),

although these remain quite speculative and are largely untested. Björkqvist & Niemelä (1992) note that in adults of both sexes physical aggression is the most infrequently used and experienced form of aggression. Indirect aggression should represent the most 'adult' form, as in adulthood men and women do not stop being aggressive, but use covert styles of aggression (Björkqvist *et al.*, 1994b). Researchers report that they *expect* males to use more indirect aggression in adulthood than they do in earlier life (Björkqvist *et al.*, 1992a; Björkqvist, 1994). They also suggest that in adulthood it should be the most commonly used form of aggression by males, becoming more prevalent than direct means of aggressing (Richardson & Green, 1999; Björkqvist *et al.*, 1992c). Men are also believed to 'catch up' with women in the amount of indirect aggression they use, as they too become proficient in the social intelligence skills required to develop these more sophisticated aggression strategies (Kaukiainen *et al.*, 1996, 1999). However, research extending indirect aggression directly to adult aggressive behaviour has been scant in relation to the vast proportion of research on indirect aggression in children and adolescents. As Björkqvist & Niemelä (1992) pointed out, everyday adult forms of aggression have been neglected as an area of investigation.

Research has recently begun into adult indirect aggression, although remains quite limited at present. The Finnish group of researchers (Björkqvist, Österman & Hjelt-Bäck, 1994a; Björkqvist *et al.*, 1994b) examined indirect aggression in university employees using the Work Harassment Scale (WHS) (Björkqvist & Österman, 1992). They identified through factor analysis of the WHS that adult indirect aggression appeared to be composed of two distinct forms, which they labelled 'rational-appearing aggression' and 'social manipulation'. The latter was considered to be more

similar to indirect aggression behaviour witnessed in adolescents. Whereas rational-appearing aggression was much more sophisticated in that the aggressor tries to make their aggression appear as not being aggression at all – “it assumes the form of rationality” (Björkqvist *et al.*, 1994b, p. 32). Examples of rational-appearing aggression include reduced opportunities to express oneself, being criticised, and having one’s sense of judgement questioned.

More recently, Kaukiainen, Salmivalli, Lagerspetz, Lahtinen & Kostamo (1997) modified the WHS to create the Overt-Covert Aggression Scale (OCAS), which forms four subscales of direct overt, indirect manipulative, covert insinuating, and rational-appearing aggression. Indirect manipulative aggression is based upon the earlier social manipulation subscale of the WHS. Covert insinuating aggression, like rational-appearing aggression, is more circuitous and refined, hiding malicious intent. For example, items include insinuating that the other person has mental difficulties, insinuating negative glances or gestures. Consistent with previous speculations (Björkqvist *et al.*, 1992a), the findings from Björkqvist *et al.* (1994b) and Kaukiainen *et al.* (2001) do suggest that indirect aggression does get progressively more sophisticated with age.

Björkqvist *et al.* (1994a and b) did reveal differences in the way men and women used aggression within the workplace. Rather than men ‘catching up’ with women in their usage of indirect aggression, men tended to use rational-appearing aggression more than women. Therefore there appeared to be gender-typical styles of adult indirect aggression, with women continuing to use high levels of social manipulation much the same as in adolescence, but with men using even more sophisticated indirect

aggression to a greater extent than women (Björkqvist *et al.*, 1994b). However, these studies were restricted to aggression within university employees, and therefore cannot be generalised to other workplace environments, or other types of relationships, without considerable future research (Björkqvist *et al.*, 1992a).

Like the research on childhood and adolescent indirect aggression, the majority of research concerning adults has been within the area of bullying. Adult bullying research looks at bullying within the workplace, under the wider research area of workplace harassment or 'mobbing'. There has been some incorporation of the concept of indirect bullying into the workplace harassment literature (e.g. Österman & Björkqvist, 1993; Björkqvist *et al.*, 1994a; McGuckin, Lewis & Shevlin, 2000; Kaukiainen *et al.*, 2001). Other studies in this area mention behaviour that could be classified as indirect aggression, but have not implemented the direct v. indirect aggression distinction in their research (e.g. Mann, 1996; Leymann, 1996; Einarsen & Raknes, 1997; Davenport, Schwartz & Elliot, 1999; Quine, 1999). Research is possibly hampered by the fact that there has been no systematic study to date that identified the forms adult indirect aggression takes.

Jane Ireland has taken the concept of indirect bullying and applied it to prison bullying (Ireland & Archer, 1996; Ireland, 1998, 1999a, b, c and d; Ireland, Jarvis, Beck & Osiowy, 1999; Ireland & Ireland, 2000). Although limited to a very selective population, she has identified the forms that direct and indirect bullying takes within prisons, developed a measure for use in this setting, and examined differences between male and female prisoners.

Other researchers have extended the developmental model somewhat by examining indirect aggression in later adolescence within 6th forms or colleges (e.g. Werner & Crick, 1999). Kaukiainen *et al.* (1993) studied 18- and 19-year-olds in Finland. They found that even in later adolescence indirect aggression is much more typical of females than males, casting doubt upon the idea that male and female indirect aggression should equalise in later life. In contrast, Green, Richardson & Lago (1996) studied indirect aggression in college students in the USA, and found that although men reported more direct aggression than women, the levels of indirect aggression were essentially the same for both genders. Evidence about indirect aggression in populations beyond college age is relatively scarce.

Deborah Richardson's work examines indirect aggression in adult relationships outside of the workplace (and prison) bullying context. Based upon previous measures of indirect aggression (designed for use in childhood and adolescent samples) Green *et al.* (1996) developed the Richardson Conflict Response Questionnaire (RCRQ). The RCRQ comprises 10 indirect and 10 direct aggression items, with 8 filler items. Currently evidence about the psychometric properties of this measure is very limited as although it has demonstrated internal consistency (Richardson, 1998), the prerequisite of establishing dimensionality has proved problematic with inconsistent factor analytic findings so far (Richardson, 2000b; Forrest & McGuckin, 2002). Extending Green *et al.*'s (1996) research with college students, Richardson & Green (1999) looked at the role of social sanction in indirect aggression in an American college sample. They found that males used approximately equal amounts of both direct and indirect aggression, whereas females continued to favour indirect methods. Comparing men and women's use of indirect aggression, they were found to report

similar amounts. Although females did not report significantly greater incidences of indirect aggression than males, looking at cross-sex and same-sex interactions it was discovered that the highest rate of indirect aggression occurs between two females (Richardson & Green, 1999; Richardson, 2000a).

Walker, Richardson & Green (2000) have also examined indirect aggression strategies in much older adults, with a mean age of 71. Walker & Richardson (1998), in a theoretical review, proposed that indirect aggression should be particularly salient to older adults because of the dangers more direct means of aggression would pose; indirect aggression is a relatively risk-free alternative. In this population indirect aggression was strongly identified as the preferred aggressive strategy, with 79% of the respondents reporting that they never use direct aggression (Walker *et al.*, 2000). Age was found to be a significant predictor of indirect aggression, although gender was not. It was suggested that indirect aggression could well be the preferred aggressive strategy for adults of all ages, although in younger adults it could be most pronounced in relationships where the aggressor is particularly motivated to hide their actions, such as the workplace.

Richardson (2000a) suggests that certain forms of aggression are encouraged dependent upon the nature of the interpersonal relationship, implying that specific types of relationships can facilitate the use of indirect aggression. She has now begun to investigate indirect aggression in close relationships, theorising that it is common among close friendship groups, although not in interactions with a romantic partner (Richardson & Green, 1999; Richardson, 2000a). Richardson (2000a) reports that female-to-female aggression was found to involve more indirect aggression. There

were no gender differences at all in terms of direct aggression. Indirect aggression was most prevalent in friendship interactions, with direct aggression being more typical of romantic relationship conflict. Patterns were the same for both males and females; it was the *type of relationship* in which the aggression took place that seemed of central importance and not gender. Richardson & Green (1999) conclude that the evidence about gender and indirect aggression in adults remains inconclusive. Furthermore, Richardson (2000a) argues that gender is not meaningful in understanding everyday levels of aggression. Instead we should focus upon other contextual factors.

Another area of research where indirect aggression is being investigated outside of the workplace environment is the area of cross-cultural investigations of aggression. Indirect modes of aggressive expression have been observed in both children and adults in a variety of different cultures (Björkqvist & Niemelä, 1992; Burbank, 1987, 1994). Focusing on female aggression, this research has included the observation of indirectly aggressive behaviours in South America, including Mexico (Fry, 1992), Argentina (Hines & Fry, 1994), and Venezuela (Cook, 1992); in the Polynesian communities of Tonga (Olson, 1994) and Bellona (Kuschel, 1992); and in Israel (Glazer & Ras, 1994). Olson (1994) argues that a broader conception of aggression, which allows covert, subtle, and less direct methods of aggression is essential for studying cross-cultural aggression.

Adult indirect aggression behaviour remains very largely unidentified, although looking to other related areas of research it is evident that this form of aggression is very relevant to adult relationships. Behaviours that could be classified as extreme

manifestations of indirect aggression are found in the literature on domestic violence (Stets, 1988; Andersen, Boulette & Schwartz, 1991; Straus & Sweet, 1992), psychological aggression (Murphy & O'Leary, 1989; Murphy & Cascardi, 1993; Stets, 1990), psychological abuse in the home (Hoffman, 1984; Marshall, 1994, 1996; Chang, 1996; Ratnus, 1996; Tang, 1998), dating aggression (Stets, 1991; Molidor, 1995; Pipes & LeBov-Keeler, 1997), psychological and emotional abuse of children (Nesbit & Karagianis, 1987; Burnett, 1993; O'Hagan, 1995), and sibling abuse (Whipple & Finton, 1995). This provides us with indications that indirect aggression does occur in adult intimate relationships. However, as in the majority of workplace harassment literature, the research fails to incorporate the way that aggression research and terminology has been recently re-conceptualised with the 'rediscovery' of indirect aggression.

3.4. LIMITATIONS OF CURRENT RESEARCH

Reviewing the indirect aggression literature reveals some limitations of the research and areas that have been neglected. Indirect aggression has been studied widely within child and adolescent populations, but has yet to be systematically studied within adult populations (Björkqvist & Niemelä, 1992; Björkqvist, 1994). This is despite the contention that indirect aggression is the most advanced or 'adult' form of aggression. As people become more skilled in social intelligence with age indirect aggression has been shown to increase and become the preferred aggressive strategy. This has been related to the effects/danger ratio and social maturation. Researchers stress how they *expect* indirect aggression to be most common among adult groups (e.g. Kaukiainen *et al.*, 1999; Galen & Underwood, 1997), yet studies actually looking

at adult indirect aggression have been infrequently conducted. As Björkqvist & Niemelä (1992) noted, indirect aggression should be the most salient type of aggressive style implemented in adult relationships, but it has largely been neglected. Although there have been some notable exceptions (e.g. Walker *et al.*, 2000; Ireland & Ireland, 2000; Kaukiainen *et al.*, 2001), the area continues to be overwhelmingly dominated by research using younger samples.

Research greatly needs to be extended to adult populations and investigated within adult interpersonal relationships. Almost nothing is known about the forms of expression indirect aggression takes in adulthood. Studies that have examined adult indirect aggression have involved specialist samples, which prevent generalisation (e.g. Hines & Fry, 1994; Ireland & Archer, 1996) or have assumed that adult indirect aggression takes the same form as in childhood (e.g. Green *et al.*, 1996). Evidence from other areas, for example domestic violence and abuse, demonstrate that indirect aggression does occur in adulthood. Recent studies have indicated that such indirect forms are commonly used and experienced by adults (Walker *et al.*, 2000; Richardson, 2000a). But investigations of the nature and experience of indirect aggression by adults has been severely limited, and the range of contexts and relationships considered has been restrictive.

As early as 1992, Björkqvist & Niemelä had reported how research was focusing on secondary group relationships, and neglecting primary groups. Secondary groups are those relationships where we have few emotional ties, and are characterised as groups formed to achieve a certain goal, rather than groups formed to fulfil some emotional need. Typical secondary group relationships are those we form with classmates, and

work colleagues. In contrast, primary groups are those that are characterised by intimacy, and deep emotional ties. They are relatively permanent groups, which tend to be intense, with highly frequent contact between members (Williams, 1975). Primary group relationships are those we have with our close family members, spouses, romantic partners, and close friends.

Both the research in childhood/adolescence and in adulthood has almost solely concentrated on secondary group relationships, looking at indirect aggression within the classroom or workplace settings. Again, researchers have gone on to speculate about how indirect aggression must occur in other forms of relationships, without actually testing this. As Richardson (2000a) contends, indirect aggression is probably greatly dependent upon the type of relationship in which it occurs. She argues that indirect aggression will tend to be prevalent amongst work colleagues and close friendship groups in adulthood, but not in romantic relationships. Research on psychological abuse and aggression suggests otherwise; that this subtle sophisticated aggression does occur in all types of adult relationships. By examining the psychological literature on intimacy it is easy to see how indirect aggression may be much more salient to our closest primary group relationships where there is a high level of commitment to the relationship, and high levels of intimacy and self-disclosure (Perlman & Duck, 1987; Perlman & Fehr, 1987; Perlman, 1989; Miller, 1997). Further research into indirect aggression across various types of relationships and across various contexts is essential to understanding this most 'adult' form of aggression (Björkqvist *et al.*, 1992a; Richardson, 2000a).

Indirect aggression has also been much more extensively studied in female populations, as this form of aggression is often depicted as a female-preferred style of aggression (Archer, 2002a). Research has shown, however, that the relationship between gender and indirect aggression is not so simplistic (e.g. Olweus, 1999). Gender differences in indirect aggression are quite inconsistent. This applies to studies with children and adolescents (e.g. Rivers & Smith, 1994; Paquette & Underwood) and especially to studies with adults (e.g. Björkqvist *et al.*, 1994b; Richardson & Green, 1999). Indirect aggression may well represent the most adult form of aggression for both men and women (Björkqvist *et al.*, 1994b), therefore studies should recognise the fact that men use and experience indirect aggression too.

As indirect aggression seems to be the most equivalent form of aggression in adulthood, it provides researchers with the opportunity to focus less on simplistic gender explanations of aggression, and to focus more upon within-group variation and similarities between men and women. Such research would be a further advance from traditional 'womanless' depictions of aggression (Crawford & Marecek, 1989, White & Kowalski, 1994) and would be more consistent with both a Liberal Feminist standpoint (e.g. Unger, 1979; Minnoch, 1990) and a differential psychology approach to studying aggressive expression. The preoccupation on gender and aggression has hindered aggression research for far too long, reinforcing and reifying gender difference at the expense of individual differences, and the importance of context and the type of relationship.

The context in which it occurs is essential to understanding the experience of indirect aggression as it is very difficult to directly observe and problematic to measure.

Therefore, it seems quite surprising that nearly all of the research on indirect aggression has been quantitative, based around questionnaire methodology.

The problems with measurement first identified in Lagerspetz *et al.* (1988) remain largely unresolved. Researchers in this area tend to prefer peer-estimation reports to self-reports (Österman *et al.*, 1994; Österman, 1999; Crick & Grotpeter, 1995). Österman *et al.* (1994) attempted to deal with this problem by measuring indirect aggression from both a self- and other-report perspective. They calculated the discrepancy between a child's self-report and the mean of their peers' reports to gain the Attributional Discrepancy Index (ADI). They propose that the ADI indicates the prevailing norms of aggression in society. For example, if self-estimated aggression is higher than peer-estimation, then this type of aggression is accepted and approved by the society. They also suggest that discrepancies between self- and other-report is inevitable because of the self-serving attribution bias whereby individuals will assess themselves as less aggressive than their peers perceive them to be. Despite the fact that they recognise this discrepancy, they do not know which report is more accurate, as it is equally likely that people may perceive another as more aggressive than they really are.

The difficulties of relying on other-reports or peer-estimations over self-reports (Hofstee, 1994; Kolar, Funder & Colvin, 1996), and the inaccuracies between self- and other-ratings (e.g. Funder & West, 1993) are well recorded in the psychometric literature. Kenny (1994) warns of the dangers of comparing self-reports and peer reports which are averaged across multiple peers because they artificially make the peer reports appear more reliable. Galen & Underwood (1997) also consider the over-

reliance on peer nominations of indirect aggression a limitation. Richardson and her colleagues have recently begun to measure usage of indirect aggression using the RCRQ (Green *et al.*, 1996; Richardson, 1998; Richardson Spina, Green & Oksengorn, 1998; Richardson & Green, 1999; Walker *et al.*, 2000). They adopt a self-report approach, pointing out that when aggression is indirect observers and victims are very likely to be more unaware of the behaviour than the aggressor him/herself. However, peer-estimation measurements still dominate the indirect aggression research.

In summary, current indirect aggression research is mostly restricted to peer-nomination studies within the classroom setting, focusing predominantly on girls. The literature on indirect aggression could be significantly extended by research with adults, across primary and secondary group relationships, investigating both men and women, and adopting mixed-methods of inquiry.

Qualitative research on indirect aggression is almost non-existent (with one recent notable exception by Owens *et al.*, 2000). With so little known about the forms of expression that this aggression takes in adulthood, qualitative research would prove extremely beneficial. It seems unwise to measure adult indirect aggression before actually gaining real-life examples of aggression from a variety of different contexts and relationships. Indirect aggression is still quite a new concept in aggression research, particularly in relation to adult aggression. Therefore an in-depth examination of the subjective experience of indirect aggression would greatly extend current research. Understanding indirect aggression behaviour in adult relationships from a qualitative perspective would then aid future research measuring this behaviour.

Indirect aggression seems an ideal forum to adopt a mixed-methodology approach to research. Furthermore, the use of an idiographic orientation (Lameill's 1981, 1982, 1987) to search for individual differences in the social expression of aggression can be particularly advantageous to both re-examining perceptions of aggression, and investigating indirect aggression. It allows continuation from the psychometric emphasis in the previous stage to exploring perceptions of aggression on a more personal level. It also permits studying indirect aggression across a wide range of contexts and relationships in terms of subjective experience. The findings from this can then aid a return to measuring and generalising indirect aggression in larger populations in the third and final stage of research.

CHAPTER 4. QUALITATIVE STUDY 1: EXPLAINING AGGRESSION AND EXPERIENCING INDIRECT AGGRESSION.

4.1. BACKGROUND

4.1.1. Summary

The full rationale and literature review are contained in the previous chapter, along with the general aims of the second stage of research. To reiterate, this study examines themes apparent in the way that individuals talk about and make sense of aggressive experiences both within their own lives and, more widely, in terms of the role of aggression in the world around them. The current limitations in the indirect aggression literature are addressed by examining the experience of adults of this form of aggression within a variety of contexts.

4.1.2. Methodological rationale

Methodology

As previously explained, this body of research represents a mixed methodological approach to exploring the social expression of adult aggression. Qualitative methodology is implemented in the second stage of the research to provide a rich insight into human behaviour. Such rich description can only be gained via a qualitative approach (Denzin & Lincoln, 1998), and is not possible with strict adherence to quantitative methodology solely. This in-depth insight is needed to re-examine how people seek to add meaning to their own aggressive experiences. The

emphasis at this second stage is on an idiographic approach with a focus on individual experience, as opposed to a nomothetic approach (which will be returned to in Stage 3).

A qualitative approach is warranted throughout the second stage of research to allow a deep insight into the subjective experience of aggression, and most importantly indirect aggression. Indirect aggression is very difficult to directly observe and needs to be understood within the context of the situation, the setting and type of relationship, and by viewing it from the perspective of the individual experiencing this subtle, hidden, and ambiguous phenomena. Instead of just examining the behaviour itself, and their prevalence within given populations, it is vital to understand the motivations, meaning and consequences of such behaviour in a subjective context. For example, to understand how these experiences are incorporated into people's lives, how they react to such conflict, how they interpret the situation, etc.

Interviews are used in order to gain this subjective insight into how people think about and talk about aggression generally, and how they understand their encounters with indirect aggression more specifically. This is appropriate because it focuses on asking a small group of individuals about their experiences in great depth. There is a particular focus on what those experiences have meant to them on a personal level; what meanings people themselves ascribe to the events and experiences that serve to shape their lives. Interviews capture the individual's point of view by letting the researcher get closer to the individual's perspective. The interviews are semi-structured to allow more breadth, and greater flexibility, by tailoring the interview

questions to the individual interviewee, and allowing the interviewee to have a direct impact on how the interview progresses.

Although rich description is considered important, this research is aimed to go beyond description to explanation, aiming for the return to an emphasis on generalisation in the third stage.

Transcendental realism

In terms of analysis the Miles and Huberman (1994) approach is implemented. This approach is also described as 'transcendental realism' or the 'data display' approach (Lyons, 2000). It is important when using a mixed methodology design to use complementary methods with compatible paradigmatic underpinnings (Tashakkori & Teddlie 1996; Guba & Lincoln, 1998). The Miles and Huberman approach is essentially post-positivist with an emphasis on explanation and causation, allowing qualitative research to get beyond the descriptive level, to interpretation, and finally to explanation. This interpretative analysis can be described as a more inductive method of qualitative analysis, and differs quite considerably from most qualitative approaches. It is therefore paradigmatically consistent with the quantitative stages of the research, which are also based upon a post-positivist epistemology.

As Miles and Huberman (1994) explain, this approach works from the premise that "social phenomena exist not only in the mind but also in the objective world – and that some lawful and reasonably stable relationships are to be found among them. The lawfulness comes from the regularities and sequences that link together phenomena. From these patterns we can derive constructs that underlie individual

and social life” (p.4). The aim is to gain a causal description of the forces at work behind the social phenomena being studied, and to substantiate the causal model derived through the use of supporting evidence.

There are three main stages to this analytic approach, although these stages usually overlap to some extent. ‘Data display’ which is used to identify the underlying themes within the data, ‘data reduction’ whereby the researcher focuses down on a particular aspect(s) to concentrate on, being selective in the choice of material to use. Thereby from extrapolation comes a more parsimonious explanatory theoretical model. These two stages are not sequential but often used in parallel. Finally there is the process of ‘data verification’ whereby various techniques are used to demonstrate the validity and veracity of the emergent explanatory theory. Very often a single study is not sufficient and the researcher collects a new sample of data to refine, extend and continue the ongoing process of verification.

4.1.3. *Aims*

There were two research aims specific to this preliminary series of interviews. Firstly, to continue from the work of Campbell and Muncer (1987) by examining themes about how adults talk about and seek to make sense of aggression (including indirect aggression) within their close relationships. So continuing the work of the previous stage on perceptions of aggression, by taking a more idiographic orientation. Secondly, to extend the study of indirect aggression to close relationships in adulthood and identify themes about the nature of indirect aggression more specifically.

4.2. METHOD

4.2.1. *Participants*

The participants consisted of four young adults aged between 19 and 25. There was one male and three female participants. They were all first-year undergraduate students on the BSc. Psychology degree at Nottingham Trent University who volunteered to take part in the interviews.

4.2.2. *Procedure*

The interviews were described as being about occasions when they have been made to feel hurt and angry by someone that they feel they have a close relationship with. The interviews were semi-structured so an interview schedule (contained in Appendix 6) was loosely followed which asked them about different relationships and contexts within their lives. The participants described memorable conflicts within these settings. The interview schedule was very flexible allowing the interviewer to explore any new issues and speculations that arose during the interview.

The BPS ethical guidelines were strictly adhered to and interviewees ensured anonymity and the right to withdraw participation at any point in the study. They were debriefed in terms of the purpose and aims of the study. Interviews lasted between 40 and 90 minutes. The interviews were tape-recorded and then transcribed.

4.2.3. *Interpretative analysis*

Initially interviews were analysed one at a time, drawing out themes that seemed of importance. Due to the limited sample size the emphasis in this study has been on within-case analysis, although the identified themes were apparent across interviews.

The Miles and Huberman (1994) approach involves displaying your data in charts and diagrams throughout all stages of the analysis; this helped to see patterns and contradictions within the data. Through a process of reading and re-reading the original interviews and the notes derived from them, and with the use of data display, emerging themes take coherence, and theoretical models can be formulated. Theoretical codes are developed and the interview material are coded and memoed in terms of what that piece of data contributes to the emerging theory, and how it substantiates a theoretical proposition that the researcher is working on. The theoretical model based upon the emergent themes is therefore constantly being revised as the interview data becomes coded and memoed. Eventually the coded pieces of interview material can be extracted and used to substantiate the theoretical propositions. Interpretation using the Miles and Huberman approach focuses on deriving explanation based on this data set and theorising in terms of causation.

After a series of data display, substantiation and revision of the emergent theoretical models, the researcher can identify main themes and sub-themes/subordinate propositions. The interpretative analysis is then selective in narrowing the field of vision to concentrate on a few specific themes that have been developed. This is the process of data reduction.

The final stage of the Miles and Huberman approach involves data verification. The theory derived from the analysis was verified in terms of comparing the findings against the original data to ensure that it is a logical interpretation backed up with sufficient substantiating evidence. Verification does not stop here but is an ongoing process. The reflexivity of this qualitative phase of the research will be addressed in greater detail in the ensuing chapter.

4.3. ANALYSIS

As mentioned above, certain major themes are focused upon in great depth and after a series of long-term analyses these themes can be seen in terms of an explanatory model. This study had two aims, looking at explanations and understandings of aggression, and investigating indirect aggression. Consequently, two separate (yet related) series of emergent themes were identified, and two models formulated. The analytic findings will therefore be discussed in two separate sections. These themes are summarised below in Table 4.1.

Table 4.1. Summary of emergent themes

1. Explaining Aggression	(i) Dynamic Individual Belief System of Aggression (ii) Determination of Coping Strategy and Subsequent Behaviour (iii) Outcome of Coping Strategy/Behaviour Shapes Belief System of Aggression
2. Indirect Aggression	(i) The Nature of Indirect Aggression (ii) Internalisation (iii) Cycle of Self-blame, Frustration and Unresolved Anger

4.3.1. EXPLAINING AGGRESSION WITHIN OUR LIVES

The first aim of this study was to examine how the interviewees incorporated and understood aggressive experiences within their lives. This was to expand on the work of Campbell & Muncer (1987), and in particular to try and broaden our understanding of what beliefs underlie our comprehension of aggression. In addition, a wider range of aggressive experiences was investigated, with the added interest in subtle indirect aggression behaviour. Three key themes were identified and finally an explanatory model was developed.

People were found to have an underlying belief system of aggression. This personal belief system was dynamic in nature. When individuals became angry in a given situation they explained their actions in terms of this belief system. The belief system largely governed the particular coping strategy individuals implemented, and therefore their subsequent behaviour. The outcome of their actions then fed back into their constantly shifting belief system of aggression.

Dynamic Belief System of Aggression

All four interviewees talked about their aggressive experiences in terms of an underlying belief system of aggression. It is apparent that this belief system was very personal to them, is often very explicit in their comprehension of aggression in their lives, and could be traced back to memorable past experiences of conflict, which they saw as shaping how they have come to view aggression.

Charlotte, in Extract 4.1 below, is explaining her beliefs about aggression, this gives us some illustration of the content of belief systems of aggression. This includes which type of aggression she feels she can implement, and under what conditions – most importantly for her, using aggression is acceptable with certain people in her life, and not with others. So it is the type of relationship that mediates between whether or not she feels able to be aggressive in a given situation.

Extract 4.1

"I've never hit anyone. I never strike out and I've never been in a fight. I mean, like I've said, I'll only shout out verbally at probably my boyfriend. I won't to any of my female friends. I don't know whether I'm too shy, that I'd lose my friendship over that and I know I can get away with it with my boyfriend and not with my friends. But yeah, I will shout at my boyfriend a lot. Only when he really annoys me though, I don't shout at him for no reason (laughs)."

Charlotte [P6:L22-29]

Charlotte, like the rest of the interviewees, is generally very anti-violence. Physical aggression is not permitted under her current belief system of aggression, so she is very adamant that she has never hit anyone or participated in a physical fight. When talking about aggression she needs to state this first, before moving on to talking about more acceptable forms of aggression.

In contrast, verbal aggression is much more condonable and she freely admits that she does use verbal aggression, and it is not considered too harmful. Charlotte, in this extract, seems to be quite instrumental in how she thinks about aggression because direct verbal aggression is believed to be perfectly acceptable in certain circumstances - with certain people and in certain contexts. So although she is reluctant to be aggressive around her female friends, she acknowledges that it has its uses in her

relationship with her boyfriend. Although she is quick to stipulate that aggression is only used against him when he has been annoying, implying that he therefore deserves it or she is provoked. So aggression is sometimes condonable and sometimes deserved, but it is the relationship between her and the other person that dictates whether she can be aggressive.

In Extract 4.2 Charlotte is again discussing her beliefs about her own use of aggression. At first she thinks about this in more abstract terms about her general use of aggression and the intentions behind her behaviour. She then links this to two recent examples, both of which occur with other young women in her class at university.

Extract 4.2

"I don't think I ever intend to do it, but I think sometimes I open my mouth without thinking. And things come out in a way that I don't mean them to, and that's sometimes taken the wrong way . . . I never really mean to. Unless there are people that I blatantly don't like. Then sometimes I do say things that I really shouldn't. . . There's a couple of ones with a specific girl off the course itself that I don't particularly like. And I might have perhaps said things a little bit too loud . . . that might have hurt her . . . I said a couple of loud things in front of her about how displeased I was about [it] and I think I upset her. But again, I think she probably deserved that."

Charlotte [P2:L38-P3:L13]

Charlotte does not like to think of herself as being intentionally aggressive, and when she is aggressive she first talks about this as if it is accidental. So she seems to be quite expressive in her beliefs about aggression because she disagrees with the intentional use of aggression, especially by herself. When she does act aggressively it

is seen as something she should have controlled, or it is seen as not *really* being aggression at all.

But at the same time as seeing aggression as a loss of control and something she would not mean to do, in the next sentence Charlotte is much more instrumental in saying that she does not mean to aggress *unless* there is someone she blatantly dislikes. In such circumstances aggression is seen as quite justified. Then again she switches back to feeling ashamed that she thinks that way and acknowledges that she shouldn't be verbally aggressive in the way she describes. So there is conflict here between instrumental and expressive beliefs about aggression. She holds both types of beliefs simultaneously within her belief system of aggression.

This is apparent in how she talks about actual instances of aggression with other females at university. She acknowledges that she shouldn't say the things she does, and that they do hurt the other person. But then she sees this aggression as acceptable because she doesn't like the person in question, so it's all right to do these things. She sees that she hurts people and they are upset by her verbal aggression, but she switches to seeing this instrumentally as them being deserving of the behaviour. So clearly the content of people's belief system of aggression is quite complex and sometimes conflicting. It appears to be very dynamic and not always consistent.

Hayley similarly seems to have quite a complex and sometimes incongruent belief system of aggression. In Extract 4.3 below she is describing the content in terms of her own behaviour. She does this quite explicitly. Also she provides us with an insight into how she views other people's aggression, this is an important component of how

aggression is understood, and it allows us to see the context of Hayley's aggressive experiences and views about aggression.

Extract 4.3

"I think people just trample on me for being nice. And then I think 'Well, I'm not going to stop being nice.' Because I don't want to turn into a nasty person. Just because other people can't help themselves. And I end up being nasty back as a kind of defence, I think. But I don't like open argument, and I don't like fighting. And it might be wrong, but I've hid while my brother and Smithie have battered people and things. Because they're drunk, and I know I can't stop them . . . And I tend to try and avoid things. Avoid confrontation, if I can. Yet I have to, Mum always calls it 'fulminating', as soon as I come in, and I get on one. Like especially with the Mandy thing, I can't stop. And I'm going on and she's going 'Stop fulminating'. And I'm thinking 'I can't help it'. Because I don't get openly cross with people, and I have to, like, because in the end you have to let out some of it, otherwise its going to explode you . . . I suppose that's why we do this behind-the-back bitching thing. Because it avoids an open [confrontation]."

Hayley [P25:L6-37]

Hayley feels that people are aggressive towards her and take advantage of her because she is not generally very aggressive back. She does not want to be aggressive back because then she would not be able to think of herself as a 'nice' person. It would affect how she thinks and feels about herself. It would affect her own identity. So there is again this sense that aggression is seen as something to be avoided, something unpleasant that she does not agree with. Therefore she initially appears to hold very expressive views about aggression. Like Charlotte she is very quick to stipulate that she doesn't like physical aggression. She sees it quite clearly as a weakness and lack of control in other people – they can't help themselves, they cannot control it, and implies that they should control it because it is a nasty way to behave – it is not sanctioned.

She then admits that she does retaliate at times, but this is seen as a needed defence. So like Charlotte, when she is aggressive she reconciles this to herself by seeing it as in some way mitigated – it is a defence against other people's aggression, and therefore it is excusable, even in light of her expressive beliefs that she should not aggress.

Later in the extract she returns to this theme of her own behaviour. Generally she tends to avoid aggression if she can and states that she doesn't like confrontation, it makes her uneasy. So again this is an expressive way of seeing aggression. But she has to admit that she does have an aggressive strategy. She calls this 'fulminating'; which is where she bitches to other people about the things that have made her angry. This is a form of indirect aggression, and it is also seen as a sign of a loss of control in her – that she can't stop, even though she knows she should. She uses this indirect aggression because she feels that she cannot express her anger in a more direct and open way. Yet she feels that her anger has to be expressed because otherwise it builds up and you explode emotionally. So there are strong elements of expressive beliefs here, although there is also some instrumental acceptance of having to find some aggressive strategy.

When she talks about the physical aggression of her brother and his friend she seems to quite passively accept their behaviour. Throughout the interview she returns to talking about their extreme use of physical violence, and she seems to accept it, and laughs and smiles about their behaviour. She seems to condone their behaviour, and view it quite instrumentally, but then at the same time she also sees it expressively as

being wrong, and as being out of control. Like Charlotte her belief system of aggression is complex and conflicting. It is not always coherent and it contains expressive and instrumental elements simultaneously – it is about a loss of control, it is wrong and nasty, yet at the same time it is accepted, and there is a recognition that it is required in certain situations, and that you need to develop some aggressive strategy to express your anger.

She explicitly recognises that indirect aggression is her strategy for dealing with conflict and feelings of anger. She has developed indirect aggression because she cannot sanction more direct forms of aggression as acceptable behaviour for herself. Although she may accept it in the behaviour of others around her. It seems quite normative of her environment where there is a clear subculture. Violence, crime, drug and alcohol abuse are everyday events. These subcultural norms also contribute to the content of her belief system.

So it is apparent that a person's comprehension of aggression is not straightforward, and it seems to be quite unique and fragmented at times. It is often not coherent and appears to be dynamic. But how do we formulate our personal belief system of aggression? Hayley's seems to be in part shaped by cultural norms, but the dominating influence for all interviewees appeared to be personal past experiences. In Extract 4.4 Peter talks about the conflict he has experienced with his father, and how he sees this as a major contributory factor in his own beliefs about aggression in adulthood.

Extract 4.4

“I think where conflicts really started for me was, the biggest one that is most memorable and that has affected me the most has been with my dad . . . While with my mum you could negotiate, with my dad it was like once he’d made up his mind the whole universe could have crumbled away into dust and he still wouldn’t change his mind . . . I think a lot of the style in which I’ve dealt with conflicts to a large degree since then has come out of this . . . When I was a young child he’d basically just shout and shout and scream and go red in the face, and basically until he’d beaten you, which meant until you’d emotionally surrendered . . . He basically wanted to reduce you to a position of complete and utter surrender where you really realised just how utterly wrong you really were . . . I know for a long time it would be like he’d shout and shout and shout, and I’d just sit there blank. Like letting nothing in and nothing out . . . It basically felt like there was no way out. It’s like if you disagreed with him he carried on shouting. If you agreed with him he carried on shouting. If you tried to argue back he’d carry on shouting. It’d just be like nothing that you did actually helped the situation. And so in that sense its like I think I almost decided well like that arguments and I think in general like all emotions generally are like not worth the bother.”

Peter [P13:L1-P14:L11]

This is just one of the experiences which Peter believes has shaped his belief system about aggression, but he feels that it has been the most memorable and influential experience of conflict. His experiences throughout childhood and adolescence with his father led him to hold very negative views about direct forms of aggression. In particular his dad would be quite frequently verbally aggressive towards him, and Peter sees this as a loss of control in his father, which has led him to reject aggression as an acceptable form of behaviour.

Peter is very anti-aggression generally, and he does tie this in to a reaction against the aggression of his father. He developed a more passive way of dealing with aggression and conflict because using aggression in retaliation against his father was not an option, and he was appalled by the way his father would lose control of himself and

would then take out his anger on his family. He reacted to his father's aggression by remaining totally passive, as reacting in any other way was not effective. This belief in passivity rather than aggressive retaliation is assimilated into his belief system of aggression quite early on, so that he believes that aggression solves nothing. He does not want to lose control and act like his father, so these past experiences strongly influenced his own stance on aggression. His lack of aggression is then associated with him maintaining control, and not following the example that his father set. This is a major part of his personal belief system of aggression.

Therefore, for Peter aggression is seen as a weakness in that the aggressor cannot control their anger, and it is selfish because they lose all perspective over the way that they are affecting other people. These images of his father and how they helped to shape his belief system of aggression are still very relevant to how Peter in adulthood perceives and thinks about aggression in his life.

Peter's perceptions of aggression have become associated with a loss of control, a negative display of emotion. It also appears to be about control over others. He sees his father's aggression as expressive, but also recognises that his father wanted him to emotionally surrender, and therefore allow him control over his family. So again Peter, like Charlotte and Hayley, holds expressive and instrumental beliefs about aggression simultaneously, and these can be traced back to significant past experiences of conflict.

Beth similarly discusses her current views about aggression and how this is related to memorable past experiences of conflict. In Extract 4.5 and 4.6 she talks about her

experiences of indirect aggression bullying during secondary school. She attributes how she deals with aggression today to these experiences and their after-effects.

Extract 4.5

"I think I have hurt people but unintentionally. . . I don't think I've ever meant to hurt someone. I don't think I'd have that in me. . . because I've been through this kind of mental bullying . . . I'd never want to put somebody else through that."

Beth [P6:L30-36]

Extract 4.6

"These are the things that have affected me, but they all seem so pathetic now because they were all kind of like schooldays. And I think if that had happened to me now it wouldn't have mattered as much, because I'd be able to deal with it more. But then I would only be able to deal with it better now because I've experienced it already . . . I think that kind of changed the way that I looked at everything, and I'm always wary now making new friends, or I always think a lot more of how other people will feel if I do something. I will take their feelings into consideration probably more than I should because, you know, sometimes I even miss out on or I'm sad because I haven't done something because I've taken someone else's feelings into consideration. But it's a good thing I suppose, that you know, you care for other people so much. But then it's a bad point because you know, it does limit you. It limits me sometimes . . . Even if I know it would make me happy if I did it, then I don't want to hurt somebody else."

Beth [P16:6-P18:L10]

Beth feels that she would never intentionally cause harm to someone else because she has experienced more than most people what it is like to be the victim of aggression. She feels that she has more empathy of what it feels like to be hurt intentionally, and so she does not believe that aggression is the answer to solving conflict. Her past experiences with aggression have greatly affected how she views aggression, and she believes it makes her a more considerate person because she never wants to cause pain towards others like she herself was made to feel.

So, like Peter, Beth's adolescent experiences of other people aggressing towards her have greatly contributed to the present content of her belief system of aggression. Being the victim over the long-term of indirect aggression has affected how she interprets her social world, her interpersonal relationships with those around her, and impacts on her views of how people should be treated.

Past experiences are assimilated into the belief system of aggression, some experiences being more influential than others. Our belief system of aggression is therefore cumulative and builds up with each new experience. Beth feels that these past experiences still affect how she deals with things now, and how she will deal with things in the future. By becoming part of her belief system of aggression they make her more able to cope with future conflict situations. In this way we can begin to see how the belief system aids the development of coping strategies, which largely determine our behavioural reactions. Beth does mention that her belief system constrains her behaviour at times, so it can be quite limiting.

In summary, their belief system of aggression was very fluid in nature, and went beyond instrumental and expressive social representations in that they were not rigidly 'locked' into one understanding or another, and furthermore their belief systems were much more personal and individual. Belief systems were complex, and largely based upon numerous past experiences (although cultural norms will also feed into the belief system). Already there are indications that belief systems are very dynamic, and can at times fluctuate.

Determination of coping strategy and subsequent behaviour

The personal system of beliefs that the interviewees held and endorsed appeared to determine how they reacted in conflict situations. People seem to have coping strategies for dealing with situations where they are made to feel threatened, hurt or angry. The belief system influenced which coping strategy the individual relied upon, which governed their behavioural reaction. In this way there was a link between complex and personal beliefs about aggression and their subsequent behaviour.

This relationship between individual beliefs on aggression and actual behaviour is illustrated below in Extracts 4.7 and 4.8. Here Peter is discussing how he reacts to situations where he is angry with another person.

Extract 4.7

“I go out of my way to quite a large degree to actually avoid hurting other people. It’s like, I mean I’m a vegan, I’m a pacifist, and so on and so forth. It’s like if I found out I had knowingly hurt someone. And then unless that person has done something, I don’t know, fairly extreme to me in the first place, then that would make me think ‘To hell with them. They deserve it’.”

Peter [P5:L21-27]

In Extract 4.7 he describes how he avoids confrontation as much as possible, and he relates this back to not wanting to hurt others. His personal belief system is based upon anti-aggression and an empathetic concern for others. Consistent with these beliefs he avoids situations where he may aggress. His belief system also contains an element of instrumental beliefs about aggression whereby under certain circumstances aggression could be viewed as justifiable. These instrumental beliefs are again mirrored in how he can behave.

Extract 4.8

“If someone is trying to manipulate me, someone’s trying to threaten me, or anything like that, I will always try and bring it down to the level of reasonable discussion about it. Because its like that usually seems to me the best way to actually solve the problem, . . . Again its never that simple. . . It takes a fairly special conjunction of circumstances to get me to actually enter into a conflict willingly, as it were. Because I generally think that most conflicts can be resolved in other ways . . . I think 99% of all conflict, certainly on this level, is like counterproductive really.”

Peter [P18:L9-34]

In Extract 4.8 Peter discusses in more depth how he deals with conflict situations in his life. His belief system of aggression makes aggressive expression largely unacceptable to him. He believes that aggression is counterproductive and very rarely the way to resolve conflict. Consistent with these beliefs he deals with conflicts non-aggressively using peaceful resolution strategies, such as talking things through so that he can get through the situation without having to resort to aggression, which he can very rarely condone. Again, there is the recognition that in some circumstances aggression is unavoidable, but it is seen as the last option and he will try to avoid it. He believes in reasonable discussion in line with his pacifist viewpoint, so his behaviour must match these beliefs.

Peter was discussing his beliefs and behaviour generally, in Extract 4.9 Hayley is talking more specifically about a recent example that illustrates the link between her personal set of beliefs about aggression and her behaviour. She is talking about an experience with her boyfriend Danny’s neighbour, in which she feels provoked into being verbally aggressive.

Extract 4.9

“And I was really annoyed the other week because I ended up falling out with my boyfriend’s next-door-neighbour. I don’t like him, and he’s an alcoholic, and he won’t leave us alone . . . And I couldn’t open the door because he’d had the door busted by the police and the council hadn’t fixed it very well. And Danny’s trying to let me in. I’m thinking ‘Let me in. Quick! Because he’s going to come out.’ And then he comes out, and I’m standing there at the door, and he starts trying to tell me how to shove my own door . . . And in the end I started swearing at him. And I could hear Danny trying to let me in dead quick. And was like ‘Come in!’. And I was annoyed because I hadn’t lost my temper for about three years and this bloke just pushed me . . . he thinks I’m frightened of him because I avoid him. Really I hate him, so I can’t even pretend to be nice to him. (Laughs).”

Hayley [P8: 36-P9:L6]

Hayley generally does not agree with acting aggressively herself (although she does condone indirect forms of aggression). She has quite a complex belief system of aggression though where she is confronted with aggression quite frequently. Therefore there are situations where aggression is normative in the subculture in which she lives and the groups with which she interacts. The demands of the situation and the norms of the environment conflict somewhat with her individual views about aggression. In this example she is proud that she no longer tends to lose her temper and express her anger as aggression. This is clearly part of her current belief system regarding aggression.

She tells how normally she would avoid confrontation by avoiding people like this who provoke her. This is her coping strategy, which is congruent with her underlying belief system. But when she feels provoked by Danny’s neighbour, someone that she admits having strong feelings of dislike about, she is annoyed that she retaliates verbally by swearing at him. It seems that Hayley’s belief system of aggression is ineffective in certain situations where it conflicts with the norms of the subculture.

When she is directly aggressive, as in this example, she then becomes annoyed with herself because she has acted in a way that cannot be reconciled with her belief system of aggression.

Her belief system is complicated and changes dependent upon the situation at hand. For example, in her relationships with university friends she can behave consistently with her belief system and avoid direct aggression, but around her boyfriend's or her brother's set of friends where alcohol and drug abuse, and the use of direct physical aggression is rife, she finds her belief system is incompatible. However, what is apparent is that when faced with confrontation, Hayley (like all the interviewees) is influenced by her belief system of aggression. This belief system is quite complex and at times even contradictory, but it provides a guide as to how to cope with the situation and subsequently how to behave.

Outcome of coping strategy/behaviour shapes belief system of aggression

The example provided by Hayley above hints that sometimes the belief system of aggression is not compatible with the individual's current demands. The belief system clearly is very dynamic and has to change. In this way the outcome of behaviour feeds back into the belief system of aggression. So if an individual behaves according to the dictates of their belief system, and this behaviour is effective at resolving the conflict and at reaching a favourable outcome, then the belief system is strengthened. What was also evident from the four interviews was that if the individual behaved according to their beliefs and the outcome was not perceived as being effective, then the belief system is seen to be problematic and restrictive. If it results in ineffective behaviour repeatedly, then the coping strategy is perceived as not working and therefore the

belief system must eventually change with new experiences. It must be adaptive if the needs of the person's situation and their belief system of aggression conflict too often.

In Extract 4.10 Beth is relating how she feels about the way that she deals with anger and conflict. She is talking quite generally about her way of coping with negative emotions, and how she cannot aggress. From the previous data presented in this chapter we know that Beth does not believe in aggression of any form, and that this was heavily influenced by her experiences in adolescence of persistent mental bullying from a peer.

Extract 4.10

"I think when I get angry . . . I always cry when I'm angry. And then, I hate, I hate that fact. I really hate that fact because I immediately look weak and feeble and upset when I start crying, but inside I'm just like raging. . . I really want to like lash out. I don't want to hit anyone. Well, I wanted to hit her. More that I just want to get my words out and just like fire lots of things at them. And they just don't seem to come out properly, so it just comes out in tears and I hate it. You just look weak, and I'm not."

Beth [P5:L40-50]

Consistent with her beliefs, Beth does not feel that she can act aggressively. Her experiences have shaped her belief system of aggression, and this governs the way that she deals with her feelings of upset and anger, but here we begin to see that her belief system does not always work for her. She admits that she would like to lash out, that she feels the anger, and in this example she'd like to hit the girl that she is angry with.

Her belief system of aggression means that she represses a lot of her anger, and at times she is dissatisfied with this. She cannot aggress because it would go against her

beliefs about how she can behave, so instead she gets frustrated and cries. She is unhappy about this outcome because it makes her feel weak, and it does not really solve anything. So Beth is sometimes dissatisfied with her belief system and may find it restrictive and ineffective for certain situations where she would like to release her anger.

In the past Hayley also found her belief system of aggression too restrictive and felt that her way of coping with feelings of hurt and anger were problematic. In Extract 4.11 she is relating some of her experiences in school with her boyfriend at the time.

Extract 4.11

“But then a lot of times, when I do end up in counselling and that. And I used to hurt myself. I used to think ‘This is your fault. You made me [like this]. You ripped away all my self-confidence . . . He was always belittling me, calling me names and stuff. And then he’d go to school and tell all his mates . . . He was like the first person I slept with, and then that all got spread around . . . I used to like wait until half way through the term, when it was getting a bit boring, and we’d run out of gossip. And I’d tell all my mates about it. And we’d sit there and we’d laugh, and laugh, and laugh about it. And in the end, I think it was like that though. We spent all our time just behaving like that. Getting back at each other all the time. And it was just well bad . . . I used to sort of tell all my friends things about him, just to get back at the way he was making me feel . . . I just sort of used to hurt myself when I couldn’t handle what was going on. As a way of coping with it. And I didn’t want my mum and dad to see how unhappy I was.”

Hayley [P20:L32-P21:L27]

Her boyfriend used typical adolescent indirect aggression behaviours to hurt her (i.e. spreading gossip and starting rumours, calling her names to belittle her, etc.). Hayley used indirect aggression in retaliation to try and deal with the hurt that her boyfriend was causing her. She seems to be distancing herself from the pain in that she deals with the situation almost as if it were all a joke. On the outside she does not appear to

others to be letting it get to her. Such behaviour was quite consistent with her belief system of aggression at the time.

But as this pattern of behaviour continues for some time it becomes clear that the strategy is not effective. There were signs that Hayley was experiencing problems and was not coping efficiently. This pattern of repeated indirect aggression from both sides, and Hayley's distancing strategy, had very detrimental consequences leading to Hayley hurting herself because she could not cope. On the inside she was hurting and could only express this by taking it out on herself, and cutting herself in private. She was hiding the pain that she felt because she did not want people to see her as weak, that her boyfriend was getting to her, and she did not want her parents to be upset by what she really felt. In the end Hayley underwent a long-term program of counselling to find more effective ways of coping with her anger and feelings of low self-esteem and hurt.

In Extract 4.12 Hayley continues to discuss the way that she used to cope with conflict, and the problems that this caused her. She also begins to talk about how she has changed her strategies.

Extract 4.12

"I never used to bother about things that used to happen to me either. I used to think 'Oh, well. Never mind.' I was with this girl friend one day, she was like 'Why don't you crack up?'" (Laughs) But I never did, and that was that. I have actually had four years of counselling for self-mutilation and depressive illness relating to inability to manage anger. . . . I don't tend to fall out with my friends that much. I just tend to avoid it. And more so as I've got older as well. I often suppress it and then if I do fall out with them I've got so much evidence against them now, that I'm going to win. Because they've only got the initial spark that caused the argument instantly . . . I got so angry that, like in the past, when I

was 15, I've had temper tantrums like a small child. Because I'm so angry that I've gone over the top. And I get so mad that I cry because I can't. It's like through to another dimension by then."

Hayley [P8:L14-36]

Earlier in life, Hayley never used to express her anger properly. She had a tendency to not let things bother her – at least on the surface. So she would suppress a lot of her anger and feelings of hurt, and she used to distance herself from the upsetting things that were happening to her. So as in Extract 4.11 we can see again here that she did not release her anger efficiently, which led to long-term consequences when anger was allowed to build up without effective resolution (i.e. self-harm and depression). Previously she admitted to using some form of indirect aggression, although this too was ineffectual.

In Extract 4.12 she mentions that she has changed the way that she deals with feelings of hurt and anger. There is still a tendency to use avoidant coping, although less distancing and more just trying to avoid confrontation generally. She now uses indirect aggression more subtly and therefore much more successfully. She talks about this in terms of storing up evidence against people that she can then use against them at a later point in time. So she has changed her belief system of aggression to accept this quite calculating and manipulative, yet covert and sophisticated, form of indirect aggression. For Hayley this is discussed as being a better strategy for coping with anger and for behaving when she finds herself in a conflict situation. She compares this again to her past behaviour where she could not reconcile her beliefs to expressing her aggression, and so tended to get high levels of frustration that she could not cope with - sometimes resulting in temper tantrums and crying outbursts.

Her problems with her previous belief system and the way it restricted her anger expression may have led her to re-evaluate how she thinks about aggression in her life and how she deals with emotions such as hurt and anger. This shows that the belief system can, and does, change. In fact, it needs to be adaptive to the individual's shifting requirements throughout their life.

When it becomes evident to the individual that their belief system of aggression does not allow them enough scope to effectively behave and gain favourable outcomes in conflict situations, then they must change this belief system. The following extracts taken from Charlotte's interview provide an example of this. In Extracts 4.13 and 4.14 Charlotte is explaining about her recent disagreements with her flatmate.

Extract 4.13

"I do get myself in a bit of a state. I tend to bottle it all up. Sometimes I have fights with my flatmate who I'm living with at the minute and I've just gone up to bed and I'll be shaking. I've been so mad but I've not said anything . . . I tend to bottle it up . . . It does really get me mad."

Charlotte [P6:L37-P7:L7]

In Extract 4.13 she relates how annoyed she gets with her flatmate at times. Charlotte's belief system of aggression dictates that she can be verbally aggressive with certain people in certain circumstances, but with other people she cannot. For example, sometimes she feels her boyfriend deserves to be shouted at, and she gets angry and does shout at him. However, around her female friends she feels that any form of aggression is not appropriate. So although she feels anger towards her flatmate, she does nothing.

What is of importance here is that by bottling things up and not arguing with her flatmate she is left feeling frustrated. She describes this as leaving her in 'a bit of a state', and talks about how she will go upstairs and be shaking with anger, but she still cannot retaliate in this situation. The outcome is negative and her anger is left unresolved, so Charlotte is dissatisfied with her own inadequacy to act. In Extract 4.14 it is evident that this dissatisfaction has led to a change in her belief system, and therefore in the way that she reacts to her feelings of anger towards her flatmate.

Extract 4.14

"I'd done some washing the night before . . . Sunday morning she must have got up really, really early. She did two loads and by the time I got up about 11 o'clock Sunday morning, she'd used up all the drying space in the house and put my sheets back in the washing machine. So I'd got nowhere to put these sheets to dry them. And so that really got me angry. I think it was about the first time I've actually gone up and said 'You shouldn't have done this. Why did you do it?' So that actually surprised [her]. I think I got so angry that I did actually go and talk to her about it. I didn't shout, but I did throw a few filthy looks and we didn't really talk to each other for the next few days."

Charlotte [P9:L16-28]

When this tension arises between them again Charlotte is herself surprised because she finds that for once she let herself get angry with her flatmate. Recognising from her past experiences that this part of her belief system is not effective and causes her distress has led to a shift in her belief system. It now allows her to express anger and retaliate against people that previously it had prevented her from aggressing against. So Charlotte's experiences and evaluation of the outcome of their interaction has fed back into her belief system of aggression, which has adapted to her needs and she finds that she can stand up for herself against this person without feeling guilty about her actions.

Similarly Peter has recognised recently how deficient his belief system of aggression can be under certain circumstances, and how it can restrict his behaviour too much. In Extracts 4.15-4.16 Peter is describing his most recent conflict with his friend Ben. He talks about this dissatisfaction with the belief system and subsequent behavioural options, and he discusses how he *actively* changes his beliefs and his behaviour.

Extract 4.15

“And it’s like I did try everything I could think of. I tried reasoning with him, I tried threatening him, I tried being as peaceful and calm and accepting as possible. I tried every approach I could think of . . . I didn’t want to get into a fight with him about it. I mean for one thing because, well to be blunt I’m not very hard at all because I haven’t had a fight in about 15 years. I like that fact. It’s just a bit awkward in situations like that . . . It is difficult in that situation when somebody who’s just screaming in your face and doing everything they can to try and provoke you . . . I don’t know whether it’s a bad thing or a good thing in that sense . . . For me there always is an element of awareness of knowing what I’m doing. You know what I mean? I don’t just snap and go ‘grrr’ . . . The part of me that I think of as ‘me’ normally, the conscious part was going ‘No. ‘Ignore it. He’ll be all right in the end.’ But there was still very much the awareness of the old-fashioned part of me, as it were. The animal part of me which was going ‘ggrrr, ggrrr’ (laughs). Kind of just wanting to do nothing more than punch him in the face . . . the knowledge of what is the right thing to do or the best thing to do. I find it may stop me doing things but it doesn’t make me feel any different in that sense.”

Peter [P6:L50-P7:L44]

In Extract 4.15 Peter is describing how powerless he felt in this situation. In accordance with his current belief system of aggression he has tried all of the options available to him. He has tried bringing the conflict back to reasonable discussion, as this is consistent with how he believes he should act in such situations. He has even tried to bluff his way out of conflict by threatening Ben. None of these options have

proven successful and so Peter has to acknowledge that he cannot effectively deal with this situation under his current belief system, and the behaviour this allows him to adopt.

In this particular situation when Ben is becoming increasingly aggressive, Peter feels that he may need to use direct aggression in order to protect Ben's girlfriend. So he begins to realise that sometimes aggression could seem to be the only option, but he is experiencing conflict between wanting to deal with the situation and act aggressively, if needs be, and wanting to do what is right in terms of his underlying beliefs regarding aggression. As we have seen previously, Peter strongly regards himself as a pacifist, so he is in conflict between these overarching beliefs against being aggressive, and this situation where his usual coping strategies and behaviour are simply ineffective at relieving the mounting anger and aggression of Ben.

In Extract 4.16 Peter goes beyond merely recognising the inadequacies of his beliefs and behaviour in this situation, to actually changing his beliefs. In this way Peter actively seeks to change how he views aggression, especially his own aggression, so that he can be more in control of similar situations in the future.

Extract 4.16

"And it's like when I actually thought of how that made me feel, I actually managed to like strike out several times with real force. It was basically like that image of my dad's face just like trying to hurt me that actually brought it back, the long-buried feeling of anger. And it's like, I don't know. It's strange. It's like they say 'There's always a silver lining'. In a funny sort of way I'm glad it's happened just because it's like, I feel it's like now if I ever am called upon to be in a situation where I absolutely have to fight someone, there's something I can use to bring up the anger, the aggression. Because, it's like I say, for the best part of 15 years

it's been buried under something that I couldn't get it out and like it's only like nowadays I'm actually starting to learn to tap into it again. But I suppose to do it in a way I couldn't as a child, which is to tap into it when I want to rather than just at random."

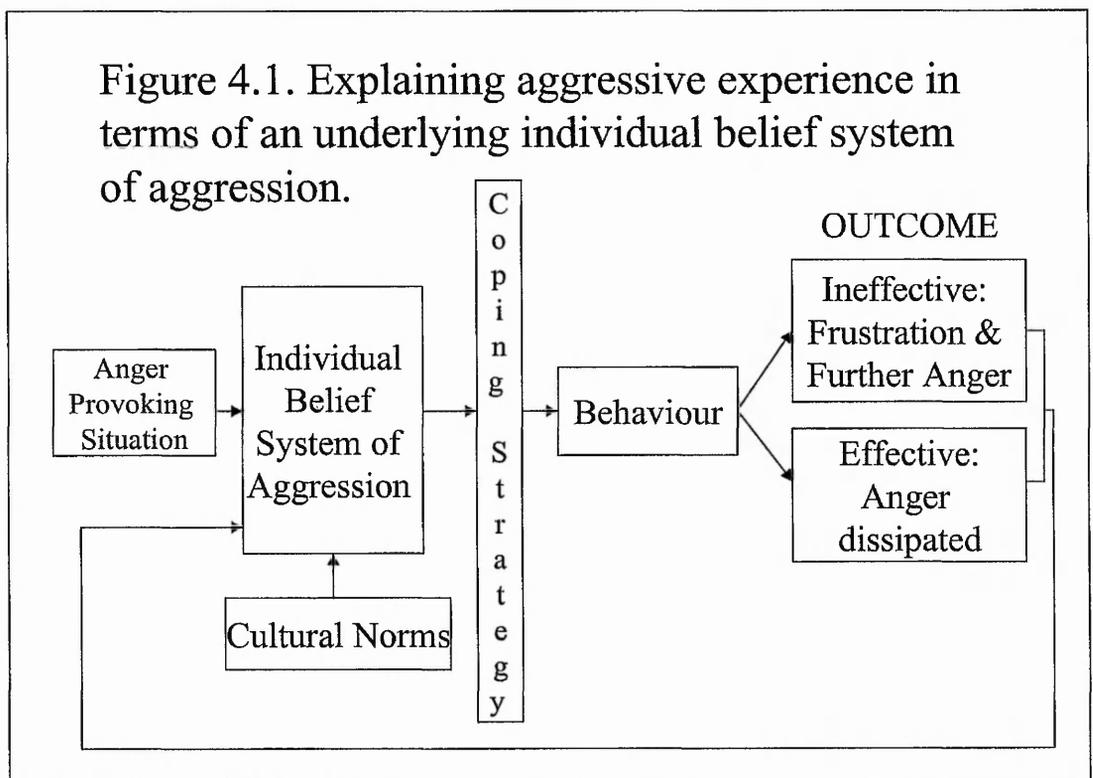
Peter [P14:L50-P15:L15]

Peter explains how he used the image of his father to re-learn how to release his anger and actually strike out aggressively himself. He pictured his father when he got angry with Peter and his mother in a conscious attempt to overcome his own constraints in releasing anger as physical aggression. Previously Peter has largely viewed aggression from an expressive viewpoint, seeing aggression as being always wrong, and as being very much about a loss of control. Now Peter has changed the way that he thinks about and perceives aggression. He feels he has to do this because his old way of viewing aggression limits him in his argument with Ben, and could prevent him from protecting Ben's girlfriend. Peter is afraid that the limitations of his belief system could prevent him from behaving effectively in his adult life when called upon to be aggressive. Such a restrictive belief system is no longer beneficial to Peter's life, and he needs to adapt his belief system so that he is provided with a more realistic range of behavioural responses to conflict situations.

So Peter consciously changes how he thinks about aggression. He describes being able to uncover feelings of anger that previously he could only repress. Aggression now becomes seen as something that may sometimes be necessary, and as something that can now be under his control. This is a much more instrumental perception of aggression. So he has switched from seeing aggression expressively, as influenced by his vivid past experiences with his father, to seeing aggression more instrumentally at times, as influenced by what this particular situation demanded.

Peter describes being happy with this change in how he sees aggression and feels that he can now control his anger using aggression in a way that he was not able to do previously. Aggression is still seen as largely the last resort when all else fails, so he still maintains his old beliefs about aggression. However, now he recognises that although a last resort, aggression can be an option, when absolutely necessary, and he feels in control of his emotions and his expression of aggression. So Peter's belief system of aggression has changed somewhat recently because in certain situations it led to Peter feeling restricted and powerless. This is a good example of how people's personal belief systems of aggression must change throughout life, and is dynamic in nature. It is also quite complex and multifarious.

These findings from the interpretative analyses examining the first aim of this study are summarised as an explanatory model, depicted below in Figure 4.1.



To reiterate, when the interviewees were faced with an anger-provoking situation they explained their perceptions and reactions in terms of an underlying belief system of aggression. This belief system was very personal to them and they saw it as being largely based upon memorable past experiences of conflict and aggression. It was also seen to be influenced by cultural norms. How the interviewee dealt with the situation was influenced by the belief system, which made certain ways of coping, and therefore certain behaviour, more likely. Importantly, the belief systems were seen to be adaptive and dynamic, with the outcomes of aggressive experiences feeding back into their belief system. In particular if the outcome is effective the interviewees anger seemed to be dissipated. In contrast if the outcome is perceived as ineffective, frustration and further anger was felt. This could eventually lead to necessary changes in the belief system. It is therefore an adaptive process, sensitive to changes in the needs of the individual.

4.3.2. INDIRECT AGGRESSION

From the analysis examining the way that the interviewees explained and made sense of aggression within their lives it became very apparent that indirect aggression more specifically had certain features that made it potentially a very effective and damaging form of aggression. Looking at the experiences of indirect aggression formed the second aim of this particular stage of the research. Key themes were identified and an explanatory model was formulated from the analysis.

There has been very little qualitative research examining indirect aggression. Being such a new term it is important to understand these forms of aggressive behaviour

more deeply. What quickly became noticeable in this study was that there were certain inherent features of indirect aggression that need to be understood. These features were found to be strongly related to the effectiveness of the behaviour. They help to explain why indirect aggression can be so effective, so potentially damaging, and why indirect aggression can become progressive to the point where it constitutes abusive behaviour.

Specifically, the features inherent in indirect aggression (or the nature of indirect aggression) facilitated the victim internalising the problem. In other words, they began to see the problem as being something about them, rather than identifying it as the intentional aggression of the other person. This internalisation process meant that they had no outlet for their frustration. Therefore, victims commonly felt increasing anger. Subsequently they either expressed their anger in some way – but because they are denied a direct outlet, this expression was typically quite an unhealthy mode of anger expression – or they failed to express their anger at all (which was associated with potential long-term effects).

The nature of indirect aggression

The nature of indirect aggression in terms of its features is pivotal to understanding how this behaviour works. These features form the first stage of the process of indirect aggression. They include the type of pain that indirect aggression inflicts, the way that this form of aggression is covert and ambiguous, and the sense of confusion typically experienced by the victim. If indirect aggression is used properly, these features allow it to be such a damaging form of aggression to the victim, and such a

rewarding and 'safe' form of aggression to the aggressor. This analysis focuses on when indirect aggression is effective, but obviously that is not always the case.

What makes indirect aggression so hurtful in some cases appears to be the kind of pain that indirect aggression results in. This is one of the most obvious and important features of indirect aggression. Indirect aggression (metaphorically rather than literally) hits people where it really hurts. It affects the victim's sense of belonging, and their close emotional ties with other people.

In Extract 4.17 Beth is describing her experiences of indirect bullying at secondary school. Over a number of years she suffered social ostracism and social criticism; she was the victim of malicious gossip and rumour spreading. Beth's entire social structure at school was manipulated. Her social network was affected to the extent that she was made to be an outsider.

Extract 4.17

"That was the main one, the fact that she got all of my friends to turn against me as well. That's probably my worst fear, to have no friends. That I'd be alone, I can't stand being alone. So I don't know, I was several times throughout that. And I'm afraid she did that to me."

Beth [P18:L13-17]

Beth comments that this was her very worst fear. The thing that frightened her above everything else was to be alone. She was afraid to be left with no one, and an aggressor using indirect aggression recognises this and uses this to his or her advantage. Using the peer structure the bully turned all of Beth's friends and peers

against her. For Beth this was her worst nightmare - to feel that she was universally disliked by those around her.

This form of aggression taps into a person's basic need to belong. Everybody wants to be liked. It is essential to their very sense of self. People strive to be accepted by the people around them. Beth has settled into relationships with people around her, and then one girl came along and changed everything. Beth felt alone, isolated, and this was very upsetting. It undermined how she thought about herself, and it made her social world very unstable.

Even today, years after these incidents occurred, Beth is still very strongly affected by these experiences. She gets very upset talking about them during the interview. Such aggressive acts cut right to the core of a person's being. It makes them feel an outsider, unpopular, disliked even to the extent that they start to believe they are unlikeable.

Although Beth is talking about an experience in middle adolescence, it is equally pertinent to adult experiences. In adult relationships with close emotional ties (primary group relationships) there are clear parallels. It can be very damaging when the people you have the closest and most intimate relationships with use indirect aggression against you. That people you love could want to hurt you in such a way is a very uncomfortable thought to come to terms with. That someone you love could seek to influence and damage your relationships with other people in your life is often disturbing and painful. Indirect aggression pain is emotional, it is psychological, but it

is certainly no less real than physical pain. It is just less easy to discover. It is much more sophisticated and often carefully camouflaged.

Indirect aggression is covert. Indirect aggression works because it is indirect, it is subtle, and above all it is hidden. If used effectively indirect aggression is not easily detectable. It is manipulative and works behind-the-scenes. If it is sufficiently covert it is also ambiguous. Depending on how well it is hidden, the victim may be left unsure as to whether or not any aggressive behaviour is actually taking place. Even if they do realise that aggression is being directed at them, the aggressor may be protected to the extent that they cannot be identified. Additionally, even if the victim can recognise the aggression and the aggressor, they may be unsure of whether there is any intent behind the behaviour.

Returning to the case of Beth and indirect bullying, these features can be described. In Extract 4.18 Beth talks about the nature of the aggression against her, and how this made the experience much worse.

Extract 4.18

“It was a lot worse. Because I think if it had been physical then I would have been able to sort it out with the teachers and that. Because it was kind of mental games and playing with my emotions and that, and my relationships with people around me. I think that was a lot worse. Well, because no one could see what it was doing to me inside, but it really, it was messing me up but no one could see that because it wasn’t physical, there was no mark on me or whatever . . . I think people realised that, but they didn’t know how much it affected me”

Beth [P6:L5-18]

Beth describes the aggression as 'mental games'. She felt that the girl was attacking her through her relationships to the people around her, and through playing upon her emotions. So the aggression was psychological, and it was not easily observable. In this way indirect aggression, when effective, serves to harm the victim whilst leaving the aggressor relatively free from punishment. Beth describes how she was so hurt inside, but because the pain inflicted was psychological, those around her did not see it. If it was physical it would have been observable, and she could have proven her case much more easily. Because it was covert there was no way she could show people exactly what was happening to her.

Beth seemed to feel quite let down by her friends who believed the lies of the bully rather than her. She said that she thinks people did realise that something was wrong, but not what was happening. They certainly did not see how deeply it was affecting her. She describes being 'messed up inside', but no one could see that. She did not even feel she could approach the teachers because she felt she had no concrete evidence that more direct, obvious aggression would have provided her with.

The whole situation, through its covertness, is just too ambiguous. Beth talks about how she could do nothing because she felt that the evidence would be too ambiguous to outsiders. But what is also important is the way that the hidden, subtle nature of indirect aggression makes it ambiguous to the victim. When indirect aggression is so hidden from view it is inevitably left open to interpretation, and if no one else around you sees what is happening to you, then you begin to get confused yourself about it. Covertness and ambiguity of indirect aggression, in this way, leads to a sense of confusion.

Confusion occurs because no one can see what is happening to you, and often indirect aggression is done in such a way that there are a number of differing possible interpretations to the event. This is why indirect aggression is so difficult to quantify, observe, measure and 'prove'. Indirect aggression is very much a subjective experience and concrete evidence (especially as to intent) is often not forthcoming.

The victim becomes frequently confused about what is occurring in the situation. They know the pain they feel is real, but they are confused about where it is coming from, and why it is happening to them. If they are confused, they tend to feel uneasiness. They begin to question their interpretation of the situation. It is such covert and subtle behaviour that it fosters self-doubt in the person experiencing it. Indirect aggression is a real dilemma to the victim. It is orchestrated in this way by the aggressor. They want it to be ambiguous and open to interpretation – this is precisely what works to protect them.

These features constantly facilitate the protection of the aggressor. They hide their aggression and this fosters ambiguity. Often this means the victim cannot prove the aggression has taken place at all. Often it is confusing, resulting in self-doubt, and increasing feelings of uneasiness and emotional distress. Charlotte has experienced indirect aggression victimisation and talks about the way that it protects the person who was perpetrating it, whilst leaving her in an impossible situation.

Extract 4.19

“When people know what sort of things get at you they do tend to use them. They do know like that I’ve got no patience so they’ll keep picking at something and then I’ll explode and it’ll look like I’m being really horrible. When they’re actually trying to get that reaction out of me on purpose.”

Charlotte [P11:L26-30]

Charlotte in Extract 4.19 is talking about how people who know you quite closely have more ammunition to cause harm. Friends who know a lot about you will know the kind of things that really get at you. They know what will make you angry and sometimes they will use this privileged information against you. She talks about how when people know her weak spots they will purposefully try to annoy her, and because they also know that she has no patience, they can keep doing this and be ensured that she will quickly lose her temper with them.

However, the way that they do this protects them. They can dismiss their taunting as harmless fun and appear totally innocent. Whereas, because she reacts, she appears to be the one behaving unreasonably and anti-socially. She believes that they know that she will react in such a way and intend all along to get that reaction so that they can be seen as the victims themselves of *her* aggression.

What also becomes clear is that we have no way of knowing that Charlotte is right in her interpretation here. Often victims of indirect aggression just sound over-sensitive or slightly paranoid about the intentions of the people around them. It is almost impossible to distinguish between over-sensitiveness and actual indirect aggression victimisation, especially in an isolated incident. In effective indirect aggression there is always ambiguity to outsiders, and often confusion and self-doubt in the victims.

Even the aggressor themselves may not be aware of their own motivations to aggress, as indirect aggression can be unconscious on their behalf.

Internalisation

The second theme follows on and is inextricably linked to the features of indirect aggression described above. People tend to adopt certain consistent ways of coping with being the victim of indirect aggression. Although there were a number of different possible reactions, internalisation techniques seemed particularly relevant to experiencing indirect aggression.

The confusion and self-doubt caused by the ambiguity of indirect aggression often was found to lead the victim into reacting to the situation by internalising what was happening to them. They were so confused, uneasy and uncertain about what was going on that they looked within themselves to find an answer as to why this was happening. Indirect aggression could become so distressing and incomprehensible to the victim that internalisation was the only way they could cope with it.

So the inherent features of indirect aggression lead to a tendency to internalise the problem. This can be illustrated with the following data extract. In Extract 4.20 Beth is describing a very recent situation with her close friend. In this incident Beth feels that her friend is socially excluding her from a group of mutual friends. Her friend has stopped inviting her along with the rest of them. Beth feels that she is being ostracised in some way. This becomes particularly apparent to her when there is a party that a mutual friend is organising. Beth's friend seems to want to deter Beth from going and

withholds information about when the rest of them are meeting. She seems reluctant to include Beth and has organised going with other people instead.

Extract 4.20

“I think I was just being paranoid, but I kind of got the impression that she was like ‘Oh. Oh, so you’re going to be there’ . . . I don’t know. I tried to think about this. I think I am being a little bit paranoid, but I do think she’s trying to kind of vague away from me and get her own friends and that. But I don’t understand why she’s trying to do it, I don’t understand why we can’t, I mean, we know the same people so why we can’t go out all together and that. And that, it confuses me a bit, which you know, makes it, which kind of hurts me as well in that sense because I can’t, I can’t make sense of it myself, so it hurts me.”

Beth [P8:L13-36]

Beth admits that interpreting the situation is causing her confusion. She has tried to think about what is happening in the situation, but she is still uncertain. Even before she admits that she thinks she is being excluded, she refers to her own paranoia. So she does question her interpretation of the situation. Despite the ambiguity, Beth does see her friend distancing herself from Beth quite purposefully. She thinks that her friend does not want her there, and wants her to know that she is not part of the group. But again the idea that she is paranoid is mentioned. She seems uncomfortable thinking that someone she considers a close friend would not want her around. There are signs of increasing confusion and uneasiness as she talks about this.

She tries thinking about how to view this, and she just cannot comprehend it at all. It is easier to explain the situation if she sees it as being her paranoia, and therefore her fault that she is feeling upset. The confusion in itself is hurtful to her. The experience is upsetting and quite unnerving in that she does not want to believe that her friend would suddenly not want her around. Rather than getting angry with her friend, Beth

seems more distressed than anything. She is prevented from confronting the situation because she starts seeing it as her paranoia. The problem and hurt she feels has been internalised to the point that she even begins to see herself at fault. In such a way the victim feels to blame for the other person's aggression towards them. Often this means that the victim cannot even ask the other person about the situation because they feel powerless and confused.

Beth also tended to internalise the problem when she was bullied at secondary school. Here the situation was more blatant than the situation with her friend, but still the nature of indirect aggression facilitates internalisation. In Extract 4.21 Beth is trying to remember what she thought at the time about what was happening and how this made her even more helpless to act in the situation.

Extract 4.21

“And you know, she just did it to ruin my relationships with my friends and . . . tries to take all your friends away from you so you're by yourself. She tried to do that . . . And now I realise, I didn't realise at the time. I really thought I was a horrible person.”

Beth [P5:L60-15]

Although in hindsight Beth realises that it was not her fault that she was targeted in the way she was, at the time the fact that the bullying was not overt did confuse her and affected how she reacted. She says that when this was happening to her she believed that she was a horrible person. Everyone else around her believed these awful lies that the bully spread, and ostracised her. It was so apparent that she was disliked that she understood it by thinking that she deserved this persecution. She thought that if people treated her in such a way it must be her fault, otherwise why would such things be done to her. It made her very insecure and unable to act. When

victims begin to blame themselves for others' aggression against themselves (which was found to be a common experience with indirect aggression) it becomes quite a dangerous and destructive cycle.

Self-blame was frequently a reaction to internalisation coping, which in itself was most common in indirect aggression experiences. This was seen to be an ineffective way of coping, and was strongly associated with high levels of frustration, and suppression of anger. Anger is not effectively released. The individual then tends to continue to feel frustrated and angry with themselves, because they do not have a direct outlet for these negative emotions.

Cycle of self-blame, frustration and unresolved anger

The features of indirect aggression and how this leads to self-blaming coping strategies could prove very important to understanding experiences of indirect aggression. The process of internalisation is particularly significant because it was associated with accounts of being trapped in a cycle of self-blame, frustration and irresolvable anger – the final theme to be addressed.

It was found that once a person internalises the problem and begins to blame himself or herself for other people's aggression against them, they can easily get stuck in a no-win situation. When they internalise in order to cope with the event, they make self-blaming attributions. Despite the fact that they get angry, they cannot find a direct outlet for their anger because they have internalised the problem. Therefore the anger they feel can become directed inwardly towards themselves. This is not an effective coping style, and therefore the individual is seen to get very frustrated.

Peter experienced this cycle of self-blame in his experiences at work. In Extracts 4.22 and 4.23 he is talking about his experiences of working in a factory where he experienced indirect aggression from his boss in the form of making unreasonable demands, and undermining him over a number of months.

Extract 4.22

“I used to get a lot of frustration, a lot of aggravation from being constantly. . . It’s just like constant stress . . . if you’ve got a good reason then most of the time people are willing to negotiate with you . . . I think a lot of it is to do with feeling sort of trapped almost . . . If you work the hardest that you possibly can and completely wear yourself out then you might get somewhere near the target. But then again you might not. Alternatively you can just do the amount of work you would do anyway and then you’re constantly getting aggro . . . I think a lot of it was because it was a no-win situation.”

Peter [P2:L38-P3:L13-21]

In Extract 4.22 Peter begins to describe the frustration he feels. In contrast to Extract 4.20 where Beth internalises and self-blames, and then feels very distressed, Peter’s experience shows clearer signs of anger when he talks about the frustration he was suffering. He describes the situation as reminiscent of being trapped. He is stuck in this situation and he cannot escape. He looks for the alternatives in the situation and decides that there is no possible way he can come out on top. He sees it as a no-win situation where whatever he does is ineffective. There is no way to escape from the situation he is in.

Peter saw this situation as partly his fault. This is mostly because he was experiencing difficulty in trying to understand why this was happening to him. The sense of frustration becomes quite overwhelming to him. When talking about this he became

very animated rather than upset. His frustration feeds back into further anger. So the original anger felt is not dissipated, frustration heightens this anger and the individual feels *more* anger. Still there is no direct outlet to express this anger, so the individual continues to be stuck in a cycle of internalising further, directing the anger inwards, leading to further frustration, and further anger, and there is still no escape from the cycle. The stress is constant, and the frustration increases.

This trapped situation also relates to his belief system of aggression. He believes that problems and conflicts can be resolved reasonably, but when he gets stuck in this cycle there is no way his preferred coping strategy (consistent with his underlying belief system) can help him get out. In Extract 4.23 Peter is trying to make sense of the situation.

Extract 4.23

“It was almost like the same kind of aggravation you get when you can’t open a drawer . . . this thing won’t co-operate . . . I think it was partly that I wasn’t very well suited to the job . . . a lot of people who had on paper a less good education than me would be able to pick up that job much more easily.”

Peter [P3:L47-P4:L25-31]

He knows that he is hurt and angry, but the aggression is indirect and ambiguous, so he is confused. He can do nothing else but look within himself to try and determine the root of the problem. Again there is no way to direct the anger he feels at the aggressor himself. In this context Peter is so effectively trapped because of both his restricting belief system of aggression, and the situational constraints of the aggressor being such an authority figure – the aggressor is his boss, and to deal with the conflict in other ways would risk him losing his job.

In the extract he is trying to find some reason behind it. Indirect aggression causes this internalisation that begins as a struggle to understand, which is then further compounded by the increasing frustration. In Peter's case it tends to stop at internalisation, rather than progressing to self-blame to the same extent as in Beth's experience in Extract 4.20.

Peter continues to emphasise how the frustration continues. This is not surprising because he still cannot dissipate his anger. In Extract 4.23 he again tries to make some sense of the situation. His explanation has become a cyclic attempt to understand this confusing, distressing, frustrating set of circumstances.

He begins to see it in terms of power. He has no escape, there is no way out, so the frustration continues to feed his anger. It clearly has become a no-win situation. It is quite easy to see how such cyclic experiences of internalisation, inwardly directed anger, frustration at powerlessness, and anger that cannot be resolved, can become detrimental to the individual's well being.

Eventually, in hindsight the person can often recognise that they were a victim of indirect aggression, but by then it is often too late. The cycle the individual can so easily get caught up in prevents the release of anger when it really matters. The victim cannot direct their anger at the immediate time the transgression was made against them. This coping strategy is certainly not effective, and there was evidence that a tendency to experience indirect aggression in this way could have long-term consequences.

Hayley detailed experiences where her boyfriends had behaved quite abusively towards her, with persistent use of undermining indirect aggression behaviour. Like Peter and Beth above, her indirect aggression experiences involved internalisation strategies. Her experiences also support the finding of a cycle of self-blame, frustration and anger. She believes that these experiences of victimisation negatively affected her self-worth.

Extract 4.24

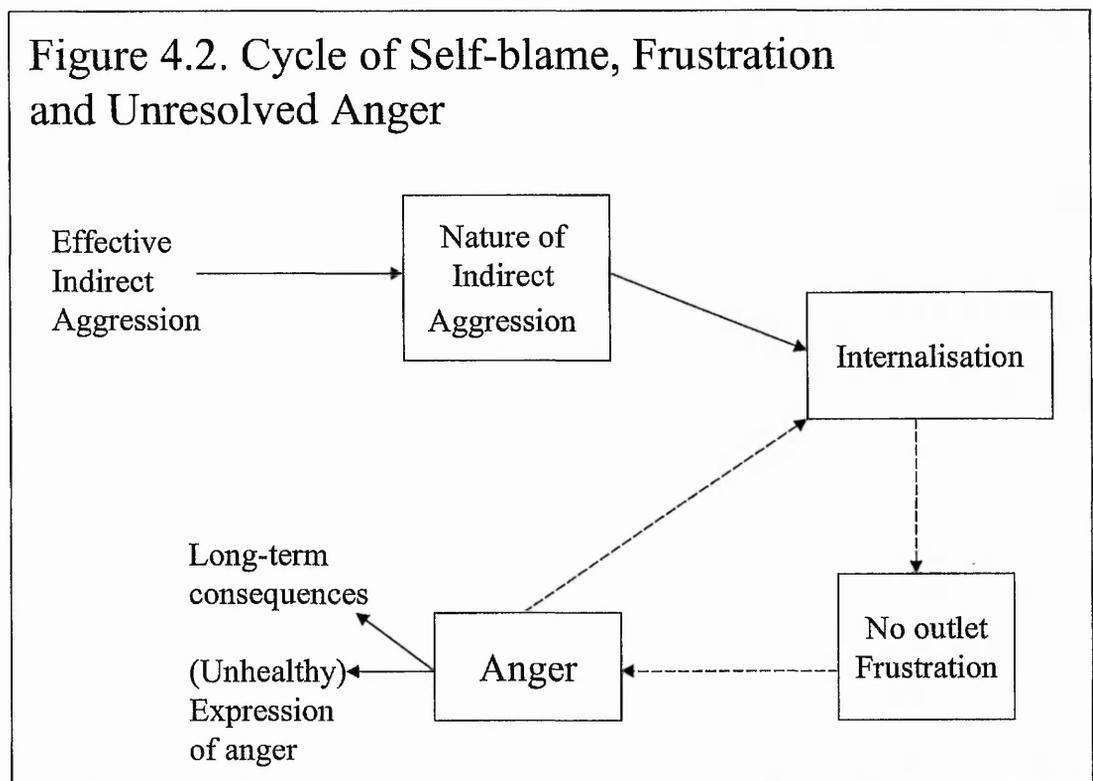
“If I see him around I still feel unworthy . . . I just sort of used to hurt myself when I couldn’t handle what was going on as a way of sort of coping with it . . . I can’t describe it, but it went really badly wrong and we split up, and he got really quite nasty towards me . . . He used to just . . . picking on you and stuff, and laughing at you, and things like that. Yeah, he used to be quite nasty to me.”

Hayley [P21:L20-36]

In Extract 4.24 she discusses one particular boyfriend who would use social criticism to make her always feel inferior and guilty. She comments about how even now he has the power to make her feel unworthy. Getting trapped in a cycle where the victim blames him/her-self for aggression against them can be seen to affect their self-esteem in the long run. In Hayley’s case there is evidence that she experienced problems in dealing with her anger. She felt that she could not handle all the anger and frustration that she felt inside but could not express. She talks about how anger became directed inwards to the point that she directed it at herself, and used to hurt herself just to release some of the hurt, anger and frustration. Hayley would cut herself on a regular basis during that period in her life, and even now a few years later she knows that it has affected how she sees herself, how she values herself, and how she still struggles to express her anger in a mentally healthy way. Hayley suffered from bouts of

depression subsequent to this, spending two years in counselling and anger management therapy.

The analysis on the indirect aggression experiences of the interviewees did reveal certain emergent themes about the processes associated with effective indirect aggression victimisation. Figure 4.2 represents the proposed explanatory model based on the analysis so far. But the evidence presented here regarding this second aim has been limited, and further analysis investigating this model needs to be conducted in the next larger set of interviews (detailed in Chapter 5).



In summary, Figure 4.2 shows how the inherent features of indirect aggression contribute to certain outcomes in the victim. There was the tendency of the victim to

internalise the problem after being made to feel uncertain and uneasy. They doubt their own interpretation of the situation until they begin to think that they themselves must be to blame for what is happening to them. This can lead to the victim experiencing a cycle of self-blame, frustration (because of the lack of a direct outlet for their anger), and further anger that cannot be dissipated. This cycle of self-blame serves to facilitate the protection of the aggressor.

4.4. DISCUSSION

The first aim of this study was to investigate how the participants made sense of different forms of aggression within their lives. In particular how they explain their own aggressive experiences, the content of their beliefs about aggression, where these beliefs originate from, and what the relationship is between their beliefs and their behaviour. In this way it was hoped to continue and extend the work begun by Campbell & Muncer (1987) into perceptions of aggression. With the recognition that indirect aggression is a form of aggression most salient to the experiences of both sexes, and is the most 'adult' form of aggression (Björkqvist & Niemelä, 1992; Björkqvist, 1994), the definition of 'aggression' was broadened to include indirect aggression as well.

The analysis in this study suggests that people hold a very personal set of beliefs about aggression, and that this forms a belief system on aggression. When they talk about and explain aggression they refer to this belief system, which appears to be largely formed over time from memorable experiences of conflict. It was apparent that participants acted in accordance with this underlying belief system, and

developed typical ways of dealing with conflict and confrontation. Importantly, this belief system was very dynamic, very personal and complex. It is much more unique and multifarious than the literature on instrumental and expressive social representations suggests. Also it was found to be adaptive, and participants' belief system changed when their requirements changed – i.e. when their behaviour led to unfavourable outcomes they seemed to alter the way they thought about aggression, and were then able to change their behaviour in line with this alteration.

By examining the content of the participants' belief systems of aggression it was identified that these young adults did hold beliefs consistent with Campbell & Muncer's (1987) theory of instrumental and expressive aggression. However, Campbell (1995, 1996) proposed that people are 'locked' into holding one particular set of representations. Campbell's theory suggests that men tend to hold instrumental representations about aggression, whereas women hold expressive ones (Campbell & Muncer, 1987; Campbell, 1993). The findings in this current study suggest that Campbell has oversimplified the situation. The participants held both instrumental and expressive viewpoints about aggression, more in line with Archer & Haigh's (1997b) conception of instrumental and expressive beliefs. Nevertheless, even the recognition that men and women may hold a combination of instrumental and expressive beliefs seems somewhat simplistic. The participants belief system seemed much more personal and complex. These instrumental and expressive beliefs were just a part of a wider individual belief system of aggression. There was also significant evidence that the participants shifted between instrumental and expressive understandings within very short spaces of time. They were seen to hold both types of views simultaneously.

That aggression can be both instrumental and expressive at the same time has previously been recognised in the aggression literature. Goldner, Penn, Sheinberg & Walker (1990), although focusing on male domestic violence, described aggression as “simultaneously an instrumental and an expressive act. It’s instrumentality rests on the fact that it is powerful method of social control . . . At another level, violence can be understood as an impulsive, expressive act.” (p. 345). So aggression is understood to be both instrumental and expressive simultaneously. Aggression is a complex series of human behaviour, resulting in a multifaceted, and sometimes seemingly contradictory, understanding of the phenomena.

The theory of instrumental and expressive aggression argues strongly for consistent gender differences – with men favouring an instrumental set of representations, and women preferring expressive ones. One criticism raised in Chapter 1 of this thesis was the preoccupation with gender differences in this field of study. From the current interviews it did seem that the situation regarding instrumental and expressive aggression is more complicated than a simple dichotomy based upon gender.

As well as talking about the content of their belief system, participants discussed where they think these beliefs originate. This was largely discussed in terms of past personal experiences. So their explanations tended to be in terms of personal rather than societal explanations. The tendency to do this may be related to cultural influences. It is well established that individuals from Western societies tend to view things much more individualistically than people from non-Western cultures. Western people prefer to see themselves as independent of their environment and as

autonomous from societal and normative influences (Geertz, 1975; Sampson, 1985; Markus & Kitayama, 1999). Whether this tendency reflects reality or not is another issue, but what is apparent is that people *perceive* that their beliefs about aggression are based upon their unique experiences.

Participants frequently referred to their underlying beliefs when explaining the way that they behaved in conflict-provoking situations. People have different typical ways of dealing with the situation or 'coping strategies', which are based upon their system of underlying beliefs about aggression. Their coping strategy led to certain ways of behaving, so in this way the participants perceived there to be a strong relationship between beliefs about aggression and their behaviour. There is consistent evidence that beliefs about aggression are significantly positively related to actual behaviour (e.g. Campbell *et al.*, 1993; Archer and Haigh, 1997a and b), and the analytic results support this relationship. In order to change their behaviour, participants were found to moderate their belief system of aggression first.

People desired to moderate their beliefs and adopt new behavioural reactions when they became dissatisfied with their current beliefs and behaviour. This was usually when they realised that their current belief system was too restrictive, and when they felt that their failure to aggress left them with considerable feelings of frustration. Participants who were denied any type of aggressive reaction, because of their underlying belief system, seemed to rely on anger suppression where they feel anger but keep their anger in (Thomas, 1993). They tended to use quite avoidant strategies, which are generally very typical of adolescents and young adults (Irion & Blanchard-Fields, 1987). Such strategies were associated by the participants with frustration and

remaining anger, and were perceived over the long-term as unhealthy and unfavourable. Consistent with this finding are reports in the coping literature that stipulate that these strategies are more immature ways of dealing with conflict and negative emotions (Elklit, 1996; Folkman & Lazarus, 1988; Lazarus & Folkman, 1984). They have been demonstrated to be maladaptive behaviour (McCrae, 1982; Felton & Revenson, 1984).

Furthermore, Diong & Bishop (1999) found that these anger suppression techniques are negatively related to psychological well-being and highly associated with stress in particular. This supports the finding that such avoidant strategies (where anger is suppressed and aggression disallowed) are less effective, and often maladaptive ways to deal with anger-inducing situations. Examples provided in the analysis from both Hayley and Beth (in Extracts 4.10-4.12) show the difficulties experienced when individuals feel they cannot express their anger. They show clear symptoms of frustration - feeling anger, but not being able to effectively express this emotion. This is consistent with the literature examining the anger experiences of women (Averill, 1982; Frost & Averill, 1983; Tavris, 1989; Thomas, 1993). In particular how anger expression can be a dilemma when left unexpressed because of constraints on behaviour (Campbell & Muncer, 1987; Campbell, 1993, 1996).

The literature on whether it is healthier to express your anger or not is somewhat inconsistent. Some sources suggest that expressing anger is negatively associated with both psychological and physical health (Siegman, 1993; Siegman, Anderson, Herbst, & Boyle, 1992; Siegman, Dembroski & Crump, 1992). Others argue that it is negatively related to psychological, but not physical health (Diong & Bishop, 1999).

In contrast, Vitaliano, Maiuro, Russo & Mitchell (1988) found that restraining anger strongly predicts emotional distress. Sharma & Acharya (1989) demonstrated that suppressed anger is significantly related to avoidance coping. The findings here suggest that anger expression releases anger and relieves frustration. A tendency to suppress anger was associated with feelings of distress. When participants felt that their beliefs prevented aggressive expression, and they consistently made negative evaluations of the outcome of their behaviour, they clearly adapted both their beliefs and their behaviour.

The findings from this first aim led to the development of an explanatory schematic model (Figure 4.1). This model is similar to the model by Denham & Bultermesiter (1993) (although their model is restricted to explaining women's anger/aggression). They also identified the pivotal role of personal ideologies underlying the trigger of anger and the decision about whether to express anger as aggression or not. There is strong evidence from this study that people rely upon a very personal and dynamic set of beliefs about aggression. This guides their decisions about how to deal with conflict situations, and highly dictates the behaviour they can adopt.

There was strong evidence and quite in-depth analysis of the data concerned with participants' understanding and explanation of aggression. This study also had a secondary aim, which did not involve such deep analysis, but provided some evidence about indirect aggression experiences more specifically. This analysis also allowed the formation of a schematic model explaining common processes underlying being the victim of indirect aggression. The analysis revealed that there were inherent features of this form of aggression that made it so potentially effective and harmful.

When indirect aggression was effectively administered the victim was found to quite often internalise the problem and doubt their interpretation of the situation. In many instances this was found to lead to them blaming themselves for the anger and distress they were feeling. Therefore, with no outlet for their anger, the participants reported feeling increasingly frustrated and even angrier. In some cases indirect aggression went on for some time and the victims felt they had suffered some long-term effects of this victimisation.

Although these findings led to the development of an explanatory model, further analysis with a new data set is needed as this data collection was more generally concerned with how people comprehend and explain all forms of aggressive experience. This model will be explored further with new evidence from a second set of interviews with a broader range of interviewees in Chapter 5.

This analysis focuses on when indirect aggression is effective, but obviously that is not always the case. Indirect aggression is not always successful. There were individual differences both in terms of who could successfully use indirect aggression to achieve their goals, and in terms of who was susceptible to getting hurt by indirect aggression. In some cases the behaviour appeared too blatant and was discovered by the victim. In such cases there were reports of counterattack. This finding of individual differences both in terms of who uses indirect aggression and who experiences this form of victimisation is important. It suggests that there is quite large variability in the extent of indirect aggression, which needs to be observed and measured in adult populations. Examining individual differences in indirect

aggression from a more nomothetic orientation will be explored in the final stage of this thesis.

What became very apparent from this research was that indirect aggression could be very effective. It was clearly a form of aggression quite salient to all four participants interviewed, and is obviously a significant form of aggression to study. The analysis has allowed investigation of why indirect aggression works so effectively. However, in order to understand the process more holistically there is a requirement to extend this research and examine both sides of the experience – when the interviewee is aggressing and when they are the victim. This will be more fully explored in the next study, but from this analysis we can already begin to see why it works so well.

One reason why indirect aggression works so well in adult relationships is because it harms the victim psychologically and emotionally. Beth talks about this in Extracts 4.17-4.18, the harm inflicted is less observable, but can be even more painful, especially in the longer term. The pain inflicted by more direct forms of aggression is immediate and more understandable, but the pain inflicted by indirect aggression is more insidious and attacks a person's need to belong, their need to be liked and accepted by the people they consider important. This need to belong is very important and is quite a basic human need, well recognised in the social psychological literature (e.g. Baumeister & Leary, 1995). This finding about why indirect aggression hurts so much is consistent with Björkqvist and colleagues findings (Björkqvist, 1996) although they relate this more restrictively to adolescent female peer groups. Björkqvist (1996) argues that for adolescent girls this is an even more important need, with the emphasis in adolescent female groups on relational values, and close

emotional ties. What is evident from this research is that this need to be liked continues to be an important need of young adults of both genders. By using indirect aggression and threatening the victim's need to belong, people can cause considerable distress. Clearly psychological and emotional pain is perceived as just as harmful, if not more harmful, than physical pain. It can be psychologically damaging to the victim in much the same way as psychological and emotional abuse (e.g. O'Hagan, 1995; Tang, 1998).

The effects/danger ratio, suggested by Björkqvist (1994), can be successfully applied to the data analysed here. The features of indirect aggression identified in the analysis greatly facilitate effective infliction of harm whilst keeping the risks to the aggressor very low. These features are that indirect aggression is covert and ambiguous, making the aggression very difficult to recognise, and hard to understand. This ambiguity leads to confusion, which typically results in uneasiness in the victim. In Extract 4.19 Charlotte shows how effective indirect aggression can be. She feels that people can provoke her anger and upset her whilst all the time masking from outsiders that they are intentionally trying to cause distress. She also highlights how by provoking her and leading her to react angrily she appears to be the person in the wrong, whilst they are so effectively protected from recrimination. It makes it almost impossible in such instances of indirect aggression to counterattack, and in some cases even to voice discontent about the actions of the aggressor.

In such situations, using indirect aggression means that the effectiveness of the behaviour to harm the victim is high relative to the potential danger to the aggressor. The aggressor can achieve his/her goal of harming the target whilst remaining quite

'safe' from recrimination, both in the form of counterattack by the victim, and from societal disapproval and condemnation. Using Björkqvist's (1994) effects/danger ratio and applying it to the data analysed here it is easy to understand how indirect aggression could become the most 'adult' form of aggression for individuals of both genders, as Björkqvist *et al.* (1994b) speculate. The participants tended to not sanction directly aggressive behaviour, which is consistent with the literature (Björkqvist & Niemelä, 1992; Richardson & Green, 1999), and therefore indirect aggression was a much commoner experience in this group of young adults. Also consistent with the literature they more readily admitted being the victim of indirect aggression than using it themselves (Lagerspetz *et al.*, 1988; Olweus, 1999). Indirect aggression was not explicitly thought about as aggression *per se*, which is also a common finding (e.g. Galen & Underwood, 1999). Yet it was clearly viewed as very anti-social behaviour. It was perceived as being extremely socially undesirable, probably accounting for the general reluctance in admitting usage of such manipulative techniques.

Even the aggressor themselves may not be aware of their own motivations to aggress, as indirect aggression can be unconscious on their behalf (Björkqvist & Niemelä, 1992). This leads to arguments about whether indirect aggression necessarily fits into a formal definition of aggression. This argument is often counterproductive because to the victims themselves the aggression and the pain they experience are very real. The very fact that it is open to different perceptions is an intrinsic feature of indirect aggression. Indirect aggression is designed to be difficult to establish and even impossible at times to observe.

So the nature of indirect aggression facilitated effective and potentially quite damaging results. Of interest was the tendency of victims to internalise the problem as a way to deal with the confusion and uneasiness fostered. The participants found it very difficult to make sense of such a confusing, ambiguous and covert experience. They therefore were made to feel that they were interpreting the situation wrongly, or even that they were themselves to blame. Such internalisation and self-blaming were seen to be an ineffective way of coping, and was strongly associated with high levels of frustration, and suppression of anger. Anger is not effectively released and can therefore be directed inwards onto the victim themselves. Crick & Bigbee (1998) have also identified that adolescents experiencing indirect aggression tended to suffer from internalising problems. The coping literature supports this finding of how ineffective self-blaming techniques can be (Irion & Blanchard-Fields, 1987). It is an emotion-orientated coping style (Folkman & Lazarus, 1985), that is recognised as maladaptive and immature.

There is some literature looking at the role of self-blame attributions in conflict situations quite generally. Zak (1998) argues that in intimate relationships when conflict occurs it is not the objective amount of conflict that is important to understand, but how people *perceive* the conflict. She cites evidence that suggests that the tendency to self-blame for conflicts in close relationships is much more widespread in women. Although there is not sufficient evidence in this study to draw conclusions regarding self-blame as a function of gender, there is evidence that the tendency to self-blame is highly related to the *form* that the aggression takes.

Recently, Gilbert & Miles (2000) looked at the role of self-blame in being the victim of social criticism. This is relevant because social criticism is very consistent with being a form of indirect aggression (see Chapter 6). Using self-report techniques, self-blame was found to be very common in cases of social criticism and, furthermore, it was associated with social anxiety, depression, shame, hostility and anger. This provides evidence between a common form of indirect aggression and self-blame attributions. They found that self-blame makes the individual feel inferior and unattractive. There were indications in this analysis that indirect aggression victimisation could result in damage to the person's self-esteem and self-efficacy. Again, this can be a vicious circle because people with low self-esteem are then more likely to internalise and make further self-blame attributions.

This is also consistent with Clarke (1987) who proposes that in close relationships we use emotions rather than rational thinking, often getting drawn into particular negative states that become increasingly difficult to escape from. He found that these states include guilt, confusion and passivity. This research can be applied to understanding the current findings of this study. If people experience indirect aggression a lot, they do get trapped into these feelings of guilt and confusion. The nature of indirect aggression prevents them from acting and expressing their anger in an effective manner. Therefore they get trapped into passive responses, where they cope by internalising and directing anger inwards.

Such potentially damaging cycles of internalisation, frustration and further anger could help us to understand how victimisation can be prolonged. When indirect aggression works so effectively and the aggressor is able to be so successfully

protected, further indirect aggression can be targeted at the victim. When this happens regularly over a long period of time it can become similar to patterns of behaviour witnessed in bullying and abuse. The model formulated in this research could possibly help in the understanding of how indirect aggression can become progressive patterns of behaviour over time. These insights help us to understand how indirect bullying, workplace harassment and emotional domestic abuse can remain so hidden, so harmful to the victim, and leave the aggressor so protected from intervention, counterattack and reprimand.

There were reports that indirect aggression was effectively implemented in order to bully a victim over weeks, months, and even years. Interviewing participants about indirect aggression provided evidence of childhood bullying, workplace bullying, and even gave indications of emotional/psychological dating abuse. For example, Beth's experiences of being bullied in secondary school illustrate how harmful and upsetting indirect bullying can prove to be. Bullying is distinguished from more generalised aggression by the stipulation that the aggression occurs repeatedly, on a frequent basis, and that there is an imbalance of power or status between the aggressor and the victim (Olweus, 1994).

Indirect bullying is now being increasingly recognised in the literature (e.g. Rivers & Smith, 1994; Boulton & Hawker, 1997; Owens *et al.*, 2000). This area has become especially important in the study of female bullying, where previously a lot of bullying between girls went unnoticed because of the bias to look at physical aggression, without considering forms of bullying that are salient to both male and female experience (Rivers & Smith, 1994; Smith *et al.*, 1998; Owens, *et al.*, 2000).

Bullying behaviours do continue into adulthood. Such an imbalance of power in adult relationships can most commonly be found in the workplace environment (Adams, 1992; Davenport *et al.*, 1999). Again, the indirect aggression becomes frequent and the aggressor singles out specific targets to victimise over a period of time. In Extracts 4.22-4.23 Peter describes his experiences where conflict arose between himself and his boss whilst working at a factory. His description of the situation is consistent with reports of workplace harassment or 'mobbing' where the aggression often remains indirect (e.g Björkqvist *et al.*, 1994a; Leymann, 1996; McGuckin *et al.*, 2000; Kaukiainen *et al.*, 2001). For example, Peter found that his boss often made unreasonable work demands. Along with a small number of his co-workers, he seemed to be singled out and targeted on a regular basis.

This study was mainly concerned with primary group relationships, as opposed to secondary groups such as school and work relationships. Although indirect aggression is becoming more influential in extending the work on bullying behaviours, the research considering implications for relationships with close emotional ties is much more limited. What did become apparent was that there are parallels between indirect aggression in close relationships and emotional abuse. Hayley described many incidents with partners, which involved persistent usage of indirect aggression to the level where it is quite obviously abusive. It may be of benefit to apply the concept of indirect aggression to emotional abuse in dating relationships. This could further be extrapolated to investigating possible indirect aggression within the domestic setting in the context of domestic abuse.

The findings from this study do begin to highlight the dangers indirect aggression can pose because of its covert and ambiguous nature. The cycle of self-blame, frustration and anger without a direct outlet facilitates the protection of the aggressor, creating enormous potential for long-term patterns of victimisation. Obviously this has serious implications for psychological well-being (Boulton & Hawker, 1997; Crick & Bigbee, 1998; Craig, 1998). It also highlights how beneficial the concept of indirect aggression can be in understanding bullying and abusive behaviour throughout the lifespan.

In conclusion, the concept of indirect aggression significantly contributes to our understanding of adult aggression. Indirect aggression was found to be prevalent among this group of young adults, across a variety of types of relationships and settings. Indirect aggression is not restricted to secondary group relationships as focused upon in the majority of previous research in this area. Not only was indirect aggression commonly experienced, it was also found to be particularly hurtful and damaging. There were long-term consequences associated with experiencing indirect aggression. There was a potential for it to cause damage to the victim, and of particular importance and interest in this study was the cycle of self-blame, frustration and unresolved anger.

Investigating indirect forms of indirect aggression was found to importantly extend and widen the study of aggression, making research more sensitive to female expressions of aggression, dealing with more 'adult' sophisticated ways that people seek to harm others. This study was quite small in terms of sample size, but has been very in-depth in terms of the richness of the data and the scope of the study. More

work is needed to examine the phenomena of indirect aggression, building upon this initial qualitative study. Further qualitative investigation is especially needed to assess the validity of the findings on indirect aggression in more depth, re-examining the current findings and extending the analysis to how people understand their own usage of indirect aggression. Additionally, the next study needs to broaden the age range of participants.

CHAPTER 5. QUALITATIVE STUDY 2: RE-EXAMINING INDIRECT AGGRESSION EXPERIENCES IN A NEW, LARGER SAMPLE.

5.1. BACKGROUND

5.1.1. *Summary and Rationale*

Investigating the subjective experience of indirect aggression in the different contexts in which it occurs was found to be a valuable approach to extending the research on indirect aggression, especially in the light of the current limitations of research in this area (which are detailed in depth in Chapter 3). The preliminary series of interviews with young adults revealed some important findings. Firstly, it identified some of the ways in which people perceive and understand the role of aggression in their lives.

Secondly, the experiences of being the target of indirect aggression was explored. Of most interest was a cycle of internalisation, frustration and further anger that was associated with indirect aggression in particular, and was related to the inherent features of this sophisticated form of aggression. This suggested how psychologically detrimental being the victim of indirect aggression can be. It focused principally on what it was like to experience indirect aggression against you, especially in primary group relationships. This was clearly important and worthy of further investigation in the second qualitative study involving interviews with a broader range of adults.

Little was considered in these preliminary interviews in terms of aggressor experiences. So as well as continuing the interest in the victimisation process, it was

important to consider how people perceived other people who used indirect aggression, and how they felt themselves when they resorted to such methods. The preliminary study consisted of only four interviews, which did not allow for much across-case analysis, being more conducive to within-case analysis. Conducting another larger set of interviews was advantageous to stipulating a greater emphasis on across-case comparisons. Consequently, it was possible to compare some of the findings from this second set of interviews, with the initial set already analysed in Chapter 4.

5.1.2. *Aims*

This study aimed to continue to explore the subjective experience of indirect aggression in a new sample. The new sample was larger, and more heterogeneous in terms of the backgrounds and ages of the interviewees. The interviews are additionally in greater depth, and the analysis has been restricted to examining adult indirect aggression experiences. There were two main aims to the study. Firstly, to re-examine the cycle of victimisation themes and explanatory model (discussed and developed in Chapter 4). This provides validation and builds upon the previous findings. Secondly, to identify other emergent themes from this new data set. In addition, the data from these interviews were also pooled with the previous data from Chapter 4 for the final qualitative study detailed in the next chapter.

5.2. METHOD

5.2.1. *Participants*

The participants consisted of eight adults who responded to an email advertisement distributed to teaching and research staff via a university-wide distribution list. The advertisement asked for people to volunteer to be interviewed about their experiences of anger and aggression with various people in their lives. The only criterion for selection was that participants were over 21, as slightly older adults were required than in the previous set of interviews.

There were five females and three males from a variety of different backgrounds including a male nurse, two scientists from the physical sciences, an artist, a fashion designer, and a criminology lecturer. Two of the participants were originally from abroad (Malaysia and Germany), and the others originated from all over the UK. Participants were aged between 24 and 41.

5.2.2. *Procedure*

As in the previous study, the interviews were described as being about experiences where they had felt hurt and angry at people they considered themselves to have a close relationship with. Interviews were semi-structured, loosely following the same interview schedule (see appendix 6), asking them to describe memorable incidents with people from a variety of interpersonal contexts. Interviews lasted between 90 minutes and two hours. Participants were ensured of the anonymity and

confidentiality of their data, all names were changed, and they had a later opportunity to withdraw any of their data after the interviews were transcribed.

5.2.3. Interpretative analysis

Analysis was again based upon the Miles & Huberman (1994) 'transcendental realism' approach. Within- and across-case analysis was performed, with an emphasis on across-case analysis. Evidence for the cycle of victimisation was collated, and new emergent themes were revealed through the process of reading, re-reading, coding and classifying the interview transcripts, until theoretically coherent themes were identified. After the interpretative thematic analysis, a new explanatory model was formulated for the new series of emergent themes.

5.2.4. Reflexivity

The validity of both sets of interview analyses from this chapter and Chapter 4 were verified using the techniques outlined by Miles & Huberman (1994). This included checking for representativeness, checking for researcher effects, weighting the evidence, checking for negative evidence, ruling out spurious relations, and checking out rival explanations. The models had to stand up to rigorous testing by backing up every contention of the model with substantiating interview data.

In addition, the validity of the previous analysis is enhanced here by re-examining the main findings about the experience of indirect aggression with the new sample of interview data here. This is a form of triangulating the findings across the two

different, independent data sets (Miles & Huberman, 1994; Tashakkori, & Teddlie, 1998). Finally, the analyses from both chapters have been extensively discussed with another colleague. This involved talking through the ideas and themes as they emerged, and allowing them to have access to the interview transcripts in full.

5.3. ANALYSIS

The analysis is split into two main sections. Firstly the analysis re-examines the themes of indirect aggression identified in the previous study. Secondly, a new process is discovered and discussed, focusing more heavily on the aggressor side of indirect aggression – why people use indirect aggression and what it achieves. The themes are summarised in Table 5.1.

Table 5.1. Summary of emergent themes.

1. Indirect Aggression: Re-examining the cycle of victimisation	(i) Nature of Indirect Aggression (ii) Internalisation (iii) Cycle of Self-blame, Frustration and Unresolved Anger
2. New emergent themes: Establishing power and control in relationships (using indirect aggression)	(i) Group Dynamics (ii) Power and Control (iii) Group Status and Personal Identity

5.3.1. RE-EXAMINING THE CYCLE OF VICTIMISATION

In the previous chapter three interlinked themes emerged about the experience of indirect aggression. These three themes were identified to be a commonly experienced process when indirect aggression works effectively. It was primarily concerned with the experience of being the victim of indirect aggression. It revealed how indirect

aggression, by its very nature, can be an extremely effective technique, serving to harm the victim whilst protecting the aggressor from counterattack, and societal recrimination. It also hinted at the possible detrimental effects upon the victim, the consequences in terms of coping strategies, and implied the potential for long-term patterns of indirect aggression reminiscent of reports of workplace harassment, adult bullying, and emotional/psychological abuse in dating relationships. This model was summarised in an explanatory model (Figure 4.2). Here the model is re-examined using the new set of data.

The nature of indirect aggression

In the previous study it was established that indirect aggression could potentially be very effective and very damaging to the victim, and that the way to understand the subjective experience of suffering indirect aggression was to understand its inherent features.

When people talk about experiencing indirect aggression against themselves they talk about how it is a very different experience to more direct, and more easily identifiable aggression. Beth, in Extract 4.13 talked about how hurtful it was to her because it affected how she saw herself, it affected her sense of belonging, and it affected her close emotional ties. In this way indirect aggression taps into our worst fears – our fears of being disliked, of being alone, of being an outsider. This is what can make indirect aggression more painful than the more immediate, observable direct aggression.

Susannah describes this feeling of victimisation via indirect aggression very powerfully in Extract 5.1 below. Here she was experiencing exclusion from her friendship group at work. But she relates it more generally to experiences similar to this throughout her life. She tries to explain why this is most painful for her.

Extract 5.1.

“It is sort of intruding into my private fear. . . I think making one feel not OK. I don’t know how to explain that. That someone is not OK because of how they speak or how they look or this and that . . . I think because that goes to the core of one’s being, one’s identity . . . the foundation of what somebody is. I think that’s why it’s so painful, because it’s so existential.”

Susannah [P14:L30-33]

Indirect aggression is successful at causing so much harm because it feeds into fear. Susannah describes this as private fear, and like Beth, it is her fear that she won’t belong, that she will not be liked, and that she will be alone. It affects her so deeply because it makes her question herself, and she feels she does not belong with these ‘better’ people. She describes how it goes right to the core of her being, and it damages her identity – how she thinks about herself, and how she is perceived in relation to the people she interacts with. It affects the very essence of her self-concept. Similarly, Hazel talked about such subtle aggression as seeking to damage the victim’s ego.

Susannah calls this an existential pain, in that it goes to the core of her being; she feels it damages her individuality and her sense of her right to be who she wants to be. May be she sees it as existential in that it limits her freedom to be herself, for someone to judge that she is not OK to be herself, that she isn’t going to be accepted,

and that her 'way of being' is wrong. Therefore it hurts so much that she struggles with these experiences, and they impact negatively upon how she feels about herself.

The hurt experienced by indirect aggression may go very deeply, although on the surface other people may fail to see any aggression. So the experience becomes very isolating, feeding more and more profoundly into deep-seated private fears. The victim is confused, alienated, and seems quite irrational to outsiders because they do not observe the aggression they are suffering.

Along with the type of pain induced in indirect aggression behaviour, it was also apparent that there were features inherent to this form of aggression. These features seemed pivotal to understanding the process of successful indirect aggression, and included the covert and ambiguous way indirect aggression worked, the sense of confusion indirect aggression fosters, and the uneasiness and uncertainty, which leads to self-doubt. These features were clearly essential to effective indirect aggression, and emerged very strongly in this second study.

In Extract 5.2 Tara is talking about a recent incident of indirect aggression. How she was thinking and feeling at the time highlights the nature of indirect aggression in terms of these inherent features. This series of incidents happened over a long period of time and involved her closest friend who had begun to expand her social circle, and then began to gradually exclude Tara from her life. She was doing more and more things without Tara, making new friends and shutting Tara out. It was quite a typical example of the way indirect aggression can be used to socially ostracise someone whilst the aggressor appears to be acting harmlessly to outsiders.

Extract 5.2.

“I surprised myself because I got angry with her and I didn’t ever think I could be angry with her, because she’s a sort of person that doesn’t ever do anything awkward or difficult or anything, and I always get on with her really well . . . And I found that that made me angry, and I can only say that looking back on it now that I know it made me angry because for a long time I couldn’t work out why. . . Things weren’t the same as they used to be. That was what I felt at first, for a number of weeks, and then months. Just that things weren’t the same as they used to be, and I couldn’t really work out why it was . . . And in the end I kind of found myself feeling a bit sort of put out and fed up . . . And I was really angry with that . . . And it did take me quite a long time to think about that . . . It was all a bit dubious and vague . . . The fact that I was having these feelings made me very uneasy . . . So it was a combination of feeling sort of rejected . . . I felt uncomfortable feeling that as well. So I was frustrated and I didn’t know how to behave . . . But that took quite a long time. The whole thing took about a year, and there was a long period where I couldn’t tell anybody about it, or say anything about it, or even really think about it.”

Tara [P18:L22-P20:L9]

This data extract nicely illustrates the feelings of ambiguity, confusion, uncertainty, and the beginnings of frustration, which Tara experiences. While this was going on Tara was struggling with the dilemma of understanding the situation; she was very distressed and confused. Meanwhile, her friend was effectively protected from confrontation by Tara.

What possibly took Tara such a long time to understand and interpret what was happening around her was the feeling of surprise that this particular person could ever want to hurt her. It seems so out of nature and nonsensical that somebody she had previously felt so close to could do this to her, so this leads to a reluctance to recognise what is happening at first. Even when she has recognised how she is feeling, and what is behind it (when she begins to see that she is feeling rejected by

her friend's actions towards her), then the ambiguity and covertness make her question that interpretation anyway.

Tara explains how ambiguous the situation was in that it was difficult to establish and understand exactly what was going on. She mentions that everything seemed dubious and vague, and she agonised over the situation for months without really getting at what was happening. She did know that she was feeling hurt and then angry with her friend, but because the behaviour was covert and ambiguous, she also felt bad about having these feelings of hurt and anger. She was made to feel the bad, wrong person for even daring to think that someone who supposedly cared so much for her could make her feel so hurt and rejected. So she was increasingly confused and uneasy. These features often make the victim question themselves rather than questioning the actions of the aggressor. They facilitate the self-doubt of the victim, so that anger is directed inwards.

Beth in Extract 4.20 described a comparable incident and she similarly reports this sense of ambiguity and dilemma. At the time it is very difficult to direct the blame at the aggressor, because first the person has to establish whether anything is going on, then who is causing you to feel that way, and then whether this is intentional, or merely your own paranoia. Although Tara later recognised in hindsight what was happening to her, at the time it was confusing and increasingly unsettling to her. But because she felt she was unjustified in feeling hurt and angry she could not confront her friend, so became frustrated about how to deal with what was going on and how she was feeling. She agonised in private without feeling she could talk to anyone about it. Even thinking about the situation caused her distress. She was frightened that

if she tried to do anything about what was happening, she would be seen as being in the wrong.

This was very similar to the way Charlotte described in Extract 4.19 how indirect aggression made her seem to be the horrible person because people did not see the aggression against her (because it is covert and ambiguous), and only saw her reaction of anger back at her aggressors.

These features identified previously always occurred with successful attempts of indirect aggression in both sets of data. Hazel in Extract 5.3 provided another good illustration of how she too struggles to interpret and understand what has happened to her. This incident happened when she lived with a group of four females during her final years at university. To begin with they all seemed to get along fine and were quite a compact group. However, she soon began to feel victimised and socially excluded, although it was difficult to establish what was going on. Two of the women then went away for a placement in Russia, and when they returned it became obvious that they were excluding the other woman.

Extract 5.3.

“We all lived together. And it became quite apparent quite quickly really that one of the girls felt that she needed to have a little group, like she needed to have one person pushed out. At the time. I didn't realise what was going on, it's only when I look back now that I feel that's what was going on . . . Which probably is a lot of my perception of the situation, but that was the way I was made to feel . . . But they just came back and did exactly the same thing and I just couldn't understand it at all . . . I don't know really. It was fairly overt I would say actually because when I talked it over with other people they agreed with me, that I wasn't completely imagining it.”

Hazel [P8:L5-P10:L16]

At first there is ambiguity where Hazel could not work out what is going on. She felt that they needed to have an outsider and that she had been singled out for this. But it was difficult to understand, although with the benefit of hindsight it does become more obvious (as is often the case with indirect aggression). This made it distressing and uncomfortable. Hazel was made to feel that this was all in her head, that she was imagining this persecution against her. But once the other two return and it happens again with the other girl pushed out, her previous doubt is resolved. Also her interpretation is corroborated so she can see that this is not her imagination, despite how uncertain she was previously made to feel.

These features provide the key to understanding the way that indirect aggression can work so effectively, and how it can progress over the long-term. Hazel's victimisation by the other women went on for a long time while she was continuing to feel distressed and extremely uncertain. She cannot understand, and it is a dilemma. She feels anger and frustration that there is no way to resolve the situation, and no way to be certain about what is occurring. This fostering of self-doubt in the victim, because of the inherent features of indirect aggression, provides the beginnings of internalisation. She doesn't know *why* this is happening, she does not know what *is* happening, she does not know what to *do* – so she is frustrated. But she turns this inwards, and begins to question her perception of it all. In this way we can begin to see how these features can, and often do, lead to internalisation as a way of dealing with this vague, confusing, and distressing dilemma.

Internalisation

In the first set of interviews it was revealed that indirect aggression victimisation was most commonly associated with internalisation coping strategies. In this way the features of indirect aggression make the victim doubt their interpretation, and themselves (feeding into a growing sense of insecurity). It is the start of the cycle depicted in Figure 4.2. They turn their anger inwards upon themselves. They internalise by first questioning their interpretation, and this often progresses to the point where they begin to blame themselves for the situation. Often this is because outsiders do not recognise the aggression, and because the aggression is, by its nature and definition, ambiguous and covert, the victim struggles to perceive and make sense of what is going on.

Internalisation is frequently the only way to cope with the incomprehensibility of being the victim of sophisticated (and well executed) indirect aggression. Beth discussed this in Extract 4.20, about how it made her unsure and confused to the point that she blames herself as unjustly suspecting her friend of using indirect aggression against her. She concludes for a long time that it is all her paranoia.

Tara in Extract 5.4 also describes the process whereby confusion and self-doubt become internalisation. This is an incident with a close work friend where her friend targets her with various behaviours, which are very ambiguous, very subtle, and consequently very problematic for Tara to understand.

Extract 5.4.

“There is an incident . . . It was something and nothing, and it was very difficult to really establish in my mind where the rights and wrongs of it were because so much of it was implied rather than really said or acted upon . . . I was desperately trying to get the facts of what had actually taken place in my mind straight . . . See. I’m having difficulty now explaining it because it was just so unclear how it could have come about . . . And I remember being . . . in complete turmoil for days. And wondering what was ever going to happen . . . I felt terrible . . . So I felt like I’d got to apologise, make a huge apology . . . I had a lot of struggle with myself . . . I felt like I’d really done something terrible.”

Tara [P1:L19-P3:L19]

This extract is another good example of the nature of indirect aggression from Tara, but here her thoughts reveal that internalisation has begun. It is ambiguous, and she struggles to get straight what is happening. She cannot establish the facts because it is implied rather than anything easily observable or explainable. She agonises again here over making sense of it, desperately trying to add some meaning to the confusion which mounts. The conflict is very subtle, and she simply cannot get her head around it to interpret it clearly. She describes this as turmoil that lasts for days, and she fails to get control of the situation because she cannot even imagine what is going to happen, and how this could be resolved.

She is increasingly distressed and begins to feel bad about herself. This is the start of internalisation and self-blame because she feels that she is the one who has done something wrong, and therefore it is *her* who feels distressed, and *her* who must make an apology to her friend. Paradoxically, in this way, indirect aggression makes the victim feel like the wrongdoer, and protects the aggressor most efficiently. This is similar to Beth’s experiences of indirect aggression, where she describes how she is made to feel that she is a bad person because of the way other people make her feel

(see Extract 4.21). This self-blame of being made to feel 'bad' is also mirrored in the way Susannah, in Extract 5.5, describes how being targeted with indirect aggression makes her feel.

Susannah is a researcher in a university and here she is talking about the way that she has come to feel socially excluded by the group of people she works with. She describes how they make her feel like an outsider, and that she feels ostracised. Before all this began she considered these people her friends, and they saw each other regularly outside of work.

Extract 5.5.

“With the groups here at university where I felt like they did not really want to have me there and, or at least my connection to the group, the people that connected me to the group, that they did not really want to have me there . . . Emails were getting less and avoiding to contact me especially. I think it was more the avoidance of contacting me in a time where they, the question could have popped up ‘Hey, what are you doing tonight?’ Something like that. While they did contact me at other times . . . It did make me feel angry. But may be I was also taking it personally and thinking ‘Yeah. There may be something wrong with me or maybe I don’t fit to them’, or something like that . . . I think there is a bit of a reflex thing going [on] that I first check what I have done to bring that about.”

Susannah [P11:L8-37]

The confusion and self-doubt caused by the ambiguity of the situation led her to react to the situation by internalising what was happening to her. She was clearly feeling confused, uneasy and uncertain about what was going on, so she has begun to look within herself to find an answer as to why this was happening. Susannah is angry, but she also discussed how she is made to feel that there is something wrong with her - in some way she is to blame for *their* victimisation of *her*. She takes it very personally,

that it is something in *her* that makes them treat her that way. It feeds into this sense of not belonging, but she feels that she does not belong because she is inadequate. She blames internal factors in herself for their victimisation of her.

Her internalising the problem and questioning herself protects them to some extent. She is made by their actions to feel that she is inferior, does not belong, and that it is intrinsically something wrong with her rather than them. In Extract 5.6 Caroline describes a very similar experience in her research group at work. She too is made to feel ostracised and that she does not belong, and she too questions whether she is to blame for their persecution. It is easier for the victim to self-blame than to deconstruct the ambiguous behaviour with sufficient clarity to comprehend the situation.

Extract 5.6.

“I thought I was intentionally being left out of our sort of research department because for some reason I didn't fit in or may be I was too outspoken and I wasn't fitting into a certain mould, and I didn't know what that mould should be, you know? I thought there was something I should be like, and I wasn't. But I was just oversensitive, I think . . . It was just a general feeling that people weren't very sociable or very easy to talk to (.) I just found it very cliquy really.”

Caroline [P7:L43-P8:L6]

It is hard for Caroline to describe what is happening. When discussing this she makes different interpretations, and keeps returning to this incident throughout the interview, because she is struggling to make sense of this. The aggression has tapped into her fear that she does not fit in, and she sees this not about them being aggressive towards her, but her lacking something. She thinks there is something she should be like, but isn't, and she cannot change because she does not know what she should be like. So it

is something in her, rather than something they do to her. Like Susannah she blames herself, and like Beth and Hazel previously, she questions her interpretation and thinks she may be oversensitive or perceiving the situation wrongly.

In this way the aggressors make the victim believe to some extent that the actions are justified, making it easier for the aggressors to justify their anti-social behaviour to themselves. This process can allow indirect aggression to become a potentially dangerous and destructive cycle for the victim, and a very risk-free way to aggress for the aggressor.

Cycle of self-blame, frustration and unresolved anger

As previously identified, the tendency to internalise and self-blame in the victim was associated with a cycle of feeling anger and frustration, without actually having an outlet for these emotions. Internalisation is an immature and ineffective coping strategy. Because the victims see it as something within themselves the subsequent anger and frustration is directed inwards, causing greater feelings of anger and frustration. The anger is not dissipated, and the cycle continues with long-term consequences. This cycle was even more evident in the second set of interview data.

In Extract 5.7 Jasmine describes her experience of indirect aggression, how she deals with it, and how she is left feeling about herself. A lot of the aggression Jasmine suffers is indirect, and she does experience this cycle of victimisation, which impacts quite badly on her, and is reminiscent of the way Peter previously described the sense

of frustration and constraint, and the way that Hayley would take such frustration out on herself via self-harm.

Extract 5.7.

“Because sometimes when I get frustrated I hit things and I hurt myself physically. And, you know, they get horrified at what I do . . . And I was so frustrated . . . I was torn between, and then later I was just mad at myself for not being able to do something that I knew I should have done . . . And I just hit my hand against the wall and it was painful for two days. . . If I let myself keep my frustrations in, I need to let it out at some point . . . I keep it in and it accumulates and then one day I just blow. . . The funny thing is I always end up feeling that I’m the wrong party. I don’t know why. Even if something happens that is clearly the other person’s fault and then somehow at the end of it I just feel guilty myself. Because I would have handled the situation badly and then at the end of the day I just look at it and I say, you know, I’m wrong, and I feel guilty myself. That’s why I think may be I tend to hurt myself instead of the other person. I don’t know. I just get mixed up sometimes . . . Somehow I always end up thinking badly [about myself] . . . I think it’s something in me. Yeah, I think it’s something in me. I mean I’ve thought about things and I think its, most of the time, it’s myself. . . I myself also feel that I’m not good enough or something, then it gets worse.”

Jasmine [P5:L10- P6:L39]

The situation is so ambiguous that she becomes confused and begins to question what is happening. It makes her uncertain to the point that the only way she can make sense of it is to blame herself. Her internalisation causes her to be distressed and frustrated. The frustration makes her even angrier. These feelings accumulate until she has to express her anger somehow. She believes it is her own fault in some way, the very nature of indirect aggression facilitates this perception. Jasmine has a strong sense of frustration, as she cannot direct her anger unless she directs it inwards against herself. There is clear self-blame in that she always ends up convinced that she is intrinsically wrong, that she is not good enough, sometimes despite clear evidence to the contrary.

There is no outlet for these feelings, they cannot be expressed against the aggressor because she cannot see them as an aggressor, but rather feels in the wrong herself. She needs to get these emotions released, but because the problem is internalised she does not have a direct outlet for her increasing frustration – so how can she express this anger? The only coping strategy left to her is to take it out on herself. Her anger is displaced, she hurts herself because it is the only way she knows to dissipate the anger and frustration, although she recognises that this is problematic. Perhaps she has been involved in the cycle for so long that it has become destructive to her in the long-term. It is apparent that she is unable to manage her anger effectively, and that her self-esteem has been badly damaged.

In Extract 5.8 Ian talks about his experiences of indirect aggression by his father. He shows that he cannot direct the mounting anger and frustration. As it has become self-directed he vents his frustration in a similar way to Jasmine.

Extract 5.8.

“Ian: Up until I was about 22 (.) my father used to completely and utterly emotionally manipulate or be confrontational with me . . . All sorts of things . . . To the point of me walking out of my house, hitting a telegraph pole, and breaking two of my fingers and two of my knuckles . . . And to the point of my father . . . not speaking to me for, I don’t know, . . . about a month. . . There’s hundreds of examples. I think he gave my sister absolute hell . . . I think it’s one of the cruellest, nastiest upbringings that somebody could ever have . . .

Sarah: Was there ever any attempt to try and control what you did?

I: Oh, all the time. Absolutely all the time (.) Shouting at you, stopping you doing things . . .

S: How do you express your anger?

Ian: . . . How else do I handle it? I don’t. I just bottle it up . . . That’s why I’ve got to see a trained clinical psychologist. That’s why I have to take Prozac. Tramazapan to sleep.”

Ian [P10:L17-P14:L5]

His father's indirect aggression causes frustration to the point of self-harm – lashing out and displacing his anger. He feels he has to bottle it up. This illustrates the end of the cycle of victimisation. It is comparable to Hayley's experiences from the previous study, whereby excessive indirect aggression leads to getting stuck in the cycle, with dire consequences. They both report an inability to manage anger, problems severe enough to seek the help of a clinical psychologist, and report incidents of self-harm.

There may be another issue facilitating the cycle of victimisation here though. Ian is frustrated enough to hit out at an object to displace his anger and relieve his frustration. But it is not just an issue of the nature of indirect aggression, but additionally it appears to be a question of power between Ian and his father. This can also be seen in the case of Peter in the previous set of interviews. There is a power imbalance that further aids the continuation of the cycle.

Finally, Extract 5.9 also shows the end of the cycle. Martin is discussing how he cannot seem to manage his anger. A lot of the aggression he has experienced has been indirect, in particular social ostracism. He internalises the anger he feels in much the same way, and displaces his anger because he cannot direct it at the aggressor.

Extract 5.9.

"I think that suppressing the anger has (.). I can appear unduly passive to people at times and then suddenly, well, may be I'm just going to contradict myself, sometimes I can be seen as exploding, you know, once I've been suppressing this anger and not talking about it. And now when I get to people I feel I can, I feel I trust, and am comfortable in losing my temper with, I suddenly get angry and they're left scratching their heads thinking 'Bloody hell. What's that about?' . . . I'm a little better now at saying, in the midst of the anger, 'Look. It's not really you I'm angry with here' . . . Me kind of metaphorically, you know, kicking the cat . . . It's not directed at them."

Martin [P15:L25-42]

This represents a different way of dealing with the cycle, in that he does not strike out and explode against himself like Peter, Hayley, Ian or Jasmine. Instead he dissipates his anger verbally at those he trusts, particularly his partner. It is still an immature coping strategy, representing the end of the cycle of self-blame, frustration and unresolved anger. As shown in Figure 4.2, individuals either eventually express this anger, or tend to suffer long-term consequences. Self-harm and displacing anger on themselves was found to be most problematic. More recently, Martin is perhaps establishing better ways to deal with his frustration, expressing it in a relatively safe (if uncontrolled) context.

5.3.2. NEW EMERGENT THEMES

As well as substantiating and building upon the previously identified explanatory model of the victim's experience of indirect aggression, the analysis also revealed a parallel process whereby indirect aggression is implemented by the aggressor as a strategy to establish power and control in the relationship. Certain group dynamics create a desire in individuals to increase their sense of power in the relationship, and

control over the situation. They can achieve this using indirect aggression, which (when used effectively) can lead to a shift in the power differential between the victim and the aggressor. This can then serve to enhance the status of the aggressor within the group or dyad, as well as affecting their own personal identity.

Group dynamics

In order to understand indirect aggression more holistically, it is important to not just consider the experience from the perspective of the person who feels victimised, but also consider the aggressor perspective – what motivates the use of indirect aggression? People are generally more reluctant to discuss their own use of indirect aggression, although they do see quite clear motivations behind others aggression towards them. People's understandings of why indirect aggression is used, and when, are themed around group dynamics. Being in a close interpersonal group (or dyad) leads to sometimes-inevitable tensions. There is a sense of status hierarchies existing, and people compete for dominance. People attributed their own or others indirect aggression to feelings of threat and instability. It seems that power struggles arise and there is a need for control, cohesiveness and stability. People who threaten the dynamics of the group, or the position of certain members in the group may become the target of indirect aggression. The inherent features of indirect aggression make it a particularly compatible strategy in high interpersonal contact groups when an outsider is required or the dynamics of the group lead to power issues. Group dynamics underlie indirect aggression usage.

Hazel, in Extract 5.10, describes the group dynamics of the situation with her housemates, that was discussed earlier. It is a detailed example of how she thinks certain members of a group use indirect aggression to establish themselves as in control.

Extract 5.10.

“We all lived together. And it became quite apparent quite quickly really that one of the girls felt that she needed to have a little group, like she needed to have one person pushed out . . . But there were four of us and for some reason it was very difficult for us to be equal friends. And then this one girl needed to have like her and the two girls, and then leave someone out, which happened to be me . . . It got quite difficult after a while and I used to hate going home . . . I'd come back and feel like I was walking into someone else's house like. Basically made to feel like a stranger in my own home, which was quite difficult . . . When I came back that day, the three of them were sat in the living room on one side of the room, and I came in and they were like 'Oh, I think we need to talk'. And I sat down . . . it really made it so obvious that there was them and then I was over there . . . 'You're not in our group' and all that . . . That was the way I was made to feel . . . At first I thought it was just that they didn't want me to be part of their group. . . It was only when they came back from placement after I'd lived with this other girl, my best friend Harriet, for a year . . . When they came back they both seemed to try it again, but she was the one that was pushed out this time as opposed to me. . . They just came back and did exactly the same thing and I just couldn't understand it at all.”

Hazel [P8:L3-P9:L40]

This seems very comparable to in-group and out-group dynamics. Hazel and her housemates form a discrete group, with a high level of interpersonal contact. As she began to feel targeted she was unsure (because of indirect aggression's ambiguity), but later she can see the underlying motivating forces. She feels that they needed to have an outsider, an out-group. For various reasons she was selected, although it did not seem to matter so much who this outsider was, as long as there was someone forced into this role within the group. After Hazel's mum died she thinks they felt she

could no longer be targeted, so Harriet was chosen for the role of the outsider. It seems as if such close-knit groups need to have someone who the group can focus their negativity on, to unite the other members of the group further, and aid group cohesion.

In Extract 5.11 Susannah discusses her understanding of indirect aggression and why it is utilised. She admits that she herself uses indirect aggression in order to feel powerful within her cohesive groups.

Extract 5.11.

“Sort of having this exclusivity thing. It’s like when, yeah, people are more exclusive when they keep people out . . . I notice when I’m in a group of people I feel much stronger at least for a certain time or phase of the group formation. It feels good, comfortable. You feel strong and you feel included. It makes you feel good, while when things in a group change it’s rather worrying and threatening and less comfortable. . . Not that I’m proud of it but I think I have done (.) In order to keep things the way I thought I wanted them to be. . . I get the feeling that within groups, I think groups seem to always have a certain dynamic. Depending on how dense the group is, how tight the people are together. But the tighter the people are together the more it goes on. . . I think [women are] probably more controlling than men. More involved, more committed. They put more into it, I think they like more closeness. They also are more dependent on it. . . I think they invest more in the group.”

Susannah [P12:L23-P13:L22]

Susannah thinks that this is more typical of women because of their need to invest more upon their group membership status, especially in smaller, tighter groups. She thinks that men and women have different interpersonal needs that make female groups much more problematic as their emphasis on self-disclosure and intimacy make them more conducive to singling someone out and targeting them to make the

group as a whole feel stronger. Susannah therefore suggests that indirect aggression serves a useful purpose in the group, and by implementing it women keep groups stabilised.

It happens more in highly cohesive groups with a high frequency of interpersonal contact. She considers that the tighter the group, the more likely indirect aggression will occur. With the smaller and more intimate groups, and particularly dyads, indirect aggression is facilitated more and more. This behaviour within groups seems to be behind indirect aggression, and it can be seen how groups desire to feel powerful, and some people within groups desire to feel most powerful. This makes indirect aggression a perfect strategy in such contexts. Susannah seems to hint here about how this is a power issue to gain control and feel stronger; to be part of the dominant in-group. It again links back to how indirect aggression affects the feeling of belonging. To the victim it is more painful because it taps into this private fear. To the aggressor it makes them more certain that they do belong. By making other people feel alienated we can make ourselves feel more accepted, and more popular. It is our tendency to seek this within group contexts that underlies usage of indirect aggression.

There appears to be certain times within groups that indirect aggression may be implemented as a useful mechanism of increasing group stability. Susannah mentions how she might use such methods in the early stages of group formation. It seems likely that it also occurs when groups change in terms of membership – so when someone leaves or wants to join a group – and also when the structure of power within the group changes. In Extract 5.12 Martin also seems to recognise this group

dynamic, which operates to create stability by having someone as an outsider. In this case the indirect aggression against him occurs when the group membership of an existing group changes.

Extract 5.12

“I used to be a nurse teacher. . . It was in a large school of nursing attached to a university. But within a large school of nursing there were only four or five of us who were mental health teachers. So we were supposed to be a sort of discrete team and (.) there was a guy who worked with us who became unpopular amongst us for quite blatant reasons I think. He wasn’t a malicious man but he displayed some overtly sort of racist tendencies. And then he left and I suddenly felt that the focus of negativity switched to me.”

Martin [P2:37-46]

One of the primary reasons he believes this happened to him was the discrete nature of the group. He witnessed the same behaviour against another member of the group, and in fact was part of the in-group at that time. But once the outsider is no longer working in the group, he felt that they needed a new focus of their negativity, which happened to be him. It is seen as a need within close groups to have someone to target their hostility against. On a wider scale it is part of human nature, that we will categorise ourselves in terms of the groups we belong to, and strengthen the group ties by having someone we can identify as being ‘other’ – an ‘us’ and ‘them’ mentality.

Susannah again tries to verbalise this in Extract 5.13. She spends considerable time trying to understand why people use these tactics against her in her relationships, and also understand why she herself resorts to such methods. Here she is relating an incident with a work friend whereby she told her about a person she was attracted to

in the group, and this friend used this information against her with the rest of the group, and further sought to ostracise her from the group.

Extract 5.13.

“I’d stepped on her toes. I think she wanted allies and reassurance, and I think groups stabilise themselves by having an outside enemy. And maybe that was being me. And maybe they were forging their relationship and reassuring and re-strengthening them by having a scapegoat.”

Susannah [P3:L22-27]

Again this links in with the nature of indirect aggression. Here Susannah feels she is targeted because she was threatening the dynamics of the group. She thinks that there was jealousy here that possibly a relationship could occur between herself and this man she is interested in, who also belongs to the same group. The friend turns the focus of the group negativity upon her very subtly using social manipulation. As Susannah is perceived as threatening the existing structure of the group, she becomes the scapegoat, the enemy. She feels this woman uses her to stabilise the group and make the group feel united at her expense. She is targeted with indirect aggression because the group needs to be cohesive and have an outsider. She is chosen because she was proving to be a threat for the other dominant female in the group. It can be seen as an issue of power – who is the stronger one who can force the other from the group?

Power and control

Clearly people are motivated to use indirect aggression to gain or maintain control of the group or dyad, and establish or emphasise their own power. Indirect aggression is

not spontaneous, immediate aggression in the same way as direct aggression. It is quite instrumental in that it takes time to plan and execute. It is about asserting control, more than immediate emotional reaction. By using indirect aggression the aggressor can take power from the victim, and shift the power differential within the group. They can do this covertly without risking their own relationship to the others in the group, and often without the victim being sure of the intent of the behaviour. Power can be addictive and alluring, and the nature of indirect aggression can allow a pattern of behaviour to be established with high losses to the victim and protection to the aggressor.

In Extract 5.14 Ian mentions how a colleague at work uses indirect aggression very successfully with his other colleagues, although it is less effective on him.

Extract 5.14.

“Whereas with Gillian that I work with, I would say it’s a certain policy of herself to try and manipulate and be the top dog, so to speak . . . It doesn’t wash with me because I know that I would be able to sort her out, no problem whatsoever.”

Ian [P5:41-45]

Ian and Gillian have a history of conflict at work. He feels that she is intimidated by him because he is cleverer and more competent at his job. He sees her indirect aggression as an attempt to establish herself as the ‘top dog’. She wants to be the one with the most power within the group. But he feels he has enough control over the situation to not be affected by her manipulation. He feels superior and in control so that he could deal with it without it becoming a problem for him.

Susannah, in Extract 5.15, also sees this need for control in her work environment. She talks about the aforementioned conflict between herself and her work friend who has managed to turn the entire group against her.

Extract 5.15.

“The agenda of the person who wanted to talk to the guy I was interested in, I thought there was something behind [that]. . . She found me, I think she wanted to keep the status quo what it was like. Not have any sort of changes that her friend is may be going out with somebody . . . Maybe that is what she might, yeah, I was thinking about that. Uncomfortable and threatening. Because otherwise why did it interest her at all?. . . Not sure how aware she is of that. But I think yeah, being in control of that I think was her point. Yeah, controlling the situation.”

Susannah [P12:L4-20]

She relates how she herself was seen to pose a new threat to the group, making them feel uncomfortable. The feeling of threat leads the woman to want to keep the status quo, and regain the group’s stability. She does not want the group to change, so she feels she has to reassert control over the group, to maintain her status within the group and prevent Susannah from upsetting the balance of the group. She discloses Susannah’s secret to the others to negatively change Susannah’s status within the group – to dis-empower Susannah in order to keep her dominant position and protect the insularity of the group.

Although Martin’s, Ian’s, and Susannah’s incidents occur within close-knit work groups, Jasmine experiences a similar process within her relationships. This was particularly evident in her relationship with her boyfriend, where issues of power and control are strong themes evident behind his indirect aggression towards her.

Extract 5.16.

“I sweep things under the carpet so, I mean there are many, many occasions where he has hurt me . . . I remember he had a bad relationship before . . . It’s like because he wanted to be in control and, you know, there’s no way that I would be above him.”

Jasmine [P13:L9-20]

This links to the cycle of victimisation for Jasmine as she internalises partly because she has no power to counterattack. The nature of indirect aggression alone is not sufficient to understanding Jasmine’s experiences. It is a combination of the features of indirect aggression and her boyfriend’s constant assertion of power over her. He seeks to control her, to continuously widen the power differential between them. The reason he does this seems related to his insecurities based upon past experiences. Giving Jasmine equal power is unimaginable for him, he has to feel in a superior and more powerful position over her. This is strongly related to the context of their relationship as they are both Malaysian and her boyfriend continues to endorse very traditional Chinese values about the role of women in society.

This example hints at the consequences of indirect aggression for both parties. Jasmine’s lack of power, along with the nature of the aggression, lead to mounting frustration and increasing feelings of powerlessness. It detrimentally affects her identity and self-concept, whilst his identity is enhanced because he always feels superior.

Martin in Extract 5.17 describes a battle for power within a mixed-sex friendship group. This also implies something about the consequences of indirect aggression and the outcome for both parties when conflict leads to shifting power differentials that necessarily impact upon, not only identity, but also status within the group.

Extract 5.17.

“We were going to this party and I knew the people who were giving the party and you know, I was saying ‘Ah, look. It’ll be rubbish and I’m not going’. But it was turning into a bit of a power struggle really. One of the four of us, one of the lads, our relationship had more or less broken down, and he was determined that we were going as a group and I was trying to decide as a group that we weren’t going. Anyway, this Saturday came and we sat in the pub, and the other three just got up and sort of left me. But there was more going on than just that. And I’d arranged to meet one of them the next night for a drink and I just didn’t turn up. (.) He knew that it was deliberate. And that kind of finished my relationship with the three of them. . . I don’t know if I intended to kind of finish the relationship and contact with that person entirely but once I’d made that sort of gesture of not turning up it became a pride issue for both of us I think . . . Neither of us felt that sorry . . . that business there was just infantile really . . . I think principally being a power issue between me and this other guy in the group really and I was glad that that part was over. And it felt like the group and my relationship with him came as a single package really. . . I suppose we were the two quite strong personalities who were just clashing all the time. And the other two were quite happy to go along just seeing one another. They didn’t need to be the group leader . . . He would make a point of sort of making the arrangements with the other two and sort of seeing them midweek. Or at least I *thought* he had made a point of making arrangements with them and not telling me.”

Martin [P7:L40-P9:L5]

Here Martin is trying to explain what was happening in this group. Group dynamics were again at work as there is a power struggle for group leadership, which leaves both Martin and the other dominant male to manipulate the others, using indirect aggression. The problem existed because both of them had strong personalities where they wanted to lead the others. They were both trying to make the point that they controlled the group. Martin did this by trying to exert his influence and make decisions for the whole group. The other man did this by making arrangements for the group excluding Martin more and more. It has really become an issue where they are

fighting for control. They both want the role of leader and the status that is attributed with such a role. So they both use indirect aggression, and in the end Martin loses out and breaks off his relationship with all of them.

In this way the group has re-established itself, the balance of power has been shifted, and a leader chosen. This struggle was primarily instigated by the group dynamics that there needed to be one leader, with the result that someone needed to become the 'enemy'. It is clearly about power and control within the group, and inevitably affects the status hierarchy, and the identity of Martin who is now excluded, and the other male in his new role as the leader, the 'winner' of the battle for power.

Status in group and personal identity

The shifting power differential serves to take away some power from the victim, making them feel less able to control and confront. At the same time it makes the aggressor feel more powerful and in control of the relationship, whilst maintaining their protection from counterattack and recrimination. The status within the group of those involved is necessarily affected, and it simultaneously impacts upon both parties own personal identity (how they feel about, view and value themselves).

Susannah in Extract 5.18 describes an incident with a best friend whereby a power struggle seemed to be taking place between them and they both used subtle indirect aggression on each other to try and establish who was the strongest or the most powerful among them.

Extract 5.18.

“One friend who I’ve been friends with for 25 years, I remember a situation where I just thought at the time she was being really selfish, like looking after herself not looking after me. And it just may be an arrangement we had made and she just turned back on it and said ‘No. I don’t want to do that now’. Although it would have been very important for me to do that . . . I thought she was using her power as well . . . I needed her and she was showing her power that I need her. that I’m little and need her . . . I think the same friend I’ve hurt a lot. I was, I think making her feel guilty about, when I was sort of complaining about her being selfish and doing her own thing. . . I think I did want to be the one whose right and was the rightest one, and that she is not doing the right thing. And yeah, may be feel good about it because at least I was doing the good thing . . . I think it would have may be made me feel better about the pain, but I don’t think it would have worked as a friendship.”

Susannah [P9:L25-P10:L10]

This is similar to the situation described by Martin in that they both feel threatened by the power of the other and so both compete using indirect aggression, although here the struggle is between both members of a friendship dyad. Susannah feels neglected and snubbed by her friend. It is socially ostracising and she is made to feel unimportant. She gets her own back by trying to make her friend feel in the wrong. The issue here is power. They both need to feel the one in control in the relationship, although Susannah, like Martin previously, now sees how stupid and impractical this could be.

She has been made to feel powerless by her friend. She describes being made to feel the dependent one who is little and needy. This hurts her, so she has to retaliate to try and win some of the power back, and begin to feel in control of the relationship to some extent again. Again, as in Martin’s example, this power struggle is unsuccessful and the friendship is dissolved completely between them. The relationship was not going to work with both of them feeling they have to be the one in the right, or the

(morally) superior one. This affected Susannah in that the indirect aggression had made her feel submissive, inferior, and powerless. Counterattacking her friend using similar indirect aggression tactics was her attempt to improve her status and identity, but instead she is just left feeling that she threw away one of her closest friendships.

More generally, in Extract 5.19 Susannah talks about why she thinks people use indirect aggression. They have the end objective in mind of being the powerful one, because of how good that would make them feel about themselves.

Extract 5.19.

“In order, I think may be in order to feel, make themselves feel comfortable with themselves, feel superior or less inferior, or suit their purposes like achieve certain things. Not having to share certain things. Be in control.”

Susannah [P14:L15-18]

Again, it is all about this need to belong. If you can change the power in a relationship so that you feel in control, then you set the benchmark for what is acceptable within that group. In order to feel comfortable with themselves and be happy with their personal identity, people seek to be in control; they want to be the superior one.

There are strong elements of power and control in the relationship between Ian and his flatmate Claire, which is detailed in Extract 5.20 below. Ian and his other flatmate Owen manipulate Claire. They single her out as the target of their attacks. He admits that they engage in some quite nasty indirect aggression behaviours against her, ganging up on her to make her feel bad. From this we can see how Ian uses indirect aggression here to make himself more powerful in the house than Claire, and to make her feel inferior to him.

Extract 5.20.

“Our other housemate is quite blatantly aggressive towards her. And his way of expressing it is on a very personal level. I would say mine, I try and be a lot more underhand and would expect her to go away and think ‘May be he’s talking about me . . . So we’ll happily, manipulates the wrong word, but kind of emotionally attack her . . . And do it on purpose and this is calculated. On my part very much calculated . . . I wouldn’t say manipulate her, but certainly affect her, would be ‘She’s a fucking slag, she deserves everything . . .’ I don’t think this, but I will quite voraciously state this ‘She deserves everything she gets in life because she shags everything that moves’ etc., etc. With the hope that it will in some way affect her . . . I’m pretty sure she does take it as a hurtful gesture on my part. Although she probably wouldn’t put herself . . . in the same category as a prostitute. Whereas deep down I think she does. She’s cried on a few occasions about that type of thing. And so I know again that that’s something that will get to her. ‘People think that I’m a bit of a slag.’”

Ian [P15:L3-7;P16:L27-P17:L8]

He manipulates her by undermining her sense of self. He constantly attacks her self-esteem in various ways that protect him as they could be easily passed off as not about her at all. By making her feel like a prostitute he victimises her over the long-term, taking away her power, making her upset and out of control, yet ensuring she is unable to counterattack.

He clearly wants to feel powerful in comparison to her and seems to derive a sense of satisfaction. Victimising her makes him feel strong and all-powerful. He obviously affects her identity very badly whilst enhancing his own sense of superiority. He describes how he has made her cry, and how he knows she feels very bad about herself. Even the way Ian talks about this during the interview hints strongly at how this makes him feel better than her, stronger than her. He gains his strength by undermining her status and identity. He appears to ‘get a kick’ out of this and seems

to be on his own personal power trip over her. There is a clear power differential set up between them, which he maintains by continuing to use this indirect aggression against her. He is bullying her repeatedly in her own home without her being able to understand or retaliate, and the longer it continues the more dis-empowered she is. The more detrimentally affected her status and identity become, and the stronger his position is maintained.

Finally, Susannah explicitly talks about this process of dis-empowerment, in Extract 5.21. Here she is again trying to understand the social ostracism she is currently suffering in her workplace group of friends.

Extract 5.21.

“I’ve got my doubts about her agenda . . . Yes, it made me angry because I thought it’s none of her business. She’s like dis-empowering me . . . I think it has affected my whole idea of how close I really want to be to people I work with and see every day. It’s, yeah, affected in a way that I’ve pulled out of it a bit more . . . Yes. I’m trying to protect myself from that hurt.”

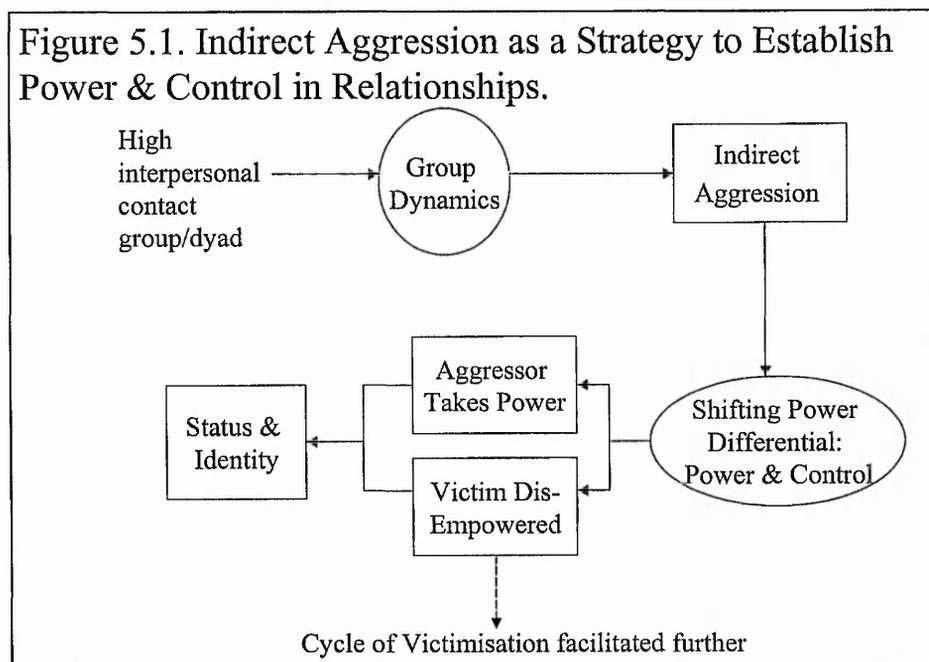
Susannah [P1:L41-P2:L37-39]

Again, here she makes reference to the agenda of the friend which motivates this series of attacks on her. Susannah now feels that her status and identity have been effectively undermined. The indirect aggression has set up this (perceived) power differential between them where the woman takes away Susannah’s power and destroys her kudos within the group to which she once felt an integral part.

Susannah’s power is lessened, and her credibility within the group has been attacked. This has all been done indirectly by the friend bitching about her, disclosing her secret and ostracising her. By using indirect aggression the friend has therefore enhanced her

status within the group because she has made Susannah seem the enemy and portrays herself as the victim, the injured party in all this. This is a very effective use of indirect aggression. Susannah is powerless to the point that she cannot fight back and she reacts by withdrawing from the group. She does this because her identity has been damaged and she feels the need to self-protect. But her need for self-protection effectively means that the friend has won, and Susannah is no longer the threat that she once posed. Whilst the friend's own status within the group is stronger than ever, so she can feel strong and powerful about herself in terms of her personal identity.

Figure 5.1 is a schematic diagram of the explanatory model developed from the thematic analysis described here.



In groups where the level of interpersonal contact is high, group dynamics motivate the use of indirect aggression. This use of indirect aggression leads to a shift in the power differential within the group. With effective indirect aggression this usually

means that the aggressor takes the power from the victim to enhance his/her own power. The victim is therefore dis-empowered. These changes in power and control relations affect the status within the group, and the personal identity, of both the victim and aggressor.

5.4. DISCUSSION

The results from this study have not only substantiated and expanded the previous findings regarding the cycle of victimisation, but have also led to the formulation of a new model. This new model allows a greater understanding of the whole picture of indirect aggression by incorporating the motivating factors behind utilisation of such strategies. The new data has expanded the investigation of indirect aggression to a new sample, more heterogeneous than the previous study, across a broader range of ages. It has additionally made across-case analysis much more viable, highlighting the consistencies across different interviewees in terms of the two explanatory models discussed in this chapter.

Of particular significance has been the finding, throughout these two interview data chapters, of how damaging the experience of indirect aggression can prove to be to those victimised. We have seen how the inherent features of indirect aggression all contribute to further harming the victim. The ambiguity and subsequent confusion caused do strongly aid the process of internalisation, which is not a healthy form of coping (Irion & Blanchard-Fields, 1987). Folkman & Lazarus (1985) suggest that such immature coping strategies are maladaptive, which was certainly seen to be the case in this study. Internalisation was ineffective in dealing with the hurt and anger

caused by indirect aggression. Instead of dissipating their anger and resolving the situation, the individuals suffered greater levels of frustration and anger without any healthy outlet to release this anger. This was because once internalised the victim seeks to make sense of the situation by blaming themselves. This pattern of self-blame associated with experiencing such subtle anti-social behaviours is consistent with the findings of Gilbert & Miles (2000). They also investigated the effects of such patterns on the victim's self-esteem, social anxiety and anger.

Previous research in indirect aggression suggests the protection of the aggressor because of the covert nature of indirect aggression (e.g. Lagerspetz *et al.*, 1988; Björkqvist *et al.*, 1992a; Björkqvist & Niemelä, 1992; Lagerspetz & Björkqvist, 1994). This study found substantial evidence that this was clearly the case. The features of indirect aggression facilitate the safety of the aggressor, at the harm of the victim. This can even prove a double-bind for the victim in that the aggressor can, via sophisticated adult indirect aggression techniques, actually appear to be the injured party. Examples were common whereby the indirect aggression could be passed off by the aggressor as either harmless fun, well intentioned, or innocent behaviour. If the victim therefore reacted with anger and hostility towards the aggressor, they themselves appeared to be acting anti-socially, irrationally, or could be accused of being over-sensitive. In this way the victim can be made to appear to be the wrongdoer to outside observers. Furthermore, because of the tendency to then self-doubt and self-blame through the process of internalisation, the victims themselves very often become persuaded that they are responsible for other people's aggression against them.

Indirect aggression has the potential to be extremely sophisticated and effective. This study identified situations in which the victim is both blamed by others, and furthermore blames themselves, for the aggressor's actions. This shows clear support for the effects/danger ratio suggested by Björkqvist (1994). Indirect aggression can have very little risk for the aggressor, and very high costs to the victim. Once individuals have sufficiently developed social intelligence (Kaukiainen *et al.*, 1993, 1999) they can expertly use sophisticated forms of indirect aggression in adulthood with great efficiency. There is very little danger of being identified, accused and counterattacked, although the effects of harming the victim can result in not only the initial hurt, but also be doubly-effective in the longer term after internalisation has occurred. This effects/danger ratio can be particularly weighted in the favour of the aggressor in intimate relationships. People are not easily persuaded that people so close to them would want to hurt them. They are much more likely to try and find reasons in their own behaviour rather than believe that someone they love would be intentionally making them feel so bad.

This cycle of victimisation was strongly corroborated with the new independent data set, providing evidence of validity because the same results had been confirmed across studies (Miles & Huberman, 1994). The model developed in the previous chapter has been upheld, and the substantiating evidence strengthened, with the findings in this chapter. The process seems fairly universal across participants' experiences in a variety of different relationships and settings. The features of indirect aggression can be so successful in fostering self-doubt and uncertainty that internalisation is very often the only way a victim can make sense of this unsettling, ambiguous, and frequently incomprehensible experience. The end of the cycle, in

terms of the tendency to get stuck in the process of internalising and accumulating frustration and anger without a direct outlet, was even more evident in this data set. In the long-term, experiencing this cycle was associated with an inability to manage anger, detrimental effects on identity, self-esteem, and self-efficacy, and even clinical psychological problems. Obviously this cannot be shown to be a causal relationship, and many other factors are bound to be involved, but this is an important finding worthy of greater investigation.

What was very apparent was how hurtful and memorable indirect aggression experiences proved to be. People recalled numerous incidents throughout different interpersonal contexts in their lives. Incidents that happened even over a decade ago were talked about in great detail. Because indirect aggression is so difficult to detect without the benefit of hindsight, and so difficult to understand, people spent a lot of time after the event trying to add meaning to what had happened to them. Indirect aggression left them with the feeling that so much had been left unresolved. Years later it upset them to think that people they were close to could hurt them so deeply, and they were still desperately trying to comprehend what had happened and why. It was common for people to comment that this form of aggression hurt them more in the long run because it was never resolved and instead of being over quickly via immediate direct aggression, the effects stayed with them, along with the confusion and uncertainty.

Indirect aggression seemed to be so devastating principally because it affected them psychologically. As Susannah said, it is an existential pain in that it makes you believe that you cannot be who you want to be, that your individuality is not accepted,

that there is something you should be but aren't, and therefore you can never belong. This need to belong and to affiliate with others is well documented in the social psychological literature. We all have a basic human need to be liked (Perlman & Fehr, 1987; Baumeister & Leary, 1995) as we are social animals, and our sense of identity is so largely shaped, or even constructed, by our interpersonal relationships (Burr, 1995; Gergen, 2000). We also desire personal freedom to be who we want to be, to be an individual (Maslach, Santee & Wade, 1987). To be made to feel rejected, unpopular, and alienated by people we want to be close to can be intensely painful.

Again, there were patterns of indirect aggression that continued over weeks, months, and even years. This was even more prominent in this group of slightly older adults than in the first set of interviews. The cycle of victimisation, and the establishment of power differentials, seemed to allow enormous potential for indirect aggression to become progressive. The victim gets more and more dis-empowered, the aggressor meanwhile gets more and more confident that the risks of recrimination and counterattack are minimal. With the victim internalising and the aggressor's risks diminishing it is very easy for the indirect aggression to become repetitive. The more successful it proves to be to the aggressor in terms of the effects/danger ratio, the more likely they will be to adopt this strategy as their preferred way of achieving their aims (Björkqvist *et al.*, 1994b). In light of the power differential these patterns are very similar to bullying accounts (e.g. Besag, 1989; Olweus, 1993; Rivers & Smith, 1994) because there is a power imbalance between the bully and the victim, and repeated, regular incidents of aggression.

The literature on adult bullying has so far done little to incorporate the concept of indirect aggression explicitly, with some notable and commendable exceptions (e.g. Ireland & Archer, 1996; Ireland & Ireland, 2000; Björkqvist *et al.*, 1994a and b). Adult bullying tends to mostly concentrate on secondary group relations in terms of workplace harassment and violence (e.g. Adams, 1992; Einarsen & Raknes, 1997; Davenport *et al.*, 1999). Cases of ongoing indirect aggression in the workplace were quite commonly experienced by the participants in this study, and some of these reports were consistent with documented research on workplace indirect bullying (Ashforth, 1994; Leymann, 1996). Some cases were less clear-cut though because, although occurring in the work environment, they were less similar to workplace harassment cases and more similar to the indirect aggression witnessed in primary group relationships, because they involved close friends who had met through the workplace.

Consistent with the speculations made in Chapter 4, there was again further evidence of indirect aggression becoming abusive. Some reports of indirect aggression by participants involved long-term frequent usage in very close relationships, most notably in romantic relationships. In the previous study Hayley's experiences with her ex-boyfriend were comparable to accounts on psychological dating aggression (Molidor, 1995; Pipes & LeBov-Keeler, 1997). There was evidence of such extreme patterns of indirect aggression, which could constitute abuse, in this study. This again suggests that there may be some important parallels between indirect aggression and psychological/emotional domestic abuse. The concept of indirect aggression could, in the future, be significantly applied to some areas of non-physical abuse in the home. What is becoming very apparent in this research is that indirect aggression has a

substantial contribution to make in our understanding of, not only aggression and bullying, but possibly child abuse, dating aggression and domestic abuse, relationship discord and marital difficulties, and the general dynamics of friendships and intimate relationships.

Trying to understand the issues of power and control within relationships is also applicable to possible extremes of indirect aggression. The importance of such considerations is irrefutable in the domestic violence literature (Coleman & Straus, 1986; Stets, 1988, 1991; Hinde, 1997). The different balances of power between people in relationships were obvious in this study. Power and control was frequently seen to be the motivation behind indirect aggression. Particularly interesting were the incidents that were clearly about struggles for power between dominant people. In such instances the indirect aggression often occurred from both parties involved. They used subtle techniques against each other to try and re-establish the power in the group, often because they both felt the need to be superior, to be in greater control, and to be a leading figure in the group. Having this power and control was associated with higher status.

It would be interesting in future research to examine the relationship between indirect aggression in group settings and the existing status hierarchies. Previous literature has emphasised the need to understand issues of status hierarchies when studying aggression (e.g. Campbell, 1999) and suggest that such considerations may be of primary importance to male-to-male aggression. The results here though suggest that women are just as eager to compete for status and power within their group relationships.

The findings do point to different interpersonal needs for men and women. The participants discussed the differences they perceive between men and women's friendship groups. Women were seen as being more concerned with cohesive groups, small in size, with high levels of intimacy and self-disclosure. Women seemed much more prone to emotional attack because of their increased desire to belong and be accepted. The men reported being less sensitive to such forms of indirect aggression. These differences are consistent with the research on intimacy and sex differences in interpersonal priorities (Baumeister & Leary, 1995; Björkqvist, 1996). Susannah related these needs and differences between men and women's attitudes to groups, to the usage of indirect aggression. This would suggest that even in adulthood we would expect indirect aggression to be more prevalent among women. Evidence so far is limited because of the emphasis in the research on the developmental model of indirect aggression in childhood and adolescence. As Archer (2002a and b) concludes, evidence about indirect aggression in adult men and women is mixed, with some studies suggesting differences in extent, some suggesting differences in the form (Björkqvist *et al.*, 1994b), and others suggesting no differences between men and women (Richardson, 2000a; Forrest & McGuckin, 2002).

Björkqvist *et al.* (1994b) do suggest that adult indirect aggression should get progressively more sophisticated, with both men and women generally preferring more covert rational-appearing aggression over less sophisticated social manipulation. They also suggest that men use rational-appearing aggression to a greater extent than women. Their research, however, involved only secondary group work relations, so the patterns concerning gender and adult indirect aggression in primary group

relationships are still unknown. Although this is not a systematic study of gender differences, it was observable that men and women reported more incidents of indirect aggression than direct aggression, and that the experience of using and being the victim of indirect aggression was equally salient to both genders. This is very consistent with the emphasis on viewing aggression from an individual (rather than gender) differences perspective.

Richardson's (2000a) research on indirect aggression in adulthood stipulates that this type of behaviour should be witnessed quite strongly within working and friendship groups, but should not be expected within intimate/romantic relationships. In this thesis it was hypothesised that indirect aggression should be particularly pertinent to all types of primary group relationships, because of their focus on trust and self-disclosure. The closer we get to people, the more we disclose about ourselves, and the more we risk in terms of them using that privileged information against us. All intimate relationships involve this kind of risk (Hatfield, 1984; Acitelli & Duck, 1987; Cupach & Spitzberg, 1994). This makes both intimate/romantic relationships and close friendship groups the ideal forums for indirect aggression to manifest itself.

Consistent with Richardson (2000a) a considerable amount of indirect aggression among friends was noted, but the use of indirect aggression among partners was also very prominent. This study does demonstrate that indirect aggression can, and does, occur in our most intimate relationships with the people we love the most. We do hurt the ones we love, and the benefits of indirect aggression are patent. We have more invested in these relationships, more to lose if our aggression is discovered, so we use very subtle techniques, lessening the chances of ruining these relationships, yet

still proving effective. It is possible to be particularly effective because we know so much about them – we know what is important to them, what will hurt them, we know their weakness and we can play upon them. Indirect aggression within intimate dyads is certainly an important area of research that has been neglected in the past.

An important finding of this analysis was the formulation of a new explanatory model based upon new emergent themes of group dynamics, power and control, and status and identity. This has been helpful in gaining a more holistic picture of indirect aggression experience, as it suggests some of the motivations people perceive to underlie their own, and others, indirect aggression behaviour. An interesting finding was the way that indirect aggression seemed to be seen as serving a necessary purpose within close groups and dyads. There appeared to be group dynamics whereby under certain circumstances people felt that they needed to have an outsider, a common enemy. This out-group figure strengthened the comfort and stability of the in-group.

This finding is consistent with research on group processes and behaviour whereby in-group and out-group formations are considered essential/inevitable components (Tajfel, Billig, Bundy & Flament, 1971; Hogg & Vaughan, 1998). Humans have been found to have a tendency to categorise objects and people in the world around them (Wilder, 1986; Brewer & Kramer, 1985). Social categorisation means that we categorise ourselves quite automatically in terms of our group membership (Turner, Hogg, Oakes, Reicher & Wetherell, 1987; Turner, 1985; Stephan, 1985). Such social categorisation helps us form concrete ideas about our own self and identity (Tajfel & Turner, 1979; Abrams & Hogg, 1990; Hogg, 1996). We have a desire to affiliate and form groups, it taps into this human desire to belong. Groups stabilise by having

someone to focus their negative energy on – they need an ‘other’, an outsider (Perdue, Dovidio, Gurtman & Tyler, 1990). We tend to view our social world with an ‘us’ and ‘them’ mentality. The way that people use indirect aggression when they feel threatened within a group or relationship is not surprising. It provides a low risk tactic of shifting the power differential to the aggressor’s benefit. By gaining greater power and control over our interpersonal environment we feel stronger in ourselves. By excluding others we can decide what is acceptable, and set that standard so that we feel we do belong.

The development of this new model is useful because the cycle of victimisation on its own is not always sufficient for understanding why the victim internalises so completely. The combination of the aggressor dis-empowering the victim, and the victim focusing their anger and frustration inwards, both work together to facilitate the successfulness of the strategy for the aggressor, and the detrimental effects to the victim. The issues of group dynamics, power and control, and the subsequent impact upon status and identity, are vital to understanding how indirect aggression has such potential for harm, and for long-term patterns of this behaviour. Retrospectively looking back on the previous study’s data it is possible to see how power and control is vital to the context of the indirect aggression described there. For example, Peter’s relationship with his father, and his conflict in the workplace with his boss. There is certainly some overlap between the cycle of victimisation (Figure 4.2) and the use of indirect aggression as a strategy to establish power and control (Figure 5.1). They cover both the victim and aggressor perspectives, which are inextricably linked because each model feeds back into the other.

This highlights really how difficult and complex studying indirect aggression is, because it is often not as simple as there being a clear 'victim' and a clear 'aggressor'. Differences in interpretation of the same incident from the side of both parties involved must be considerable. Zak (1998) proposes that it is these different subjective perceptions of conflict that should be our primary interest. The next step in future research (after this thesis) should address this issue by interviewing dyads so that the same events can be visited from both perspectives. The role of the victim and aggressor are both so integral to understanding the subjective experience of indirect aggression that it would be fascinating to look at both perceptions of the same events within a single series of interviews.

Both models also have an emphasis on identity and self esteem. From the cycle we see how indirect aggression is so painful because it gets to the heart of one's identity and self-esteem. We also find how damaging it can be in the long run to a person's self-confidence and feelings of self-worth, and how detrimental being stuck in the cycle can prove to be in terms of the individual's personal identity. The power and control model also has this emphasis on issues of both personal identity (how we feel about ourselves) and status in the group (where we stand within the group in terms of our perceived role and dominance). When our identity and status is threatened, we target the other's identity using the most effective means possible – indirect aggression with its often low risks and high rewards. Identity is clearly pivotal to understanding the experience of indirect aggression from both perspectives. This is an area that needs to be looked at in more depth. Our identity can be said to be of primary importance to us (Harré, 1998), and damage to our identity can be most demoralizing. So investigating the effects of indirect aggression on identity in greater

detail would be valuable. Also we need to understand 'How do we feel about ourselves once we perceive ourselves to be a victim of this form of aggression?' and 'How can we reconcile in our identity the knowledge that we are an aggressor?'. Everyone must both use and suffer indirect aggression at some time in their lives – how does that affect how we think about ourselves?

There is already evidence from these studies that initially people refuse to see themselves as either an aggressor or a victim of indirect aggression. It is seen as particularly calculating, cold-blooded and manipulative. In this way it seems a much more instrumental form of aggressive expression because it is perceived by those interviewed as being about asserting control, rather than being an expressive, instantaneous emotional outburst to provocation. It tends to be calculated and often takes planning. Also it may need to be an ongoing offensive to have the desired effect, because it is ambiguous and works better if it can continue unnoticed for some time.

**STAGE 3. INDIVIDUAL DIFFERENCES IN INDIRECT AGGRESSION:
FROM SUBJECTIVE EXPERIENCE TO MEASUREMENT**

CHAPTER 6. TYPES OF ADULT INDIRECT AGGRESSION.

6.1. BACKGROUND

6.1.1. *Summary and rationale*

In Chapters 4 and 5 two series of in-depth semi-structured interviews were analysed using the Miles & Huberman (1994) approach to interpretative thematic analysis. As well as identifying a number of themes about indirect aggression, and perceptions of aggression more generally, these studies covered a wide range of aggressive experiences. In particular they examined a variety of different settings and types of relationships in which aggressive encounters can occur. There was a specific emphasis on primary group relationships in adulthood, although aggression within the workplace was also quite frequent and interesting. These two studies represented the shift from a nomothetic orientation to a more idiographic one within this differential psychology approach.

In addition, there appeared to be clear individual differences between participants in terms of how much indirect aggression they reported having experienced, from both the perspective of being a victim and from the perspective of aggressing against others using this form of aggression. It was noted that this might also be a feature of greater willingness to admit to these experiences or of greater awareness of these subtle behaviours, rather than differences in extent. However, it was also recognised that they were different *types* of indirect aggression in adult relationships and contexts, which have not been previously examined in the literature. After exploring

the expression of aggression idiographically, looking at in-depth personal experiences, it was considered important to begin to broaden out the orientation of research to continue this interest in the individual differences framework. As indirect aggression does appear to be the most 'adult' type of aggression (Björkqvist & Niemelä, 1992; Lagerspetz & Björkqvist, 1994), it is important to identify the forms this behaviour takes in an adult population.

6.1.2. *Aims*

This study aimed to provide the transition between subjective experience and generalising on a more nomothetic level, to continue the idiothetic orientation of this research. This study aimed to identify the different types of adult indirect aggression behaviour. Again this is qualitatively done so that behaviour can be identified in the context in which it occurs. The aim of this study was therefore primarily to gain real-life descriptions of these types of indirect aggression behaviour within the context of a variety of different relationships and settings. This should extend the existing understanding of the forms that indirect aggression takes whilst maintaining contextual sensitivity.

Secondly, the study aimed to categorise the forms of indirect aggression behaviour to form a qualitative typology. This typology, as well as being of interest in itself, is vital to this stage of this thesis. By extending the research on forms of indirect aggression to new populations and contexts, and deriving a typology from the qualitative data. This typology forms the basis for item construction for psychometric measurement of adult indirect aggression.

6.2. METHOD

6.2.1. Procedure

The behaviours were drawn from the two qualitative interview studies detailed in Chapters 4 and 5. After the interpretative thematic analysis work these two data sets were pooled together for this study. Analysis then involved examining the different real-life examples, experienced in adulthood, from all 12 participants. This constituted descriptive thematic analysis (Hayes, 2000). Data was categorised in terms of: -

- (a) Whether the example constituted aggression, using the following operational definition of aggression: “any action undertaken with the apparent intent of causing physical or psychological harm” (Burbank, 1987: 72).
- (b) What *form* of aggression is being described here; i.e. is it direct physical aggression, direct verbal aggression, or indirect aggression?
- (c) Where the examples are seen as aggressive and as constituting indirect aggression, analysis involved identifying themes that described the behaviours, grouping similar behaviours together and allowing experiences to be categorised as a *type* of indirect aggression.

By grouping similar types of behaviours, quite coherent types of adult indirect aggression became apparent. Data extracts were chosen that illustrated this theme. Through examining the many various different behaviours and noting the similarities and differences between these behaviours, it was then possible to establish a typology

of indirect aggression behaviours. It was also possible to describe some trends in terms of the sophistication, commonality, and individual differences.

6.3. ANALYSIS

6.3.1. EMERGENT DESCRIPTIVE THEMES

The descriptive thematic analysis identified five themes in terms of what types of indirect aggression are experienced in adult relationships. These were (1) Social exclusionary behaviour, (2) Gossip-related behaviour, (3) Undermining/Attacks on self-esteem, (4) Use of malicious humour, and (5) Guilt induction techniques. These are briefly described below, along with selected data extracts to illustrate each particular theme.

Social exclusionary behaviour

The first group of behaviours were themed as social exclusionary behaviours. These behaviours were all typified by attempts of a person(s) to socially ostracise the victim. This was usually done with the aim to isolate this individual from a group of people, and make them feel unwanted, neglected, alienated, and as 'an outsider'.

In Extract 6.1 below Beth is describing a recent experience with her close friend. Beth and her friend had become very close the previous year, spending a lot of time together. In this extract Beth is discussing how they both joined a hockey team, where they both met new people and made new friends. Although they both have the same

new friends, Beth feels that her friend leaves her out of activities with these people. In particular they are both invited to the same parties but Beth feels that her friend does not want her to be part of this new group.

Extract 6.1

“Last year we got like really, really close, and we were always out together . . . I just lately get the impression that *she doesn't want to go out with me anymore*, she wants to go out with these other people. That hurts me to think that I know them as well, yet *she doesn't invite me to go out with them either* . . . took me back to primary school ‘*She's my friend and not yours. You're not welcome here*’. And that kind of upset me to think, *I get the impression that she doesn't want me there.*”

Beth [P7:L36-P8:L7]

There is a certain amount of uncertainty typical of indirect aggression. This is usually because the behaviour is kept so covert and ambiguous. Beth is made to feel not part of the group, which she compares to childhood experiences where similar behaviours occur.

Such behaviours that seek to exclude one person from friendship groups were quite common among participants. In Extract 6.2 Susannah describes a similar recent experience in a slightly different context. Here it occurs within Susannah's work environment, but she considers these people friends outside of work, and in the past they all went out as a group socially.

Extract 6.2

“Well, it was with the groups here at university where I felt like they did not really want to have me there and, or at least my connection to the group, the people that connected me to the group. That they didn’t really want to have me there . . . emails were getting less, and avoiding to contact me especially. Yeah. No, I think it was more the avoidance of contacting me in a time where they, the question could have popped up ‘Hey. What are you doing tonight?’. Something like that. While they did contact me at other times.”

Susannah [P11:L8-18]

Over a period of time Susannah had begun to notice that she was being excluded from this group more and more. They began to leave her out of their usual social events where she feels she would normally have been part of the group. As well as leaving her out of activities, there is also a change in the frequency of contact. Although they would email her about work matters, they no longer emailed her in a friendly way. She was left to feel that she was no longer part of their group. At the same time she also experienced certain members of the group talking about her behind her back and spreading rumours. In this way this experience involved both social exclusionary behaviours and gossip-related behaviours.

Beth’s experience involved a group of women, Susannah’s involved a mixed group of women and men. The final example involves social exclusionary behaviour in an all-male adult group of close friends. In Extract 6.3 Nathan is describing a current situation with his best friends. This is a highly cohesive group where they have all been very close friends since early adolescence. It begins with a verbal conflict between Jez and Alex, but Jez then uses social manipulation to try to influence other members of the group against Alex.

Extract 6.3

“I have seen evidence of people being excluded from certain situations . . . may be [in] my own personal group of friends at the moment. The group that I’ve just said we all get along so well together (laughs). My best friend Jez, he had a fight with a guy in the group, and quite often now when we go out Jez says ‘Oh, let’s not invite so-and-so along because basically I’m sick of the sight of him.’ So that’s an example of how it’s happening in my immediate circle of friends at the moment . . . he says things like ‘You know I think Alex is a real twat’ and stuff like this, and ‘He’s just really getting on my nerves at the moment’. And he says, you know, ‘He’s been off work for two months sick. You know, what’s wrong with him? He needs to get a grip.’ And this type of thing.”

Nathan [P21:L25-48]

As described above, Jez suggests that Alex is excluded from activities, and he also says negative things about Alex to try and influence the structure of the group and make Alex the outsider. Again there are also elements of gossip-related behaviour here.

The social exclusionary behaviours covered quite a range of individual behaviours that people use with an aim to exclude and ostracise another person. Social exclusion was most typically the exclusion of a single person, occasionally two people, from a pre-established group. But it also included the non-admittance of a person to a new group they wanted to join, and also similar behaviours independent of group membership (e.g. snubbing behaviours in dyads and triads). In summary, social exclusion behaviour included leaving the victim out of activities, omitting them from conversations, social manipulation in the form of trying to turn people against someone, avoiding and ignoring them, withholding information from them, snubbing them in public, stopping talking to them, changing the frequency or the nature of

contact with them, and 'huddling' (whereby a group will huddle together and whisper to exclude another person present).

It was also noted that behaviours could be socially excluding without being social exclusion behaviours *per se*. The *result* can be the social exclusion of the person, but the behaviour itself could be clearly, for example, gossip-related or malicious humour behaviour.

Gossip-related behaviours

The second group of behaviours to be identified were 'gossip-related behaviours'. These were commonly experienced behaviours, and often (but not always) appeared in combination with social exclusionary behaviours.

In Extract 6.4 Hazel relates an experience with a man she knows from her local rugby club. They have been casual friends or acquaintances for quite a while. She tells how she had found out from other people that this man had been telling people that they'd been involved in a sexual relationship, when this was never the case.

Extract 6.4

“Like with all my friends you kind of experience girls doing things to you all the time, but there was this one particular time, I won’t say a lad because he was actually a bit older than that, at the rugby club. . . He’s about 35 or something. But anyway, and he’s basically told everybody at the club that I’ve been round to his house and slept with him and things. Which isn’t really a nice thing to do because it’s not true, and people have said ‘Oh, that’s you is it?’. It’s like if you introduce yourself they’re like ‘Oh, are you so-and-so?’ And I’m like ‘Yeah’. ‘Oh, *right*’. And you know, later on you work out that someone’s said something to so-and-so. So you kind of begin to worry what people think about you because it’s not true at all . . . that sort of thing it does irritate me intensely.”

Hazel [P16:L31-P17:L2]

She found out about these lies he had been telling about her gradually, and was upset that people will have formed impressions of her based upon blatantly false information they had received. This example is typical of gossip-related indirect aggression, involving corroborated evidence that someone has been spreading rumours behind her back, and indulging in quite malicious gossip.

In Extract 6.5 Charlotte describes behind the back gossiping that was currently occurring within her closest friends at university. She talks about how in the group of friends some girls in the group are ‘slagging’ off another group member.

Extract 6.5

“A couple of them are slagging off one of my other friends. And it’s really upsetting me because I don’t want to hear it. I don’t really want to be involved. Because I like her. . . So I really haven’t got anything to say about it. I mean, I can’t say to them ‘Stop it’ because that would really upset them. And I obviously can’t say to her ‘Look, they’re saying this about you’ then that can upset her. But they’re being a bit two-faced, they’re still talking to her at the same time, but the minute she’s gone they’re slagging her off. That’s upsetting me quite a lot. I don’t like to see things like that going on.”

Charlotte [P2:5:1-14]

This is quite socially manipulative and could potentially serve to socially exclude the girl involved, but the behaviours themselves are mainly gossip-related. Charlotte describes how they talk about this girl behind her back, they call her names and ‘bitch’ about her. Charlotte comments on the dilemma this causes her as she feels she is caught between the group and the individual girl they seem to be targeting. This is a good example of gossip-related behaviours within an all-female friendship group of young adults.

In Extract 6.6 Caroline experienced similar behaviours. She owned a clothing business with some other female friends. Although she generally got along well with the other women, there was one particular woman who she knew did not like her. She later found out from a very close friend some of the comments this woman had been saying about her behind her back.

Extract 6.6

“Caroline: People who [I] used to work [with] . . . and be quite friendly with, and then I wasn’t for some reason. [I] just didn’t know what I’d done at all, but you could tell that something, that this person, especially the woman of the couple had decided she didn’t like me. And they said to a mutual friend that they didn’t think my partner and I were in love, . . . [that] we weren’t suited as

a couple, and didn't understand why we just kept on having kids . . .
. I just think it's funny how people who don't really know you that well can make a sweeping statement like that . . . that could have hurt me . . . at one time they did hurt me by being a bit off and I just thought 'What have I done? What have I done to upset these people?' . . . She told a very close friend of mine . . . so there was a good chance it would get back to me.

Sarah: Do you think she meant to hurt you?

C: I don't know. Yeah. I think [so] actually."

Caroline [P13:L32-P14:L5-19]

In this example the woman had been very bitchy about Caroline's relationship with her husband, gossiping about her to the other women about how unsuited they were and speculating on their relationship. Caroline thinks that these malicious comments were intended to get back to her in order to hurt her.

These gossip-related behaviours included a range of very similar individual behaviours. For example, name calling (very typically about physical appearance), bitchiness and cattiness, rumour-spreading, malicious gossiping, disclosure of secrets, starting scandals, general back-biting, and talking behind the person's back.

Undermining/Attacks on self-esteem

Thirdly, analysis identified a theme of behaviours whereby the aggressor attempted to harm the victim by undermining them, or by attacking their self-esteem. Some of these were similar to gossip-related behaviours such as bitching, but were more sophisticated and less blatant, with an aim to make the victim feel small and affect their belief in themselves.

In Extract 6.7 Susannah is describing an experience of this form of undermining indirect aggression. This occurred in her home country of Germany a few years ago. Some work colleagues used social criticism to make her feel inferior. Social criticism involved disparaging her because she came from a different social group, because she was not as popular as them (she did not belong to their particular social clique), and may be because she did not have such adept social skills and confidence.

Extract 6.7

“I think there were things like some colleagues who were very snobbish and treated me like, because I didn’t know such-and-such things, they treated me like an inferior person. Like they came from the city, I came from the countryside. And they knew all these in-things which I didn’t know, and they were very condescending for that . . . That was very painful . . . Saying things like ‘If you haven’t done this and that, and if you haven’t eaten such-and-such, you’re really like a peasant’.”

Susannah [P3:L45-P4:L10]

She relates how painful the experience was to her at the time, and how it seems to be a conscious attempt to affect her self-worth. Specifically they excessively criticised her because she came from a rural area and they did not consider her to be as sophisticated as they were. The result was socially excluding, but the behaviours were clearly related to undermining and attacks on self-esteem.

In Extract 6.8 Martin also relates an experience of social criticism within a mental health nursing team in a previous job. He also felt excessively criticised, and although it was a work situation he considered this criticism to be personal. This led to the experience of being singled out, subtly attacked by the others, and victimised within this setting.

Extract 6.8

“I got to feel victimised within this team setting, without really getting to the bottom of what it was about . . . this erstwhile academic meeting turned into an almost managerial sort of ganging up, as I saw it. The manager was asking me to account for my practice in an unduly sort of personal way. It felt almost like a kangaroo court, . . . I felt I’d been brought to the meeting under false pretences . . . And that really hurt.”

Martin [P3:L3-19]

Like Susannah’s experience this was very painful. To be intentionally undermined and attacked on such a personal level by people they were supposed to have a professional relationship with. This behaviour within the work environment could have certain parallels with workplace harassment.

In a different setting, Ian describes related undermining techniques in Extract 6.9. This involves his relationship with his housemate Claire, whom he talks about with considerable hostility throughout his interview.

Extract 6.9

“Watching television with Claire I will sit there with Owen, and Claire is buxom, in some ways voluptuous, woman. Now that is certainly not the ideal woman that I look for and that Owen looks for. So we’ll quite happily, manipulates the wrong word, but kind of emotionally attack her by saying ‘That woman’s fit.’ And do it on purpose, and this is calculated. On my part very much calculated. ‘Look at, you know, Kylie Minogue. Isn’t she good? She’s so petite and nice, you know what I mean? Every bloke’s dream woman.’ And I would hope that would make her think ‘Mmm. Blokes don’t like me because I’m like this, and that’s why I shag so many blokes. It’s because I’m an easy lay.’ . . . And I can vividly remember recently watching a case of Casualty where a prostitute that had a drug problem was involved, and my kind of linkage again there, in order, I wouldn’t say [to] manipulate her, but certainly affect her, would be ‘She’s a fucking slag . . . She deserves everything she gets in life because she shags everything that moves’, etc., etc. With the hope that it will, in some way, affect her . . . I’m pretty sure she does take it as a hurtful gesture on my part. Although she probably wouldn’t put herself . . . in the

same category as a prostitute. Whereas, really, deep-down, I think she does. She's cried on a few occasions about that type of thing. And so I know again that that's something that will get to her. 'People think that I'm a bit of a slag.' Well, I will quite blatantly state, on television, 'She's a slag. She deserves everything she gets.'"

Ian [P16:L23-P17:L11]

In this detailed piece of data Ian talks about the way he targets her, and with very clear intent to harm her. He puts her down, criticises her lifestyle, makes value judgements, and really wants to make her feel very bad about herself. He tries to make her feel that she is worthless. This is done in a very manipulative way by using examples from television and drawing comparisons with famous women in the media to covertly tell Claire that she is unattractive, that 'she's a slag', and that she deserves anything bad that will happen to her. This behaviour has reduced her to tears in front of him. He very purposefully wants to attack her emotionally, destroy her self-esteem, and hurt her. Sometimes he even brings his other housemate Owen into this as well, although they tend to see it as a joke rather than 'aggression'. This is a particularly abusive and clearly malicious use of indirect aggression, in one of its most sophisticated forms.

This group of behaviour is probably the loosest category of indirect aggression identified. Related behaviours were apparent though under this theme. These include putting the victim down and belittling them, excessive personal and social criticism, making them feel worthless, intentionally embarrassing them, attempts at humiliation, attacks on self-esteem, emotional attacks, and 'nagging'.

Use of malicious humour

The fourth theme to emerge involved behaviours that used humour to harm the victim, so this was labelled 'use of malicious humour'. Such behaviours were very easy to pass off as being in fun, or as merely a joke, and therefore were very effective indirect aggression.

In Extract 6.10 Charlotte is discussing her experiences of this. She starts off talking about how people generally can hurt you intentionally, whilst making it appear to be a joke. In this way people can hide their aggression towards you and have a joke at your expense. More specifically, she then relates this to her relationship with her mother, who she feels makes things appear to be said in fun, but is actually much more manipulative than that.

Extract 6.10

"People saying things that they might just mean jokingly, and it not actually being a joke. I think that has happened a few times . . . the tone in the voice implies something on the other person and they want everyone else to know . . . She's used things in front of other members of my family that she knows could be seen as a joke, but also let's them know about certain things. It upsets me but I mean, I can't say to her . . . 'You shouldn't have done that' because she'll just go 'I was joking'. When in actual fact it wasn't really."

Charlotte [P10:L3-P11:L39]

Sometimes it can just be something as subtle as the tone of the person's voice that leads her to think that although they can pass this off as innocent humour, it actually is meant to get at her. Such indirect aggression is easily explained away as being meant harmlessly. In this way this can be a very effective adult form of indirect aggression.

Likewise people sometimes play games, wind others up and tease others to annoy them, whilst hiding it behind this seemingly 'jokey' behaviour. In Extract 6.11 Jasmine describes her experiences of this. Jasmine came to England from Malaysia on a scholarship to study Advanced Physics with a large group of other Malaysians. Jasmine is the only female in this group and because of this she was subjected to extensive teasing. She feels that they know that this irritates her and yet they continue to target her.

Extract 6.11

“And a lot of them were indirectly trying to get things out of me. Like wanting to know where, you know, where my studies are at the moment and how I am at my tutorials . . . Coming to me to ask for help or, and because I was alone I think I entertained them. I allowed them to ask me questions and later I realised that most of them, their motives was not sincere . . . And I also got boys who come and try wooing me . . . I just realised that, you know, it's like a game to them . . . They just wanted to, you know, something to occupy their time . . . they're just here for a game, or just to have some fun . . . But I still get teases every now and then . . . Just saying things, you know, like, you know, if I passed by, whatever, they'd just say things.”

Jasmine [P7:L10-P8:L34]

She thinks they play games with her to entertain themselves. They ask her questions, tease her with seemingly joking comments, and make sexual advances towards her in fun, but she sees that they are using her for their own fun, and are not sincere.

In a related kind of behaviour Hazel, in Extract 6.12, relates how sarcastic comments are used by a girl in her rugby club to harm her standing with the others in the group, whilst being able to pass it off as throwaway, quite innocent, comments.

Extract 6.12

“There’s a girl, this is happening at the time. The captain at the rugby club. She sometimes thinks that I’ll try and steal her job or something because she’s kind of made the odd comment about that . . . And we were out practising and she passed me the ball, and it was such a terrible pass there was no way that I could catch it. She goes ‘Catch the ball, why don’t you’, like this. She said it like that and obviously trying to make it a joke. I picked it up and threw it back, and I said ‘Why don’t you?’. She goes ‘It was just a joke, you know.’ And I knew that it wasn’t at all. She was just trying to make me look bad in front of everybody else. But that’s sometimes what she does.”

Hazel [P17:L16-32]

This is quite a bitchy pattern of behaviour. Hazel deals with it by being sarcastic in return, because she knows how the girl’s comment was meant, even if the sarcasm is sufficiently ambiguous to be passed off as a joke by bystanders.

This group of behaviour included a range of behaviours whereby they can come across as fun but are obviously meant more maliciously. They are quite covert and can be very effective, and include the playing of practical jokes, using ambiguous sarcasm, making joking yet nasty comments, playing a joke at the victim’s expense, and general wind-ups, teasing and emotional game-playing.

Guilt induction

The final identified theme were sophisticated behaviours whereby guilt is induced in the victim. This involves knowing a person’s weaknesses to play on the victim’s emotions, and to make them feel guilty and responsible. This is therefore particularly specific to primary group relationships.

In Extract 6.13 Peter is describing the conflict he had with his father throughout adolescence, which eventually led to him leaving home and moving away. This experience occurred when he was about 16 or 17 years old. Peter collected graphic horror comics, when his father found them he used Peter's closer relationship with his mother to make him feel guilty about the comics. He also used the same tactic when he heard Peter swearing – he argued that his mother would be upset or offended (when this wasn't the case) to try and make him change his behaviour, which he himself disliked.

Extract 6.13

“Think of your mother, . . . think if your mother saw these. . . Don't let your mother hear you say that!” . . . when I talk to my mum about it, she does not care. She's just far more liberal than he is . . . It's like she doesn't think it's a big deal. And yet he'd still try and take this thing and like sort of, and I think, I don't know . . . But it was like the fact that he wasn't trying to tell me if he'd have like . . . again even if he'd just said 'I find this offensive. Get it out of my house.' I wouldn't have liked it but it would have been honest . . . I think he may have been trying to do it in the sense that he knew that upsetting my mum would upset me, but upsetting him would not really have bothered me.”

Peter [P20:L44-P21:L33]

This is a good example of guilt induction techniques, where his father aims to manipulate him by playing upon his feelings and love for his mother. By this point Peter's relationship with his father had broken down, and his father knew that Peter cared little for his opinions, but still would be hurt if he thought he had offended his mother in any way.

In Extract 6.14 Ian also has experienced guilt induction, although this was in the context of his relationship with his PhD supervisor. So although these types of

behaviour were much more common in primary group relationships, they can also occur in other settings.

Extract 6.14

“. . . happened today. And it's to do with the relationship between me and my PhD supervisor. (.) I believe that he attempts to manipulate me . . . he tries to manipulate me and exert pressure on me by divulging his personal life to me . . . so therefore I'm meant to take sympathy, and be an emotional punch-bag for his problems.”

Ian [P1:L25-33]

This is a very recent occurrence that happened on the day of the interview, and had been happening for some time. Ian feels that his supervisor puts him under undue emotional pressure. Ian feels that his supervisor uses his own problems to make him feel sympathetic or guilty, which he finds manipulative and inappropriate for their type of relationship.

In Extract 6.15 Susannah admits to using this type of technique in a past relationship with her best friend at the time. Her friend was meant to be going on a trip with her, but she changed her mind and did something else instead. Susannah cannot drive and so needed her friend to take her. At the time she felt very hostile towards her friend for not taking her, and so in return she set about making her feel guilty about this. She did this by complaining, to make her friend feel bad and make her feel that she had acted selfishly and reneged on their friendship.

Extract 6.15

“Susannah: I think the same friend I've hurt a lot. Made her angry. When I was, I think, making her feel guilty about when I was sort of complaining about her being selfish and doing her own thing, and things like that.”

Sarah: Was there ever that kind of intention? Did you want to get back at her for what she's done to you do you think?

Susannah: Yeah. In a way. I think I would, did want to be the one who's right, and was the rightest one, and that she is not doing the right thing. And yeah, maybe feel good about it because I was doing the good thing.”

Susannah [P9:L46-P10:L6]

In hindsight she sees that she was unreasonably hostile towards her friend, and she admits that she was intentionally making her friend feel guilty simply because she did not get her own way. This behaviour is a form of emotional blackmail.

Mild emotional blackmail was quite typical of guilt induction indirect aggression (although more severe emotional blackmail was experienced too). In summary, behaviours in this theme include complaining, playing on weakness and emotions, using their close relationship to emotionally harm the person, coercion, exertion of unwarranted emotional pressure, and emotional blackmail.

6.3.2. TYPOLOGY OF ADULT INDIRECT AGGRESSION

The themes of adult indirect aggression identified above allowed the categorisation of different real-life experiences and the formation of a typology. This typology is displayed in Table 6.1.

Table 6.1. Typology of adult indirect aggression derived from descriptive thematic analysis of qualitative interview data.

<i>Type of indirect aggression</i>	<i>Individual Behaviours</i>
1. Social exclusionary	Leaving out of activities, omitting from conversations, avoiding, ignoring, snubbing in public, withholding information, etc.
2. Gossip-related	'Bitching', 'cattiness', subtle insults, spreading of rumours, gaining confidences to then disclose secrets, use of secrets and rumours to start scandals, calling of names behind a person's back, etc.
3. Undermining/Attacks on self-esteem	Putting the victim down, excessive social criticism, making them feel worthless, small and questioning their belief in themselves, belittling them, intentional embarrassment, etc.
4. Use of malicious humour	Playing of practical jokes, joking yet nasty comments, ambiguous sarcasm, making a joke at someone else's expense, etc.
5. Guilt induction	Coercion of subtle undue pressure, playing on people's weaknesses and emotions, mild emotional blackmail, using a person's weaknesses to hurt them by making them feel guilty, etc.

6.4. DISCUSSION

Five distinct types of indirect aggression were identified from this descriptive analysis and a typology of adult indirect aggression behaviour was formulated. Social exclusionary behaviours and gossip-related behaviours were commonly experienced in various forms, and they were often found to appear together. These attempts to isolate and exclude, and to spread rumours and scandals were consistent with reports on indirect aggression from childhood to adolescence within the school setting (e.g. Rivers & Smith, 1994; Boulton & Hawker, 1997; Stanley & Arora, 1998). Such indirect aggression has already been well documented in the childhood bullying literature (Olweus, 1993, 1999; Crick & Grotpeter, 1995). There is clear evidence

here that such aggression continues to be utilised within adult relationships, both in primary and secondary groups. These findings are similar to the adolescent schoolgirl behaviours described in Owens *et al.* (2000) in the only current attempt to examine qualitative contextualised descriptions of indirect aggression. Both these types of behaviour are also witnessed within workplace harassment literature (e.g. the 'indirect manipulative aggression' described by Kaukiainen *et al.*, 2001).

Undermining techniques were identified as the third group of behaviours. These were the least distinct group of behaviours, which had some overlap with the use of malicious humour. These behaviours were more sophisticated than social exclusion and gossip-related behaviours. In the interview data participants reported these experiences as leaving them with the belief that they are not good enough, that they are worthless and powerless. There appears to be some similarity with psychological and emotional abuse (O'Hagan, 1995; Domestic Abuse Project, 1999).

The use of malicious humour also constituted a major form of indirect aggression. This seemed a very effective and ambiguous form of indirect aggression, that probably requires a high level of social intelligence, in line with theory on increasingly sophisticated indirect aggression (Björkqvist *et al.* 1994b). Such behaviours can be passed off as innocent or in fun, whereas the victim is made quite aware that the joke is on them, and that the aggressor is trying to humiliate or hurt them. It is probably the ambiguity of this form of indirect aggression than can make it so confusing. Frequently they mentioned incidents where they were not sure whether things were genuinely meant in fun or whether they actually meant to convey a nasty message. Such teasing behaviours are recognised in their potential to be used

maliciously to harm or control others (Eisenberg, 1986; Boxer & Cortés-Conde, 1997; Sharkey, 1997). The use of malicious humour seems to have some similarities with 'rational-appearing' indirect aggression that Björkqvist *et al.* (1994b) suggest occurs in adult work relationships. These behaviours are perhaps most consistent with some 'covert insinulative' behaviours, again identified within the workplace (Kaukiainen *et al.*, 2001).

Guilt induction techniques were the most sophisticated form of indirect aggression identified. In order to be successful at this behaviour the aggressor must be close enough to the victim to know their weaknesses. It must require a high level of social intelligence, and sufficient trust and self-disclosure between the people involved. These behaviours were much more likely to occur in very close relationships, such as between very intimate friends, and especially in romantic relationships. This finding is not novel in that researchers have noted how people are intentionally made to feel guilty about something within close relationships (e.g. Vangelisti, Daly and Rudnick, 1991; Miceli, 1992; Sommer and Baumeister, 1997). However, rather than looking at this as an aggressive strategy, previous literature has downplayed the harmful impact of this. Judging from the experiences described by the interviewees here, it is apparent that such guilt induction techniques can be distressing, prove ambiguous and confusing, and do seem to constitute an important form of adult indirect aggression.

It was possible to speculate about the commonality of these different types of indirect aggression in adulthood. The most commonly experienced were the social exclusionary and gossip-related behaviours. Sometimes they were explained as being directly comparable to adolescent behaviours, but at other times they were described

as being more insidious, hidden and ambiguous. The other three categories were obviously more 'adult' forms of indirect aggression, being more covert and sophisticated behaviours. These behaviours suggest the development of progressively subtler behaviours in adulthood. This was inferred in the existing developmental model of indirect aggression, but had not been examined until this research.

Indirect aggression is often examined in terms of gender differences (e.g. Lagerspetz *et al.*, 1988; Archer & Parker, 1994; Richardson & Green, 1999), as opposed to the individual differences perspective focused upon in this research. Although theory proposes that by adulthood men should also prefer this form of aggression instead of other forms (Björkqvist, 1994), and that they 'catch up' with females as they become more expert in social intelligence (Kaukiainen *et al.*, 1993, 1999; Björkqvist, Österman & Kaukiainen, 2000). Although this study has not examined gender differences systematically, it is possible to argue that both women and men used all forms of indirect aggression. There were no clear differences between the genders at all. Björkqvist *et al.* (1994b) suggested that there might be gender differences in the types of indirect aggression behaviours used in adulthood. They concluded that adult males are more likely to use 'rational-appearing' aggression, citing practical joke playing as an example of this. From this study it was clear that use of malicious humour behaviour was frequently experienced and used by both men and women to about the same extent. Practical joke playing itself was not mentioned very often, behaviours such as sarcasm and teasing were much more prevalent.

There were, however, indications of individual differences rather than gender differences. This was both in terms of experiencing indirect aggression as a victim

and as an aggressor. This is an area of further interest, and relates to the next research study – measuring indirect aggression in adulthood by developing a new psychometric scale. This study has therefore proven to be a significant link between both the idiographic and the nomothetic, and qualitative and quantitative approaches, in this research.

The typology and descriptions in this study are significant and extend the existing understanding of indirect aggression when utilised in adult relationships. They have provided interesting themes of behaviour, and provide good illustrations of the whole spectrum of behaviour that this understudied form of aggression takes. They have allowed speculations about the nature of these behaviours in terms of how covert and sophisticated they are, how commonly they seem to occur, which types of settings and relationships they occur in more often, and whether they are used by both men and women. Most importantly they provide the basis of test construction for the next study. In this way the research integrates both qualitative and quantitative data to allow a stronger and more holistic picture, permitting research to reach an idiographic balance (Lamiell, 1987).

A problem that was recognised in this study was how preliminary these categories must necessarily be at this stage of investigation. Some behaviour overlap slightly with different categories, suggesting that types may not be so clear-cut and mutually exclusive. Also some behaviour typically occurs together and are related, although are quite different in nature and belong to different types. For example, social exclusion and gossip-related behaviours tend to co-occur quite often, some experiences could be categorised as either gossip-related or malicious humour, or as either undermining or

malicious humour. This poses some interesting questions for the next study as the results from the typology can be triangulated with the factor analytic methods used in Chapter 7.

CHAPTER 7. MEASURING ADULT INDIRECT AGGRESSION: THE DEVELOPMENT OF THE INDIRECT AGGRESSION SCALES.

7.1. BACKGROUND

7.1.1. *Summary and rationale*

In this, the final series of studies, the aim is to develop a useful measure of indirect aggression for use in adult populations. The main aim of the research is to gain a greater understanding of the individual differences of adults' expression of aggression. It is well recognised that indirect aggression is the most sophisticated form of aggression, and there are suggestions that indirect aggression is therefore the most salient expression of aggression to both men and women (Björkqvist & Niemelä, 1992; Lagerspetz & Björkqvist, 1994). From this progressive series of both quantitative and qualitative studies, switching between idiographic and nomothetic orientations, the experiences of aggressive expression have been examined, and the importance of indirect aggression identified. Also identified were the different types of adult indirect aggression, which had not been previously explored in the aggression literature. There were indications of individual differences both in overall usage and suffering of indirect aggression, and also in the types of indirect aggression experienced. It was hypothesised that individual differences would be more significant than gender differences, as by adult life both men and women should be using indirect aggression equally (Björkqvist, 1994; Björkqvist *et al.*, 1993; Forrest & McGuckin, 2002).

To examine the phenomenon of indirect aggression in adult groups, and to be able to systematically study the forms of expression of indirect aggression in adults, a new psychometric measure is required. Individual differences were witnessed in terms of being a victim and being an aggressor, therefore two versions will be developed with this in mind. These scales will aim to measure the same behaviours so that in future work the versions can be administered to the same populations. This will allow future investigation of the discrepancies between 'self' and 'other' measurement of indirect aggression, noted in studies looking at the extent of childhood indirect aggression (Österman *et al.*, 1994).

This idiographic mixed-method research will culminate in combining the previous qualitative research findings detailed in Chapter 6 with the development of psychometric scales. This enables a more holistic picture of the expression of aggression in adult relationships. It will provide triangulation between the qualitatively-derived typology discussed in Chapter 6 and the empirical findings from this psychometric research. The preliminary psychometric evaluation will be investigated in line with modern psychometric standards (Nunnally & Bernstein, 1994; Allen & Yen, 1979). This will involve the use of advanced multivariate statistics and will incorporate structural equation modelling methodology, proving a high-level contemporary approach to scale development, evaluation, and re-development (Finch & West, 1997; Judd, Jessor & Donovan, 1986; Pedhazur & Schmelkin, 1991).

7.1.2. *Aims*

The aims specific to this study were (1) to further investigate the range of adult indirect behaviour, and compare this to the analysis in Chapter 6, (2) to measure this behaviour in an adult population by developing a useful research tool, (3) to measure both the extent of using indirect aggression and of being a victim of it, (4) to implement a preliminary investigation of dimensionality and internal consistency, and (5) to carry out measure refinement, yielding a shortened and improved pair of scales.

7.2. METHOD

7.2.1. *Scale Development*

The initial scales were developed from the typology formulated in Chapter 6. Items were constructed for each of the five types to create the item pool (see Appendix 7). Thereby item construction was based upon the previous qualitative findings from the two series of interviews detailed in Chapters 4 and 5. This was preferable to rational construction of items, which is to be avoided as it relies purely on face validity and is a poor basis for test construction (Nunnally & Bernstein, 1994). It was also preferable to drawing items from previous measures, as earlier attempts to measure indirect aggression are based upon childhood and adolescent behaviour.

The larger pool of 56 items was reduced to 35 items for use in the scales. Items were chosen for inclusion on the scales by discussion with colleagues. Items were selected so that the whole domain of each type of indirect aggression was covered without

items being too repetitive. Thirty-five items were selected for the scales so that scales did not take too much time to complete, whilst considering that there should be more items than needed for the final measure, so that via the stages of analysis the items could be reduced and the 'best' items retained.

Both versions of the scale consisted of the exact same items. Once the 35 items were selected they had to be worded for the two different versions – the Indirect Aggression Scale – Aggressor version (IAS-A) and the Indirect Aggression Scale – Target version (IAS-T). Item order was randomised for each version. Instructions for the IAS-A require the respondent to think about when they have used the behaviour against another person, whilst for the IAS-T they were instructed to think about when they had experienced this behaviour towards themselves. Instructions also included that they record their age and sex, and that they check to ensure that they answered all questions. Both the IAS-A and IAS-T are contained in Appendices 8 and 9 respectively.

A 5-point Likert scale was chosen for the response format, measuring the frequency with which each behaviour occurs. Respondents were required to decide how often they had experienced that behaviour with 1 being 'Never', 2 'Occasionally', 3 'Sometimes', 4 'Often' and 5 'Regularly'. It was important to include a midpoint, and therefore have an odd number of points on the scale (Bishop, 1987; Alwin & Krosnick, 1991). It was also advisable to make the data Likert (Comrey, 1970), and therefore ordinal, rather than dichotomous (Heim, 1975; Olsson, 1979; Alwin & Krosnick, 1991). This way the data can be assumed to yield polytomous data distributions (Muthén, 1984; Ecob & Cuttance, 1987), and does not breach normality

assumptions, which is important for later factor analytic analysis. Respondents were instructed to circle the appropriate number on the response format after each item. Here they were reminded of the anchors for 'Never' (1), 'Sometimes' (3), and 'Regularly' (5) (although the anchors to all five Likert-points were included in the instructions at the top of the questionnaire).

Once the two measures were completed they were piloted on a small sample of 10 people. This was necessary to re-word ambiguous items, check the instructions, etc. before administration to the larger sample. Changes were made accordingly.

7.2.2. Respondents

Respondents were students from universities in the Midlands. Although a student sample was not ideal, a large sample was required; therefore this was a sample of convenience. Both undergraduate and post-graduate students participated, allowing administration to a greater age range. They were students from a wide variety of courses across different faculties of the universities, making the sample quite heterogeneous.

The overall sample size (N_{TOT}) was 588. This consisted of 177 males and 385 females (with 26 respondents failing to record their sex on the questionnaire). Ages ranged from 17 to 66, with a median age of 20. Respondents only completed one version of the scale to reduce administration time, and avoid boredom/practice effects.

Breaking the sample down into those who completed the IAS-A and the IAS-T, the sample compositions are very similar and therefore can be considered comparable samples. The IAS-A sample size (N_A) was 294. This consisted of 88 males, 196 females, and 10 whose sex was not known. Respondents were aged between 17 and 66, with a median age of 20 (and a standard deviation of 10.89). The IAS-T sample size (N_T) was also 294. There were 89 males, 189 females, and 16 whose sex was not known. Respondents were aged between 18 and 66, with a median age of 20 (and a standard deviation of 11.81).

7.2.3. Administration

Both versions of the IAS were administered to separate but comparable samples. Both versions were not given to the same respondents because of the similarity of the items. Also quick administration was of importance, and boredom effects were to be avoided. The measures were administered in lectures. The presentation order of the two versions was counterbalanced so that respondents had a different questionnaire to the respondents sitting either side of them. Respondents were required to fill the questionnaire out in silence, and were given no time restraints. Anonymity was ensured. After filling out the questionnaires, respondents handed them back to the researcher, and were debriefed.

7.2.4. Analysis and scale refinement

Once the data was collated it was necessary to analyse it in terms of psychometric properties, and the general trends of the data were examined. The processes of scale

evaluation, and further scale development from this ongoing process of validation, are in line with modern psychometric practice (Nunnally & Bernstein, 1994; Pedhazur & Schmelkin, 1991; Allen & Yen, 1979).

Firstly, the scales were examined in terms of logical analysis as a precursor to statistical evaluation of internal validity. Secondly, exploratory factor analysis was performed on both versions of the scale to determine the underlying dimensionality, and allow the scales to be analysed in terms of subscales. This allowed triangulation with the original qualitative typology of adult indirect aggression from which the items were drawn. It also allowed scale refinement in the form of item reduction. Items were removed if they loaded on different factors for different versions of the scale, and were therefore inconsistent. Items were also removed if they displayed low factor loadings.

Thirdly, the internal reliability of the measures was examined, looking at each of the subscales in turn. Items could also be removed at this stage to improve the item homogeneity of the subscales. Once the scale was refined in terms of content, ensuring validity and reliability, the data could be examined by looking at descriptive statistics for the subscales. This allowed investigating the extent of indirect aggression in adulthood from both an aggressor and target perspective. The relationships between the different types of indirect aggression were analysed using Pearson's correlation coefficients. The relationship between the type of indirect aggression and age was then calculated, again using Pearson's correlations, and the difference between the genders examined using t-tests.

Finally, structural equation modelling was used to cross-validate the exploratory factor analytic solution. Revised scales were created from the information gained from all the stages of psychometric evaluation, as part of scale development. The items retained for each version were randomised to create the refined measures. The scales were additionally modified in light of the logical analysis.

7.3. RESULTS

7.3.1. *Logical Analysis*

Logical analysis was performed on the measures as a pre-cursor to the statistical analysis of the internal reliability and validity. Cronbach (1971) suggested that scale developers should think critically about their measure as the first stage of assessing validity, and therefore use logical analysis of content. This involves examining the problems experienced with the measure during the first administration, which could have potentially invalidated the measure. This is the first stage of construct validation used before more sophisticated internal structure analysis (Pedhazur & Schmelkin, 1991).

Defining the construct: This was not really a problem because the scales measure the frequency of behaviour, rather than abstract concepts such as attitudes. There is no explicit definition of 'aggression' on the scales because of the negative connotations associated with the term, and the finding that people do not perceive indirect aggression as 'aggression' *per se* (Boulton & Hawker, 1997; Stanley & Arora, 1998). The implicit working definition is that provided by Siann (1985). Although there is no

labelling of aggression with the behaviours contained in the scales, there is an implicit acceptance that there is apparent intent, in line with the operational definitions of the research. No problems were identified with this area of logical analysis.

Directions to respondents/Instructions: One problem clearly identified was the lack of a timescale for the respondents to base their responses on. The measure intends to quantify indirect aggression within adult relationships, but does not restrict the answers to any specific part of life. Therefore it is important to revise the measure and stipulate that they have used/experienced this behaviour within the last 12 months. In this way only quite recent adult experience is being considered. It was also considered whether there needed to be some restriction in terms of the relationship and the setting, although it was decided to leave the measure more generic to allow greater application.

One problem identified was that some respondents failed to fill in their age and/or sex. In revising the measure it was decided that this problem could be reduced if the directions to respondents reminded them to complete this information, and also if the layout of the questionnaire was changed to move the age and sex questions to after the instructions.

Item Content: No problems were identified with item content as items were constructed carefully based upon detailed interview research. There were no problems mentioned in respondent feedback about specific items. Any unreliability and invalidity of items will be identified in the statistical analysis. Any problems with ambiguity and wording of items seemed to have been corrected after the pilot study.

Method of measurement: It had to be considered whether self-report is the most valid method of measurement for examining indirect aggression, in light of the problems identified in the literature and the arguments about self-report v. peer nomination (Österman *et al.*, 1994). From the first administration of these scales though it appeared that indirect aggression could be measured using self-report methods, and this is the most appropriate method to achieve the current research aims. Considerations for future research could, however, look at adapting the scales for email and internet administration, maybe adding some open-ended questions, and statistically addressing the method of measurement using Multi-Trait-Multi-Method (MTMM) and Multi-Trait-Multi-Rater (MTMR) designs to model for method effects that may affect validity of measurement (Alwin & Krosnick, 1991; Saris & Andrews, 1991; Conway, 1998).

Administration conditions: No problems were evident in the administration conditions, although it would be useful in future research to collect data from both versions of the scale from the same participants. This was not possible because of administration time constraints, although would be more viable once the scales have been shortened. Then respondents can fill out both versions, as part of a questionnaire package to reduce boredom effects.

Scoring/Response format: Difficulties were noted with the response format as participants reported having difficulty following the item to the right response scale. Also a few people reported that the points were problematic because 'Occasionally' (2) and 'Sometimes' (3) were too similar. And finally, respondents suggested the use of anchors for each point would be beneficial to prevent extremity scoring. These

were all changed for the revised measures. (See Appendices 10 and 11 for changes). Otherwise the response format worked well, it was easy and quick to fill in, and no faking or response sets were evident.

Format/Layout of questionnaire: The first change considered necessary with the layout of the scales was the position of the age and sex questions, which have been moved to after the instructions. A different font was selected to improve the clarity of text, and a larger font size was also used for the revised measures for future post-doctorial administration. To improve the ease of following the item to the correct response scale, the spacing of the measures was also altered. (Again see revised measures in Appendices 10 and 11).

7.3.2. Internal structure analysis: Exploratory factor analysis

After the logical analysis it was necessary to establish the dimensionality of the scales to provide evidence of internal validity, to allow the scales to be represented as subscales, and to revise the measure by removing invalid items. In such an early stage of scale development, when little can be known about the underlying factor structure of the measures, exploratory factor analysis is the most appropriate technique (Stevens, 1996). This allows the researcher to generate theory about the dimensionality of scales which can later be tested using a confirmatory procedure (Stapleton, 1997; Finch & West, 1997), and at this stage is a vital phase of both item reduction and construct validation (Medsker, Williams & Holahan, 1994; Pedhazur & Schmelkin, 1991).

It seems unreasonable to assume that a measure with such varied and numerous items measures a single factor of 'Indirect aggression'. It is much more likely that the IAS scales measure different types of indirect aggression. In the typology developed and discussed in Chapter 6 there were five different types of indirect aggression. The exploratory factor analytic results help triangulate the qualitative typology with the psychometric data collected here. Triangulation provides a more holistic picture, examining the same psychological phenomena using a combination of both qualitative and quantitative methods (Smith & Heshusius, 1986; Tashakkori & Teddlie, 1998), and thereby enhancing the validity of both studies (Denzin, 1970; Bryman, 1992). It allows the types to be compared to the factors that emerge, as well as allowing items to form subscales. The formation of subscales to meaningfully represent your data is a pre-requisite to calculating internal consistency and reliability (Goodwin & Goodwin, 1999; Cortina, 1993; Allen & Yen, 1979), and determining descriptive statistics.

Maximum Likelihood (ML) Exploratory factor analysis was performed on both the IAS-A and the IAS-T data separately. (See Appendices 12 and 13 for EFA output). This method of estimation was chosen because ML is generally recognised as the most robust method of factor analysis, especially when data has a multivariate normal distribution (Boomsma, 1987). ML solutions are based upon the search for estimates of parameters most likely to have generated the observed data (Mulaik, 1972), and unlike Principal Components Analysis (PCA) it has a more accurate and realistic conception of the fallibility of items and the existence of measurement error. The benefits of ML factor analysis over PCA, and similar factor analytic methods, are well documented (Borgatta *et al.*, 1986; Pedhazur & Schmelkin, 1991).

Factors were extracted initially using the K1 or Kaiser-Guttman rule (Kaiser, 1970); factors with eigenvalues greater than 1 were retained. However, this solution made little sense. It is well recognised that using only the K1 rule yields too many factors, therefore other criteria should be applied (Zwick & Velicer, 1986; Loehlin, 1998). Extraction was consequently based upon the K1 rule and Cattell's Scree plot (Cattell, 1966). Using these criteria three factors were extracted for both versions of the IAS. Examination of alternative factor structures was performed, but the three-factor solution made more sense in terms of theoretical usefulness. After factor extraction factors were orthogonally rotated using Varimax rotation. Orthogonal rotation was most appropriate at this stage to yield a more interpretable solution (Pedhazur & Schmelkin, 1991). Factors were thought to correlate to some degree, but allowing oblique rotation would have resulted in an uninterpretable solution with too many cross-loadings to allow establishment of distinct factors to form the subscales. Correlations between the factors are examined later in terms of subscale correlations and confirmatory factor analysis (using structural equation modelling).

IAS-A: The first three factors were extracted and rotated. Factor 1 had an eigenvalue of 5.19 and accounted for 14.83% of the covariation within the IAS-A data. Factor 1 items largely constituted behaviours which used humour to harm the victim. For example, use of sarcasm as an insult (item 23), intentional embarrassment (item 27), practical joke playing (item 15). These were clearly the 'Use of malicious humour' behaviours from the qualitative typology, and consequently this factor was labelled 'Malicious humour'. Also included were some items which had been labelled as 'gossip-related behaviours' in the typology, but here were identified with this group

of items; e.g. negative comments about appearance (item 2) and name calling (item 8). These were considered behaviours that did make sense as part of this factor as they do appear to be said in fun, whilst can often have the intent to harm a person.

Factor 2 had an eigenvalue of 4.28, accounting for 12.25% of the covariation. Factor 2 mainly included behaviours that work by socially excluding the victim. This factor was very clearly a 'Social exclusionary behaviours' factor, again consistent with the qualitative typology. It included items such as withholding information (item 35), leaving out of activities (item 21), and turning people against someone/social manipulation (item 33).

Factor 3 had an eigenvalue of 3.08 and accounted for 8.81% of covariation. This factor consisted of behaviours whereby guilt is intentionally induced. This included the use of emotional blackmail (item 5), undue pressure (item 18), and coercion (item 26). Again these were clearly instances of 'Guilt induction techniques' and so Factor 3 was labelled 'Guilt Induction'.

The cumulative variation accounted for by these three factors is 35.89%. Unlike PCA cumulative percentages, ML solutions account for less of the variance because they have accounted for various sources of measurement error and are much more accurate than artificially inflated PCA solutions. The rotated factor loadings of the exploratory factor analysis of the IAS-A data are contained in Table 7.1 below.

Table 7.1. The IAS-A rotated factor matrix.

Item	Factor		
	1	2	3
23. Used sarcasm to insult them	.669	.210	.233
32. Made fun of them in public	.634	.210	.138
8. Called them names	.628	.068	.142
27. Intentionally embarrassed them in public	.603	.296	.128
10. Been 'bitchy' towards them	.585	.106	.187
2. Made negative comments about their physical appearance	.534	.164	.152
1. Imitated them in front of others	.530	.121	.122
7. Criticised them in public	.515	.102	.236
3. Gave them 'dirty' looks	.483	.161	.259
28. Accused them of something whilst making it appear to be said in fun	.475	.298	.175
9. Snubbed them in public	.462	.146	.240
30. Intentionally ignored another person/people	.454	.397	.050
16. Belittled them	.437	.303	.425
13. Done something to try and make them look stupid	.386	.362	.299
19. Talked about them behind their back	.380	.272	.212
15. Played a nasty practical joke on them	.306	.262	.218
34. Took or damaged something that belonged to them	.206	.103	.165
29. Excluded them from a group	.142	.706	.036
21. Purposefully left them out of activities	-.007	.641	.155
25. Omitted them from conversations on purpose	.198	.612	.071
20. Used private in-jokes to exclude them	.317	.533	.087
35. Withheld information from them that the rest of the group is let in on	.187	.529	.089
33. Turned other people against them	.118	.518	.259
14. Made other people not talk to them	.134	.451	.186
12. Made them feel that they don't fit in	.136	.450	.293
31. Spread rumours about them	.173	.444	.204
24. Stopped talking to them	.248	.388	.058
17. Gained their confidence and then disclosed their secrets	.155	.235	.213
5. Used emotional blackmail on them	.126	.097	.747
4. Tried to influence them by making them feel guilty	.315	.074	.672
11. Used my relationship with them to try and get them to change a decision	.256	.194	.478
18. Put undue pressure on them	.260	.383	.460
26. Used their feelings to coerce them	.272	.338	.432
6. Made them feel inferior to me by my behaviour/words	.379	.184	.413
22. Pretended to be hurt and/or angry with them to make them feel bad about him/her-self	.292	.321	.409

Figures in bold type illustrate the factor that each item belongs to. Figures underlined denote those items that had clear theoretical meaningfulness, and consistently

belonged to the same factor across both versions of the scale. The factor analyses were therefore interpreted in relation to each other because the scales aim to validly measure the same behaviours, and have the same underlying factors. Items that fail to load consistently on the same factors and make little theoretical sense in light of the other items belonging to the factors are items that are problematic. They lack validity and conceptual clarity, this makes them 'bad' items and they were therefore removed to improve the scales for future administration.

Items 17 and 34 were discarded because they also displayed low validity as the rotated factor loadings were below .30. The shortened measure therefore consists of the items that are both in bold and underlined as these represent items that have adequately high factor loadings, and make theoretical sense in relation to the other items.

IAS-T: Consistent with the previous solution, the first three factors were extracted and rotated. Factor 1 had an eigenvalue of 5.81 and accounted for 16.60% of the covariation within the IAS-T data. Factor 1 items largely constituted behaviours that used social exclusion, consisting very largely of items that formed Factor 2 in the IAS-A solution. Factor 1 was therefore labelled 'Social exclusionary behaviours', containing items such as being excluded by a group (item 5), being omitted from conversations (item 31) and social manipulation (item 1).

Factor 2 had an eigenvalue of 5.01, accounting for 14.33% of the covariation. Factor 2 mostly contained items that intentionally played upon guilt and emotions. For example, using their relationship with them to influence them (item 20), using

emotional blackmail (item 18), applying undue pressure (item 10). This Factor was clearly of similar composition to the third factor extracted from the IAS-A data. Therefore, this was labelled 'Guilt induction techniques'.

Factor 3 had an eigenvalue of 4.54 and accounted for 12.97% of covariation. This factor consisted of behaviours whereby humour was involved to harm whilst maintaining covertness of behaviour. It was labelled 'Malicious humour' and included items such as intentional embarrassment (item 22), public criticism (item 21), and sarcastic insults (item 25). This was clearly of comparable factor content to Factor 1 in the IAS-A solution. This factor also included items that involved name-calling (item 6) and comments about a person's appearance (item 24), which were also identified as belonging to this factor with the aggressor version of the scale.

The cumulative variation accounted for by these three factors is 43.89%. The rotated factor loadings of the exploratory factor analysis of the IAS-T data are contained in Table 7.2.

Table 7.2. The IAS-T rotated factor matrix.

Item	Factor		
	1	2	3
5. Excluded by a group	.700	.071	.249
11. Made me feel that I don't fit in	.681	.166	.263
31. Omitted me from conversations on purpose	.678	.274	.146
9. Purposefully left me out of activities	.643	.096	.207
7. Intentionally ignored by other person/people	.609	.157	.213
8. Made other people not talk to me	.598	.096	.313
23. Withheld information from me that the rest of the group is let in on	.594	.302	.270
12. Used private in-jokes to exclude me	.540	.279	.314
1. Turned other people against me	.518	.140	.226
34. Snubbed me in public	.481	.464	.266
29. Stopped talking to me	.454	.413	.128
13. Gave me 'dirty' looks	.389	.227	.369
15. Made me feel inferior to them by their behaviour/words	.378	.322	.315
16. Spread rumours about me	.375	.328	.358
3. Gained my confidence and then disclosed my secrets	.342	.233	.267
33. Tried to influence me by making me feel guilty	.041	.797	.051
28. Accused me of something whilst making it appear to be said in fun	.328	.589	.300
20. Used their relationship with me to try and get me to change a decision	.123	.589	.169
26. Pretended to be hurt and/or angry with me to make me feel bad about myself	.155	.582	.193
18. Used emotional blackmail on me	.019	.564	.221
35. Been 'bitchy' towards me	.442	.537	.221
32. Talked about me behind my back	.403	.533	.161
27. Belittled me	.269	.485	.407
10. Put undue pressure on me	.189	.476	.162
14. Used my feelings to coerce me	.252	.431	.305
30. Took or damaged something that belonged to me	.237	.299	.259
22. Intentionally embarrassed me around others	.279	.286	.702
4. Made fun of me in public	.267	.119	.601
21. Criticised me in public	.252	.318	.564
17. Done something to try and make me look stupid	.229	.367	.561
6. Called me names	.288	.087	.556
19. Imitated me in front of others	.168	.272	.552
25. Used sarcasm to insult me	.204	.401	.544
2. Played a nasty practical joke on me	.278	.087	.466
24. Made negative comments about my physical appearance	.353	.310	.454

Again, factor loadings of items in bold type denote the dominant loading of that item, and report which items belong to each factor. Figures underlined are those consistent

across both versions, maintaining theoretical sense to the factors and validity across perspectives. Items were discarded on the same criteria as in the IAS-A factor analysis. Item 30 was not retained because it displayed low validity with a factor loading under .30. This item, although belonging to the same factor in both analyses, had displayed weak validity in the IAS-A data as well. Item 3 was also discarded because although it displayed adequate validity on the IAS-T, it had shown a very low factor loading on the IAS-A, so was not retained here to aid consistency between the revised IAS scale content.

Again, the shortened measure therefore consists of the items that are both in bold and underlined as these represent items that have adequately high factor loadings, and make theoretical sense in relation to the other items.

Comparison of IAS-A and IAS-T solutions: Looking at the two factor analyses of the two versions together it appears that they are fairly consistent. The same factors emerge, although were extracted in a different order. This may mean that the different factors have differing prominence dependent upon whether the respondent is answering from a victim or an aggressor perspective. In the IAS-A data the largest factor, in terms of how much variation it explains, was the Malicious humour factor, followed by the Social exclusion factor and then the Guilt induction factor. This may mean that Malicious humour is more important in understanding utilisation of indirect aggression. For the IAS-T data, the Social exclusion factor was largest, and therefore extracted first, followed by the Guilt induction factor and then the Malicious humour factor. So for victims, the social exclusion behaviours may be more salient.

Not all of the items consistently loaded on the same factors across versions, and obviously not all of the categories identified in the typology translated into latent factors in this study. However, the social exclusion, guilt induction and malicious humour behaviours were very clearly represented here by the extracted and rotated latent constructs. The undermining and gossip-related categories seemed to get subsumed by the other three categories, which was somewhat to be expected as even in the qualitative analysis these behaviours were found to overlap with the other three categories. Items that loaded on different factors across versions made little interpretable sense, and could well have been confounded by measurement error because they were not 'good items'. Such problematic items are common in exploratory factor analytic solutions. Items needed to make theoretical sense, and also for pragmatic reasons the two revised versions of the IAS need to have the same behaviours, therefore such items were removed. This was useful because the scales did need to be shortened, and it was always intended as part of the scale development process to improve the measures and gain coherent subscales. Overall, the factors identified across the two factor analytic solutions were very similar. The factor compositions were very alike, and the measures were clearly both quantifying the same types of indirect aggression.

The exploratory factor analysis has allowed the establishment of the preliminary internal validity of the IAS measures, and allowed item reduction. This now provides the basis of the items for the revised scales. Both versions consist of the same subscales, and same comparable behaviours. Firstly, the Social exclusionary behaviours subscale, consisting of 10 items. Secondly, the Malicious humour techniques subscale, consisting of 9 items. Finally, there was the Guilt induction

techniques subscale, consisting of 6 items. From this exploratory investigation of dimensionality, the IAS clearly demonstrates good internal construct validity. This will require investigation in future administrations of the measure, and will also be addressed using the same data set to replicate this factor structure in confirmatory factor analysis later in this chapter.

7.3.3. Internal reliability: Item analysis

The exploratory factor analysis has established an adequate level of construct/internal validity for this early stage in scale development and evaluation. But once validity has been considered, there is the further basic psychometric requirement of reliability. Primarily, at this stage, this is concerned with the internal consistency of the measures, or how homogeneous are the content of the subscales. Validity has to be examined first so that the measure can be divided into subscales. Assessing homogeneity of items is essentially meaningless unless the dimensionality is first established and the data analysed appropriately in terms of homogeneity of items that belong to the same underlying latent factor (Bacon, Sauer & Young, 1995; Allen & Yen, 1979).

In order to assess the reliability of the subscales of the IAS-A and IAS-T, item analysis was performed. This involved calculating the item-total correlations, as well as checking that the items showed adequate discrimination. Items are considered to have adequate consistency if their item-total correlation falls between 0.25 and 0.75 (Pedhazur & Schmelkin, 1991). Items that fail to reach this accepted standard of item homogeneity are usually removed to improve the internal consistency of the scales.

Once unreliable items have been removed, a Cronbach's alpha coefficient is calculated as an indication of how reliable each subscale is. A coefficient of .70 and above is generally considered indicative of a reliable measure, as long as the assumptions of alpha are not violated (Cortina, 1993).

Item analysis was performed separately on each of the subscales of both the IAS-A and IAS-T. All items demonstrated high levels of consistency with the rest of the items in the subscale. No items needed to be removed from any of the subscales, as removal of any items would have decreased the reliability of the measure. The full results are contained in Appendix 14. The Cronbach's alpha coefficients are summarised in Table 7.3.

Table 7.3. Cronbach's alpha coefficients for the IAS subscales

Subscale	No. of items	IAS-A	IAS-T
Social exclusion	10	0.82	0.89
Malicious humour	9	0.84	0.87
Guilt induction	6	0.81	0.81

From the item analysis and calculation of Cronbach's alphas it can be concluded that all of the IAS-A and IAS-T subscales are evidential of having high levels of item homogeneity. The Cronbach's alphas range from 0.81 to 0.89, and are therefore indicative of a high degree of internal consistency. The target version reliabilities are slightly better than the aggressor version ones, but reliability for both measures are more than adequate.

7.3.4. Descriptive statistics

Once the scales have been separated into subscales, and have been shown to display adequate reliability and validity, the descriptive statistics can be examined. This provides indications about the extent of adult indirect aggression, and allows some comparison between how frequently people use and experience indirect aggression. Table 7.4 displays the means and standard deviations of respondents' scores on the IAS-A subscales.

Table 7.4. Means (and standard deviations) of the sub-scales of the IAS-A.

<i>Sub-scale</i>	<i>Mean (Standard deviation)</i>
Social Exclusion	15.91 (4.49)
Humour	18.13 (5.65)
Guilt Induction	12.32 (3.91)

Obviously respondents do admit to using all three forms of adult indirect aggression behaviour. Indications from this first administration of this measure reveal that the extent of this behaviour is not enormous, but it is possible to measure indirect aggression from an aggressor perspective using self-report instruments. The standard deviations reveal that there is quite a bit of variation in people's scores, indicating individual differences in usage of indirect aggression.

Table 7.5. Means (and standard deviations) of the sub-scales of the IAS-T.

<i>Sub-scale</i>	<i>Mean (Standard deviation)</i>
Social Exclusion	21.04 (6.44)
Humour	20.39 (6.16)
Guilt Induction	14.00 (4.33)

Table 7.5 shows the means and standard deviations of respondent's scores on the IAS-T subscales. Again, respondents do report having been the victim of indirect aggression against them during their adult life. People do, therefore, believe that they have noticed these subtle forms of aggression being used against them. The standard deviations also show the existence of individual differences in being the victim of indirect aggression in adulthood.

Consistent with previous speculation, the extent of reporting indirect aggression from this perspective is higher than from an aggressor perspective. The difference between using and suffering indirect aggression was largest for the social exclusion behaviours. It was not appropriate, however, to statistically test this difference because different samples were used to complete the different versions.

7.3.5. Correlations between subscales

Having divided the measures into subscales it was also then possible to examine the strength of the relationship between the three different types of indirect aggression. Pearson's correlation coefficients were calculated for the associations between the three subscales of both versions of the measure. Table 7.6 displays these correlations for the IAS-A.

Table 7.6. Correlations between the IAS-A subscales.

	Pearson's correlation	Significance level
Social Exclusion & Malicious Humour	.526	<.01
Social Exclusion & Guilt Induction	.514	<.01
Malicious Humour & Guilt Induction	.579	<.01

All three pairings of subscales of the IAS-A were significantly correlated at the 0.01 level of significance. All three subscales are quite similarly correlated. Correlations of this size indicate that although these types of indirect aggression are highly correlated, they are of a magnitude that suggests that they constitute distinct groups of behaviours.

Table 7.7. Correlations between the IAS-T subscales.

	Pearson's correlation	Significance level (two-tailed)
Social Exclusion & Malicious Humour	.710	<0.01
Social Exclusion & Guilt Induction	.534	<0.01
Malicious Humour & Guilt Induction	.531	<0.01

Table 7.7 displays the correlations between the IAS-T subscales. Again, all three pairings of the subscales were significantly correlated at the 0.01 level of significance. The strength of association between social exclusion and guilt, and malicious humour and guilt, were quite similar, and consistent with the correlations calculated from the IAS-A data. The magnitude of the correlation between social exclusion and malicious humour was stronger at 0.710. This is suggestive of groups of behaviours which are related, yet distinct.

Clearly the subscales are correlated to a significant degree, as would be expected because they are theorised to be different manifestations of the overall phenomena of indirect aggression. For the purposes of confirmatory factor analysis it would therefore be necessary to relax the constraint of orthogonality of factors.

7.3.6. Age and indirect aggression

Correlations were also calculated to estimate the strength of association between the types of indirect aggression and age. Table 7.8 shows these results for the IAS-A data.

Table 7.8. Correlations between respondent's age and the IAS-A subscales.

	Pearson's correlation	Significance level
Age & Social Exclusion	-.141	.02
Age & Malicious Humour	-.360	<.01
Age & Guilt Induction	-.117	.05

The correlation between age and IAS-A scores were significant for all three subscales. Scatterplots were constructed to determine whether this relationship was linear, and the relationship was essentially linear. Although statistically significant, this relationship was seen to be very weak, with data being very heteroscedastic. The correlations revealed that the relationship was negative for all types of indirect aggression, so indirect aggression is used less by older adults.

Table 7.9. Correlations between respondent's age and the IAS-T subscales.

	Pearson's correlation	Significance level (two-tailed)
Age & Social Exclusion	-.154	.01
Age & Malicious Humour	-.303	<.01
Age & Guilt Induction	.013	.84

Table 7.9 shows the correlations between age and the IAS-T data. The correlations between age and social exclusion, and age and malicious humour were statistically significant. The relationship between age and guilt induction failed to reach statistical significance. Again, scatterplots revealed that the relationships were linear, although

very weak. For social exclusion and malicious humour the experience of being the victim of indirect aggression somewhat decreased with age; the relationship was weakly negative. It is probable that the significance of the correlations is attributable to the effect of the large sample size.

7.3.7. Gender and indirect aggression

Gender and the extent of indirect aggression were of particular theoretical interest. Mean scores on the IAS-A and IAS-T subscales were used to compare male and female scores. Table 7.10 below shows the means and standard deviations for males and females usage of adult indirect aggression.

Table 7.10. Means (and standard deviations) of male and female scores on the IAS-A.

<i>Sub-scale</i>	<i>Male</i>	<i>Female</i>
Social Exclusion	15.73 (5.02)	15.87 (4.07)
Humour	18.86 (6.64)	17.80 (5.11)
Guilt Induction	12.48 (3.88)	12.33 (3.93)

Levene's test for homogeneity of variance revealed that variance was equal for men and women on the Social exclusion and the Guilt induction subscales, but not for the malicious humour subscale. The appropriate t-test was calculated for the gender differences on the subscales. The differences in mean scores on the three subscales were not statistically significant. For Social Exclusion: $t(281) = -0.248$; $p = 0.81$. For Malicious Humour: $t(135.44) = 1.335$; $p = 0.18$. For Guilt Induction: $t(281) = 0.302$; $p = 0.76$. There were no significant gender differences for usage of indirect aggression in adulthood.

Table 7.11. Means (and standard deviations) of male and female scores on the IAS-T.

<i>Sub-scale</i>	<i>Male</i>	<i>Female</i>
Social Exclusion	20.28 (5.84)	21.15 (6.42)
Humour	19.61 (6.78)	20.64 (5.79)
Guilt Induction	13.58 (3.99)	14.12 (4.42)

Table 7.11 shows the means and standard deviations for males and females experience of adult indirect aggression directed towards them. Levene's test for homogeneity of variance revealed that variance was equal for men and women on all subscales. The appropriate t-test was calculated for the gender differences on the subscales. The differences in mean scores on the three subscales were not statistically significant. For Social Exclusion: $t(275) = -1.057$; $p = 0.29$. For malicious Humour: $t(275) = -1.275$; $p = 0.20$. For Guilt Induction: $t(275) = -0.971$; $p = 0.332$. There were no significant gender differences for being the victim of adult indirect aggression.

7.3.8. Cross-validation of internal validity: Confirmatory factor analysis

Having established some trends within the data, it was important to continue examining the psychometric properties of the IAS measures, as validity is an ongoing process in the development and use of scales (Nunnally & Bernstein, 1994). The exploratory factor analysis suggested a simple structure that was consistent with the previous qualitative typology, making sound theoretical sense, and was consistent across both versions. The exploratory factor analysis also provided evidence about the construct validity of the IAS-A and IAS-T. It revealed the dimensionality, allowing the scales to be represented in terms of their underlying latent constructs. In addition it provided evidence about the validity of the individual items, allowing 'bad' items to be discarded for the revision of the measures, and allowing the retention of 'good'

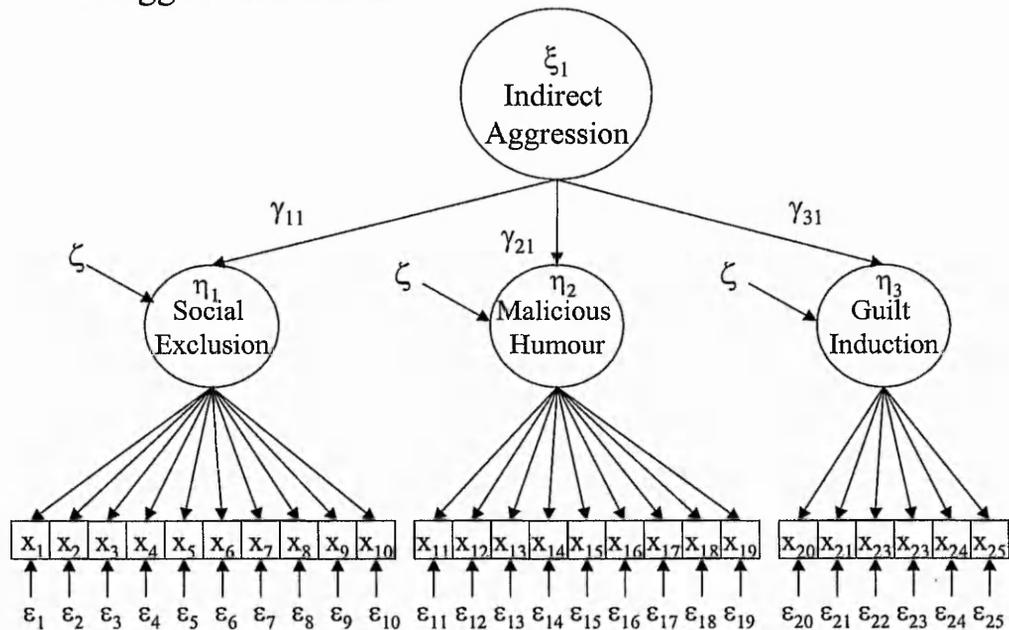
items to form the revised subscales. The item analysis revealed that the subscales of both versions displayed high internal consistency. The measures have demonstrated sufficient evidence of reliability and validity from these traditional psychometric evaluations. It was decided that to examine the psychometric structure of the measures further, confirmatory factor analysis would be implemented. The benefits of which have been extensively documented (e.g. Bollen, 1989; Tabachnick & Fidell, 1996; Stevens, 1996).

Confirmatory factor analysis will provide a much more stringent test of fit because unlike exploratory factor analysis the implied model is not saturated, and parameters within the factor model can be constrained. In this way the model tested is theory-driven. The model is a hypothesis about the data based upon previous theoretical contentions or on previous empirical findings (Stevens, 1996; Hoyle, 1995). In this case it allows the exploratory factor analytic solutions to be replicated in this more sophisticated statistical procedure. At such an early stage in scale development it is unlikely that the model will fit the data, but the statistical information calculated can provide valuable evidence regarding the validity of the individual items, and the relationships between the latent constructs hypothesised to underlie the measures. Confirmatory factor analysis offers researchers a more realistic method for assessing the construct validity of their measurement instruments (Stapleton, 1997).

As both the IAS-A and IAS-T were clearly composed of the same three latent factors – social exclusionary behaviours, malicious humour techniques, and guilt induction techniques – both data sets should have the same underlying theoretical model. Also, as these types of indirect aggression are related and are subtypes of indirect

aggression as a whole, there can be hypothesised to be a higher-order latent construct of indirect aggression. From the previous correlations calculated between the subscales it is known that the subscales are not orthogonal. Although this aided the interpretability of the exploratory solution, latent factors will now be allowed to correlate. A structural equation model was specified and estimated using LISREL 8.3, and the same model was compared against the observed data from both the IAS-A and IAS-T⁵. This model is depicted in Figure 7.1.

Figure 7.1. Second-Order Factor Model of the Dimensionality of the Indirect Aggression Scales.



Model description: The model in Figure 7.1 is based upon the previous exploratory factor analysis, although here the model parameters are constrained. The circles represent latent constructs. The three circles labelled η_1 , η_2 and η_3 represent the

⁵ N.B. there are now 25 items per version, (with invalid items removed), therefore the sample size requirement is 250. Researchers should ensure stable SEM solutions by having approximately 10 times the number of subjects as manifest variables (Tabachnick & Fidell, 1996). The sample size once missing data has been listwise removed is 292 for the IAS-A data, and 293 for the IAS-T data.

underlying 1st-order latent constructs of 'Social exclusionary behaviours', 'Malicious humour usage', and 'Guilt induction techniques', respectively. The largest circle labelled ξ_1 is a 2nd-order latent construct of 'Indirect aggression', this is shown as underlying the covariation between the 1st-order latent constructs. The arrows labelled γ_{11} , γ_{21} and γ_{31} represent the regression coefficients of the 1st order constructs onto the 2nd-order construct. This tells us how much of the 2nd-order factor variation can be explained by each 1st-order factor.

The boxes represent the x-variables or the observed manifest variables (the items)⁶. The arrows going from the 1st-order latent constructs to the items are the factor loadings (λ_1 to λ_{25}). The errors underneath the boxes represent the unique measurement error of the items (denoted as ε_1 to ε_{25}). Finally, the arrows labelled with ζ are the random unexplained variance in every 1st-order latent construct, often known as the disturbance term.

At this stage of scale development and evaluation of construct validity it is important to consult a number of different sources of information regarding psychometric worth. Firstly, the exploratory factor analytic factor loadings provide essential information about how good the items are in terms of validity (Medsker *et al.*, 1994), and this is given even greater weight if confirmatory evidence supports these estimates. Secondly, from a confirmatory factor analytic perspective, a researcher should consult the statistical fit (using traditional fit statistics such as the chi-square, an overall fit statistic such as the GFI, a modern fit index such as the RMSEA, and the residuals

⁶ N.B. variable X1 is not item 1 (items have been selected/reordered to make SEM syntax programming more coherent, and the models easier to understand). The model is a schematic diagram to represent the underlying simple structure solution. In the tables the items retain their item numbers from the scale.

using the SRMR)⁷. Thirdly, the parameter estimates themselves should be used, as all too often researchers focus on fit without realising the importance of examining the actual estimates. Finally, they should consider the substantive meaning – do the model and the estimates make theoretical substantive sense?

IAS-A: The IAS-A data was prepared and a covariance matrix computed using PreLIS 2.3. The sample size after listwise deletion of missing data was 292. The model depicted in Figure 7.1 was specified and estimated using LISREL 8.3. The fit statistics were as follows: $\chi^2 (272) = 662.236$; $p < 0.001$; RMSEA = 0.070; SRMR = 0.064; GFI = 0.85.

The evidence provided by these estimates are somewhat ambivalent. The χ^2 is large relative to the degrees of freedom, indicating some misfit from model to data. Likewise the GFI is below the accepted cut-off of 0.90, also suggesting some misspecification. However, researchers typically prefer to rely on more modern indices, because of flaws with these traditional indices. The desirable properties of these indices are well known in the structural equation modelling literature, especially the benefits of using the RMSEA (Raykov, 1998; Forrest & Shevlin, 2000) and the SRMR (Hu & Bentler, 1999). Evidence from these modern indices are more encouraging in terms of the IAS-A's validation, particularly as this is only the first administration of this measure. The RMSEA is indicative of a reasonable to good fit (Steiger, 1990; Kelloway, 1998; Fan, Thompson & Wang, 1999). The latest consensus

⁷ Hoyle & Panter (1995) detail the sources of information a researcher using structural equation modelling should consult and report when considering the worth and validity of their model. See also Kelloway (1998).

on the SRMR is that values should fall below 0.09 to be evidential of a well-fitting model (Hu & Bentler, 1999).

The evidence regarding fit is therefore inconclusive, which is to be expected at this stage of validation. The exploratory factor analytic solution did show that a lot of the variation had not been accounted for by the factors that emerged. This suggests measurement error, and this is an issue to be investigated in future research. It has already been established that the model itself makes substantive sense, and that the exploratory factor analyses were encouraging in terms of item adequacy. Moving on to the parameter estimates of the confirmatory factor analysis, all the parameters in the IAS-A were statistically significant (they had t-values greater than 1.96 and so were statistically significant from zero at the 0.05 level of significance)⁸. What can be concluded from the evidence so far is that the IAS-A analysis does not show serious indications that the scale does not have this underlying structure. The modification indices in the IAS-A analysis did not reveal substantial misfit, and indicated that any misfit at this stage could probably be attributed to confounding effects of measurement error (i.e. correlated errors).

Table 7.12 shows the completely standardised factor loadings for the items onto their respective factor. Unlike in the exploratory factor analysis, here they are constrained so that each item is hypothesised to measure only one factor – cross-loadings make little sense and so are not permitted. These estimates are more realistic than the exploratory factor analytic factor loadings because of these constraints, any left over

⁸ Appendices 15 and 16 contain the syntax programs and covariance matrices of the IAS-A and IAS-T confirmatory factor analyses. This is sufficient to allow replication of the analysis, and would give the full information regarding raw parameter estimates, modification indices, etc. although there is not space within this thesis to include the extensive LISREL outputs.

variation is seen as error, allowing a more accurate portrayal of the amount of variation in the items attributable to the latent underlying factor. The estimates are completely standardised so that they can be seen as a percentage of variation.

Table 7.12. Completely standardised factor loadings of the IAS-A data.

Item	Social Exclusion	Malicious Humour	Guilt Induction
X12	0.563	--	--
X14	0.532	--	--
X20	0.606	--	--
X21	0.598	--	--
X24	0.443	--	--
X25	0.618	--	--
X29	0.688	--	--
X31	0.519	--	--
X33	0.592	--	--
X35	0.568	--	--
X1	--	0.552	--
X2	--	0.553	--
X7	--	0.568	--
X8	--	0.575	--
X13	--	0.621	--
X15	--	0.480	--
X23	--	0.715	--
X27	--	0.714	--
X32	--	0.720	--
X4	--	--	0.658
X5	--	--	0.622
X11	--	--	0.626
X18	--	--	0.690
X22	--	--	0.624
X26	--	--	0.648

These more accurate factor loadings are consistent with the exploratory ones in that they indicate valid items retained. All items are adequate indicators of their respective latent factor. Using the traditional cut-off point of 0.30, all items would be regarded as sufficiently valid indicators. Factor loadings range from 0.443 to 0.720. The guilt induction scale is particularly encouraging in that all the factor loadings are fairly similar for all the items. This suggests that the subscale is tau-equivalent, a very

desirable property for measurement instruments. Overall, the factor loadings are quite high, which means that the items do seem to have been allowed to load on the right factor, and that the items are good indicators of what they aim to measure – therefore they are internally valid items.

The relationship of items to latent factors deals with the measurement part of the model. Also of interest is the structural part of the model. The subscale factors were hypothesised to be lower-order factors with a higher order factor of Indirect Aggression. Table 7.13 reports the regression coefficients of Indirect Aggression onto the subscale factors. Again the estimates have been completely standardised.

Table 7.13. IAS-A completely standardised regression coefficients between 1st and 2nd order factors.

	Indirect Aggression
Social Exclusion	0.751
Malicious Humour	0.818
Guilt Induction	0.838

These regression coefficients calculate how much of the covariation between the factors can be explained by an overarching factor of indirect aggression. These coefficients reveal how good the subscale factors are in terms of measuring indirect aggression as a whole. As they are completely standardised this shows that, for example, 75.1% of the variation in social exclusion is attributable to the underlying effect of indirect aggression. From this you could also estimate how much of the variation in each item is attributable to the 2nd-order factor. These coefficients show that all three subscales are very good indicators of indirect aggression. This suggests that although the subscales represent distinct factors, they measure the underlying component of 'indirect aggression'.

The analysis also produces a correlation matrix of subscale factors, which are reported in Table 7.14. Again to aid interpretation only completely standardised estimates are shown. These estimates are preferable to the previous subscale correlations reported in section 7.3.5 because here the correlations have had error partitioned. This means that these estimates are more reliable due to structural equation modelling's ability to partition the sources of variation in this way. In this analysis we are working at a latent variable level, whereas before the true variation and error were confounded, and analysis was at a manifest variable level.

Table 7.14. Correlation matrix of IAS-A subscale factors.

	Correlation Coefficient
Social Exclusion & Malicious Humour	0.614
Social Exclusion & Guilt Induction	0.630
Malicious Humour & Guilt Induction	0.686

Similar to the previous findings the subscales are all very equally correlated in the IAS-A. The pattern of correlations is the same, but with error accounted for the correlations between the factors are higher. Still the subscale factors suggest related but separate types of indirect aggression.

IAS-T: The IAS-T data was prepared and a covariance matrix computed using PreLIS 2.3. The sample size after listwise deletion of missing data was 293. The model depicted in Figure 7.1 was specified and estimated using LISREL 8.3. The fit statistics were as follows: $\chi^2 (272) = 642.202$; $p < 0.001$; RMSEA = 0.068; SRMR = 0.062; GFI = 0.85.

Comparing these with the results from the IAS-A data, it appears that the fit statistics for both sets of data are very similar, with the IAS-T displaying slightly greater reliability and validity throughout analyses. This suggests that there is less error in the target version, and that it is perhaps easier to measure indirect aggression in adults from a target perspective. Again, there are indications of some misfit from the traditional indices (the χ^2 and the GFI), but the modern indices (the RMSEA and SRMR) suggest a satisfactory to well-fitting model (Steiger, 1990; Kelloway, 1998; Fan *et al.*, 1999; Hu & Bentler, 1999).

Again, the evidence regarding fit is somewhat inconclusive, although the fit can be said to be satisfactory at this stage. Like the IAS-A, the IAS-T data and model make clear substantive sense. All the parameters in the IAS-T were statistically significant and the modification indices did not reveal substantial misfit, again indicating the confounding influence of correlated measurement error. Table 7.15 shows the completely standardised factor loadings.

These factor loadings are consistent with the exploratory ones indicating valid items have been retained. All items are adequate indicators of their respective latent factor, and exceed the cut-off point of 0.30. Factor loadings range from 0.517 to 0.747. These are very high factor loadings, and the items appear freer from error than the IAS-A items. Again suggesting that it is easier to measure being the victim of indirect aggression. The items load highly on the correct factor, they are good indicators of what they aim to measure, so it can be concluded that they are internally valid items.

Table 7.15. Completely standardised factor loadings of the IAS-T data.

Item	Social Exclusion	Malicious Humour	Guilt Induction
X1	0.586	--	--
X5	0.712	--	--
X8	0.656	--	--
X9	0.662	--	--
X11	0.747	--	--
X12	0.708	--	--
X16	0.576	--	--
X23	0.719	--	--
X29	0.554	--	--
X31	0.727	--	--
X2	--	0.517	--
X4	--	0.643	--
X6	--	0.599	--
X17	--	0.689	--
X19	--	0.624	--
X21	--	0.714	--
X22	--	0.802	--
X24	--	0.660	--
X25	--	0.691	--
X10	--	--	0.627
X14	--	--	0.643
X18	--	--	0.652
X20	--	--	0.676
X26	--	--	0.595
X33	--	--	0.701

Table 7.16 reports the completely standardised regression coefficients of Indirect Aggression onto the subscale factors.

Table 7.16. IAS-T completely standardised regression coefficients between 1st and 2nd order factors.

	Indirect Aggression
Social Exclusion	0.811
Malicious Humour	0.934
Guilt Induction	0.688

Again, the subscale factors are sufficiently correlated to suggest that although they are distinct factors they measure some underlying component of indirect aggression. There is, however, more variation in terms of how much the construct of Indirect Aggression explains the variation within and between the subscale factors. Whereas 68.8% of variation in guilt induction scores can be accounted for by Indirect Aggression, for the other two subscales this percentage is much higher. For example, 93.4% of the variation in Malicious humour scores are explained by the underlying 2nd-order factor. Clearly some types of indirect aggression are more important to understanding the overall phenomena of indirect aggression.

Table 7.17. Correlation matrix of IAS-T subscale factors.

	Correlation Coefficient
Social Exclusion & Malicious Humour	0.758
Social Exclusion & Guilt Induction	0.558
Malicious Humour & Guilt Induction	0.643

Table 7.17 shows the completely standardised subscale correlations. The correlations are similar again to the previous Pearson's coefficients, with the pattern of correlations remaining similar. The highest correlation is still seen between Social exclusion and Malicious humour, suggesting that these types of behaviours are quite related. All subscales are moderately correlated. They are clearly independent but related types of indirect aggression. The estimates once corrected for error variation are higher than before.

Summarising the confirmatory factor analytic work, it is apparent that the inconsistent, invalid and unreliable items have already been removed in the previous analyses. The structural equation modelling indicates that the items that will now

form the revised IAS measures are good items, they are adequate indicators of their underlying factors. The model fit is ambiguous to some extent, and may well imply that there is a lot of measurement error in the data rather than anything mis-specified in terms of what factors underlie the measures, and which items belong to which factors. Subscale factors appear to be strong indicators of a higher-order factor of Indirect Aggression, and the types of indirect aggression are related but distinct constructs.

7.4. DISCUSSION

This study has resulted in the development, psychometric assessment, and revision of two measures of adult indirect aggression. Using the logical analysis and the exploratory factor analysis the scales have been revised ready for future usage. The measures have been demonstrated to have adequate levels of internal reliability and validity. The dimensionality of the scales have been established using Maximum Likelihood exploratory factor analysis, with both versions displaying the same three underlying factors. Invalid items were removed to allow the creation of shorter, improved scales. The internal consistency of each of the subscales was found to be very high, with alpha coefficients exceeding 0.80. In addition, structural equation modelling was implemented to replicate the exploratory factor analytic findings in confirmatory factor analysis. Model fit was adequate for this early stage of scale development. Overall, this work has created scales of indirect aggression for use within adult populations, from both an aggressor and a target perspective.

A primary aim of this psychometric study was to triangulate the quantitative findings here with the qualitative research detailed in Chapter 6. Denzin (1970) proposed the benefits of triangulation between both quantitative and qualitative methods, and thought that it enhanced the validity of research. It also allowed the maintenance of an idiographic balance in investigating individual differences in indirect aggression. This approach was found to be beneficial here, because looking at the two pieces of work together does allow a better understanding of the types of indirect aggression pertinent to adult experience. There are, however, some differences between the qualitative typology, and the factor analytic research.

The five types identified in the interview research did not all emerge as underlying factors. The gossip-related and undermining types had displayed substantial overlap with other categories in the typology work. The gossip-related behaviours became subsumed under social exclusion or malicious humour, although the items did not load consistently between the different versions of the scale. The undermining behaviours became subsumed under all three factors, although again not consistently. This revealed that these types of indirect aggression were not very stable and the items were not very valid indicators of anything. Removing these problematic items did leave a very coherent factor structure. The composition of the three factors clearly revealed that they were Social exclusion, Malicious humour and Guilt induction types of indirect aggression, and this composition was consistent across both versions.

Such coherent support from both studies for the three types of indirect aggression in adulthood is promising, and some degree of contradiction between the two studies was expected given the overlap between behaviours in the typology. Brannen (1992)

notes that triangulation in this way should reveal ways in which the different data sets complement and contradict each other, rather than aiming for complete consistency between them. Expecting to gain consistent results from two different methods is naïve (Fielding & Fielding, 1986; Bryman, 1988; Hammersley & Atkinson, 1983). Therefore, the combination of methods has aided the understanding of the form the expression that indirect aggression takes in adult relationships, from two different sources of data.

The large-scale data collection also allowed the examination of the trends within the data. It was clearly possible to measure indirect aggression successfully using self-report instruments, despite reservations in the literature about whether the social undesirability of indirect aggression behaviour would render self-report too problematic (Björkqvist, 1996; Österman *et al.*, 1994). Consistent with previous research it did seem easier to quantify victim's experiences of indirect aggression, as the reported incidence of indirect aggression was higher from this perspective, and the level of measurement error was somewhat less. This suggests that it may be easier to endorse being the victim of indirect aggression, but more difficult to admit to actually instigating this behaviour. So the research has shown that, consistent with literature, there is easier admittance to victimisation than utilisation of such socially undesirable behaviour.

Although indirect aggression was by no means uncommon, the reported incidence of indirect aggression was quite moderate. What this research has shown is that different forms of indirect aggression exist in adulthood, and that this can be reliably and validly measured. What remains to be investigated now is whether self-report scales

are the best form of measurement, and whether the findings here represent the 'true' extent of indirect aggression. Future research would benefit from addressing these issues using this newly developed pair of scales. One way to do this would be to measure the same behaviours in the same person, but from different perspectives. For example, administering the two versions together as part of a questionnaire package, or investigating the effects of different raters using a Multi-Trait-Multi-Rater design (Conway, 1998). In this way one could establish the discrepancy between self-reports and 'other' reports using advanced structural equation modelling designs. Österman *et al.* (1994) have noted the discrepancy between self and peer nomination techniques to measurement, but the analysis of this was fairly primitive and they got no nearer to the 'real' extent of indirect aggression, they merely found that there was some level of discrepancy between the two summated scores. This is a logical area of potential future investigation now that there are these newly established measures for usage in an adult population.

Gender differences were also investigated and no significant gender differences whatsoever were found on any of the subscales on either version of the scale. Previous research suggests that men should 'catch up' with women in their usage of indirect aggression (Björkqvist, 1994; Björkqvist *et al.*, 1993), although there has been no research testing this contention to date. The current findings support this because men and women used indirect aggression to the same extent, and they were the victim of this behaviour equally. Research has also suggested that men and women may prefer to adopt different types of indirect aggression, with men favouring 'rational-appearing aggression', and women continuing to use social manipulation behaviours similar to those witnessed in adolescent female friendship groups

(Björkqvist *et al.*, 1994a and b). Not only were there no overall gender differences here, but no differences across the type of indirect aggression men and women experience and use. This supports the emphasis on individual differences rather than gender differences in exploring more 'adult' forms of aggression.

The social exclusionary behaviours were very similar to the social manipulation behaviours witnessed in adolescence and childhood, although were more covert and sophisticated a lot of the time. These behaviours were also comparable to 'indirect manipulative aggression' identified by Kaukiainen *et al.* (2001). Both men and women used, and were subject to, these behaviours. The malicious humour behaviours were reminiscent of the 'rational-appearing aggression' in that they worked by seeming innocent, or harmless, or often seem to be done in 'fun', whilst harming the victim and protecting the instigator. They also include behaviours similar to 'covert insinuating aggression' (Kaukiainen *et al.*, 2001). So there were parallels between these two types of indirect aggression and those described briefly in the research by Björkqvist *et al.* (1994b) and Kaukiainen *et al.* (2001), looking at workplace aggression.

The relationship between indirect aggression and age was also of interest because the current research is limited to mostly work with children and adolescents (e.g. Lagerspetz *et al.*, 1988; Crick & Grotpeter, 1995; Owens *et al.*, 2000). Indirect aggression increases with age developmentally because of the increasing stigmatisation associated with more direct forms of aggression, and the greater social intelligence skills associated with maturation (Björkqvist, 1994; Kaukiainen *et al.*, 1999). However, there have been no previous systematic measurement of indirect

aggression in adults, so we do not know if it increases with age in adulthood, levels off to a stable rate, or falls as all socially undesirable behaviours are stigmatised and people develop the empathy skills to understand how harmful such behaviour could be (Björkqvist *et al.*, 2000). The relationship between all types of indirect aggression and age in this study was negative and significant. This implies that as adults get older they use indirect aggression less. But although the relationship was significant, it remained a weak correlation, indicating that indirect aggression is probably quite stable once people reach adulthood.

Walker & Richardson (1998) have suggested that indirect aggression should be more prevalent in older adults who risk greater harm from direct aggression. They imply that indirect aggression should be quite commonly used by elderly people. This was not found to be the case here. Indirect aggression did trail off slowly with age – the relationship was linear and negative. Although maybe extending measurement to older adults would be another area of future research, as although the age range here was extensive (from 17 to 66) the mean age of respondents was quite young (25 in the IAS-A data and 26 in the IAS-T data).

The main aim of this research was to create the measures so that in the future these can be used in a wide range of studies. The psychometric properties are reasonable for the measures developed, although future validation research is essential. The internal validation needs to be cross-validated further with a new sample of data using confirmatory procedures. At present the fit of the confirmatory model to the observed data sets is satisfactory, but does indicate some degree of misfit and mis-specification, and it is vital to investigate this further. As well as continuing the validation process,

other measurement issues could be investigated. As mentioned previously the use of MTMR designs could aid investigation into the sources of error and whether 'self' or 'other' reporting is more advisable with indirect aggression, in light of the obvious problems involved in measuring such subtle, hidden, anti-social behaviour.

Psychometric refinement could also involve research looking at the discriminatory power and item characteristics of the measures. Researchers often examine the factor analytic properties of their measures but do not take internal validation to this next stage (Hammond, 2000). Some Item Response Theory (IRT) research would be useful to examine validity, as establishing scale validity is a progressive and long-term consideration.

CHAPTER 8. AN IDIOTHETIC APPROACH TO EXPLORING INDIVIDUAL DIFFERENCES IN ADULT AGGRESSIVE EXPRESSION: DISCUSSIONS AND CONCLUSIONS.

This thesis incorporated an idiothetic orientation to investigating individual differences in the expression of adult aggression. Lamiell (1981, 1982, 1987) argued that by combining both an idiographic and a nomothetic orientation, research in individual differences can reach an 'idiothetic' balance. This is advantageous as it allows the synthesis of different methods of data collection and analysis, and reaches explanation on different 'levels of explanation/analysis' (Doise, 1978). In this research the idiothetic approach has facilitated a progressive series of both qualitative and quantitative modes of inquiry to take a new perspective on exploring adult perceptions of aggression, and an advanced form of aggressive behaviour.

This research additionally went beyond the dominant emphasis with aggression research on gender differences, instead focusing on individual differences. This is a significant change in focus as the preoccupation of viewing aggression in terms of a gender dichotomy, and the problems with such an approach, have been recognised (e.g. Tavris, 1993; White & Kowalski, 1994).

Research began by re-examining a dominant theory in the explanation of gender and aggression: the theory of instrumental and expressive social representations of aggression. Using a series of self-report studies, problems in this theory were demonstrated. Therefore this was found to be a problematic approach to understanding men and women's aggressive perceptions and behaviour. Research

therefore re-examined perceptions of aggression on an idiographic level by interviewing a small number of young adults and asking them about how they perceive their own aggression (and the aggression of those around them), how they understand their aggressive experiences, and how they tend to express their anger as aggression across a variety of settings.

Perceptions of aggression were revealed to be much more than instrumental and expressive sets of beliefs or social representations. Perceptions were very personal, more individualised, and sometimes complex and contradictory. Individuals described conflicting beliefs that were simultaneously instrumental and expressive. They were found to rely upon an underlying belief system of aggression, which was very dynamic. These beliefs provided a guide to behaviour when faced with conflict situations in their life. The belief system was very adaptive. They perceived the beliefs as originating from past personal experiences. They talked about how when behaviour is not effective their belief system shifted to mirror changing demands. Belief systems of aggression are therefore much more than instrumental and expressive sets, and are very fluid in nature, changing constantly within the lifecycle to accommodate new experiences and to allow effective conflict resolution.

The recent literature on different forms of aggression suggests that men and women use qualitatively different aggressive strategies, and points out the importance of investigating indirect aggression. The second series of studies, as well as re-examining perceptions of aggression on this new level, also broadened the conception of aggression to include more sophisticated indirect aggression behaviour. This was beneficial as little is known about the subjective experience of indirect aggression,

and the forms that it takes in adult populations. So the young adults were also interviewed about their experiences of indirect aggression within different contexts in their lives.

Focusing specifically on victimisation experiences it was found that there are a number of inherent features of indirect aggression, which result in a great potential for psychological damage to the victim. The ambiguous nature of indirect aggression, and the fact that it can be so well disguised, led to feelings of confusion, uneasiness and uncertainty in the individual. Indirect aggression was highlighted as being a 'real dilemma' for the individual being targeted. Effective indirect aggression was associated with self-blame attributions and internalisation of the problem in the victim. The nature of indirect aggression made it almost impossible for the victim to understand what is happening to them and why. Its incomprehensibility fosters feelings of self-doubt in them and, as they cannot direct the hurt and anger at the hidden or protected aggressor, they experience increasing frustration and further anger. This process became cyclic in that the lack of an outlet for aggressive expression made the victim more and more frustrated and angry, whilst continuing this tendency to internalise and suppress their anger.

The next study involved a larger series of interviews with adults of a wider age range and backgrounds. These interviews focused on indirect aggression experiences, extending analysis to both victimisation and utilisation. The cycle of victimisation was re-examined and confirmed with this new data set. Again, in this new sample, the same features underlie effective indirect aggression. Likewise, effective indirect

aggression was again associated with internalisation and self-blame. It was identified how there is enormous potential for victimisation to be long-term and abusive.

This potential for abusive patterns of behaviour was even more apparent with the findings about the motivations behind using indirect aggression. The individuals were found to see their own, and others', use of indirect aggression in terms of group dynamics, and power and control. It was seen as a strategy to change the power differential within groups and dyads. By using sophisticated indirect aggression behaviour individuals were perceived to enhance their own share of the power within groups. They reported feeling stronger by having an 'outsider' within the group that negativity can be focused upon. By excluding and undermining another individual they themselves could feel more accepted, stronger, and 'empowered'. These issues were inextricably linked to a theme of personal identity and group status. Use of indirect aggression was felt to be used to increase a person's status within the group and improve their personal identity. The person targeted is then seen as 'disempowered', with negative effects upon how they think and feel about themselves in terms of their identity.

The next study used the data from both of the previous interview studies to investigate the forms that indirect aggression takes in adults. Incidents recalled by interviewees were coded and categorised, and five distinct types of indirect aggression identified. From this descriptive thematic analysis a behavioural typology was devised. It was really important to identify how indirect aggression manifests itself in adult populations as previous attempts at measurement in adults have relied upon child-based behavioural observations. Social exclusionary and gossip-related behaviour

were identified, and these two types were very similar to childhood and adolescent reports of indirect aggression (e.g. Lagerspetz *et al.*, 1988; Owens *et al.*, 2000). Very common were experiences where humour was used to hide malicious intent, this type of behaviour ranged from being similar to adolescent behaviour to being much more sophisticated. Undermining behaviour and guilt induction techniques were also identified. Guilt induction techniques were particularly advanced strategies, and again raised concerns about the possible potential of indirect aggression to be abusive.

The behaviours identified in the formation of the typology led to the creation of psychometric scales of adult indirect aggression – one from a target/victim perspective and one from an aggressor perspective. The Indirect Aggression Scales (IAS) were constructed, administered and analysed. Exploratory factor analysis revealed that there were three subscales within both of these measures, corresponding to three of the five types identified in the previous stage of research. Using a combination of exploratory and confirmatory factor analytic procedures, and item analysis, it was found that the scales are sufficiently reliable and valid for this early stage in scale development and validation. Men and women used, and were the victims of, equal amounts of all three types of indirect aggression. Indirect aggression was also found to decrease with age.

This thesis has significantly extended the research on how people think about and perceive their own aggression to include more ‘adult’ aggressive strategies. It has greatly extended the existing literature to examine the subjective experience of using and suffering indirect aggression. Additionally it has identified the forms that this aggression takes in an adult population and developed new self-report instruments to

quantify them, moving beyond the current restriction in the literature, and looking across different settings and types of relationships. It has successfully adopted a new perspective on studying aggressive expression. Firstly, implementing a mixed-methods idiographic orientation. Secondly, concentrating on individual differences, replacing the reliance on gender differences.

The idiographic approach has provided a more holistic and richer analysis of the research questions by looking at objective measurement of perceptions and behaviour, and a subjective understanding of the phenomena, within the same larger body of research. In this way the research has explored the extent and frequency of perceptions and behaviour, but also has examined the content and meaning entrenched within experience. It allows understanding at different levels, to achieve a balanced and in-depth explanation of the phenomena under study, which is extremely advantageous.

This orientation began by examining perceptions psychometrically using existing theory and measures, and applying advanced multivariate statistical modelling (in Chapter 2). This identified problems in the existing theoretical understanding, and was an ideal forum for differential/psychometric psychological study to combine with a refocus on idiographic experience. Therefore in Chapter 4, there was a shift in emphasis to explore perceptions of aggression subjectively and in-depth. This highlights the contradictions, complexities, and highly personalised nature of how we make sense of aggression in our lives.

Chapter 3 detailed the transformation in aggression research with the recognition that gender differences are qualitative rather than quantitative. To look at these qualitative differences and explore indirect aggression, the idiographic research continued to explore the subjective experience of this specific form of aggression (Chapters 4 and 5). Directly leading on from this research, Chapter 6 provided a 'bridge' between the idiographic interviews and interpretive thematic analysis, to the nomothetic exploration of measuring indirect aggression (in Chapter 7). This final study witnessed the orientation coming 'full circle', returning to a differential psychology perspective and the use of advanced multivariate statistics.

Throughout the research, this idiographic balance in orientation has provided a depth of understanding beyond that which could be achieved by restraining investigation to *either* an idiographic *or* nomothetic perspective. It has also greatly aided the successful combination of complementary qualitative and quantitative phases of research. In this way this adaptation of a mixed-methods design provides greater insight into the area, as it allows the investigation of the same phenomena from different "vantage points". The findings from the different pieces of research feed into each other, so that the research as a whole works on numerous levels and is inextricably integrated.

This has meant that the research is 'triangulated'. The validation of findings is undoubtedly greatly enhanced if findings from different perspectives complement the investigation of the same phenomena (Denzin, 1970). Such mixing of qualitative and quantitative data, and qualitative and quantitative analysis, is a valuable way to triangulate and enhance the validity of research in long-term extensive investigations

such as this one. The use of multiple methods can overcome the weaknesses of any single method. Combining orientations and implementing complimentary qualitative and quantitative components within research can overcome the qualitative-quantitative divide (Smith, 1994; Hammersley, 1992), and provide a rich amalgamation of multifarious levels of explanation.

Of equal importance within this research has been the focus upon individual differences in preference to the usual reliance on exploring aggression in terms of gender. As detailed throughout this investigation, many previous attempts to study human aggression have started from a gender-dichotomised understanding. This current research provides a welcome departure from this. There are no preconceptions within this research that gender is the most important (or only) variable of interest when studying aggression. Neither does it rest upon the typical assumption that to examine aggression we must rely upon the idea that aggression is fundamentally different for men and women. Therefore this research represents a conscious shift away from sex-specific theories of aggression, which marginalize our understanding of aggression to within essentialist ideologies. Instead the emphasis here is on liberal feminist egalitarianism and also a differential psychological approach to aggression. There is the recognition that individual differences considerably outweigh gender differences, and that there is much greater variation within the sexes than between them (Unger, 1979, 1981; Plomin & Foch, 1981).

Removing this preconception that aggression should be primarily understood in terms of gender difference was of benefit. This was especially advantageous for examining indirect aggression, but also was consistent with the finding that men and women's

perceptions of aggression were not 'locked' into instrumental or expressive sets of social representations. How individuals thought about and felt about aggression was not based upon being a man or a woman, but was understood in terms of personal past events regardless of gender.

In terms of indirect aggression, previous literature has speculated that this type of aggression should be preferred for both genders once they reach adulthood (e.g. Björkqvist, 1994; Björkqvist *et al.*, 1994b). There is an expectation that developmentally men should 'catch up' with women in their usage of indirect aggression, and by adulthood should display equal amounts. This research is therefore significant in examining this claim by looking at individual differences across different levels. It is apparent from this research that the experience of indirect aggression is very salient to both sexes across all types of settings and relationships. The idiographic research exploring personal experiences revealed that, regardless of whether the individual was male or female, they all reported that indirect aggression was very memorable, quite frequently experienced, and very psychologically painful. There were examples within the analysis of social exclusionary and gossip-related behaviour within all-male and mixed-sex friendship groups (see Nathan in Extract 6.3 and Martin in Extract 5.17). This is very much at odds with existing assumptions that such behaviour lies solely within the province of female experience.

What was evident in the data (although not discussed in any depth) was that lay perceptions of indirect aggression reflected the stereotypes we have about indirect aggression behaviours (such as 'bitching' and social ostracism) being typical of females. There is evidence that indirect aggression is female-preferred behaviour

during childhood to adolescence (e.g. Björkqvist *et al.*, 1992a and c; Owens, 1996; Crick *et al.*, 1996, 1997), and the distinction that males use direct aggression, whereas females use indirect aggression is rapidly becoming the new gender dichotomy. What is important to investigate is whether this distinction is appropriate for mature, adult aggressive expression.

A significant finding throughout this research has been that there are no gender differences in indirect aggression in adult populations. This was speculated upon in the interview studies with the finding that all the interviewees (both men and women) commonly experienced indirect aggression. In Stage 3 of the research this was systematically tested in a large population with the identification and measurement of types of indirect aggression. There were no significant gender differences at all. This finding was consistent with parallel research by the author where self-reported aggression was measured in a large sample of adults, and there were no significant gender differences for either direct or indirect aggression (Forrest & McGuckin, 2002). So although in the contemporary literature indirect aggression is again viewed in terms of gender difference, once research is extended to the exploration of adult populations these gender differences disappear. This is a very important finding. This research is congruent with Richardson's (2000a) conjecture that it is the *type of relationship* that is of greater importance. Context appears to be pivotal to the understanding of indirect aggression, much more significant than whether the aggressor is a man or a woman.

Although the importance of this research is clear, some limitations have been identified, which should be addressed in future research. One of the largest problems

revealed is related to the definitional problems, which hamper aggression research. When the conception of what constitutes 'aggression' becomes broader to encompass these more subtle anti-social behaviours such as indirect aggression, establishing intent becomes less clear. When aggression is indirect it is by definition a disguised form of aggression, so objectively ascertaining whether intent is present becomes more and more problematic. Although it was useful here to talk about 'victims' and 'aggressors', obviously this is a necessary simplification of the relationship. It is almost impossible in many cases to establish for certain whether the behaviour is intentional, and therefore is 'aggression' *per se*. There are obviously differing perceptions of the same event by all those involved, and by interviewing only one 'actor' in the event means that one has to rely solely on their interpretation of the event. Indirect aggression is so difficult to establish in many cases, and can be very successfully hidden – that is why it is such a sophisticated and effective means of harm. Intent to harm could not be 'proven' in the interviews, rather what was of interest was the fact that the interviewee *perceived* the event as purposeful and often they had seen corroborating evidence about their interpretation of what was happening. But again this is only their interpretation.

It is too simplistic to talk about 'aggressors' and 'victims' because everyone interviewed was found to fulfil both roles in different contexts. Everyone both uses and experiences indirect aggression against them, but people were often reluctant to see themselves as using such socially undesirable behaviour. Generally it was much easier for interviewees to talk about what people have done to them, rather than how they themselves may seek to harm other people. These problems are typical of the work in indirect aggression. It is difficult to get people to talk about and admit to

using socially undesirable behaviour, but on the whole once people felt comfortable in the interview setting they did admit that they had used these behaviours themselves and talked about how they perceived that, and how that made them feel. The qualitative approach to investigating their experiences was of assistance in getting around the problems associated with measuring and observing indirect aggression witnessed in the previous literature.

Research does suggest general problems in relying on self-report measurements of indirect aggression. It has been suggested that people will under-estimate their own use (e.g. Österman *et al.*, 1994), but also that people will over-estimate other people's use of it. It was revealed here that people did find it much easier to admit to being the victim of indirect aggression than endorse their own use of it against others. This social desirability problem is inevitably an issue with the research, which needs to be addressed in the ongoing validation work on the IAS measures. However, the benefits self-report offers does seem to outweigh its problems.

There are certain implications for the findings of this research and indications of logical areas for further research, which will be discussed. Overall, the research has highlighted the significance of indirect aggression in understanding adult aggression. In the interviews indirect aggression was considered as the most harmful form of aggression, with the most enduring psychological consequences. The concept of indirect aggression is vital to understanding aggression in adult relationships and contexts because once other forms of aggression become too blatant and too risky, indirect aggression quickly overtakes other forms of aggression as an effective strategy to harm. The literature on indirect aggression, and aggression more generally,

has been extended by this research. It is very important to understand this form of aggression, and to identify what adult expressions of aggression are like. Psychology more broadly can benefit from increased understanding into perceptions and understandings of aggression, and into forms of aggression. It helps us to understand aversive interpersonal behaviours generally, and has an impact on the study of human relationships. Indirect aggression may be related to areas such as marital satisfaction, relationship maintenance and breakdown.

Significantly, there are parallels between adult indirect aggression experiences and abusive behaviours and relationships. A greater awareness of indirect aggression may aid the study of domestic abuse and dating abuse, because indirect aggression behaviours can clearly become abusive. Long-term patterns of indirect aggression were witnessed in this research, and were very similar to reports of psychological and emotional abuse. Although indirect aggression is typically low-level, it has a very serious potential to harm, and to become progressive because it can so effectively facilitate internalisation and self-blame in the victim. It is perceived to be a strategy to establish power and control within relationships, and has been found to affect the identity and status of all involved. These processes underlying indirect aggression experience really highlight the potential for abusive patterns of indirect aggression, particularly within our most cohesive and emotionally-charged primary group relationships.

Indirect aggression victimisation was additionally found to be associated with detrimental psychological consequences such as low self-esteem and self-efficacy, anxiety and depression, self-harm and frustration, and an inability to manage anger.

Indirect aggression can be very harmful and potentially very psychologically damaging to the victim, and yet it so often goes unobserved and therefore unresolved. Indirect aggression behaviours are apparent in bullying both in childhood and adulthood. Understanding and identifying indirect aggression bullying is an important consideration in bullying intervention programs both within the school and the workplace environment. It can also be argued that it has considerable importance to understanding domestic abuse and interventions in abusive relationships.

In order to be aware and intervene in such situations, to try and resolve or attenuate such problems, it is important to know much more about indirect aggression than is currently known. Awareness of such insidious, pervasive and sophisticated aggression needs to be raised so that practitioners and researchers in these areas recognise the existence and impact of indirect aggression.

This area of study has enormous potential for future research. Within the interview data already collected there were other areas and themes, which should be followed up post-doctorially. For example, although the analysis focused upon primary group relationships, there were themes apparent about workplace experiences that should be analysed. A follow-up study on workplace conflict would be useful and there are plans to continue looking at indirect aggression within the work environment.

Further work on explaining and understanding perceptions of aggression is needed. This work went from looking at the existing theory of instrumental and expressive social representations of aggression, to forming an explanatory model about individual's personal belief systems. Some more research on following up and

extending this model is needed, perhaps through the use of some focus groups examining how people make sense of their aggressive experiences, and how they generally express their anger. By moving beyond the idea that men and women are 'locked' into different sets of social representations that govern their perceptions and behaviour, perhaps there is scope to design new psychometric measures more in line with these findings.

The identity and status issues addressed in Chapter 5 definitely need to be explored in more depth, particularly in relation to indirect aggression. Especially interesting is how people reconcile their aversion to aggression with their own use of such manipulative and calculating aggressive strategies, and how this is incorporated into their own personal identity. Identity is particularly important to understanding indirect aggression because it uses a person's insecurity and seeks to harm how they think and feel about themselves. The second model of indirect aggression concerned with power and control differentials, and identity and group status needs further examination in a follow-up set of interviews.

The problems encountered about the interpretation of indirect aggression, and how difficult it is to establish what actually happened in such circumstances has led to an interest in looking at differing perceptions of the same event. Interviews with intimate dyads are planned to look at indirect aggression in marital and co-habitational relationships, and to seek to understand how the same event is perceived by the different people involved. Indirect aggression is not easy to objectify, and needs to be examined in the context in which it occurs. Some intimate dyad interviews should prove very useful in understanding the complexity of this phenomenon and also in

understanding how indirect aggression affects marital satisfaction and stability, and again power differentials in the relationship.

Measurement of indirect aggression is problematic, but the creation of new measures specific to adult relationships is an important step forward to quantifying the extent of indirect aggression in adulthood. Additional work with the IAS measures are therefore planned. There are some validation and measurement issues identified in this research which need further study, which include examining issues of 'self' and 'other' approaches to measurement of indirect aggression. By implementing a Multi-Trait-Multi-Rater design in structural equation modelling (e.g. Conway, 1998) method effects can be examined, and self-report and other-report responses can be compared in terms of accuracy and sources of measurement error.

Cross-validated studies are needed to implement confirmatory factor analysis with the revised measures using data from a new sample. Online administration of the IAS-A and IAS-T has been planned to collect large-scale samples of data, and also to examine any possible link between personality and indirect aggression (as large individual differences were evident in this research). Additionally an Item Response Theory approach can be adopted to provide further psychometric evaluation of the usefulness of the IAS measures. Such research should allow improvement of the measures and therefore result in very robust and valid measurement instruments to examine individual and group differences in adult indirect aggression.

There would be great applications for such measures, perhaps specifying the situation and type of relationship and therefore gain evidence about the extent of indirect

aggression in a variety of different contexts. A study is planned to look at the extent of indirect aggression in comparison to other forms of aggression, and measuring its relationship to self-esteem and self-efficacy, psychological distress, and the tendency to internalise conflicts and make self-blame attributions. Therefore following-up some of the qualitative findings in a larger, more generalisable sample.

In conclusion, this multifaceted piece of research has greatly extended both our understanding of how we think about and perceive aggression, and our knowledge about adult indirect aggression. By taking an idiographic orientation, and combining qualitative and quantitative methods of inquiry, this research has examined the range and the extent of aggressive perceptions and expression, and the content and meaning of indirect aggression in our adult 'lived experiences'. It has therefore provided a varied and rich investigation into individual differences in perceptions of aggression and aggressive behaviour, within a variety of different social settings. Importantly, the context and the type of relationship in which aggressive behaviour occurs were found to be pivotal to understanding adult experiences of aggression. This represents a significant departure away from sex-specific theoretical understandings of aggression, to an emphasis on individual differences more generally.

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APPENDIX 1

EXPAGG SCALE (Campbell, Muncer & Coyle, 1992)

On this questionnaire you will find a series of statements about aggression. Please read each one and indicate by checking one of the two boxes which of the two endings best sums up your feelings or experiences. There are no right or wrong answers. Please do not leave any questions out and be sure to tick only one of the boxes. If you have not been involved in a physical fight, please imagine how you think you would feel. In order to ensure that your responses are anonymous, please do not write your name anywhere on the questionnaire. However, please indicate your age, sex and occupation below.
Thank you.

Age:

Sex:

Occupation :

- 1 I believe that my aggression comes from**
- losing my self control
 - being pushed too far by obnoxious people
- 2 Someone who never behaves aggressively**
- gets trodden on by people
 - has admirable patience
- 3 In a heated argument, I am most afraid of**
- saying something terrible that I can never take back
 - being out-argued by the other person
- 4 In an argument, I would feel more annoyed with myself if**
- I hit the other person
 - I cried
- 5 If someone challenged me to a fight in public**
- I'd feel cowardly if I backed away
 - I'd feel proud if I backed away
- 6 When I get to the point of physical aggression, the thing I am most aware of is**
- how upset and shaky I feel
 - how I am really going to teach the other person a lesson

- 7 I am more likely to hit out physically**
- when another person shows me up in public
 - when I am alone with the person who is annoying me
- 8 During a physical fight**
- I feel as if I know exactly what I am doing
 - I feel out of control
- 9 The worst thing about physical aggression is**
- before long the other person goes right back to behaving badly again
 - it hurts another person
- 10 If no one is there to see an argument that I'm involved in**
- I'm more likely to hit out physically
 - I'm less likely to hit out physically
- 11 When a verbal argument really heats up, I am most likely to**
- cry
 - lash out physically
- 12 I am most likely to get physically aggressive when**
- I've been under a lot of stress and some little thing pushes me over the edge
 - I feel that another person is trying to make me look like a jerk
- 13 The best thing about acting aggressively is**
- it gets my anger out of my system
 - it makes the other person get in line
- 14 If I hit someone and hurt them, I feel**
- as if they were asking for it
 - guilty
- 15 After I lash out physically at another person, I would like them to**
- make sure they never annoy me again
 - acknowledge how upset they made me and how unhappy I was

16 After a physical fight, I tend to tell

- no one except maybe a close friend
- a lot of my friends

17 The day after a physical fight

- I remember every move I made
- I can't remember exactly what happened

18 After a physical fight I feel

- drained and guilty
- happy or depressed depending on whether I won or not

19 When I tell my friends about a fight I was in, I tend to

- make it sound more exciting than it probably was
- spend a lot of time justifying it and excusing what I did

20 I believe that physical aggression is

- necessary to get through to some people
- always wrong

APPENDIX 2

REVISED EXPAGG SCALE (Archer & Haigh, 1997)

General Attitude Questionnaire

Would you please answer the following questions as accurately as possible using the scale provided, by indicating how much each sentence describes your feelings in the circumstances portrayed. For the purposes of this questionnaire, physical aggression and physical fights are defined as any physical expressions of aggression including pushing, slapping and the throwing of objects.

(All data received will be treated with complete confidentiality.)

Please circle one number per question: circling the 1 indicates strong disagreement with the sentence, while circling the 5 indicates strong agreement.

	Strongly Disagree				Strongly Agree
1. After a physical fight, I tend to tell no one except maybe a close friend.	1	2	3	4	5
2. In an argument, I would feel more annoyed with myself if I hit the other person than if I cried.	1	2	3	4	5
3. I am more likely to hit out physically when I am alone with the person who is annoying me.	1	2	3	4	5
4. In an argument, I would feel more annoyed with myself if I cried than if I hit the other person.	1	2	3	4	5
5. I believe that physical aggression is always wrong.	1	2	3	4	5
6. I am most likely to get physically aggressive when I feel that another person is trying to make me look like a jerk.	1	2	3	4	5
7. Someone who never behaves aggressively has admirable patience.	1	2	3	4	5
8. I believe that my aggression comes from losing my self control.	1	2	3	4	5
9. When a verbal argument really heats up, I am most likely to cry.	1	2	3	4	5
10. When I tell my friends about a fight I was in, I tend to spend a lot of time justifying it and excusing what I did.	1	2	3	4	5

	Strongly Disagree				Strongly Agree
11. After a physical fight, I tend to tell a lot of my friends.	1	2	3	4	5
12. When I get to the point of physical aggression, the thing I am most aware of is how I am really going to teach the other person a lesson.	1	2	3	4	5
13. The best thing about acting aggressively is it gets my anger out of my system.	1	2	3	4	5
14. If no one is there to see an argument that I'm involved in I'm less likely to hit out physically.	1	2	3	4	5
15. If I hit someone and hurt them, I feel guilty.	1	2	3	4	5
16. After a physical fight I feel drained and guilty.	1	2	3	4	5
17. I believe that physical aggression is necessary to get through to some people.	1	2	3	4	5
18. After I lash out physically at another person, I would like them to make sure they never annoy me again.	1	2	3	4	5
19. After a physical fight I feel happy or depressed depending on whether I won or not.	1	2	3	4	5
20. In a heated argument, I am most afraid of saying something terrible that I can never take back.	1	2	3	4	5
21. The day after a physical fight I can't remember exactly what happened.	1	2	3	4	5
22. After I lash out physically at another person, I would like them to acknowledge how upset they made me and how unhappy I was.	1	2	3	4	5
23. When I get to the point of physical aggression, the thing I am most aware of is how upset and shaky I feel.	1	2	3	4	5
24. When I tell my friends about a fight I was in, I tend to make it sound more exciting than it probably was.	1	2	3	4	5
25. When a verbal argument really heats up, I am most likely to lash out physically.	1	2	3	4	5

	Strongly Disagree				Strongly Agree
26. I am more likely to hit out physically when another person shows me up in public.	1	2	3	4	5
27. The worst thing about physical aggression is before long the other person goes right back to behaving badly again.	1	2	3	4	5
28. Someone who never behaves aggressively gets trodden on by people.	1	2	3	4	5
29. If no one is there to see an argument that I'm involved in I'm more likely to hit out physically.	1	2	3	4	5
30. The day after a physical fight I remember every move I made.	1	2	3	4	5
31. I am most likely to get physically aggressive when I've been under a lot of stress and some little thing pushes me over the edge.	1	2	3	4	5
32. The best thing about acting aggressively is it makes the other person get in line.	1	2	3	4	5
33. The worst thing about physical aggression is it hurts another person.	1	2	3	4	5
34. During a physical fight I feel out of control.	1	2	3	4	5
35. During a physical fight I feel as if I know exactly what I am doing.	1	2	3	4	5
36. If someone challenged me to a fight in public I'd feel proud if I backed away.	1	2	3	4	5
37. If I hit someone and hurt them, I feel as if they were asking for it.	1	2	3	4	5
38. If someone challenged me to a fight in public I'd feel cowardly if I backed away.	1	2	3	4	5
39. I believe that my aggression comes from being pushed too far by obnoxious people.	1	2	3	4	5
40. In a heated argument, I am most afraid of being out-argued by the other person.	1	2	3	4	5

41. My answers to this questionnaire were based on:
 - a. Recent experiences of physical aggression.
 - b. Earlier experiences of physical aggression (e.g. at school).
 - c. Hypothetical situations.

42. When answering these questions, I am referring to instances of aggression occurring between:
 - a. Myself and a person of the same sex.
 - b. Myself and a partner.
 - c. Myself and a member of the opposite sex who is not a partner.

APPENDIX 3

EXPAGG DATA: INPUT SYNTAX, COVARIANCE MATRIX, MEANS AND STANDARD DEVIATIONS

```
xpaggl original cfa
da ni=21 no=306 ma=cm
la
x1 x2 x3 x4 x5 x6 x7 x8 x9 x10 x11 x12 x13 x14 x15 x16 x17 x18 x19 x20 sex
cm fi=a:\lisrel\ori.cm
mo ny=20 ne=1 ly=fu,fr te=di,fr
va 1 ly 1 1
le
inst-exp
ou sc ad=off
```

Total Sample Size = 337
 Listwise Deletion
 Total Effective Sample Size = 306

COVARIANCE MATRIX

	X1	X2	X3	X4	X5	X6
X1	0.250					
X2	0.020	0.191				
X3	0.020	0.039	0.231			
X4	0.037	0.032	0.073	0.245		
X5	0.011	0.044	0.066	0.079	0.207	
X6	0.015	0.034	0.052	0.048	0.044	0.195
X7	0.012	-0.004	0.044	0.033	0.048	0.044
X8	0.039	0.011	0.032	0.034	0.001	0.060
X9	0.039	0.028	0.035	0.043	0.025	0.042
X10	0.016	-0.004	0.031	0.029	0.012	0.018
X11	0.008	0.036	0.040	0.079	0.055	0.080
X12	0.019	0.012	0.014	0.020	0.022	0.020
X13	0.033	0.021	0.013	0.016	0.011	0.032
X14	0.028	0.033	0.055	0.073	0.058	0.070
X15	0.034	0.023	0.037	0.044	0.025	0.047
X16	0.036	0.017	0.033	0.052	0.042	0.014
X17	0.021	0.003	0.006	0.001	-0.024	0.015
X18	0.020	0.035	0.059	0.053	0.035	0.030
X19	0.010	0.022	0.016	0.027	0.028	0.022
X20	0.028	0.024	0.044	0.070	0.042	0.078
SEX	-0.010	0.030	0.028	0.056	0.054	0.055

COVARIANCE MATRIX

	X7	X8	X9	X10	X11	X12
X7	0.250					
X8	0.012	0.233				
X9	0.014	0.017	0.182			
X10	0.119	0.008	0.004	0.250		
X11	0.060	0.046	0.048	0.004	0.248	
X12	0.032	0.017	0.024	0.012	0.023	0.135
X13	0.010	0.002	0.013	0.020	0.011	0.013
X14	0.028	0.044	0.060	0.009	0.060	0.012
X15	0.042	0.029	0.031	0.015	0.053	0.023
X16	0.038	0.002	0.003	0.038	0.024	0.021
X17	0.016	0.062	-0.008	0.013	0.013	0.003
X18	0.014	0.021	0.035	0.007	0.049	0.000
X19	0.046	0.011	0.026	0.023	0.041	0.008
X20	0.034	0.057	0.061	0.015	0.069	0.035
SEX	0.047	0.042	0.056	0.011	0.140	0.040

COVARIANCE MATRIX

	X13	X14	X15	X16	X17	X18
X13	0.137					
X14	0.022	0.177				
X15	0.019	0.059	0.184			
X16	0.017	0.029	0.041	0.217		
X17	0.011	0.016	0.013	0.010	0.250	
X18	0.039	0.066	0.031	0.063	0.021	0.445
X19	0.001	0.029	0.048	0.070	-0.003	0.035
X20	0.014	0.063	0.060	0.035	0.020	0.050
SEX	0.023	0.061	0.071	0.036	0.016	0.041

COVARIANCE MATRIX

	X19	X20	SEX
X19	0.200		
X20	0.047	0.251	
SEX	0.051	0.082	0.245

MEANS

X1	X2	X3	X4	X5	X6
0.464	0.745	0.641	0.575	0.709	0.735
X7	X8	X9	X10	X11	X12
0.523	0.634	0.761	0.523	0.448	0.840
X13	X14	X15	X16	X17	X18
0.837	0.771	0.758	0.683	0.526	0.817
X19	X20	SEX			
0.725	0.503	1.578			

STANDARD DEVIATIONS

X1	X2	X3	X4	X5	X6
0.500	0.437	0.481	0.495	0.455	0.442
X7	X8	X9	X10	X11	X12
0.500	0.483	0.427	0.500	0.498	0.367
X13	X14	X15	X16	X17	X18
0.370	0.421	0.429	0.466	0.500	0.667
X19	X20	SEX			
0.447	0.501	0.495			

APPENDIX 4

REVISED EXPAGG DATA: INPUT SYNTAX, COVARIANCE MATRIX, MEANS AND STANDARD DEVIATIONS

```
rev2 cfa model comp 1dim
da ni=41 no=324 ma=cm
cm fi=a:\lisrel\rev.cm re
mo ny=40 ne=1 ly=fu,fr te=di,fr
le
inst-exp
va 1 ly 1 1
st .9 ly 2 1 ly 3 1 ly 4 1 ly 5 1 ly 6 1 ly 7 1 ly 8 1 ly 9 1 ly 10 1 ly 11 1 ly 12 1 ly 13 1
st .9 ly 14 1 ly 15 1 ly 16 1 ly 17 1 ly 18 1 ly 19 1 ly 20 1 ly 21 1
st .9 ly 22 1 ly 23 1 ly 24 1 ly 25 1 ly 26 1 ly 27 1 ly 28 1 ly 29 1 ly 30 1 ly 31 1
st .9 ly 32 1
st .9 ly 33 1 ly 34 1 ly 35 1 ly 36 1 ly 37 1 ly 38 1 ly 39 1 ly 40 1
st 1 te 1 1-te 40 40
ou ns sc ad=off
```

```
rev2 cfa model comp 2dim
da ni=41 no=324 ma=cm
cm fi=a:\lisrel\rev.cm re
mo ny=40 ne=2 ly=fu,fi ps=sy,fr te=di,fr
le
inst-exp
se
4 6 11 12 14 17 18 19 24 25 26 27 28 30 32 35 37 38 39 40 1 2 3 5 7 8 9 10 13 15 16
20 21 22 23 29 31 33 34 36 41/
va 1 ly 1 1 ly 21 2
fr ly 2 1 ly 3 1 ly 4 1 ly 5 1 ly 6 1 ly 7 1 ly 8 1 ly 9 1 ly 10 1 ly 11 1 ly 12 1 ly 13 1
fr ly 14 1 ly 15 1 ly 16 1 ly 17 1 ly 18 1 ly 19 1 ly 20 1
fr ly 22 2 ly 23 2 ly 24 2 ly 25 2 ly 26 2 ly 27 2 ly 28 2 ly 29 2 ly 30 2 ly 31 2 ly 32 2
fr ly 33 2 ly 34 2 ly 35 2 ly 36 2 ly 37 2 ly 38 2 ly 39 2 ly 40 2
st .9 ly 2 1 ly 3 1 ly 4 1 ly 5 1 ly 6 1 ly 7 1 ly 8 1 ly 9 1 ly 10 1 ly 11 1 ly 12 1 ly 13 1
st .9 ly 14 1 ly 15 1 ly 16 1 ly 17 1 ly 18 1 ly 19 1 ly 20 1
st .9 ly 22 2 ly 23 2 ly 24 2 ly 25 2 ly 26 2 ly 27 2 ly 28 2 ly 29 2 ly 30 2 ly 31 2
st .9 ly 32 2
st .9 ly 33 2 ly 34 2 ly 35 2 ly 36 2 ly 37 2 ly 38 2 ly 39 2 ly 40 2
st 1 te 1 1-te 40 40
st .5 ps 1 1 ps 2 2 ps 2 1
ou ef ns sc ad=off
```

Total Sample Size = 337
Listwise Deletion
Total Effective Sample Size = 324

COVARIANCE MATRIX

	VAR 1	VAR 2	VAR 3	VAR 4	VAR 5	VAR 6
VAR 1	1.529					
VAR 2	0.336	1.844				
VAR 3	0.337	-0.058	1.325			
VAR 4	0.078	1.121	-0.071	1.785		
VAR 5	0.329	0.518	0.057	0.320	1.384	
VAR 6	0.015	0.388	-0.060	0.359	0.111	1.202
VAR 7	0.180	0.132	0.157	0.098	0.212	0.000
VAR 8	0.235	0.163	0.197	0.137	0.178	-0.023
VAR 9	0.161	0.685	0.017	0.578	0.557	0.354
VAR 10	0.435	0.102	0.255	0.095	0.158	0.111
VAR 11	0.851	0.423	0.225	0.258	0.291	0.212
VAR 12	0.208	0.374	-0.004	0.371	0.305	0.345
VAR 13	0.030	-0.183	0.223	-0.179	-0.050	-0.238
VAR 14	-0.075	-0.079	0.104	0.086	-0.028	0.203
VAR 15	0.154	0.447	0.114	0.343	0.498	0.194
VAR 16	0.421	0.468	0.240	0.296	0.442	0.144
VAR 17	0.165	0.448	-0.174	0.402	0.603	0.290
VAR 18	0.077	0.308	0.043	0.332	0.224	0.462
VAR 19	0.275	0.554	-0.056	0.470	0.334	0.414
VAR 20	-0.027	0.244	0.115	0.152	0.332	-0.002
VAR 21	0.096	-0.142	0.259	-0.162	0.087	-0.025
VAR 22	0.163	0.178	0.192	0.175	0.270	-0.054
VAR 23	0.100	0.512	0.208	0.346	0.328	0.186
VAR 24	0.389	0.204	0.149	0.175	0.268	0.312
VAR 25	0.030	0.256	-0.184	0.211	0.311	0.310
VAR 26	0.006	0.462	-0.123	0.478	0.345	0.663
VAR 27	-0.060	0.057	0.043	-0.068	0.016	0.101
VAR 28	-0.010	0.355	-0.141	0.275	0.036	0.302
VAR 29	0.197	-0.036	0.581	-0.100	-0.206	-0.075
VAR 30	0.014	-0.072	0.080	-0.056	0.088	0.080
VAR 31	0.125	-0.076	0.168	-0.167	-0.103	-0.149
VAR 32	0.000	0.289	0.019	0.303	0.217	0.357
VAR 33	0.110	0.413	0.057	0.311	0.407	0.148
VAR 34	0.222	0.168	0.093	0.130	0.212	-0.071
VAR 35	0.020	0.109	0.161	0.163	0.177	0.045
VAR 36	0.144	0.551	-0.010	0.472	0.404	0.309
VAR 37	0.055	0.367	-0.067	0.315	0.379	0.307
VAR 38	0.101	0.571	-0.056	0.511	0.305	0.460
VAR 39	0.078	0.340	-0.175	0.369	0.179	0.333
VAR 40	0.083	0.214	-0.027	0.212	-0.117	0.205

COVARIANCE MATRIX

	VAR 7	VAR 8	VAR 9	VAR 10	VAR 11	VAR 12
VAR 7	1.169					
VAR 8	0.200	1.325				
VAR 9	0.124	0.168	2.173			
VAR 10	0.282	0.267	0.179	1.075		
VAR 11	0.125	0.042	0.278	0.154	1.343	
VAR 12	0.061	0.056	0.526	0.027	0.308	1.266
VAR 13	0.163	0.116	-0.099	0.198	-0.143	-0.315
VAR 14	-0.045	0.014	-0.014	-0.116	0.040	0.134
VAR 15	0.223	0.126	0.506	0.194	0.259	0.352
VAR 16	0.266	0.288	0.473	0.374	0.293	0.294
VAR 17	0.122	0.082	0.617	0.057	0.408	0.448
VAR 18	0.038	0.068	0.450	-0.034	0.340	0.449
VAR 19	0.103	0.157	0.590	0.169	0.511	0.518
VAR 20	0.193	0.094	0.497	0.151	0.142	0.151
VAR 21	0.089	0.079	0.099	0.051	0.044	0.055
VAR 22	0.193	0.149	0.141	0.270	0.030	-0.001
VAR 23	0.220	0.166	0.549	0.307	0.156	0.246
VAR 24	0.012	-0.041	0.413	0.136	0.672	0.295
VAR 25	0.029	-0.168	0.395	-0.011	0.249	0.407
VAR 26	0.068	-0.012	0.415	-0.025	0.367	0.422
VAR 27	0.041	0.015	0.119	-0.032	0.064	0.153
VAR 28	0.253	0.004	0.328	0.028	0.138	0.222
VAR 29	0.058	0.153	-0.237	0.189	-0.009	-0.105
VAR 30	0.018	0.013	0.249	-0.092	0.094	0.182
VAR 31	0.035	0.266	-0.200	0.141	-0.069	-0.091
VAR 32	0.118	-0.004	0.437	0.062	0.190	0.423
VAR 33	0.180	0.162	0.408	0.108	0.212	0.120
VAR 34	0.101	0.475	0.217	0.244	0.061	0.071
VAR 35	0.004	0.346	0.289	0.150	0.109	0.147
VAR 36	0.207	0.019	0.442	0.140	0.213	0.275
VAR 37	0.188	0.086	0.412	0.109	0.255	0.460
VAR 38	0.116	-0.141	0.500	0.087	0.306	0.373
VAR 39	0.012	0.094	0.331	0.067	0.180	0.280
VAR 40	-0.044	-0.055	0.003	0.037	0.189	0.231

COVARIANCE MATRIX

	VAR 13	VAR 14	VAR 15	VAR 16	VAR 17	VAR 18
VAR 13	1.145					
VAR 14	-0.140	1.150				
VAR 15	-0.141	0.083	1.042			
VAR 16	-0.022	-0.007	0.629	1.114		
VAR 17	-0.266	0.220	0.469	0.363	1.431	
VAR 18	-0.396	0.156	0.302	0.240	0.539	1.142
VAR 19	-0.318	0.166	0.463	0.407	0.597	0.472

VAR 20	0.008	-0.153	0.390	0.274	0.334	0.154
VAR 21	0.060	-0.185	0.055	0.148	-0.008	-0.039
VAR 22	0.259	-0.056	0.195	0.228	0.070	-0.180
VAR 23	-0.004	-0.019	0.381	0.444	0.283	0.195
VAR 24	-0.150	0.173	0.209	0.141	0.339	0.297
VAR 25	-0.292	0.050	0.282	0.197	0.327	0.140
VAR 26	-0.307	0.299	0.273	0.137	0.444	0.452
VAR 27	-0.134	0.185	-0.023	-0.095	0.063	0.141
VAR 28	-0.150	0.124	0.170	0.006	0.269	0.194
VAR 29	0.300	-0.081	-0.139	0.039	-0.320	-0.155
VAR 30	-0.096	0.006	0.051	0.125	0.122	0.160
VAR 31	0.290	-0.079	-0.039	0.076	-0.228	-0.203
VAR 32	-0.237	0.287	0.285	0.150	0.410	0.477
VAR 33	-0.022	0.126	0.454	0.386	0.359	0.247
VAR 34	0.184	0.025	0.158	0.248	0.087	0.137
VAR 35	0.092	0.114	0.230	0.218	0.163	0.212
VAR 36	-0.099	-0.015	0.355	0.271	0.268	0.229
VAR 37	-0.205	0.105	0.449	0.316	0.474	0.357
VAR 38	-0.168	0.039	0.279	0.181	0.335	0.233
VAR 39	-0.288	-0.013	0.174	0.105	0.258	0.361
VAR 40	-0.256	0.064	-0.094	-0.034	0.131	0.197

COVARIANCE MATRIX

	VAR 19	VAR 20	VAR 21	VAR 22	VAR 23	VAR 24
	-----	-----	-----	-----	-----	-----
VAR 19	1.297					
VAR 20	0.228	1.296				
VAR 21	0.016	0.116	1.305			
VAR 22	0.078	0.208	0.226	1.023		
VAR 23	0.249	0.349	0.187	0.214	1.172	
VAR 24	0.520	-0.015	-0.104	0.006	0.070	1.366
VAR 25	0.322	0.014	-0.071	-0.065	0.102	0.301
VAR 26	0.437	0.050	-0.199	-0.050	0.165	0.426
VAR 27	0.277	0.015	-0.063	-0.009	-0.016	0.249
VAR 28	0.397	0.049	-0.119	0.026	0.029	0.224
VAR 29	-0.225	-0.039	0.165	0.034	-0.012	-0.129
VAR 30	0.170	0.075	0.728	-0.019	0.181	0.014
VAR 31	-0.205	0.056	0.182	0.169	0.122	-0.163
VAR 32	0.435	0.139	-0.061	-0.025	0.221	0.317
VAR 33	0.240	0.332	0.015	0.111	0.353	0.185
VAR 34	0.051	0.283	0.230	0.083	0.388	-0.096
VAR 35	0.203	0.204	0.269	0.144	0.292	0.108
VAR 36	0.376	0.249	-0.010	0.083	0.231	0.189
VAR 37	0.457	0.243	0.002	0.058	0.184	0.312
VAR 38	0.473	0.120	-0.136	-0.075	0.160	0.361
VAR 39	0.409	0.104	-0.090	-0.082	0.040	0.206
VAR 40	0.291	0.120	-0.022	-0.191	-0.052	0.226

COVARIANCE MATRIX

	VAR 25	VAR 26	VAR 27	VAR 28	VAR 29	VAR 30
VAR 25	1.146					
VAR 26	0.415	1.342				
VAR 27	0.142	0.121	1.073			
VAR 28	0.363	0.220	0.195	1.479		
VAR 29	-0.250	-0.222	-0.102	-0.209	1.210	
VAR 30	-0.018	0.026	0.048	0.039	-0.113	1.192
VAR 31	-0.211	-0.292	-0.067	-0.233	0.176	-0.032
VAR 32	0.303	0.391	0.285	0.428	-0.266	0.131
VAR 33	0.100	0.274	-0.042	0.095	-0.122	0.034
VAR 34	-0.207	-0.049	-0.121	-0.143	0.106	0.184
VAR 35	0.012	0.068	0.094	0.048	0.014	0.329
VAR 36	0.327	0.414	-0.013	0.270	-0.200	-0.065
VAR 37	0.351	0.459	0.109	0.262	-0.201	0.161
VAR 38	0.358	0.505	-0.083	0.384	-0.171	-0.067
VAR 39	0.321	0.443	0.189	0.350	-0.245	0.148
VAR 40	0.221	0.225	0.207	0.098	0.069	-0.024

COVARIANCE MATRIX

	VAR 31	VAR 32	VAR 33	VAR 34	VAR 35	VAR 36
VAR 31	0.889					
VAR 32	-0.172	1.023				
VAR 33	0.070	0.214	1.191			
VAR 34	0.196	-0.051	0.230	1.308		
VAR 35	0.147	0.140	0.174	0.716	1.088	
VAR 36	-0.090	0.244	0.355	0.032	0.060	1.245
VAR 37	-0.136	0.438	0.307	0.062	0.222	0.345
VAR 38	-0.232	0.420	0.190	-0.093	0.044	0.793
VAR 39	-0.212	0.400	0.187	0.030	0.101	0.260
VAR 40	-0.046	0.087	0.032	-0.048	-0.067	0.110

COVARIANCE MATRIX

	VAR 37	VAR 38	VAR 39	VAR 40
VAR 37	1.073			
VAR 38	0.324	1.475		
VAR 39	0.450	0.338	1.210	
VAR 40	0.115	0.191	0.176	1.482

MEANS

VAR 1	VAR 2	VAR 3	VAR 4	VAR 5	VAR 6
-----	-----	-----	-----	-----	-----
2.873	2.963	3.096	2.932	2.691	2.948
VAR 7	VAR 8	VAR 9	VAR 10	VAR 11	VAR 12
-----	-----	-----	-----	-----	-----
2.296	2.556	3.438	2.571	2.559	2.494
VAR 13	VAR 14	VAR 15	VAR 16	VAR 17	VAR 18
-----	-----	-----	-----	-----	-----
2.648	2.630	2.040	2.438	2.809	3.194
VAR 19	VAR 20	VAR 21	VAR 22	VAR 23	VAR 24
-----	-----	-----	-----	-----	-----
2.580	2.321	3.170	2.383	2.540	2.574
VAR 25	VAR 26	VAR 27	VAR 28	VAR 29	VAR 30
-----	-----	-----	-----	-----	-----
2.235	2.605	3.040	2.627	3.525	2.815
VAR 31	VAR 32	VAR 33	VAR 34	VAR 35	VAR 36
-----	-----	-----	-----	-----	-----
2.278	2.540	2.114	2.775	2.673	2.333
VAR 37	VAR 38	VAR 39	VAR 40		
-----	-----	-----	-----		
2.534	2.454	3.148	3.022		

STANDARD DEVIATIONS

VAR 1	VAR 2	VAR 3	VAR 4	VAR 5	VAR 6
-----	-----	-----	-----	-----	-----
1.236	1.358	1.151	1.336	1.177	1.096
VAR 7	VAR 8	VAR 9	VAR 10	VAR 11	VAR 12
-----	-----	-----	-----	-----	-----
1.081	1.151	1.474	1.037	1.159	1.125
VAR 13	VAR 14	VAR 15	VAR 16	VAR 17	VAR 18
-----	-----	-----	-----	-----	-----
1.070	1.073	1.021	1.055	1.196	1.068
VAR 19	VAR 20	VAR 21	VAR 22	VAR 23	VAR 24
-----	-----	-----	-----	-----	-----
1.139	1.138	1.143	1.012	1.082	1.169

VAR 25	VAR 26	VAR 27	VAR 28	VAR 29	VAR 30
-----	-----	-----	-----	-----	-----
1.071	1.158	1.036	1.216	1.100	1.092
VAR 31	VAR 32	VAR 33	VAR 34	VAR 35	VAR 36
-----	-----	-----	-----	-----	-----
0.943	1.012	1.091	1.144	1.043	1.116
VAR 37	VAR 38	VAR 39	VAR 40		
-----	-----	-----	-----		
1.036	1.214	1.100	1.218		

APPENDIX 5

MODIFIED REVISED EXPAGG DATA: INPUT SYNTAX AND COVARIANCE MATRIX

```

8-item revised 2dim cfa
da ni=40 no=324 ma=cm
cm fi=a:\lisrel\newrev.cm
mo ny=16 ne=2 ly=fu,fi ps=sy,fr te=di,fr
le
inst exp
se
17 37 6 4 32 38 18 26 34 31 16 22 8 3 23 20/
va 1 ly 1 1 ly 9 2
fr ly 2 1 ly 3 1 ly 4 1 ly 5 1 ly 6 1 ly 7 1 ly 8 1
fr ly 10 2 ly 11 2 ly 12 2 ly 13 2 ly 14 2 ly 15 2 ly 16 2
ou sc
    
```

Total Sample Size = 337
Listwise Deletion
Total Effective Sample Size = 324

COVARIANCE MATRIX

	VAR 17	VAR 37	VAR 6	VAR 4	VAR 32	VAR 38
VAR 17	1.43					
VAR 37	0.47	1.07				
VAR 6	0.29	0.31	1.20			
VAR 4	0.40	0.32	0.36	1.78		
VAR 32	0.41	0.44	0.36	0.30	1.02	
VAR 38	0.33	0.32	0.46	0.51	0.42	1.47
VAR 18	0.54	0.36	0.46	0.33	0.48	0.23
VAR 26	0.44	0.46	0.66	0.48	0.39	0.50
VAR 34	0.09	0.06	-0.07	0.13	-0.05	-0.09
VAR 31	-0.23	-0.14	-0.15	-0.17	-0.17	-0.23
VAR 16	0.36	0.32	0.14	0.30	0.15	0.18
VAR 22	0.07	0.06	-0.05	0.17	-0.02	-0.08
VAR 8	0.08	0.09	-0.02	0.14	0.00	-0.14
VAR 3	-0.17	-0.07	-0.06	-0.07	0.02	-0.06
VAR 23	0.28	0.18	0.19	0.35	0.22	0.16
VAR 20	0.33	0.24	0.00	0.15	0.14	0.12

COVARIANCE MATRIX

	VAR 18	VAR 26	VAR 34	VAR 31	VAR 16	VAR 22
	-----	-----	-----	-----	-----	
VAR 18	1.14					
VAR 26	0.45	1.34				
VAR 34	0.14	-0.05	1.31			
VAR 31	-0.20	-0.29	0.20	0.89		
VAR 16	0.24	0.14	0.25	0.08	1.11	
VAR 22	-0.18	-0.05	0.08	0.17	0.23	1.02
VAR 8	0.07	-0.01	0.48	0.27	0.29	0.15
VAR 3	0.04	-0.12	0.09	0.17	0.24	0.19
VAR 23	0.19	0.16	0.39	0.12	0.44	0.21
VAR 20	0.15	0.05	0.28	0.06	0.27	0.21

COVARIANCE MATRIX

	VAR 8	VAR 3	VAR 23	VAR 20
	-----	-----	-----	
VAR 8	1.33			
VAR 3	0.20	1.33		
VAR 23	0.17	0.21	1.17	
VAR 20	0.09	0.11	0.35	1.30

APPENDIX 6

PRE-AMBLE, INTERVIEW SCHEDULE AND DE-BRIEFING (FOR BOTH SETS OF SEMI-STRUCTURED INTERVIEWS).

PRE-AMBLE

First, before we begin I need to ask you to fill in this sheet giving me a few details – it also allows me to re-contact you after I've transcribed the interviews so that you have the opportunity to check over the data, should you want to do so.

The interview will last between one to two hours, although the time may vary. The conversation needs to be tape-recorded. Do I have your permission to use the tape-recorded data in my study? The information is strictly confidential and you have the right to withdraw your participation at any stage of the interview. In any data that is used anonymity is ensured as the names are all changed.

Questions will be focused around your interaction with people close to you, and occasions when they have hurt you or made you angry. However, you should not be made to feel that you have to talk about anything that will make you uncomfortable – you can tell me about experiences with those close to you that you want to discuss.

You are free to draw upon experiences involving anyone you consider to have a close relationship with. This may include your best friend, groups of friends, intimate work colleagues, your family, spouse or partner, or some one you live with, such as a roommate. It will be helpful if you draw from experiences with different people in your life, making it clear what relationship you have with them.

Before we begin – are there any questions you would like to ask me? Anything that is unclear? There will be an opportunity after the interview to ask questions, and then I will be able to tell you a little more about the aims of the research, should you wish to know more about it.

INTERVIEW SCHEDULE

I want you to think about what you do in situations where conflict arises between yourself and another person close to you. About the ways that people may have made you angry or hurt you – how did you react?

It may be very clear that they meant to hurt you or make you angry, and it may have been obviously aggressive/anti-social (i.e. shouting at you, insulting you, even physical violence). However, it may be something less obvious involving more subtle behaviours (i.e. you suspect that they were leaving you out from activities, doing something that threatens your friendship with somebody else, gossiping about you behind your back).

And also like you to consider occasions when you've hurt or angered someone, think about what you intended and how you think they saw it.

Firstly – is there any particular incident (it can be quite recent or in the past) that sticks in your mind when someone you have a close relationship with, say a partner, a family member, a friend or a colleague, has hurt your feelings or made you angry?

What we'll do is I'll ask you about certain types of relationships in your life, and certain settings where conflict may arise.

* Work

What about at work?

There must be some occasions when there has been conflict between you and someone you work with and one of you has behaved in a way that hurts the other one. May be it escalated to an argument, may be either of you dealt with it in a less direct way (i.e. may be it's not clear whether it was intentional)?

Can you tell me about it in as much detail as possible?

How did this situation arise?

How did it make you feel?

Do you think that they meant to hurt you or make you angry?

Do you think they realised how they had made you feel?

How did you react?

How did it affect your working relationship with them?

Were they being aggressive, do you think?

What do you think they meant to achieve by treating you in this way?

If the situation were reversed – do you think you would have acted in a similar way to them?

Can you think of any examples where you think *you* may have hurt someone you work with or angered them?

Can you tell me about it?

Do you regret the way you treated them now?

* University?

During under-grad?

Recently if post-grad?

* School, college, 6th form?

How did you get along in these settings in childhood and adolescence?

Any notable conflicts with people that stick in your mind?

Even any incidents you witnessed that didn't involve you directly?

* Best friend

Did this affect the closeness of your friendship?/Are you still best friends?

Dependent on answer – may be getting through these situations could be beneficial to your friendship? Or do you regret that you are no longer friends/so close friends?

Does how they behaved or how you behaved towards them still make you angry and hurt when you think about it now?

* General friendship groups/looser acquaintances

Did this also affect your relationships with other members of the group?

* Spouse or partner

Current partner

Past relationships

Are you still in the relationship? Do you think such incidents contributed to the breakdown of your relationship?

Does thinking about the way they treated you still hurt?

* Close family members – parents, sibling, child

Any recent experiences?

How did you get along in your childhood and adolescence?

* Flat/room-mate

People you live with now?

Flatmates in the past – while at university/under-grad?

Some of the examples you've told me about involved physical and verbal aggression – others were more subtle behaviours that still seemed to cause hurt and anger, resulting in bad feelings between yourself and them. Which kind of behaviours do you feel are the most destructive? Which of these incidents do you think caused you the most pain and anger?

You talked about - is this aggression? Do you see what they did/you did as behaving in an aggressive manner?

DE-BRIEFING

Is there anything you would like to ask? Any further comments you would like to make?

The interviews I'm conducting are part of my research into subtle forms of aggression – so subtle that they are not recognised as aggression in many cases. The aim of these interviews is to identify types of behaviours people use in their close/intimate relationships in order to get what they want from the situation. Such behaviours are often beneficial and strengthening to the relationship, avoiding the use of more extreme aggressive behaviours and aiding in the maintenance of relationships.

These behaviours represent more 'adult' forms of aggression, which are particularly difficult to identify and to measure. I aim to develop a measurement scale/questionnaire of these types of behaviours – behaviours that have been understudied in psychology, but which are important to our understanding of how we interact with the people who mean the most to us. These interviews are merely the preliminary stage in developing the questionnaire.

Thank you for your time and participation. I will be in touch with you when I have completed the interviews and typed up the conversation from your interview. You will then have the chance to examine a copy of your data. Should you need to contact me . . .

APPENDIX 7

INDIRECT AGGRESSION SCALES ITEM POOL

INDIVIDUAL BEHAVIOURS DRAWN FROM 5 TYPES OF INDIRECT AGGRESSION

1. SOCIAL EXCLUSIONARY BEHAVIOURS

- Purposefully left out of activities
- Purposefully omitted from conversations
- Snubbed in public
- Excluded by a group
- Intentionally ignored by other person/people
- Withhold information from you that the rest of the group is let in on
- Ruin friendships (social manipulation using social structure)
- Stopped talking to you
- Avoided you on purpose
- Turned other people against you
- Told others not to associate with you
- Incited people to take sides against you
- Refused to talk to you
- Made other people not talk to you
- Stopped contacting you
- Stole your friends
- Pushed out of a group/ostracism
- Private in-jokes used to exclude you
- Not made to feel welcome
- Stop doing activities with you
- Made to feel that you don't fit in

2. GOSSIP-RELATED BEHAVIOURS

- Been purposefully bitchy towards you
- Called you names
- Spread rumours about you
- Talked about you behind your back – backbiting
- Gained your confidence and then disclosed your secrets
- Said things that you think was a subtle insult
- Made comments about your physical appearance
- Made up lies about you to cause problems with other people
- Made comments about your intelligence/personality

3. UNDERMINING/ATTACKS ON SELF-ESTEEM

- Excessively criticised you in public
- Belittled you
- Intentionally embarrassed you around others
- Put you down
- Made you feel inferior to them by their behaviour/words
- Done something to try and make you look stupid
- Meant to hurt you by the tone of their voice rather than what they actually say
- Gave you dirty looks

4. USE OF MALICIOUS HUMOUR

- Intentional embarrassment (comes in here as well as under previous category)
- Played nasty practical jokes on you
- Made fun of you in public
- Made jokes at your expense
- Used sarcasm to insult you
- Accused you of something whilst making it appear to be said in fun
- Mickey taking/imitate you in front of others
- Made joking remarks that hurt
- Taking/damaging peoples things

5. GUILT INDUCTION TECHNIQUES

- Put undue pressure on you
- Tried to influence you by making you feel guilty
- Used their relationship with you to try and get you to change a decision
- Played upon your emotions to manipulate your feelings and/or behaviour
- Used your feelings to coerce you
- Used mild emotional blackmail on you
- Played upon your emotions to make you feel bad
- Used your relationship with other people to induce guilt in you
- Pretended to be hurt and/or angry with you to make you feel bad about yourself

APPENDIX 8

INDIRECT AGGRESSION SCALE – AGGRESSOR VERSION

SOCIAL RELATIONSHIPS SCALE

Sex: Male/Female*

Age:

*Please delete as appropriate

Please read the list of behaviours below. Think about how often you have used this behaviour **towards another person**. Circle the most appropriate response where: -

- 1 = Never
- 2 = Occasionally
- 3 = Sometimes
- 4 = Often
- 5 = Regularly

Complete the scale as quickly as possible. Be sure to answer every question and after completing the scale check back that no questions have been left unanswered.

	Never		Sometimes		Regularly
1. Imitated them in front of others	1	2	3	4	5
2. Made negative comments about their physical appearance	1	2	3	4	5
3. Gave them 'dirty' looks	1	2	3	4	5
4. Tried to influence them by making them feel guilty	1	2	3	4	5
5. Used emotional blackmail on them	1	2	3	4	5
6. Made them feel inferior to me by my behaviour/words	1	2	3	4	5
7. Criticised them in public	1	2	3	4	5
8. Called them names	1	2	3	4	5
9. Snubbed them in public	1	2	3	4	5
10. Been 'bitchy' towards them	1	2	3	4	5
11. Used my relationship with them to try and get them to change a decision	1	2	3	4	5
12. Made them feel that they don't fit in	1	2	3	4	5
13. Done something to try and make them look stupid	1	2	3	4	5
14. Made other people not talk to them	1	2	3	4	5
15. Played a nasty practical joke on them	1	2	3	4	5
16. Belittled them	1	2	3	4	5
17. Gained their confidence and then disclosed their secrets	1	2	3	4	5
18. Put undue pressure on them	1	2	3	4	5
19. Talked about them behind their back	1	2	3	4	5
20. Used private in-jokes to exclude them	1	2	3	4	5
21. Purposefully left them out of activities	1	2	3	4	5
22. Pretended to be hurt and/or angry with them to make them feel bad about him/her-self	1	2	3	4	5

	Never	Sometimes	Regularly		
23. Used sarcasm to insult them	1	2	3	4	5
24. Stopped talking to them	1	2	3	4	5
25. Omitted them from conversations on purpose	1	2	3	4	5
26. Used their feelings to coerce them	1	2	3	4	5
27. Intentionally embarrassed them around others	1	2	3	4	5
28. Accused them of something whilst making it appear to be said in fun	1	2	3	4	5
29. Excluded them from a group	1	2	3	4	5
30. Intentionally ignored another person/people	1	2	3	4	5
31. Spread rumours about them	1	2	3	4	5
32. Made fun of them in public	1	2	3	4	5
33. Turned other people against them	1	2	3	4	5
34. Took or damaged something that belonged to them	1	2	3	4	5
35. Withheld information from them that the rest of the group is let in on	1	2	3	4	5

APPENDIX 9

INDIRECT AGGRESSION SCALE – TARGET VERSION

SOCIAL RELATIONSHIPS SCALE

Sex: Male/Female*

Age:

*Please delete as appropriate

Please read the list of behaviours below. Think about how often you have experienced that behaviour **towards yourself**. Circle the most appropriate response where: -

- 1 = Never
- 2 = Occasionally
- 3 = Sometimes
- 4 = Often
- 5 = Regularly

Complete the scale as quickly as possible. Be sure to answer every question and after completing the scale check back that no questions have been left unanswered.

	Never	Sometimes	Regularty		
1. Turned other people against me	1	2	3	4	5
2. Played a nasty practical joke on me	1	2	3	4	5
3. Gained my confidence and then disclosed my secrets	1	2	3	4	5
4. Made fun of me in public	1	2	3	4	5
5. Excluded by a group	1	2	3	4	5
6. Called me names	1	2	3	4	5
7. Intentionally ignored by other person/people	1	2	3	4	5
8. Made other people not talk to me	1	2	3	4	5
9. Purposefully left me out of activities	1	2	3	4	5
10. Put undue pressure on me	1	2	3	4	5
11. Made me feel that I don't fit in	1	2	3	4	5
12. Used private in-jokes to exclude me	1	2	3	4	5
13. Gave me 'dirty' looks	1	2	3	4	5
14. Used my feelings to coerce me	1	2	3	4	5
15. Made me feel inferior to them by their behaviour/words	1	2	3	4	5
16. Spread rumours about me	1	2	3	4	5
17. Done something to try and make me look stupid	1	2	3	4	5
18. Used emotional blackmail on me	1	2	3	4	5
19. Imitated me in front of others	1	2	3	4	5
20. Used their relationship with me to try and get me to change a decision	1	2	3	4	5
21. Criticised me in public	1	2	3	4	5
22. Intentionally embarrassed me around others	1	2	3	4	5
23. Withheld information from me that the rest of the group is let in on	1	2	3	4	5

	Never	Sometimes			Regularly
24. Made negative comments about my physical appearance	1	2	3	4	5
25. Used sarcasm to insult me	1	2	3	4	5
26. Pretended to be hurt and/or angry with me to make me feel bad about myself	1	2	3	4	5
27. Belittled me	1	2	3	4	5
28. Accused me of something whilst making it appear to be said in fun	1	2	3	4	5
29. Stopped talking to me	1	2	3	4	5
30. Took or damaged something that belonged to me	1	2	3	4	5
31. Omitted me from conversations on purpose	1	2	3	4	5
32. Talked about me behind my back	1	2	3	4	5
33. Tried to influence me by making me feel guilty	1	2	3	4	5
34. Snubbed me in public	1	2	3	4	5
35. Been 'bitchy' towards me	1	2	3	4	5

APPENDIX 10

REVISED INDIRECT AGGRESSION SCALE – AGGRESSOR VERSION

SOCIAL RELATIONSHIPS SCALE

Please read the list of behaviours below. Think about how often you have used this behaviour towards another person in the **past 12 months**. Circle the most appropriate response where :-

- 1 = Never
- 2 = Once or twice
- 3 = Sometimes
- 4 = Often
- 5 = Regularly

Complete the scale as quickly as possible. Be sure to answer every question and after completing the scale check back that no questions have been left unanswered. Also remember to **fill in your sex and age below**.

Sex:

Age:

	Never	Once/twice	Sometimes	Often	Regularly
1. Used my relationship with them to try and get them to change a decision	1	2	3	4	5
2. Used sarcasm to insult them	1	2	3	4	5
3. Tried to influence them by making them feel guilty	1	2	3	4	5
4. Withheld information from them that the rest of the group is let in on	1	2	3	4	5
5. Purposefully left them out of activities	1	2	3	4	5
6. Made other people not talk to them	1	2	3	4	5
7. Excluded them from a group	1	2	3	4	5
8. Used their feelings to coerce them	1	2	3	4	5
9. Made negative comments about their physical appearance	1	2	3	4	5
10. Used private in-jokes to exclude them	1	2	3	4	5
11. Used emotional blackmail on them	1	2	3	4	5
12. Imitated them in front of others	1	2	3	4	5

	Never	Once/twice	Sometimes	Often	Regularly
13. Spread rumours about them	1	2	3	4	5
14. Played a nasty practical joke on them	1	2	3	4	5
15. Done something to try and make them look stupid	1	2	3	4	5
16. Pretended to be hurt and/or angry with them to make them feel bad about him/her-self	1	2	3	4	5
17. Made them feel that they don't fit in	1	2	3	4	5
18. Intentionally embarrassed them around others	1	2	3	4	5
19. Stopped talking to them	1	2	3	4	5
20. Put undue pressure on them	1	2	3	4	5
21. Omitted them from conversations on purpose	1	2	3	4	5
22. Made fun of them in public	1	2	3	4	5
23. Called them names	1	2	3	4	5
24. Criticised them in public	1	2	3	4	5
25. Turned other people against them	1	2	3	4	5

APPENDIX 11

REVISED INDIRECT AGGRESSION SCALE – TARGET VERSION

SOCIAL RELATIONSHIPS SCALE

Please read the list of behaviours below. Think about how often you have experienced that behaviour **towards yourself** in the **past 12 months**. Circle the most appropriate response where :-

- 1 = Never
- 2 = Once or twice
- 3 = Sometimes
- 4 = Often
- 5 = Regularly

Complete the scale as quickly as possible. Be sure to answer every question and after completing the scale check back that no questions have been left unanswered. Also remember to **fill in your sex and age below**.

Sex:

Age:

	Never	Once/twice	Sometimes	Often	Regularly
1. Made other people not talk to me.....	1	2	3	4	5
2. Withheld information from me that the rest of the group is let in on	1	2	3	4	5
3. Intentionally embarrassed me around others.....	1	2	3	4	5
4. Excluded by a group.....	1	2	3	4	5
5. Called me names	1	2	3	4	5
6. Stopped talking to me	1	2	3	4	5
7. Used their relationship with me to try and get me to change a decision	1	2	3	4	5
8. Used my feelings to coerce me	1	2	3	4	5
9. Made fun of me in public	1	2	3	4	5
10. Pretended to be hurt and/or angry with me to make me feel bad about myself	1	2	3	4	5
11. Turned other people against me	1	2	3	4	5
12. Made me feel that I don't fit in	1	2	3	4	5

	Never	Once/twice	Sometimes	Often	Regularly
13. Spread rumours about me	1	2	3	4	5
14. Used emotional blackmail on me	1	2	3	4	5
15. Criticised me in public	1	2	3	4	5
16. Used private in-jokes to exclude me	1	2	3	4	5
17. Put undue pressure on me	1	2	3	4	5
18. Used sarcasm to insult me	1	2	3	4	5
19. Played a nasty practical joke on me	1	2	3	4	5
20. Made negative comments about my physical appearance	1	2	3	4	5
21. Omitted me from conversations on purpose	1	2	3	4	5
22. Imitated me in front of others	1	2	3	4	5
23. Purposefully left me out of activities	1	2	3	4	5
24. Done something to try and make me look stupid	1	2	3	4	5
25. Tried to influence me by making me feel guilty ..	1	2	3	4	5

APPENDIX 12

IAS-A DATA: SPSS 10.0 EXPLORATORY FACTOR ANALYSIS (ML) OUTPUT

Factor Analysis

Communalities

	Initial	Extraction
X1	.369	.338
X2	.408	.331
X3	.494	.422
X4	.576	.597
X5	.502	.585
X6	.438	.381
X7	.485	.404
X8	.520	.565
X9	.434	.441
X10	.498	.454
X11	.466	.352
X12	.426	.442
X13	.485	.484
X14	.408	.335
X15	.349	.253
X16	.518	.484
X17	.260	.128
X18	.464	.419
X19	.426	.286
X20	.486	.400
X21	.467	.422
X22	.462	.386
X23	.556	.574
X24	.382	.346
X25	.529	.547
X26	.531	.384
X27	.532	.489
X28	.474	.527
X29	.499	.525
X30	.463	.445
X31	.384	.328
X32	.548	.583
X33	.438	.406
X34	.191	9.389E-02
X35	.393	.320

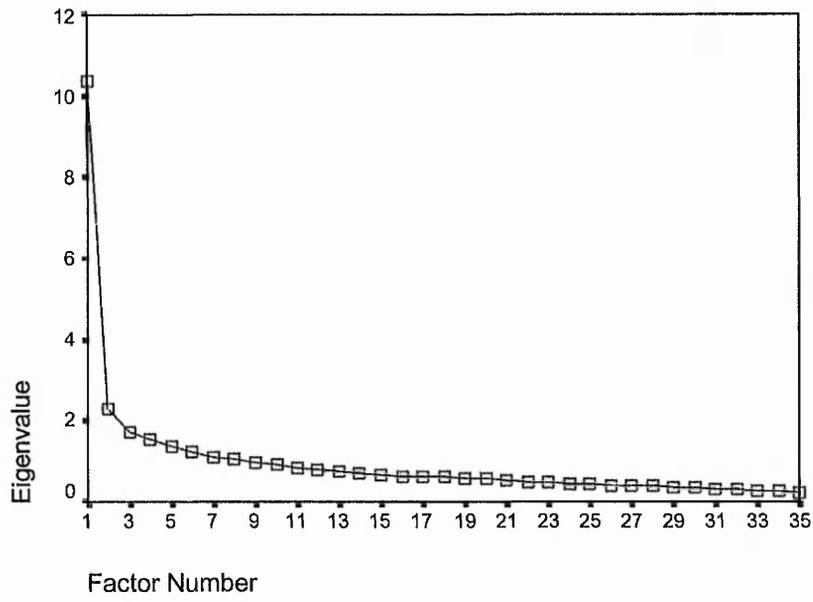
Extraction Method: Maximum Likelihood.

Total Variance Explained

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	10.347	29.564	29.564	9.775	27.929	27.929	3.238	9.250	9.250
2	2.313	6.607	36.171	1.760	5.027	32.956	3.078	8.793	18.043
3	1.723	4.924	41.095	1.178	3.365	36.321	2.768	7.907	25.951
4	1.540	4.399	45.494	.981	2.802	39.124	2.746	7.845	33.796
5	1.356	3.873	49.367	.785	2.242	41.366	2.649	7.570	41.366
6	1.253	3.580	52.947						
7	1.113	3.181	56.128						
8	1.063	3.037	59.165						
9	.986	2.816	61.981						
10	.942	2.690	64.671						
11	.847	2.420	67.091						
12	.796	2.273	69.365						
13	.764	2.183	71.548						
14	.689	1.969	73.517						
15	.667	1.907	75.424						
16	.625	1.785	77.209						
17	.614	1.754	78.963						
18	.603	1.722	80.685						
19	.594	1.696	82.381						
20	.573	1.638	84.018						
21	.517	1.478	85.496						
22	.500	1.430	86.926						
23	.467	1.333	88.259						
24	.455	1.299	89.557						
25	.453	1.294	90.851						
26	.402	1.148	91.999						
27	.392	1.121	93.120						
28	.379	1.082	94.202						
29	.359	1.026	95.228						
30	.339	.967	96.196						
31	.299	.853	97.049						
32	.289	.826	97.875						
33	.274	.784	98.659						
34	.258	.736	99.395						
35	.212	.605	100.000						

Extraction Method: Maximum Likelihood.

Scree Plot



Total Variance Explained

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	10.347	29.564	29.564	9.722	27.776	27.776	5.191	14.830	14.830
2	2.313	6.607	36.171	1.693	4.837	32.613	4.287	12.249	27.079
3	1.723	4.924	41.095	1.146	3.275	35.888	3.083	8.809	35.888
4	1.540	4.399	45.494						
5	1.356	3.873	49.367						
6	1.253	3.580	52.947						
7	1.113	3.181	56.128						
8	1.063	3.037	59.165						
9	.986	2.816	61.981						
10	.942	2.690	64.671						
11	.847	2.420	67.091						
12	.796	2.273	69.365						
13	.764	2.183	71.548						
14	.689	1.969	73.517						
15	.667	1.907	75.424						
16	.625	1.785	77.209						
17	.614	1.754	78.963						
18	.603	1.722	80.685						
19	.594	1.696	82.381						
20	.573	1.638	84.018						
21	.517	1.478	85.496						
22	.500	1.430	86.926						
23	.467	1.333	88.259						
24	.455	1.299	89.557						
25	.453	1.294	90.851						
26	.402	1.148	91.999						
27	.392	1.121	93.120						
28	.379	1.082	94.202						
29	.359	1.026	95.228						
30	.339	.967	96.196						
31	.299	.853	97.049						
32	.289	.826	97.875						
33	.274	.784	98.659						
34	.258	.736	99.395						
35	.212	.605	100.000						

Extraction Method: Maximum Likelihood.

Factor Matrix^a

	Factor		
	1	2	3
X23	.681	-.212	.196
X16	.670	-7.88E-02	-8.89E-02
X27	.632	-7.90E-02	.249
X18	.613	6.267E-02	-.214
X32	.610	-.168	.254
X13	.607	3.049E-02	-1.19E-02
X4	.582	-.281	-.371
X26	.582	2.748E-02	-.187
X22	.575	1.040E-02	-.157
X28	.570	-3.00E-02	.138
X6	.559	-.146	-.117
X20	.551	.266	.132
X30	.550	9.862E-02	.233
X10	.543	-.245	.182
X3	.541	-.171	6.743E-02
X8	.529	-.285	.241
X2	.524	-.162	.184
X7	.518	-.228	.102
X11	.514	-9.80E-02	-.239
X19	.510	-1.60E-02	5.198E-02
X9	.509	-.168	7.071E-02
X25	.508	.393	8.022E-02
X33	.494	.300	-.124
X12	.485	.225	-.144
X1	.483	-.188	.206
X31	.463	.227	-5.06E-02
X35	.463	.324	5.542E-02
X15	.458	8.815E-03	5.428E-03
X14	.432	.258	-5.73E-02
X24	.410	.187	.109
X17	.339	6.067E-02	-7.72E-02
X34	.277	-6.00E-02	-1.45E-02
X29	.505	.508	8.116E-02
X21	.427	.491	-.104
X5	.506	-.193	-.540

Extraction Method: Maximum Likelihood.

a. 3 factors extracted. 6 iterations required.

Goodness-of-fit Test

Chi-Square	df	Sig.
1042.825	493	.000

Rotated Factor Matrix^a

	Factor		
	1	2	3
X23	.669	.210	.233
X32	.634	.210	.138
X8	.628	6.771E-02	.142
X27	.603	.296	.128
X10	.585	.106	.187
X2	.534	.164	.152
X1	.530	.121	.122
X7	.515	.102	.236
X3	.483	.161	.259
X28	.475	.298	.175
X9	.462	.146	.240
X30	.454	.397	4.994E-02
X16	.437	.303	.425
X13	.386	.362	.299
X19	.380	.272	.212
X15	.306	.262	.218
X34	.206	.103	.165
X29	.142	.706	3.620E-02
X21	-7.12E-03	.641	.155
X25	.198	.612	7.128E-02
X20	.317	.533	8.668E-02
X35	.187	.529	8.916E-02
X33	.118	.518	.259
X14	.134	.451	.186
X12	.136	.450	.293
X31	.173	.444	.204
X24	.248	.388	5.812E-02
X17	.155	.235	.213
X5	.126	9.713E-02	.747
X4	.315	7.380E-02	.672
X11	.256	.194	.478
X18	.260	.383	.460
X26	.272	.338	.432
X6	.379	.184	.413
X22	.292	.321	.409

Extraction Method: Maximum Likelihood.
 Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 6 iterations.

Factor Transformation Matrix

Factor	1	2	3
1	.671	.555	.491
2	-.478	.831	-.285
3	.566	.044	-.823

Extraction Method: Maximum Likelihood.
 Rotation Method: Varimax with Kaiser Normalization.

APPENDIX 13

IAS-T DATA: SPSS 10.0 EXPLORATORY FACTOR ANALYSIS (ML) OUTPUT

Factor Analysis

Communalities

	Initial	Extraction
X1	.408	.380
X2	.399	.360
X3	.390	.292
X4	.521	.487
X5	.592	.583
X6	.458	.397
X7	.490	.432
X8	.519	.461
X9	.545	.489
X10	.429	.403
X11	.623	.689
X12	.549	.516
X13	.468	.386
X14	.484	.419
X15	.433	.362
X16	.474	.488
X17	.551	.579
X18	.436	.413
X19	.419	.424
X20	.441	.440
X21	.527	.520
X22	.635	.651
X23	.577	.538
X24	.519	.494
X25	.591	.537
X26	.444	.448
X27	.535	.496
X28	.601	.547
X29	.507	.469
X30	.373	.236
X31	.614	.603
X32	.516	.520
X33	.589	.688
X34	.599	.576
X35	.609	.614

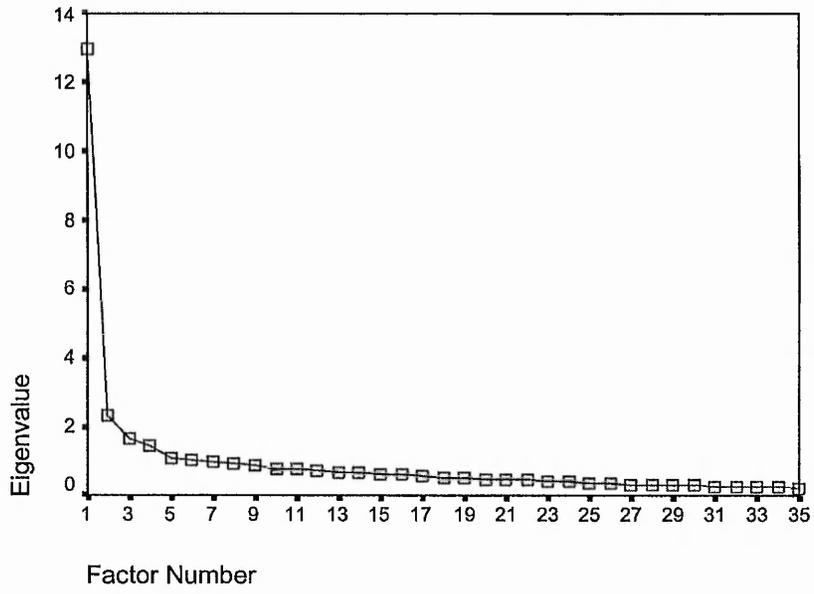
Extraction Method: Maximum Likelihood.

Total Variance Explained

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	12.989	37.113	37.113	12.485	35.671	35.671	4.658	13.308	13.308
2	2.323	6.638	43.750	1.825	5.215	40.886	4.278	12.222	25.529
3	1.654	4.726	48.477	1.168	3.336	44.222	3.784	10.812	36.341
4	1.424	4.068	52.545	.890	2.544	46.765	3.558	10.167	46.508
5	1.074	3.069	55.614	.587	1.619	48.385	.657	1.876	48.385
6	1.006	2.875	58.488						
7	.968	2.766	61.254						
8	.919	2.627	63.881						
9	.863	2.467	66.348						
10	.788	2.250	68.598						
11	.754	2.153	70.751						
12	.698	1.996	72.747						
13	.685	1.957	74.704						
14	.660	1.885	76.589						
15	.610	1.744	78.333						
16	.603	1.722	80.055						
17	.564	1.611	81.666						
18	.509	1.454	83.120						
19	.491	1.402	84.522						
20	.483	1.379	85.901						
21	.453	1.294	87.196						
22	.449	1.282	88.478						
23	.410	1.172	89.650						
24	.397	1.136	90.786						
25	.383	1.094	91.880						
26	.361	1.030	92.911						
27	.332	.949	93.859						
28	.326	.930	94.789						
29	.296	.847	95.636						
30	.288	.824	96.460						
31	.278	.795	97.255						
32	.259	.740	97.995						
33	.249	.713	98.708						
34	.236	.675	99.383						
35	.216	.617	100.000						

Extraction Method: Maximum Likelihood.

Scree Plot



Total Variance Explained

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	12.989	37.113	37.113	12.444	35.554	35.554	5.810	16.600	16.600
2	2.323	6.638	43.750	1.791	5.116	40.670	5.014	14.325	30.925
3	1.654	4.726	48.477	1.128	3.223	43.893	4.539	12.968	43.893
4	1.424	4.068	52.545						
5	1.074	3.069	55.614						
6	1.006	2.875	58.488						
7	.968	2.766	61.254						
8	.919	2.627	63.881						
9	.863	2.467	66.348						
10	.788	2.250	68.598						
11	.754	2.153	70.751						
12	.698	1.996	72.747						
13	.685	1.957	74.704						
14	.660	1.885	76.589						
15	.610	1.744	78.333						
16	.603	1.722	80.055						
17	.564	1.611	81.666						
18	.509	1.454	83.120						
19	.491	1.402	84.522						
20	.483	1.379	85.901						
21	.453	1.294	87.196						
22	.449	1.282	88.478						
23	.410	1.172	89.650						
24	.397	1.136	90.786						
25	.383	1.094	91.880						
26	.361	1.030	92.911						
27	.332	.949	93.859						
28	.326	.930	94.789						
29	.296	.847	95.636						
30	.288	.824	96.460						
31	.278	.795	97.255						
32	.259	.740	97.995						
33	.249	.713	98.708						
34	.236	.675	99.383						
35	.216	.617	100.000						

Extraction Method: Maximum Likelihood.

Factor Matrix^a

	Factor		
	1	2	3
X22	.718	-1.00E-03	.371
X34	.705	3.750E-02	-.140
X28	.698	.228	-7.93E-02
X35	.696	.121	-.181
X23	.687	-.159	-.139
X12	.665	-.146	-6.97E-02
X11	.662	-.319	-.143
X27	.661	.178	6.958E-02
X31	.656	-.226	-.272
X17	.654	.102	.253
X25	.649	.145	.239
X21	.643	4.905E-02	.259
X24	.641	-1.34E-02	.123
X32	.637	.147	-.213
X5	.613	-.402	-.135
X16	.613	-6.59E-03	2.764E-02
X8	.598	-.324	-4.15E-02
X15	.588	-1.09E-02	-7.76E-03
X7	.585	-.278	-.149
X29	.584	2.397E-02	-.226
X13	.571	-9.45E-02	6.067E-02
X9	.568	-.345	-.151
X14	.564	.154	7.955E-03
X4	.562	-.116	.344
X19	.558	6.814E-02	.301
X6	.532	-.151	.306
X26	.527	.339	-8.67E-02
X1	.525	-.234	-9.11E-02
X20	.497	.366	-9.37E-02
X3	.490	-5.35E-02	-4.51E-03
X2	.477	-.139	.236
X10	.472	.238	-9.56E-02
X30	.456	6.427E-02	1.661E-02
X18	.447	.409	4.423E-03
X33	.498	.587	-.218

Extraction Method: Maximum Likelihood.

a. 3 factors extracted. 5 iterations required.

Goodness-of-fit Test

Chi-Square	df	Sig.
958.797	493	.000

Rotated Factor Matrix^a

	Factor		
	1	2	3
X5	.700	7.177E-02	.249
X11	.681	.166	.263
X31	.678	.274	.146
X9	.643	9.584E-02	.207
X7	.609	.157	.213
X8	.598	9.576E-02	.313
X23	.594	.302	.270
X12	.540	.279	.314
X1	.518	.140	.226
X34	.481	.464	.266
X29	.454	.413	.128
X13	.389	.227	.369
X15	.378	.322	.315
X16	.375	.328	.358
X3	.342	.233	.267
X33	4.142E-02	.797	5.138E-02
X28	.328	.589	.300
X20	.123	.589	.169
X26	.155	.582	.193
X18	1.903E-02	.564	.221
X35	.442	.537	.221
X32	.403	.533	.161
X27	.269	.485	.407
X10	.189	.476	.162
X14	.252	.431	.305
X30	.237	.299	.259
X22	.279	.286	.702
X4	.267	.119	.601
X21	.252	.318	.564
X17	.229	.367	.561
X6	.288	8.705E-02	.556
X19	.168	.272	.552
X25	.204	.401	.544
X2	.278	8.690E-02	.466
X24	.353	.310	.454

Extraction Method: Maximum Likelihood.
 Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 7 iterations.

Factor Transformation Matrix

Factor	1	2	3
1	.625	.557	.546
2	-.631	.773	-.066
3	-.459	-.304	.835

Extraction Method: Maximum Likelihood.
 Rotation Method: Varimax with Kaiser Normalization.

APPENDIX 14
ITEM ANALYSIS (RELIABILITY) OF THE IAS-A AND IAS-T.

Table 1. Item analysis of the IAS-A Social Exclusion subscale.

Item	Corrected item-total correlation	Alpha if item deleted
X12	.4927	.8043
X14	.4933	.8067
X20	.5295	.8005
X21	.5305	.8003
X24	.3977	.8194
X25	.5753	.7957
X29	.6328	.7902
X31	.4604	.8071
X33	.5310	.8010
X35	.4910	.8042

Cronbach's alpha coefficient = 0.82 (N=293).

Table 2. Item analysis of the IAS-A Malicious Humour subscale.

Item	Corrected item-total correlation	Alpha if item deleted
X1	.5239	.8277
X2	.5211	.8281
X7	.5194	.8280
X8	.5537	.8246
X13	.5438	.8259
X15	.4277	.8367
X23	.6262	.8168
X27	.6373	.8162
X32	.6529	.8151

Cronbach's alpha coefficient = 0.84 (N=293).

Table 3. Item analysis of the IAS-A Guilt Induction subscale.

Item	Corrected item-total correlation	Alpha if item deleted
X4	.6125	.7668
X5	.5859	.7734
X11	.5567	.7808
X18	.5814	.7761
X22	.5277	.7866
X26	.5551	.7819

Cronbach's alpha coefficient = 0.81 (N=293).

Table 4. Item analysis of the IAS-T Social Exclusion subscale.

Item	Corrected item-total correlation	Alpha if item deleted
X1	.5725	.8782
X5	.6676	.8720
X8	.6120	.8761
X9	.6199	.8753
X11	.7038	.8695
X12	.6331	.8744
X16	.5288	.8814
X23	.6788	.8714
X29	.5099	.8823
X31	.6835	.8718

Cronbach's alpha coefficient = 0.89 (N=293).

Table 5. Item analysis of the IAS-T Malicious Humour subscale.

Item	Corrected item-total correlation	Alpha if item deleted
X2	.4878	.8687
X4	.6093	.8588
X6	.5844	.8614
X17	.6309	.8570
X19	.5856	.8607
X21	.6427	.8560
X22	.7384	.8477
X24	.5906	.8607
X25	.6373	.8560

Cronbach's alpha coefficient = 0.87 (N=294).

Table 6. Item analysis of the IAS-T Guilt Induction subscale.

Item	Corrected item-total correlation	Alpha if item deleted
X10	.5583	.7858
X14	.5414	.7895
X18	.5895	.7789
X20	.5968	.7773
X26	.5078	.7961
X33	.6469	.7660

Cronbach's alpha coefficient = 0.81 (N=293).

APPENDIX 15

IAS-A DATA: INPUT SYNTAX, COVARIANCE MATRIX, MEANS AND STANDARD DEVIATIONS

```

aggressor cm matrix 25 items higher order factor
da ni=35 ma=cm no=292
cm fi=a:\aggress.cm re
se
29 21 25 35 20 33 12 14 31 24 23 8 32 27 2 1 7 13 15 5 4 11 18 22 26/
mo ny=25 nk=1 ne=3 lx=fu,fi ly=fu,fi te=di,fr ps=di,fr ga=fu,fi
lk
indirect
le
socex humour guilt
va 1 ly 1 1
va 1 ly 11 2
va 1 ly 20 3
fr ly 2 1 ly 3 1 ly 4 1 ly 5 1 ly 6 1 ly 7 1 ly 8 1 ly 9 1 ly 10 1
fr ly 12 2 ly 13 2 ly 14 2 ly 15 2 ly 16 2 ly 17 2 ly 18 2 ly 19 2
fr ly 21 3 ly 22 3 ly 23 3 ly 24 3 ly 25 3
fr ga 1 1 ga 2 1 ga 3 1
ou sc mi nd=3 me=ml ad=off
    
```

Total Sample Size = 294
 Listwise Deletion
 Total Effective Sample Size = 292

Covariance Matrix

	VAR 1	VAR 2	VAR 3	VAR 4	VAR 5	VAR 6
VAR 1	0.954					
VAR 2	0.376	0.970				
VAR 3	0.226	0.275	1.045			
VAR 4	0.290	0.262	0.426	0.943		
VAR 5	0.168	0.249	0.283	0.583	0.958	
VAR 6	0.257	0.281	0.246	0.362	0.325	0.846
VAR 7	0.255	0.313	0.287	0.293	0.188	0.359
VAR 8	0.326	0.393	0.446	0.275	0.207	0.294
VAR 9	0.184	0.255	0.326	0.252	0.186	0.247
VAR 10	0.276	0.371	0.529	0.301	0.209	0.327
VAR 11	0.160	0.177	0.207	0.413	0.347	0.250
VAR 12	0.100	0.110	0.125	0.167	0.160	0.200
VAR 13	0.251	0.241	0.213	0.234	0.247	0.297
VAR 14	0.074	0.056	0.144	0.083	0.090	0.090
VAR 15	0.259	0.205	0.145	0.193	0.179	0.197
VAR 16	0.206	0.241	0.281	0.293	0.260	0.282
VAR 17	0.083	0.155	0.113	0.106	0.117	0.118
VAR 18	0.183	0.230	0.198	0.291	0.313	0.248
VAR 19	0.261	0.294	0.307	0.276	0.265	0.151

VAR 20	0.283	0.279	0.230	0.116	0.142	0.213
VAR 21	0.044	0.087	0.132	0.073	0.149	0.121
VAR 22	0.217	0.155	0.321	0.371	0.365	0.225
VAR 23	0.484	0.451	0.556	0.413	0.312	0.399
VAR 24	0.099	0.218	0.290	0.203	0.129	0.139
VAR 25	0.107	0.178	0.191	0.149	0.089	0.152
VAR 26	0.161	0.163	0.204	0.266	0.259	0.292
VAR 27	0.302	0.294	0.250	0.248	0.180	0.240
VAR 28	0.393	0.339	0.370	0.343	0.262	0.241
VAR 29	0.120	0.122	0.178	0.121	0.088	0.115
VAR 30	0.274	0.330	0.318	0.241	0.112	0.234
VAR 31	0.095	0.149	0.082	0.097	0.135	0.141
VAR 32	0.346	0.334	0.251	0.238	0.148	0.274
VAR 33	0.088	0.128	0.110	0.152	0.160	0.181
VAR 34	0.083	0.084	0.025	0.071	0.079	0.084
VAR 35	0.141	0.140	0.121	0.150	0.098	0.122

Covariance Matrix

	VAR 7	VAR 8	VAR 9	VAR 10	VAR 11	VAR 12
	-----	-----	-----	-----	-----	
VAR 7	0.828					
VAR 8	0.446	1.054				
VAR 9	0.230	0.414	0.675			
VAR 10	0.268	0.472	0.386	1.012		
VAR 11	0.226	0.204	0.236	0.331	0.990	
VAR 12	0.155	0.166	0.107	0.134	0.126	0.410
VAR 13	0.229	0.282	0.165	0.206	0.257	0.228
VAR 14	0.078	0.075	0.081	0.084	0.053	0.133
VAR 15	0.140	0.242	0.133	0.159	0.245	0.120
VAR 16	0.262	0.245	0.220	0.254	0.268	0.182
VAR 17	0.086	0.099	0.039	0.054	0.082	0.085
VAR 18	0.270	0.208	0.182	0.196	0.368	0.157
VAR 19	0.275	0.252	0.220	0.302	0.347	0.094
VAR 20	0.171	0.165	0.159	0.212	0.149	0.168
VAR 21	0.055	0.026	0.083	0.063	0.189	0.156
VAR 22	0.102	0.203	0.242	0.315	0.325	0.138
VAR 23	0.352	0.496	0.320	0.570	0.408	0.175
VAR 24	0.111	0.231	0.217	0.192	0.155	0.102
VAR 25	0.095	0.165	0.124	0.189	0.175	0.132
VAR 26	0.206	0.166	0.196	0.202	0.354	0.145
VAR 27	0.342	0.374	0.217	0.302	0.255	0.113
VAR 28	0.178	0.274	0.120	0.347	0.292	0.089
VAR 29	0.112	0.105	0.122	0.160	0.115	0.176
VAR 30	0.234	0.316	0.270	0.290	0.194	0.090
VAR 31	0.109	0.081	0.093	0.096	0.109	0.106
VAR 32	0.347	0.301	0.187	0.297	0.219	0.131
VAR 33	0.135	0.101	0.116	0.073	0.106	0.145
VAR 34	0.068	0.120	0.049	0.050	0.092	0.040
VAR 35	0.110	0.174	0.092	0.134	0.180	0.164

Covariance Matrix

	VAR 13	VAR 14	VAR 15	VAR 16	VAR 17	VAR 18
VAR 13	0.694					
VAR 14	0.148	0.239				
VAR 15	0.298	0.125	0.711			
VAR 16	0.279	0.110	0.198	0.546		
VAR 17	0.131	0.051	0.061	0.099	0.329	
VAR 18	0.220	0.090	0.170	0.256	0.090	0.630
VAR 19	0.223	0.066	0.165	0.240	0.178	0.235
VAR 20	0.231	0.124	0.218	0.193	0.077	0.225
VAR 21	0.136	0.092	0.112	0.153	0.049	0.193
VAR 22	0.270	0.135	0.233	0.240	0.096	0.302
VAR 23	0.427	0.144	0.287	0.415	0.120	0.319
VAR 24	0.154	0.144	0.117	0.126	0.102	0.169
VAR 25	0.159	0.099	0.122	0.148	0.078	0.180
VAR 26	0.188	0.080	0.134	0.295	0.082	0.293
VAR 27	0.293	0.080	0.267	0.288	0.056	0.222
VAR 28	0.304	0.066	0.208	0.257	0.150	0.254
VAR 29	0.159	0.109	0.126	0.125	0.078	0.188
VAR 30	0.170	0.104	0.140	0.206	0.096	0.241
VAR 31	0.193	0.103	0.158	0.136	0.082	0.149
VAR 32	0.316	0.088	0.192	0.286	0.063	0.223
VAR 33	0.200	0.142	0.123	0.171	0.096	0.179
VAR 34	0.068	0.018	0.106	0.062	0.028	0.091
VAR 35	0.223	0.072	0.109	0.158	0.062	0.184

Covariance Matrix

	VAR 19	VAR 20	VAR 21	VAR 22	VAR 23	VAR 24
VAR 19	0.975					
VAR 20	0.305	0.705				
VAR 21	0.206	0.242	0.519			
VAR 22	0.253	0.305	0.169	0.886		
VAR 23	0.425	0.320	0.146	0.466	1.377	
VAR 24	0.185	0.195	0.136	0.203	0.287	0.942
VAR 25	0.139	0.181	0.241	0.204	0.227	0.334
VAR 26	0.140	0.178	0.130	0.291	0.336	0.164
VAR 27	0.284	0.251	0.156	0.279	0.528	0.225
VAR 28	0.393	0.306	0.131	0.351	0.635	0.259
VAR 29	0.169	0.243	0.247	0.176	0.197	0.220
VAR 30	0.345	0.265	0.172	0.252	0.416	0.436
VAR 31	0.153	0.221	0.125	0.194	0.201	0.114
VAR 32	0.251	0.231	0.097	0.276	0.550	0.120
VAR 33	0.151	0.160	0.162	0.161	0.182	0.141
VAR 34	0.014	0.072	0.022	0.076	0.096	0.028
VAR 35	0.184	0.253	0.182	0.161	0.210	0.136

Covariance Matrix

	VAR 25	VAR 26	VAR 27	VAR 28	VAR 29	VAR 30
VAR 25	0.551					
VAR 26	0.229	0.590				
VAR 27	0.204	0.253	0.770			
VAR 28	0.246	0.279	0.366	1.112		
VAR 29	0.278	0.162	0.206	0.247	0.524	
VAR 30	0.300	0.204	0.303	0.389	0.233	0.880
VAR 31	0.080	0.115	0.129	0.140	0.130	0.161
VAR 32	0.110	0.158	0.427	0.384	0.136	0.250
VAR 33	0.135	0.114	0.115	0.159	0.181	0.172
VAR 34	0.048	0.055	0.101	0.048	0.021	0.052
VAR 35	0.246	0.173	0.199	0.245	0.262	0.163

Covariance Matrix

	VAR 31	VAR 32	VAR 33	VAR 34	VAR 35
VAR 31	0.382				
VAR 32	0.138	0.723			
VAR 33	0.185	0.157	0.415		
VAR 34	0.041	0.077	0.034	0.234	
VAR 35	0.107	0.175	0.138	0.073	0.602

Means

VAR 1	VAR 2	VAR 3	VAR 4	VAR 5	VAR 6
2.390	2.260	2.370	2.548	1.914	1.949

Means

VAR 7	VAR 8	VAR 9	VAR 10	VAR 11	VAR 12
2.024	2.168	1.723	2.277	2.442	1.421

Means

VAR 13	VAR 14	VAR 15	VAR 16	VAR 17	VAR 18
1.630	1.205	1.479	1.668	1.288	1.783

Means

VAR 19	VAR 20	VAR 21	VAR 22	VAR 23	VAR 24
2.729	1.733	1.639	1.894	2.668	2.099

Means

VAR 25	VAR 26	VAR 27	VAR 28	VAR 29	VAR 30
1.753	1.729	1.781	2.313	1.623	2.144

Means

VAR 31	VAR 32	VAR 33	VAR 34	VAR 35
1.336	1.723	1.380	1.164	1.702

Standard Deviations

VAR 1	VAR 2	VAR 3	VAR 4	VAR 5	VAR 6
0.977	0.985	1.022	0.971	0.979	0.920

Standard Deviations

VAR 7	VAR 8	VAR 9	VAR 10	VAR 11	VAR 12
0.910	1.027	0.822	1.006	0.995	0.640

Standard Deviations

VAR 13	VAR 14	VAR 15	VAR 16	VAR 17	VAR 18
0.833	0.489	0.843	0.739	0.574	0.794

Standard Deviations

VAR 19	VAR 20	VAR 21	VAR 22	VAR 23	VAR 24
0.987	0.840	0.721	0.941	1.174	0.971

Standard Deviations

VAR 25	VAR 26	VAR 27	VAR 28	VAR 29	VAR 30
0.742	0.768	0.877	1.054	0.724	0.938

Standard Deviations

VAR 31	VAR 32	VAR 33	VAR 34	VAR 35
0.618	0.851	0.644	0.484	0.776

APPENDIX 16

IAS-T DATA: INPUT SYNTAX, COVARIANCE MATRIX, MEANS AND STANDARD DEVIATIONS

```
target cm matrix 25 items higher order
da ni=35 ma=cm no=293
cm fi=a:\target.cm re
se
5,11,31,9,23,8,12,1,29,16,22,4,6,17,21,19,25,2,24,33,20,26,18,10,14/
mo ny=25 nk=1 ne=3 lx=fu,fi ly=fu,fi te=di,fr ps=di,fr ga=fu,fi
lk
indirect
le
socex humour guilt
va 1 ly 1 1
va 1 ly 11 2
va 1 ly 20 3
fr ly 2 1 ly 3 1 ly 4 1 ly 5 1 ly 6 1 ly 7 1 ly 8 1 ly 9 1 ly 10 1
fr ly 12 2 ly 13 2 ly 14 2 ly 15 2 ly 16 2 ly 17 2 ly 18 2 ly 19 2
fr ly 21 3 ly 22 3 ly 23 3 ly 24 3 ly 25 3
fr ga 1 1 ga 2 1 ga 3 1
ou sc mi nd=3 me=ml ad=off
```

Total Sample Size = 294

Listwise Deletion

Total Effective Sample Size = 293

Covariance Matrix

	VAR 1	VAR 2	VAR 3	VAR 4	VAR 5	VAR 6
VAR 1	0.696					
VAR 2	0.289	0.807				
VAR 3	0.311	0.318	1.004			
VAR 4	0.268	0.379	0.421	1.095		
VAR 5	0.389	0.232	0.309	0.481	0.948	
VAR 6	0.314	0.384	0.274	0.518	0.374	1.140
VAR 7	0.266	0.220	0.281	0.290	0.444	0.379
VAR 8	0.298	0.251	0.231	0.241	0.366	0.307
VAR 9	0.278	0.215	0.291	0.297	0.442	0.269
VAR 10	0.192	0.149	0.289	0.249	0.247	0.239
VAR 11	0.354	0.294	0.417	0.385	0.606	0.374
VAR 12	0.287	0.264	0.264	0.388	0.447	0.323
VAR 13	0.246	0.261	0.166	0.277	0.310	0.440
VAR 14	0.242	0.182	0.279	0.285	0.249	0.265
VAR 15	0.239	0.194	0.283	0.346	0.359	0.274
VAR 16	0.312	0.345	0.319	0.334	0.333	0.338
VAR 17	0.233	0.352	0.247	0.452	0.274	0.387
VAR 18	0.173	0.124	0.254	0.227	0.106	0.130
VAR 19	0.163	0.258	0.271	0.380	0.226	0.406

VAR 20	0.176	0.177	0.238	0.269	0.222	0.200
VAR 21	0.209	0.265	0.238	0.403	0.282	0.340
VAR 22	0.221	0.332	0.297	0.493	0.306	0.442
VAR 23	0.323	0.200	0.369	0.341	0.444	0.318
VAR 24	0.249	0.263	0.280	0.400	0.422	0.482
VAR 25	0.219	0.256	0.299	0.462	0.311	0.460
VAR 26	0.141	0.132	0.208	0.190	0.173	0.232
VAR 27	0.197	0.222	0.275	0.347	0.296	0.290
VAR 28	0.267	0.325	0.365	0.358	0.355	0.323
VAR 29	0.260	0.215	0.250	0.180	0.352	0.253
VAR 30	0.185	0.190	0.148	0.226	0.208	0.312
VAR 31	0.267	0.202	0.229	0.224	0.387	0.199
VAR 32	0.294	0.219	0.350	0.270	0.323	0.299
VAR 33	0.141	0.096	0.248	0.203	0.104	0.147
VAR 34	0.250	0.256	0.226	0.305	0.365	0.285
VAR 35	0.290	0.257	0.347	0.318	0.436	0.382

Covariance Matrix

	VAR 7	VAR 8	VAR 9	VAR 10	VAR 11	VAR 12
VAR 7	0.843					
VAR 8	0.392	0.671				
VAR 9	0.412	0.396	0.764			
VAR 10	0.244	0.143	0.257	1.047		
VAR 11	0.449	0.387	0.473	0.361	0.990	
VAR 12	0.301	0.300	0.358	0.266	0.555	0.812
VAR 13	0.368	0.362	0.244	0.171	0.345	0.320
VAR 14	0.257	0.225	0.228	0.413	0.354	0.342
VAR 15	0.321	0.285	0.246	0.263	0.437	0.375
VAR 16	0.295	0.318	0.299	0.258	0.333	0.335
VAR 17	0.256	0.275	0.251	0.284	0.317	0.340
VAR 18	0.169	0.127	0.193	0.462	0.179	0.251
VAR 19	0.222	0.245	0.216	0.230	0.256	0.267
VAR 20	0.195	0.154	0.238	0.494	0.271	0.333
VAR 21	0.251	0.272	0.250	0.239	0.351	0.319
VAR 22	0.268	0.311	0.287	0.297	0.370	0.376
VAR 23	0.393	0.319	0.343	0.237	0.460	0.422
VAR 24	0.340	0.324	0.328	0.305	0.453	0.370
VAR 25	0.325	0.277	0.181	0.221	0.309	0.328
VAR 26	0.219	0.195	0.187	0.306	0.261	0.242
VAR 27	0.290	0.230	0.238	0.340	0.351	0.328
VAR 28	0.302	0.277	0.228	0.407	0.442	0.470
VAR 29	0.315	0.271	0.215	0.319	0.351	0.261
VAR 30	0.137	0.224	0.148	0.191	0.225	0.215
VAR 31	0.346	0.336	0.363	0.171	0.421	0.396
VAR 32	0.364	0.253	0.278	0.300	0.367	0.334
VAR 33	0.148	0.108	0.110	0.423	0.181	0.256
VAR 34	0.345	0.313	0.363	0.286	0.370	0.354
VAR 35	0.409	0.313	0.287	0.308	0.393	0.381

Covariance Matrix

	VAR 13	VAR 14	VAR 15	VAR 16	VAR 17	VAR 18
VAR 13	0.966					
VAR 14	0.314	0.825				
VAR 15	0.299	0.324	0.878			
VAR 16	0.298	0.308	0.326	0.995		
VAR 17	0.384	0.309	0.330	0.462	0.811	
VAR 18	0.191	0.422	0.242	0.351	0.347	1.129
VAR 19	0.352	0.242	0.271	0.383	0.389	0.297
VAR 20	0.162	0.377	0.269	0.305	0.299	0.492
VAR 21	0.302	0.265	0.325	0.317	0.365	0.269
VAR 22	0.391	0.368	0.367	0.429	0.473	0.321
VAR 23	0.383	0.334	0.352	0.404	0.316	0.207
VAR 24	0.323	0.312	0.333	0.393	0.371	0.249
VAR 25	0.417	0.349	0.314	0.345	0.370	0.392
VAR 26	0.231	0.251	0.212	0.242	0.263	0.395
VAR 27	0.277	0.302	0.393	0.299	0.381	0.343
VAR 28	0.391	0.332	0.444	0.411	0.452	0.377
VAR 29	0.341	0.185	0.272	0.338	0.234	0.226
VAR 30	0.293	0.255	0.172	0.226	0.218	0.202
VAR 31	0.342	0.233	0.233	0.373	0.250	0.161
VAR 32	0.347	0.310	0.386	0.470	0.354	0.333
VAR 33	0.207	0.389	0.289	0.273	0.337	0.493
VAR 34	0.387	0.293	0.346	0.463	0.346	0.297
VAR 35	0.487	0.288	0.388	0.481	0.419	0.315

Covariance Matrix

	VAR 19	VAR 20	VAR 21	VAR 22	VAR 23	VAR 24
VAR 19	0.949					
VAR 20	0.321	1.180				
VAR 21	0.415	0.379	0.806			
VAR 22	0.443	0.278	0.495	0.823		
VAR 23	0.321	0.282	0.360	0.420	0.902	
VAR 24	0.439	0.390	0.460	0.505	0.462	1.129
VAR 25	0.433	0.350	0.473	0.477	0.384	0.518
VAR 26	0.272	0.397	0.296	0.266	0.278	0.398
VAR 27	0.361	0.358	0.371	0.408	0.352	0.393
VAR 28	0.399	0.479	0.382	0.411	0.456	0.482
VAR 29	0.227	0.305	0.341	0.298	0.462	0.430
VAR 30	0.217	0.226	0.201	0.303	0.281	0.421
VAR 31	0.260	0.226	0.271	0.308	0.500	0.312
VAR 32	0.315	0.372	0.288	0.347	0.448	0.423
VAR 33	0.187	0.569	0.250	0.234	0.230	0.255
VAR 34	0.359	0.365	0.386	0.424	0.421	0.474
VAR 35	0.378	0.368	0.359	0.398	0.482	0.456

Covariance Matrix

	VAR 25	VAR 26	VAR 27	VAR 28	VAR 29	VAR 30
VAR 25	0.965					
VAR 26	0.403	0.887				
VAR 27	0.449	0.398	0.806			
VAR 28	0.516	0.490	0.555	1.093		
VAR 29	0.334	0.310	0.287	0.442	0.918	
VAR 30	0.198	0.293	0.266	0.329	0.329	0.838
VAR 31	0.274	0.229	0.291	0.404	0.377	0.233
VAR 32	0.395	0.317	0.334	0.520	0.432	0.234
VAR 33	0.322	0.455	0.330	0.502	0.305	0.227
VAR 34	0.350	0.328	0.370	0.466	0.472	0.301
VAR 35	0.495	0.414	0.474	0.585	0.492	0.310

Covariance Matrix

	VAR 31	VAR 32	VAR 33	VAR 34	VAR 35
VAR 31	0.705				
VAR 32	0.370	1.004			
VAR 33	0.171	0.482	0.991		
VAR 34	0.449	0.453	0.369	0.862	
VAR 35	0.452	0.619	0.497	0.586	1.107

Means

VAR 1	VAR 2	VAR 3	VAR 4	VAR 5	VAR 6
2.096	1.911	2.297	2.531	2.331	2.471

Means

VAR 7	VAR 8	VAR 9	VAR 10	VAR 11	VAR 12
2.437	1.857	1.990	2.638	2.382	2.005

Means

VAR 13	VAR 14	VAR 15	VAR 16	VAR 17	VAR 18
2.396	2.157	2.290	2.068	2.102	2.123

Means

VAR 19	VAR 20	VAR 21	VAR 22	VAR 23	VAR 24
2.010	2.454	2.317	2.232	2.096	2.256

Means

VAR 25	VAR 26	VAR 27	VAR 28	VAR 29	VAR 30
2.570	2.212	2.191	2.498	2.218	1.749

Means

VAR 31	VAR 32	VAR 33	VAR 34	VAR 35
2.000	2.686	2.420	2.034	2.584

Standard Deviations

VAR 1	VAR 2	VAR 3	VAR 4	VAR 5	VAR 6
0.834	0.898	1.002	1.046	0.974	1.068

Standard Deviations

VAR 7	VAR 8	VAR 9	VAR 10	VAR 11	VAR 12
0.918	0.819	0.874	1.023	0.995	0.901

Standard Deviations

VAR 13	VAR 14	VAR 15	VAR 16	VAR 17	VAR 18
0.983	0.908	0.937	0.998	0.901	1.062

Standard Deviations

VAR 19	VAR 20	VAR 21	VAR 22	VAR 23	VAR 24
0.974	1.086	0.898	0.907	0.950	1.063

Standard Deviations

VAR 25	VAR 26	VAR 27	VAR 28	VAR 29	VAR 30
0.982	0.942	0.898	1.046	0.958	0.916

Standard Deviations

VAR 31	VAR 32	VAR 33	VAR 34	VAR 35
0.840	1.002	0.995	0.928	1.052