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STRATEGIES FOR THE REDUCTION OF AGGRESSION

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I declare that this dissertation is my own work and that I have not submitted it for a Master of Arts degree in Clinical Psychology to any other university.

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ABSTRACT

Approaches as divergent as the passive acceptance of aggression espoused by client-centred therapists and the active control of aggression practised by behaviourists have been used in the treatment of individuals who have problems in controlling their aggression. Research in the area of conflict resolution indicates that a 'pacifist' (passive) counter to aggression may lead to an increase in aggressive behaviour. This approach may thus be contra-indicated for individuals who display pathological aggressive behaviour, for example, psychopaths.

The aggressive behaviour of 88 female university students in response to a 'pacifist' and an 'activist' strategy, the presence or absence of interpersonal contact with the opponent and the presence or absence of group pressure to play aggressively was investigated using a gaming situation.

Each subject completed the Psychopathic deviate (Pd) and Depression (D) scales of the MMPI and Rest's Determining Issues Test (D.I.T.) before participating in the game.

The gaming situation was modelled after that of Vincent and Tindell (1969) and required subjects to administer loud noise to their opponents if they wished to win points and a cash prize. The frequency with which the subjects used the loud noise served as the measure of aggression.

The opponent (a confederate of the experimenter) implemented either a pacifist (non-retaliatory) or activist (retaliatory) strategy against the subject. Through messages which were available to both players, the confederate informed the subject of her belief in fair play and of her pacifist or activist intent.

In the interpersonal contact condition the subject was introduced to her 'opponent' and they exchanged personal information, for example, names, courses taken at university. Subjects in the group pressure condition brought two friends with them who participated in the study. The three friends chose messages which they sent to each other suggesting how they should play the game as a team. Their messages were swapped for messages encouraging them to play the game exploitatively.

An analysis of covariance was performed on the data with the subjects' scores on the Pd, D and D.I.T. scales acting as covariates. The only significant finding was that the subjects were significantly less aggressive when they met their opponents than when they did not.

Since the Principled morality score (P) achieved significance as a covariate, it was decided to include P as a variable together with strategy, group pressure and interpersonal contact in an exploratory multiple regression analysis.

Interpersonal contact failed to attain significance once all the interactional items were included in the analysis. P was the only significant variable in this secondary analysis to correlate with aggression. It was concluded from this analysis, that the earlier finding regarding interpersonal contact needs to be interpreted with caution. Further investigation of this variable is required on a sample size which allows for a more adequate assessment of the interactional terms involving interpersonal contact. Principled morality has considerable relevance in predicting an individual's aggressive behaviour. Implications of this for therapy was discussed. It was, furthermore, concluded that the group pressure manipulation was ineffective and that methodological flaws might have obscured any differential effects that the activist/pacifist strategies may have on aggression. The implications of the present research for attribution theory, psychoanalytic theory and the cognitive developmental theory of morality were discussed.

CHAPTER 1 - INTRODUCTION

A fascination with questions such as : What internal controls do humans have over their aggression?; how strong are these controls and under what conditions do they break down? - together with the author's personal difficulty experienced in handling the aggression of patients in the clinical situation, have formed the central impetus for the present study.

Aggression is considered to play an important role in the two major pathologies of depression (Freud, 1923, 1932; Jacobson, 1971) and psychopathy (Friedlander, 1954; Zang, 1978). Research shows that the author of the present study is not alone in finding aggressive patients difficult to handle (Varble, 1968; Russell and Snyder, 1963). Thus a study of factors which increase or reduce aggressive behaviour seems to be of considerable clinical relevance.

The clinician is faced with many theories of personality and psychopathology, each of which offers a different rationale for treatment (Wolman, 1976). This means that approaches as divergent as the passive acceptance of aggression (espoused by the client centred and psychoanalytic schools), and the active control used by the behaviourists, have been used to handle both aggressive and depressive patients. Since research has shown that differences in the active/passive therapist dimension affects clients differently (Ashby et al., 1961; Wexler and Butler, 1976; Rice, 1965) it seems that "... the identification of which therapies are most effective with which groups of patients under what conditions" should constitute the focus of future research (Brown, 1976, pxii).

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An interesting and thought-provoking study on the effects of a passive approach to aggression comes from research into conflict resolution. Shure,

Meeker and Hansford (1961) investigated an essentially non-aggressive counter to aggression in a gaming situation. It was found that subjects increased their competitive play even though this meant shocking their pacifist opponent.

The pacifist strategy, with its passive and non-retaliatory approach, may be likened in a very rudimentary way to the early Rogerian approach to therapy. This gives rise to the question: do non-directive therapists unwittingly arouse aggression by tneir passivity?

Carl Rogers (1951) comments that the "... counselor who plays a merely passive role, a listening role..." will find that many clients will leave both "disappointed and disgusted with the counselor for having nothing to offer" (p.27). He stresses, therefore, that his non-directive technique is only effective when a positive therapeutic relationship has been established (ibid.). The finding in gaming studies that the lack of interpersonal contact between subjects leads to far more aggressive play (Michelini, 1977) provides an interesting parallel to Rogers' comment. Furthermore, since the subjects in the study of Shure et al. (1965) actually played against a computer and hence had no contact with their "co-player", it is likely that this in itself could have led to the escalation in aggression. Hence the effects of a pacifist strategy on aggression may be modified by allowing some interpersonal contact between players. Thus the two variables together need to be studied.

A comparable study to that of Shure et al., but using an activist strategy, is that of Vincent and Tindell (1969). Their activist strategy involved countering aggression with aggression and thus roughly parallels a behavioural therapy programme which makes "noxious" (unpleasant) stimuli contingent upon the emission of an undesired behavioural pattern. Vincent and Tindell (op.cit.) found an escalation in aggression over a number of

trials and concluded, by reference to the Shure study, that their strategy led to more aggression than the pacifist strategy. This conclusion is of questionable validity in the light of the different experimental situations utilised in the two studies.

Further research which directly compares an activist and pacifist strategy under identical experimental situations is clearly called for. As ethical considerations make such a study in a clinical situation difficult and even potentially harmful to patients, it seemed sensible to look at the effects of activist vs. pacifist strategies using the game paradigm.

Certain methodological inadequacies in the above studies could have accounted for the observed increases in aggression. These will be discussed briefly:

(1) Lack of communication of the rationale of the strategy used

Vincent and Tindell (1969) did not communicate to the subject the rationale behind the "co-player's" aggressive mode of play. The subjects could have interpreted the counter-aggression as an implicit recognition and acceptance of an aggressive mode of play. The pacifist study of Shure et al. was superior in that it had a condition where the pacifist stance was made explicit to the subject. This resulted in a reduction in aggression. In all the experimental conditions in the present study, therefore, the rationale for the mode of play used by the co-player was communicated to the subject.

(2) Effect of group pressure on aggression

Shure et al. (1965) also incorporated social features, such as group pressure, which studies by Milgram (1964) and Zimbardo (1969) have shown lead to an increase in aggressive behaviour. A later study by Meeker and Shure (1969) re-examined the pacifist strategy in the presence and absence of group pressure. They reported that "... significantly more subjects became dominant under the urgings of cohorts than of their own accord..."(p.492).

Since they do not quote a significance level or give any indication of the kind of statistical analysis used, one cannot be sure of the reliability of their results. In the present study, therefore, effects of group pressure and activist/pacifist strategy on aggressive behaviour was investigated. To increase the realism of the group pressure manipulation, naturally occurring groups (groups of three friends) were used.

(3) Lack of contact between subject and the opponent

As discussed earlier it seems that the presence of interpersonal contact may be a very important factor if the pacifist and activist strategies are to reduce aggression.

(4) Lack of a measure of the subject's level of moral development

Since a number of experimenters, theorists and clinicians have pointed out the relevance of an individual's level of moral development to his handling of aggression (Bixenstine and Gaebelein, 1971; Freud, 1932; Kohlberg, 1978), some measure of individual morality should be included in the present study.

1.1 The use of a measure of depression and psychopathy

From a clinical point of view psychopaths and depressives have problems in handling their aggression. Psychopaths tend to be outwardly aggressive (Eissler, 1949; Friedlander, 1954), while depressives lack overt aggression (Freud, 1932; Jacobson, 1975). Personality measures of psychopathic and depressive tendencies will thus be included in the present study.

The aims of the study are as follows:

(1) To investigate the effects of the activist and pacifist strategies, interpersonal contact and group pressure on aggression in a situation modelled after the Vincent-Tindell game (1969).

(2) To investigate, in a secondary statistical analysis, the influence on aggressive behaviour of level of moral development and a tendency towards psychopathy and depression.

1.2 Hypotheses

1.2.1 Main hypotheses

(a) The contradictory nature of the research relating to the activist and pacifist strategies, and the lack of relevant theory (c.f. Chapter 2), make the validity of directional hypotheses questionable. The present study is thus an investigation of the differential effects of these two strategies on aggression.

(b) With regard to interpersonal contact, a directional hypothesis may be put forward as justified in Chapter 2. I^+ hypothesised that subjects who meet their opponents will be less aggressive than subjects who do not.

(c) It is hypothesised (on the theoretical and empirical grounds put forward in Chapter 3) that subjects who experience group pressure to play aggressively will be significantly more aggressive than subjects who experience no such pressure.

1.2.2 Secondary hypotheses

(a) Extensive work on the cognitive stages of moral development by Kohlberg (1969; 1974) raises the possibility that cognitive controls may play an important role in determining the amount of aggression which an individual expresses. This has received some confirmation; using tests of moral development devised by Kohlberg (1958) and Rest (1972), Milgram (1963) and Krebs and Rosenwald (1971) have found a negative correlation between level of moral reasoning and aggressive behaviour. It is therefore hypothesised that subjects of a higher level of moral development will be less aggressive than those at a lower level.

(b) Research has shown that individuals with psychopathic tendencies have poor inner controls over their aggression and thus are prone to express their aggression outwards (Aichhorn, 1936, pp.187-236; Friedlander, 1954, p.93). It is therefore hypothesised that subjects who obtain higher scores on Psychopathic Deviance scale of the Minnesota Multiphasic Personality Inventory (MMPI) will be more aggressive than lower scores.

(c) According to the psychoanalytic conception of depression people with depressive tendencies turn their aggression inwards rather than outwards towards others (Freud, 1932; Anthony and Benedek, 1976). It is thus hypothesised that higher scores on the MMPI Depression scale (D) will be less aggressive than lower scores.

CHAPTER 2 - SOCIAL FACTORS INFLUENCING AGGRESSION : ACTIVIST/PACIFIST STRATEGY AND INTERPERSONAL CONTACT

While Berkowitz (1962) and Buss (1961) identify a wide variety of social factors which influence aggressive behaviour, three variables: strategy of interaction, presence or absence of interpersonal contact and presence or absence of group pressure have been selected for special investigation in the present study. The rationale underlying the choice of these variables, and the available theoretical background will be presented in this and the following chapter. Although a two-person game was used in the present study, it must be made clear at the outset that the gaming situation was used to investigate hypotheses derived from social psychological and personality theory, rather than from abstract game theory (cf. Brown, 1965; McClintock, 1972; & Rapoport, 1960).

2.1 Aggression - a definition

Aggression was operationally defined in the present study as the number of times a player subjected her opponent to an unpleasant physical stimulus. A loud noise of one second duration constituted the stimulus. Professor Aron, head of the Speech and Hearing Clinic at the University of the Witwatersrand was consulted to ensure that the noise used was not harmful to human hearing. Loud noise was used rather than electric shock because shock can be harmful and previous research using shock has resulted in considerable subject distress (cf. Milgram, 1965).

2.2 The modified Vincent-Tindell game

Each subject was informed that she was to play an opponent who was seated on the other side of a partition in a laboratory cubicle. She was told that her opponent (a confederate) controlled a game panel identical to hers.

The object of both players would be to light up their game lights in sequence from left to right. The wiring of the lights was such that both players could not light up their lights at the same time. If both were attempting to light them at the same time neither's lights came on and a deadlock ensued. To end the deadlock one had to retreat i.e. turn off her lights and allow her opponent's lights to come on. Play was complicated by the cancel move which switched off the opponent's light and allowed the subject's light to come on. In addition every use of the cancel subjected the opponent to the 'noxious' stimulus. This move, thus, provided an alternative solution to the deadlock situation and was awarded to the winner of each game for use in the next game. It was taken from the loser (if she possessed it). During the first game neither player had use of the cancel move. The winner of the first game won the use of it in the second game. Thus the winner of the first game was put into a position where she could win all ensuing games if she was prepared to subject her opponent to the 'noxious' stimulus.

2.3 Activist/pacifist strategy

The term strategy was used, in the present study, to refer to a preplanned series of messages and moves (consonant with the messages) which were implemented by the confederate of the experimenter during the game. These moves and messages were contingent on the subject's moves and thus were interactional in nature.

Two types of strategy were investigated: a pacifist strategy and a reasoning activist strategy, both modelled on the strategies used in the Shure et al. (1965) and Vincent and Tindell (1969) games respectively. The comparison of these two strategies should indicate whether a reasoning punitive response is more effective than a non-punitive response in reducing aggression.

2.3.1 The pacifist strategy

As Shure et al. (1965) point out, the pacifist strategy is a particularly interesting counter to aggression, in that it involves no counter-aggression appealing instead to the aggressor's sense of moral right.

The pacifist stance was operationalised, in the present study, by having the pacifist refuse to use the 'noxious' stimulus when it was available to her because of a stated belief in fair play and a stated dislike of subjecting anyone to the discomfort of the stimulus. On the first trial the pacifist communicated (via a printed message) to the subject that she may have first move and allowed her to win the game unopposed. On the second trial, after sending a message suggesting that they alternate in winning games, the pacifist moved. If the subject moved as well a deadlock resulted. Thus, the subject could either remain in deadlock for the time allotted for playing the game or could end it by withdrawing her move or using cancel. The pacifist did not withdraw her move and communicated her intention to move and not withdraw whenever it was her turn to win a game.

Both the pacifist and the subject had available to them a 'retaliate' switch. When depressed this switch delivered the 'noxious' stimulus to the other player without affecting the game lights. Despite the fact that the pacifist could use this option to retaliate if the subject used the cancel, the pacifist refused to use this move because of her disbelief in subjecting anyone to physical discomfort.

2.3.2 The activist strategy

As in the pacifist condition 'the reasoning activist' allowed the subject to win the first game, thus entrusting her with the powerful cancel move in the second game. The 'reasoning activist' (hereafter referred to as the activist), like the pacifist informed the subject of her belief in fair play and her

distaste for using the 'noxious' stimulus. In contrast to the pacifist, the activist threatened to use the 'noxious' stimulus if the subject defected from fair play or subjected her to the 'noxious' stimulus. Furthermore, the activist carried out her threats.

The major difference between the activist and pacifist strategies was, therefore, the activist's stated preparedness to retaliate if her reasoning was not heeded by the pacifist and her use of the 'noxious' stimulus.

2.4 Relevant research on pacifist and activist strategies

The role of punishment in the control of aggression is unclear. Some investigators have reported that a fear of punishment leads to an inhibition of aggression (cf. Dollard, Doob, Miller & Sears, 1939), whereas others have reported that the use of 'noxious' stimulus results in increasing aggressiveness over time (Buss, 1965).

Few studies have examined the effects of the activist or pacifist strategies on conflict in a gaming situation. Of those that have, a number have used monetary pay-off matrices and no 'noxious' stimuli. Such studies for example, Maxwell and Schmitt (1975), Gruder and Duslak (1973), Deutsch (1973) and Lave (1965), cannot be regarded as studying aggression in the same way as studies using a 'noxious' stimulus. Oskamp (1971), in fact, cautions against comparing studies using dissimilar games on the grounds that such comparisons give the impression that the findings are more contradictory than is the case. It was, therefore, decided to focus only on those gaming studies which have used administration of a 'noxious' stimulus as a counter to aggression.

Shure et al. (1965) were the first investigators to examine a purely pacifist strategy in a gaming situation. They concluded that the pacifist strategy led to an increase in aggression. However, no statistical significance level was quoted and their conclusion was based on the fact that 48% of the

subjects began with a plan to co-operate and only 39% ended up by co-operating. An additional defect of their study was the absence of a control group with which to compare the pacifist group condition. Furthermore, their subjects were encouraged to be aggressive by messages from 'teammates'. As will be discussed in the next chapter and as pointed out by Deutsch et al. (1967) their results could reflect the effect of the group pressure to be aggressive rather than a response to the pacifist strategy.

Meeker and Shure (1969), therefore, investigated the pacifist strategy under conditions of group pressure and no group pressure. While they did find that subjects in the group pressure condition were significantly more aggressive than subjects in the no group pressure condition, they concluded that the fact that there was no significant rate of change to co-operation between the two groups, after the group pressure condition was implemented, suggested that their initial findings need not "... be drastically reinterpreted" (p.492). A more rational interpretation of their results seems to be that group pressure has a more powerful influence on aggressive behaviour than the pacifist strategy. Once again a control group in which the effects of another strategy could be observed was needed to evaluate the pacifist strategy adequately. In the present study, therefore, the pacifist strategy was compared to an activist strategy.

Vincent and Tindell (1969) examined the effects of a 'shocking pacifist' and a 'warning pacifist' on aggression. The 'warning pacifist' threatened to retaliate if the opponent did not play fairly or was aggressive, but did not carry out the threat. The 'shocking pacifist' acted identically except that he shocked after warning his opponent. Vincent et al. (1969) concluded that warning "... aggressive subjects and following through with shock... seems to accentuate the belligerent propensity of the Ss..." (p.504). They tentatively suggested that their 'shocking pacifist' led to more

aggressive play than did Shure et al.'s pacifist strategy. A direct comparison of the two strategies is obviously called for.

A problem with the Vincent and Tindell and Shure et al. research was that the rationale behind the strategies was not communicated to the subject. Although Shure et al. dismissed such communication as unimportant (on the basis of preliminary research), a later study by Meeker and Shure found that communication of the rationale decreased aggression. In view of this finding and in order to make the pacifist's or activist's mode of play unambiguous to the subject, communication via printed messages was used in all gaming situations in the present study. These messages are detailed in Chapter 8 and Appendix 1.

Pisano and Taylor (1971) examined the differential effects of a pacifist, a maximally punitive and matching (tit for tat) strategy. They found that the matching strategy was the most effective in reducing aggressive behaviour and the maximally punitive the least effective.

Pisano and Taylor's pacifist strategy involved the use of a low shock and, therefore, cannot be compared with the pacifist strategy of Shure et al. and of the present study.

The matching strategy is in some respects comparable to the activist of the present study in that it involves retaliation for aggression. However, it must be pointed out that the gaming situation used by Pisano and Taylor (1971) was different to the one used in the present study. It is an interesting finding nevertheless, as it suggests that a retaliatory strategy may reduce aggressive behaviour.

In conclusion, it may be said that it would not be prudent to put forward directional hypotheses with regard to the comparative effects of the pacifist and activist strategies because of the paucity of relevant research and theory. The present study explores the relative influence of these strategies on aggression.

2.5 The effects of interpersonal contact with the opponent on aggressive play

An important and often overlooked feature of the Shure et al. (1965) study, and similar studies, was that the subjects never met and, thus, were anonymous with respect to their opponents. On theoretical grounds (cf. Milgram and Toch, 1969) it may be hypothesised that such anonymity would result in more aggression than if the subjects had met. Few researchers have examined the effects of meeting the opponent on subsequent aggressive behaviour. [illegible]olini (1977) found that positive prior interaction with an opponent led to a higher level of co-operative play than negative interaction. Milgram (1965) in his well-known obedience study, found that when subjects were face to face with or touching their victims, they administered less shock to the victim. Interpersonal contact, therefore, seems to be an important factor in reducing aggressive behaviour.

In the present study, a condition in which the subjects met their opponents was compared with a condition in which they did not. Care was taken to ensure that the subjects and the opponent (the confederate) had never met before. In the interpersonal contact condition the confederate and the subject were instructed to introduce themselves to each other by disclosing their names, year of study and the courses they were studying at university. The confederate repeated the subjects' names during the course of the conversation. In this way the subjects were prevented from remaining anonymous to their opponents'

To ensure positive interaction a female student who consistently received positive semantic differential ratings from a trial series of subjects was used as a confederate. Newcomb (1961, Byrne (1961 and Duck (1977) point out that a similarity of interests and attitudes is an important determinant of interpersonal attraction. The confederate,

therefore, stressed the similarities between her and the subject, namely, that she was a student in her first year and was also studying psychology I. As the confederate was actually in her second year of psychology, she was able, given the relevant priming by the experimenter, to comment on the psychology first year lectures and lecturers in a convincing manner.

In contrast to the nondirectional hypothesis put forward for strategy a directional hypothesis could be stated for interpersonal contact. It was hypothesised that individuals in the interpersonal contact condition would be less aggressive than subjects in the no interpersonal contact condition.

CHAPTER 3 - SOCIAL FACTORS INFLUENCING AGGRESSION : GROUP PRESSURE

3.1 Theoretical background

3.1.1 Definition of a group

Deutsch and Gerard (1955) make the valid observation that subjects participating in the classical experiments on group pressure (for example, Asch (1963); Sherif (1935) and Crutchfield (1955)) were

> not functioning as members of a group in any simple or obvious manner... Typically, the subject was not given experimental instructions which made him feel he was a member of a group faced with a common task ... If 'group' influences were at work ... they were subtly and indirectly created rather than purposefully created by the experimenter' (p.629).

Surprisingly, few experimenters have taken up the challenge posed by Deutsch and Gerard's article and dealt with the question of what differentiates a group from a mere aggregate of people.

Kiesler and Kiesler (1969) are of the opinion that in a group the individual should:

(1) be aware of the other members of the group

(2) define himself as a member of the group and

(3) feel that the others are either emotionally or cognitively important to him.

This definition rules out aggregates based on statistical similarities between people (for example, all those who live in the third house in a number of randomly chosen blocks). The last criterion eliminates individuals who share a temporary spatio-temporal relationship and do not interact; for example, a grouping of people at a bus stop.

Kiesler and Kiesler's third criterion, however, is rather vague. Most other theorists stress either the relationships between members (Newcomb, 1951; Perry & Pugh, 1978; Sherif & Sherif, 1956) or the function of the group

as a means to achieve satisfaction of individual needs (Cattell, 1951).

A definition offered by Proshansky and Seidenberg (1965) seems to cover both facets and will be adopted in the present study. The individuals in a group,

> ... share a common set of norms, beliefs and values and they exist in implicitly or explicitly defined relationships to one another such that the behavior of each has consequences for the others. These properties in turn emerge from and have consequence for the interaction of individuals who are similarly motivated with respect to some specific objective or goal. (p.377).

In order to fulfil the prerequisites of this definition and reduce the artificiality of the group pressure manipulation, naturally occurring groups of three friends were selected for the present study.

3.1.2 The distinction between membership and reference groups

A membership group denotes any group to which an individual belongs either through birth or ascription (Kelley, 1951). A reference group must be of psychological importance to the individual so that he aspires to attain or maintain membership (Kiesler, et al., 1969; Newcomb, 1952). In the present study the term 'group' refers to the reference group. Groups of friends were chosen to ensure that the groups were of psychological relevance to the members.

3.1.3 Group pressure

Group pressure, in the present study, was defined as a "... psychological force operating on a person to fulfill other's expectations of him, ..." (Kiesler et al., 1969, p.31). A 'psychological force' was created, in the present study, by giving each subject in the group condition two identical messages, purportedly chosen from a selection of available messages and sent to her by her two friends. Since both messages exhorted

the subject to win as many points as possible through the use of the cancel switch i.e. by aggressing, an unambiguous group expectation was likely to have been created.

3.1.4 Factors influencing conformity to group pressure which are relevant to the present study

(a) Attraction to the group

It is generally accepted that the more attractive a group is to the individual the more he conforms to group expectations (Back, 1951; Blake & Mouton, 1961; Cartwright & Zander, 1960). Closer inspection of research in the area reveals that the term attraction has been equated with : (1) acceptance by the group (Dittes & Kelley, 1956; Kiesler, 1963); (2) group cohesiveness (Back, 1951); and (3) liking of the group (Rotter, 1967; Jackson & Saltzstein, 1958). Since different manipulations of attractiveness are used in these experiments it is not surprising that contradictory results have been obtained by different researchers. Kiesler, op.cit., for example, found group attractiveness increased conformity, whereas Rotter, op.cit. found no such relationship. Jackson and Saltzstein, op.cit., found that high attraction, high acceptance subjects and low attraction, high acceptance subjects conformed more than high attraction, non-accepted and low attraction, non-accepted subjects. From this it would seem that acceptance by the group is the more influential manipulation. However, as Jackson and Saltzstein themselves comment, acceptance by the group probably increased the attractiveness of the group, an interpretation supported by the work of Lott and Lott (1965).

In sum, there seems to be a trend suggesting that attractiveness towards the group leads to increased conformity, although, a more rigorous definition of the term is needed before firmer statements can be made.

Hardly any researchers have examined the relationship between group

attraction or cohesiveness and the expression of aggression. Pepitone and Reichling (1955) found that firm play-friends exhibited more hostile behaviour towards the experimenter when frustrated by him than did play-friends with weaker friendship links. In the present study, friendship groups were used because such groups are based on and maintained by interpersonal attraction, closeness of contact and shared interests (Schachter, 1959). Thus attraction to the group, however it is defined, should in this case be maximised.

(b) Clarity and interdependence of the group goal

Bass (1961, p.58) states that the clearer the group goals are the more the members will conform to the group expectations. This statement is supported by the studies of Wheeler and Jordan (1929); Pennington, Harvey and Bass (1958); Raven and Rietsma (1957).

Similarly, research indicates that when co-operation or interdependence amongst group members is important in attaining a goal, conformity is greater (Thomas, 1957).

Deutsch and Gerard (1955) demonstrated that subjects who were told to work together to minimise errors conformed more than subjects who were told to minimise their own errors.

In the present study, all subjects were instructed to win as many points as possible. The subjects in the group condition were told, in addition, that they would be working together as a group since their points would be added together and averaged to obtain a group score. The group with the highest number of points would win a cash prize. In this way the group goal or prize was dependent on the joint action of the members.

Each member received messages, supposedly from the other group members, encouraging her to win as many points as she could, even if she had to play

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aggressively against the opponent. Each group member received identical messages from the other members (cf. Chapter 7) and thus were presented with unambiguous group expectations and a common group goal.

(c) Diffusion of responsibility

Theorists such as Le Bon (1913), McDougall (1920), Allport (1924), Milgram and Toch (1969), have identified anonymity and a loss of a sense of personal responsibility as being important determinants of unruly, aggressive crowd behaviour.

More recently, a number of studies have focused on the effect of the abovementioned factors on the behaviour of groups in the laboratory. Most studies indicate that when individuals are part of a group their aggressiveness increases (Dion, 1971; Paloutzian, 1972; Mathes and Kahn, 1975). Paloutzian (1972) found, furthermore, that group members who were told that they would not be held responsible for their actions were more aggressive than members who were not told this. Mathes and Kahn (1975) found that the members of a group felt less responsible for their punitive behaviour than individuals participating alone.

In the present study, "unanimous" messages from the other group members encouraging aggressive play were used to lessen the individual member's feeling of personal responsibility for playing aggressively.

To summarise, naturally occurring reference groups such as friendship groups should be highly attractive to their members and should increase each member's tendency to conform to the group pressure. Furthermore, in the light of the diffusion of responsibility, afforded by the unanimous group messages, and the clarity and interdependence of the group goals, it was hypothesised that individuals in the group pressure condition would be more aggressive than individuals in the no group pressure condition.

CHAPTER 4 - FACTORS WITHIN THE INDIVIDUAL : DEPRESSION

4.1 Psychoanalytic theories of depression

Abraham (1911) was one of the first authors to comment on the importance of repressed aggression in depression. He noted that depressives typically form ambivalent relationships with significant others. The aggressive aspect of this ambivalance is always repressed. He inferred the existence of repressed aggression from the sadistic dreams and fantasies of his melancholic patients and postulated that the greater the intensity of the repressed aggression, the greater the depression.

Freud (1917) enlarged on Abraham's basic idea by distinguishing between mourning and melancholia. Mourning is the normal reaction to object loss. During the mourning process the libido invested in the lost object is detached and re-invested in the individual's own ego or in other objects. Melancholia resembles mourning in that it is characterised by "... painful dejection, cessation of interest in the outside world, loss of capacity to love, inhibition of all activity..." (ibid., p.44). The melancholic has, in addition, a loss of self-esteem. The loss of self-esteem is the result of a real or imagined object loss which is not resolved as in the case of mourning. This failure to come to terms with object loss in a normal fashion is due to the melancholic's psychosexual immaturity, which leads him to form narcissistic and ambivalent relationships with others.

Freud, like Abrahams, saw this ambivalence as playing a central role in the etiology of depression. When a melancholic suffers a real or imagined object loss the ego identifies with the lost object. The aggression felt towards the object is taken up by the ego-ideal, or conscience, which

"...rages against the ego with merciless violence" (Freud, 1923,p.53). Because Freud viewed man as an energy system "...building, storing and releasing in one form or another, what is basically the same energy" (Pervin, .970, p.218), the more aggressive energy that is directed toward the self, the less there is to be directed outwards.

Rado (1928) introduced the concept of a dual pathological introjection in depression. The dual introjection is associated with regression to an early preambivalent developmental stage. At this stage the object is not experienced simultaneously as "good" and "bad" but is split into "good" and "bad" representations. "Good" is that aspect which is loved because it is need-gratifying, and "bad" is that aspect which is hated because it is need-frustrating. The predepressive is narcissistic and depends upon the love of others for the regulation of his self-esteem. Loss of the loved object, or frustration of narcissistic needs by loved objects, leads the predepressive to rebel against the object. If this fails to reinstate need gratification, the predepressive redirects the aggression towards himself and the depressive reaction ensues.

Two parallel processes constitute the depressive mechanism:

(1) melancholic atonement, in which the ego becomes contrite and tries to put things right with the superego;

(2) dual introjection in which the individual regresses to the pre-ambivalent stage and splits the object as described above. The "good" aspect is introjected into the superego and the "bad" aspect into the ego. The superego attacks the ego in order to purge it of its "bad" object. This results in the self blame and the deprecation characteristic of the depressive.

From very little objective evidence, other than his clinical experience of the self accusations and ambivalence of depressives, and their craving for

love, Rado has built up an (unnecessarily?) intricate conceptualisation of depression. What is of relevance for the present study is that he essentially agrees with the connection between depression and conflict over aggression put forward by Abraham (1911) and Freud (1917; 1923).

Rado's focus on the predepressive's initial rebellion against the lost object highlights the fact that the individual, for him, must be in a depressed state for his aggression to be inwardly directed. In a pre-depressed state he may be narcissistic and ambivalent in his object relations, but he is not necessarily lacking in overt aggression.

Like Rado, Klein (1934) recognises a pre-ambivalent stage of development (the paranoid position) in which splitting of the mother into "good" and "bad" takes place. This is followed by the depressive position in which the infant recognises that he cannot aggress against the "bad" mother without harming the "good" mother. Hence his chronic ambivalence and fear that his inability to control his aggressive impulses will destroy the "good" mother. Introjective identification with the good object allows for the eventual successful internalisation of the stable, good parental objects, and subsequent resolution of the depressive position. Inadequate mothering hampers the successful introjection of a "good" object and hence the successful mastery of the depressive period. Individuals who have not resolved the depressive position are more prone to psychotic depressions and exaggerated grief reactions. Klein, therefore, also sees ambivalent object relations and thoughts as being the central problems in depression. However, she deviates from most psychoanalysts in the following respects:

(1) her acceptance of Freud's death instinct (i.e., a self destructive tendency within the individual);

(2) her emphasis on complex early instinctual conflicts within the infant (necessitated to some extent by her acceptance of the death instinct);

(3) her omission of narcissism as a characteristic feature of depressives.

Klein has been much criticised by classical psychoanalysts (cf. Becker (1974)). The most frequent criticism is directed towards her tendency to attribute sophisticated thinking to infants who do not have the intellectual ability for complex cognition (Munroe, 1955; Goldberg, 1975). Klein's concern with the instinctual life of man has led her to ignore the structural aspects of personality. This leaves one unclear as to where she stands with respect to the ego, superego and id. This omission adds to the confusion which already exists in psychoanalytic theory.

In contrast to Klein, Edith Jacobson (1946; 1971; 1975) focuses on the ego and the ego-ideal rather than on the instinctual aspects of depression. She sees loss of self-esteem as being a crucial problem in depression. In order to explain exactly what Jacobson means by loss of self-esteem, it is necessary to describe briefly her conception of the ego and the superego. The ego consists of self representations and object representations (representations of other persons and things). These representations develop from the child's early experience of his environment, and especially from interactions with his parents.

The superego comprises the ego-ideal and the self critical aspects of the superego. The former embodies the representation of the internalised moral standards and demands of the parents. The latter assesses the relationship between the ego ideal and the self-representations. If the discrepancy between the two is small, the superego libidinally cathects the self representations, resulting in high self-esteem. If the discrepancy is large, the self representations are negatively cathected resulting in low self-esteem. The individual prone to depression is unable to tolerate blows to his narcissism. Such blows decrease his self-esteem and he reacts with hostile rejection of the entire self. Once again

aggression is seen to be inwardly directed in depression. Jacobson (1971) recognises that individuals may become depressed about non-moral matters such as their physical appearance and material aspirations. In such cases it is a critical aspect of the ego which aggressively cathects the self-representations. Aggression is still inwardly directed, although Jacobson makes it clear that all depressives cannot be said to have high moral values or strict consciences. She thus presents a broader conception of depression than the other authors mentioned here.

Bibring's (1953) theory may be likened to Jacobson's in that it focuses on the structural feature of depression rather than on the instinctual. He proposed a model of depression in which the central feature is "... the ego's shocking awareness of its helplessness in regard to its aspirations" (Bibring, op.cit., p.39).

Becker (1974, p.32) in his review of Bibring's theory makes the following statement:

> Susceptibility to a reactivated state of ego helplessness is a function of several factors: constitutional tolerance for persistent frustration, the severity and duration of helplessness experienced during infancy; subsequent developmental factors that tend to modulate or magnify the intensity and ease of activation of helpless states... .

Aggression is a secondary reaction to depression and is directed toward the self because of a perceived inability to direct it outwards. Bibring has been criticised for ignoring the role of the instinctual drives (Goldberg, 1975). This makes it easy for him to assign a secondary role to aggression in depression.

Bibring's paper is an interesting forerunner of Seligman's (1974) explanation of aggression in terms of learned helplessness. Seligman noted that animals exposed to a noxious stimulus from which they could not escape showed depressive-like symptoms such as general passivity and

lack of exploratory behaviour. He is of the opinion that depressives might have had backgrounds in which they had no control over noxious and reinforcing stimuli. It is possible that Seligman's attention to the passivity and perceived helplessness of depressives led him to overlook the self-blame so evident in the verbalisations of depressives (Coleman, 1964; Sarason, 1972), and which could represent aggression turned inwards towards the self.

A general criticism which may be levelled at all the authors discussed here is that while they often review what previous writers have stated, they do not clarify where they lie with respect to both the instinctual and structural aspects of Freud's theory. This leads to a general lack of clarity and continuity in psychoanalytic theorising.

4.2 Implications of psychodynamic theory

From the review presented here, it is apparent that these psychoanalysts see aggression as playing an important role in depression (although Bibring does grant it a secondary role). All the theorists mentioned above note a lack of overt aggression in individuals in a depressed state. The predepressive or depression-prone individual presents more of a proble Rado (1928) and Klein (1934) emphasise their ambivalence and tendency for sudden unpredictable outbursts of aggression. Rado (1928) identifies such outbursts as immediately preceding a depressive state.

Thus it seems reasonable to postulate, on an exploratory basis, that if a measuring scale of depression is used which can detect the degree of clinical depression manifested by an individual, then the higher the depression score, the less overt aggression the individual will manifest in the gaming situation.

It is important, however to examine research on aggressive conflict and depression to see if the psychoanalytic viewpoint and the hypothesis put forward here have empirical backing.

4.3 Research relating depression and aggression

4.3.1 Depression and conflict over aggression

Rutstein (1973) found that the presentation of subliminal aggressive stimuli to suicidal subjects resulted in more "depression" as measured by the Multiple Affect Adjective Check List. Presentation of neutral stimuli had no such effect. Similar findings have been reported by Silverman (1975; 1976). Thus it would seem that depressives experience more conflict over subconscious aggressive wishes than non-depressed individuals.

Another finding of Rutstein's study was that presentation of supraliminal aggressive stimuli to suicidal subjects resulted in an increase in outwardly directed aggression. Rutstein concluded that aggressive drives result in depression and self-destruction when the patient is not consciously aware of their presence. No measure of overt aggression was used, however, and this is essential before one can make such a sweeping conclusion.

4.3.2 Depression and overt aggression

As Dengerink and Myers (1977) note, very little research has examined the link between depressive tendencies and overt aggression. Poznanski and Zrull (1970) observed 10 children who had been evaluated as depressed and noted that the children experienced most depression when they were not discharging aggression through aggressive play. In a follow up of the same children when they reached adolescence and young adulthood, Poznanski, Krahenbuhl and Zrull (1976) found that they showed symptoms similar to adult depression. Amongst other noticeable symptoms was a reduction in overt aggression and a concomitant increase in passivity.

Forty male undergraduate students who scored at the extremes of the Beck Depression Inventory were selected by Dengerink and Myers (1977) to form depressed and non-depressed subject groups. All subjects performed a cognitive

task on which they experienced either repeated failure or success and then ostensibly competed against another subject on a reaction time task. In this task the subject with the slowest reaction time received an electric shock at a level of intensity pre-selected by his opponent. Depressed subjects who had experienced failure prior to the task showed significantly less increment in the shock levels they set for their opponents.

Since the depressed subjects who had experienced success showed no such difference in their responses, Dengerink and Myers concluded that depressives lack normal overt aggression only after an unpleasant experience. However, it is likely that these depressives had been affected by their prior experience of success, and this might have led to an increase in self-esteem and subsequently more normal levels of overt aggression. A study is needed in which the overt aggression of depressives is tested without the influence of a prior manipulation. The present study will allow a more direct measure of this relationship.

Miller and McManus (1976) compared the performance of 24 male hospitalised depressives with 24 male hospitalised controls on the Buss "aggression" machine. The subjects were required to deliver a 'noxious' electric shock to a confederate in a supposed learning task. The confederate was introduced either as a 'doctor' (high status condition) or as an 'orderly' (low status condition). The researcher found no overall difference in the aggressive responses of the controls and the depressed patients. The depressed patients were, however, considerably less aggressive in the high status condition - they were more influenced by situational factors. The controls showed no difference in the nature of their responses under the two status conditions. One positive feature of the present study is that the confederate and subject were presented as

being of equal status (both first year students in Psychology). However, one problem which the above study highlights is the sensitivity of depressives to status and hence one wonders how depressive subjects were affected by the relatively high status of the experimenter in the present study. As the experimenter remained the same for all experimental groups, any "experimenter" effect between groups should, however, be minimised.

The Miller et al. study can be criticised for not using a control group of normal (i.e., non-hospitalised) subjects. Furthermore, the psychiatric diagnoses of the individuals in the control group were unspecified.

In conclusion, it seems that there is some evidence for a link between depression and conflict over aggression. The relationship between depression and overt aggression, however, has been neglected at an empirical level and studies which do exist have methodological flaws. Thus a further investigation of the relationship between depression and overt aggression will have both theoretical and empirical value.

CHAPTER 5 - FACTORS WITHIN THE INDIVIDUAL : PSYCHOPATHY

5.1 Psychopathy

The terms psychopathy, sociopathy and delinquency will be used interchangeably in the present chapter to refer to those individuals whose behaviour is characterised by overt, asocial aggression. The more subtle, manipulative behaviour used by individuals such as businessmen to attain their own goals will be excluded from consideration. The rationale underlying this decision is twofold. Firstly, the present study focused on overt aggressive behaviour. Secondly, the items constituting the scale of psychopathy used in the present study (c.f. Chapter 7) discriminate between diagnostic patient groups, for example, delinquents and criminals, and normals (Dahlstrom and Welsh, 1960).

5.2 Psychoanalytic theories

S. Freud (1916) observed that some individuals became criminals out of an unconscious sense of guilt. According to Freud these individuals have harsh superegos and through their antisocial actions seek detection and punishment by the authorities. Their overt aggression is, therefore, a reaction to an overly developed superego. In his writings on melancholia, Freud (1917) also sees a harsh superego as causing depression. This is confusing as he does not delineate how the two disorders may be distinguished. Possibly in depressives the dictates of the superego are more available to conscious awareness than in criminals.

Furthermore, Freud does not reconcile his idea (put forward in his 1917 work) that a harsh superego results from a turning of aggression inwards

against the self, with his conception of criminality as the overt expression of aggression in reaction to a harsh superego. One is left with the impression that criminals are overtly aggressive in response to a severe superego, i.e., aggression turned inwards against the self. Freud's lack of revision of his concept of criminality, in addition to his meagre theoretical exposition of it, make his contribution of limited theoretical value.

A large stream of psychoanalytic thought on delinquency has followed Aichhorn's (1936) conceptualisation of this disorder. Aichhorn's major work "Wayward Youth", while largely anecdotal in content, nevertheless provides a clear psychodynamic explanation of delinquent behaviour in its final chapter. Aichhorn (op. cit.) regards faulty ego and ego-ideal development as being two of the prime characteristics of the delinquent personality. When parental discipline is too harsh, too loving or inconsistent, the individual fails to adjust to the demands of reality and hence fails to develop an adequate ego. This failure leads the individual to seek immediate gratification of his instinctual needs and he becomes overtly aggressive when such gratification is not forthcoming. Harsh treatment at the hands of parents also leads to inadequate ego-ideal development as it prevents the individual from forming meaningful object relations with others. The delinquent, therefore, never progresses beyond the narcissistic stage of object relationships and so does not identify with his parents or internalise their moral standards in the form of an ego-ideal. The delinquent thus lacks the normal internalised restraints over direct expression of aggression and is oriented toward immediate gratification of his own needs.

Although Aichhorn agrees with Freud that some individuals are delinquent out of a sense of guilt, he does not elaborate on this idea at a theoretical level. His contribution is, therefore, as valueless as Freud's. It would,

however, be unfair to accuse Aichhorn of side-stepping an important theoretical issue, since he himself admits that his work is not comprehensive at a theoretical level.

Eissler (1948) is one of the few authors to pay attention to the differences which exist between neurotics and delinquents. According to Eissler, neurotics and delinquents may be distinguished on the basis of the overtness of their aggression. "In delinquencies aggression is always directed towards the outside..."(ibid.,p.9) and affects objects and people other than the self, i.e. it is alloplastic. The neuroses and psychoses, by contrast, are characterised by autoplastic aggression, i.e. aggression directed towards and affecting the self. Several clinical cases, however, discount such a simple distinction. For example, a psychotic suffering from a delusion of persecution may murder the "persecutor". This outward aggression is a reaction to an autoplastic symptom. This has forced Eissler to distinguish between primary and secondary alloplastic aggression. He concludes that the delinquencies are, in terms of this distinction, "... genuinely and primarily alloplastic"(ibid.).Eissler emphasises "...that most psychopathology is composed of a mixture of alloplastic and autoplastic symptoms" (ibid., p.16). In the delinquent the former predominate. Eissler is not however, postulating a quantitative rather than a qualitative difference between delinquency and neurosis. He recognises other qualitative differences, for example, delinquents are narcissistic, forming superficial and expedient relationships, in contrast to the more meaningful object relations of neurotics. According to Eissler, therefore, individuals with delinquent tendencies should show more overt aggression than neurotic subjects.

Leaff's (1978, p.85) review of the above chapter by Eissler gives the false impression that Eissler distinguishes between sociopaths and delinquents.

For example, according to Leaff (ibid.), Eissler states that: "... sociopaths in spite of their resemblance to delinquents and neurotics...", and also: "In contrast with the neuroses, psychoses and sociopaths, Eissler stated that in the delinquencies...". Careful examination of Eissler's work reveals that he never uses the term sociopathy and thus makes no distinction between sociopathy and delinquency. Since Eissler's aim in this chapter is to clarify the term delinquency and contrast it with the neuroses and psychoses, Leaff's review does Eissler a grave injustice.

Another writer misrepresented by Leaff (ibid., p.86) is Szurek. Leaff states that Szurek sees delinquents as having " This deficiency...in the realm of confidence i.e. self-esteem...". Szurek would thus seem to be making a new contribution to thinking on delinquency. However, a perusal of Szurek's chapter reveals that he reiterates Aichhorn's finding that the child's treatment at the hands of his parents is often characterised by little regard for the child's needs, feelings and welfare. This leads the child to fail in "... the integration into his ego-organisation of attitudes of confidence that his essential needs will be gratified" (Szurek, 1949, p.124). This confidence is primarily a basic trust in <u>others</u> as opposed to the self-esteem mentioned by Leaff.

While Anna Freud (1949) agrees with Aichhorn's emphasis on poor early object relationships in the etiology of some delinquencies, she points out other causes of social maladjustment. For instance, she has observed children whose preoedipal and oedipal experiences are so violent and unresolved that they displace their libidinal and aggressive conflicts onto the environment. The intensity of these projections renders the child incapable of benefiting from modifying feedback from other adults and they continue to act aggressively and dissocially.

Another type of psychopathic disturbance occurs when masturbation during the phallic stage of psychosexual development is completely repressed and no outlet is provided for sexual and aggressive energies. This results in the ego activities being flooded with these libidinal and aggressive energies. Sadistic, masochistic, exhibitionistic or scoptophilic fantasies are acted out in the environment. A. Freud's emphasis on the suppression of masturbation in the etiology of sexual acting out hinges on her view of man's behaviour beiny explicable in terms of the exchange and transformation of aggressive and libidinal energies - a viewpoint which, as Pervin (1970, p.273) notes, has not been supported by modern empirical investigation. Despite this drawback in her theory, A. Freud's contribution is valuable in that she draws attention to antisocial behaviours which are a result of projected aggression and have a sexual component. Furthermore, her ideas are clearly presented. She acknowledges Aichhorn's ideas and in so doing clearly differentiates her contribution from his. A. Freud also acknowledges the similarity between her ideas on projected aggression and those of Melanie Klein and refers the reader to Klein's work for a detailed study of these factors in normal development. In his review of Anna Freud's work, Leaff (ibid., p.87) characteristically confounds Freud's contribution by presenting the different forms of social maladjustments she has identified as if she had discussed only one.

Kate Friedlander (1949) is of the opinion that when delinquency makes its appearance relatively late in the individual's life, it is a deficit in character formation, which has led him to react antisocially rather than neurotically. For her, the only difference between 'latent' delinquents and younger delinquents is one of degree of deficiency in character development and the kind of stress the individual is subjected to.

Friedlander justifies her point of view by referring to studies (Bender, 1947; Bowlby, 1946) which have shown that maternal deprivation and separation from the mother are important features of the early lives of adult delinquents. While the retrospective nature of these studies makes their adequacy questionable, Friedlander's awareness of them and reference to them represents an improvement on much of the vague theorising characteristic of psychoanalytic authors. As Pervin (1970, p.275) points out, most psychoanalysts use "... observations influenced by the theory to support the theory. No consideration is given to the fact that the psychoanalytic observer may bias the productions of the patient."

Johnson (1948, p.225) emphasises that there is rarely "... a generalised weakness of the superego" but rather a "... lack of superego in certain circumscribed areas of behaviour, which may be termed superego lacunae" (ibid.). According to Johnson, work with antisocial children and their parents has revealed that children's lacunae correspond to deficits in their parent's superego. Thus the delinquent's aggression may be manifest in a certain area, for example, a tendency to steal, rather than a generalised aggressiveness. If Johnson's view is valid one would not expect a general measure of psychopathy (as used in the present study) to be a powerful p edictor of aggression towards another individual. A subject, for example, may have internalised prohibitions against aggressing against another individual and yet evidence aggression towards objects.

Jeanne Lampl-De Groot (1948, p.250), in contrast to S. Freud and Aichhorn, provides a theoretical explanation for criminality which occurs as a sense of guilt. Central to Lampl-De Groot's explanation is a distinction between the ego-ideal and the superego. The ego-ideal is formed when the infant identifies with his parents and wants to be like them. The ideal which he forms serves him as compensation whenever he feels hurt by other

children or adults, and thus counteracts frustration. The child also adopts his parents' orders and prohibitions, and by the process of introjection the superego is built up. Like S. Freud, Lampl De Groot sees the child's aggressiveness as usually being directed towards the self in the service of the superego. Delinquents either lack the capacity for identification or lack nurturing parents and as a result have a weakly formed ego-ideal. Frustration of the delinquent's needs arouses an excessive amount of aggression. This is turned inwards and adds fuel to the superego which becomes harsh and punitive.

The weak ego-ideal and ego cannot contain the attacks of the superego and its aggression comes to be acted out against the environment. Neurotics, by contrast, have stronger ego-ideals and thus if they develop a severe superego the aggression is redirected by the ego-ideal to the superego, resulting in a vicious circle. Like many psychoanalytic theories, Lampl-De Groot's account sounds very rational and hence appealing. Empirical validation of her ideas is necessary if they are not merely to remain interesting postulates or ideas. Unfortunately her concepts are difficult to operationalise and test empirically, as is the case with most psychoanalytic concepts.

A strength of Lampl-De Groot's and Eissler's contributions is their focus on the differences between delinquency and other disorders. This of necessity leads to more disciplined and clearer thinking. Authors who focus only on delinquency run the risk of describing features which are common to many psychological disorders. The danger of such an exclusive focus is illustrated by the observation that, while it may be true that psychopaths have deprived childhoods, so do many non-psychopathic individuals (cf. Morrison, 1978).

Melanie Klein (1934) presents a complex psychodynamic picture of the criminal. According to her, criminal tendencies are at work in normal children. All children pass through a sadistic phase during which they harbour aggressive impulses and phantasies against their parents. Because these impulses are projected onto the parents, each child develops a "...fantistic distorted picture of the world around it (ibid., p.279). At the same time the child introjects this "imago" of other people with the result that he feels himself to be ruled by cruel parents - the superego within himself. The anxiety aroused by the superego and external objects cause the child to attempt to protect himself by redoubling his attacks against them. This vicious circle "... seems to be at the bottom of asocial and criminal tendencies in the individual" (ibid. p.279). If the fear exceeds certain bounds the individual may act out his fantasies. Thus an overharsh superego leads to aggressive, delinquent actions. A distinction which is not often made (and Melanie Klein does not make it in her 1927 or 1934 papers) is that Klein's concept of superego is very different from that espoused by S. Freud and most other psychoanalysts. Firstly, Klein dates the onset of superego development much earlier. Secondly, she sees this early superego as being composed of the internalisation of the child's projected aggression, rather than the internalisation of parental prohibitions. Klein recognises that in the course of normal development, this early superego is modified by the external environment into a benign moral conscience. This appears to resemble more nearly S. Freud's concept of the superego. Klein (1933) distinguished this primitive superego from its developed form. Thus Klein's view on criminality, correctly stated, is that criminals have harsh primitive superegos. The loose equation of Klein's primitive superego with S. Freud's concept of the superego as heir to the Oedipus complex has thus led to unnecessary confusion and seeming contradictions in psychonalytic thinking on criminality.

Lampl De-Groot and Klein have, therefore, offered different theoretical explanations for the occurrence of criminality. It is impossible on purely theoretical grounds to say which author presents the more adequate account. This is where, as mentioned previously, empirical investigation is vital if psychoanalytic theory is not to become a mass of conflicting ideas. For the purposes of the present study, what is relevant, however, is that both Klein and Lampl De-Groot would expect a psychopath to be more outwardly aggressive than a depressive.

More recently, psychoanalysts have emphasised the narcissistic character structure of the psychopath, rather than his superego development.

Burstens (1973) regards the psychopath as having a severely narcissistic and manipulative personality. The psychopath is only able to relate to others as need satisfying objects. A person or object who cannot provide immediate satisfaction is regarded as worthless and is aggressed against by the psychopath to restore his (the psychopath's) feeling of self-esteem and importance.

Fromm's (1973, p.464) description of "cybernetic man" is very similar to Burstens' (op.cit.) conception of the manipulator. Like the manipulator, Fromm's "cybernetic" man is narcissistic. His approach to other people and objects is intellectual; he is interested in how they function and how they can be manipulated. "His feelings have withered ... are relatively crude; they can take the form of passions such as the passion to win, to prove himself superior to others, to destroy..." (ibid., p.468). Fromm stresses "cybernetic" man's preoccupation with lifelessness, the destruction of the living and the split between his affect and his intellect. For Fromm, "cybernetic" man is very destructive of people and objects in his environment.

To summarise, psychoanalytic theory indicates that individuals with psychopathic tendencies are characterised by more overt aggression than individuals with no such tendencies.

CHAPTER 6 - FACTORS WITHIN THE INDIVIDUAL : MORAL DEVELOPMENT

6.1 The cognitive developmental approach to morality

As the term "cognitive developmental" implies, the central focus of theorists in this field is upon the thought structure underlying moral reasoning and upon the structural transformation that takes place in the moral reasoning of the individual as he grows older.

Analysis of the moral reasoning of individuals has led the two major theorists in the area, viz. Piaget (1932) and Kohlberg (1969) to identify different stages in the development of moral reasoning. These stages have the following prerequisites:

(1) each stage represents a qualitatively different mode of thought;

(2) the stages follow an invariant sequence in the individual's development. Cultural factors may speed up or slow down the rate of change from one stage to the next, but they never change the sequence of stages;

(3) the stages are hierarchical in that each successive stage represents a more differentiated and integrated mode of thought which enables the individual to handle more moral problems, conflicts or points of view in a self-consistent way.

(4) "The stages form a clustered whole. There is a general factor of moral stage..." (Kohlberg, 1973, p.12).

Piaget (1932) was the first to expound a cognitive developmental approach to moral development. Kohlberg has extended Piaget's analysis to include adult moral reasoning. As students (young adults) are involved in the present study, Kohlberg's theory forms the focal point of the present discussion.

6.1.1 Kohlberg

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6.1.1 Kohlberg

Kohlberg, like Piaget, sees justice as forming the central core of his

conception of morality. He defines justice as "... the distribution of rights and duties regulated by the concepts of equality and reciprocity" (Kohlberg, (1976, p.40). Kohlberg identifies six stages of moral development which are ordered into three levels of moral orientation: Premoral level, Convential level and Post-conventional level or Principled level of moral reasoning In the account of the levels and their associated stages presented here the post-conventional stages will be focused on, since these are most relevant to the present study.

1. Premoral level

At this level the control of conduct is external for the following reasons:

(a) the standards conformed to are outer rules or pressures;

(b) the individual is motivated to avoid external punishments.

Stage 1 The punishment and obedience orientation

At this stage the physical consequences of an action determine its goodness or badness regardless of its interpersonal implication. Thus deference to a superior power is motivated by self-centred considerations.

Stage 2 The instrumental and relativist orientation

Right action consists of that which instrumentally satisfies one's own needs and, occasionally, others. Elements of fairness, reciprocity and equal sharing are present in a naive form, e.g., reciprocity is a matter of "you scratch my back and I'll scratch yours".

2. Conventional level

At this level morality is defined in terms of the performance of good acts and the maintenance of the conventional social order or expectations held by significant others. Control of conduct is still external.

Stage 3 "Good boy - good girl" orientation

"Good" behaviour is what pleases or helps others. There is conformity to

stereotypical images of what is good.

Stage 4 Authority and social - order maintaining orientation

There is orientation to doing one's duty and to showing respect for authority and to maintaining the social order for its own sake. The individual takes the perspective of others who have legitimate rights and expectations.

3. Post-conventional and principled level

At this level there is a clear effort to define moral values and principles which have validity apart from the authority of other groups and apart from the individual's own identification with these groups.

Stage 5 The social-contract legalistic orientation

Right action tends to be defined in terms of general individual rights and in terms of standards which have been critically reflected upon by the whole society. Although such rules are regarded as arbitrary and sometimes unjust and only one of many possible alternatives, the law is still the ultimate criterion of what is right. Thus when conflict exists between human and the law, the individual chooses the latter because of its greater functional rationality for society.

> Aside from what is constitutionally and democratically agreed upon, the right is a matter of personal values and opinions. Thus there is the recognition of the possibility of changing law in terms of rational considerations of social utility... Outside the legal realm, free agreement and contract is the binding element of obligation (Kohlberg and Turiel, 1971, p.416).

Kohlberg (1976, p.35) later adds "Some nonrelative values like life and liberty, however, must be upheld in any society and regardless of majority opinion".

Stage 6 "The universal ethical principle orientation"

> "Right is defined by the decision of conscience in accord with self-chosen ethical principles appealing to logical comprehensiveness, universality and consistency... . At heart, these are universal principles of justice, of reciprocity and equality of the human rights, and of the respect for the dignity of human beings as individual persons".
> (Kohlberg & Turiel, 1971, p.416).

6.1.1.1 The process of moral development

Since Kohlberg's theory of moral development is essentially a theory of moral reasoning, there should be a relationship between an individual's level of cognitive development and his moral reasoning. For Kohlberg, development of logical reasoning is a necessary but not a sufficient condition for moral development (Kohlberg, 1976). He justifies his opinion by pointing out that "... many individuals are at a higher logical stage than the parallel moral stage, but essentially none are at a higher moral stage than their logical stage..." (ibid., p.32).

Each stage of logical development is followed by a stage of "social perspective or role taking" (ibid.). These stages of role taking are partially described when the moral stages are defined. However, while they are closely related to moral stages they are more general as they do not deal just with fairness and choice of right and wrong. "So just as for logic, development of a stage's social perspective precedes, or is easier than development of a parallel stage of moral judgement... so there is a horizontal sequence of steps in movement from logical to social perception to moral judgement." (ibid.).

Kohlberg (1969, p.395) provides the following rationale for his emphasis on role-taking in moral development:

> The structure of society and morality is a structure of interaction between the self and the other selves who are like the self but who are not the self. The area of the conflicting claims of selves is the area of morality, or of moral conflict and the modes of role-taking in such situations represent the varying structures of moral judgement and choice defining our various stages.

Opportunities for role-taking are provided by the individual's participation in groups or institutions such as family, peers, government and work. Kohlberg, however, does not deal with what prompts the individual's role-taking. Either instinctivist theories such as psychoanalytic theory or reinforcement theories such as social learning theory seem to deserve consideration in this regard. For this reason personality measures as well as a measure of moral judgement were used in the present study.

While logical development and role-taking are necessary for moral development they do not account for the "... specific transitions from stage to stage or the eventual fixation at a particular stage" (ibid., p.402). Such transitions are a result of structural conflict and structural match. Structural conflict occurs when an individual comes into contact with moral reasoning which is at an optimally higher level than his own. If the moral reasoning is at a much higher level than the individual's own, the mismatch will not be perceived at all. The optimal discrepancy appears to be one stage (Rest, Turiel & Kohlberg, 1969). The conflict engendered by such a discrepancy leads the individual to assimilate the higher level of moral reasoning and to accommodate his existing structures to this assimilation.

6.1.1.2 Criticism of Kohlberg

A major criticism which may be directed at Kohlberg is his failure to provide a complete theoretical justification for his stages. Since his theory dates from his doctoral thesis of 1958, such an exposition is long overdue and is needed to answer important questions.

Fincham (1976) and Taylor (1977) have, for example, questioned Kohlberg's placing of stage 6 morality above that of stage 5. They are of the opinion that this represents a value judgement on Kohlberg's part in that he seems to favour a deontological viewpoint over a teleological viewpoint . From a deontological standpoint, morality is judged by the rightness of actions regardless of the morality of consequences, whereas, from a teleological standpoint, rightness is judged by the goodness of the consequences of actions irrespective of the morality of the actions involved in achieving the end (Fontana Dictionary of Modern Thought, 1977; Frankena, 1963). However, a definite criticism cannot be directed at Kohlberg until he specifies what his criteria are for identifying different stages and clarifies what his stage 6 morality represents.

Furthermore, the arguments Kohlberg does adduce in support of stage 6's superiority are questionable in terms of his <u>own</u> definitions of stage 5 and 6. For example, Kohlberg claims that stage 6 is the endpoint of morality because it is better able to provide an unambiguous solution in a situation where the dictates of justice and authority are opposed. As an example, Kohlberg quotes Milgram's (1963) experiment in which stage 6 reasoning is supposedly the only level that clearly defines shocking the other subject as immoral. He feels that stage 5, social contract, subjects would tend to feel that the victim's voluntary participation in the experiment released them from responsibility to the victim, while their agreement to participate in the research committed them to comply with the experimenter. Careful consideration of his definition of stage 5 morality leads one to question this conclusion. Surely shocking another person is a violation of an individual's rights? It is also definitely against the law of a democratic society to assault another individual by shocking him. When Kohlberg says "...outside the legal realm, free agreement and contract is the binding element of obligation" (Kohlberg & Turiel, 1971, p.416) he does not clarify

when an issue comes to lie outside the legal realm. Furthermore, surely the critical reflection characteristic of this stage should lead the stage 5 subject to question the authority of the experimenter ? However, Kohlberg (1976) added the following qualification to his definition of stage 5 moral reasoning, "Some non-relative values and rights like life and liberty, however, must be upneld in any society regardless of majority opinion" (p.35). Since individuals who refuse to administer shock would now clearly be regarded as falling within stage 5 morality, one is left in confusion as to what is distinctive about stage 6 morality.

Kohlberg's (1973, p.22) statement, "According to my current views the older stage-scoring procedures confused the structure of moral thought with the content of moral thought" reveals that the confusion may be a result of Kohlberg's own lack of conceptual clarity. Many of the protocols which Kohlberg reassessed using his new system had been previously identified as stage 5 or 6 and had then shown an unexpected regression to stage 2 thinking. By rescoring these individuals as stage 4 and identifying their retrogressive responses as stage 4½, Kohlberg saves himself considerable theoretical embarrassment. He rationalises this step on the grounds that the antisocial flavour of these individual's "retrogressive" reasoning represented a negative reaction to conventional morality at a content level. Structurally the reasoning was higher than stage 2 and stage4. Since Kohlberg still has not clearly defined his criteria for identifying structurally different stages and as the qualitative difference between stage 5 and 6 is in question, a theoretical exposition by Kohlberg is vital, if he is not to be accused of "juggling" his scoring methods to suit his own theoretical and philosophical bias.

One of the empirical lines of evidence Kohlberg uses to support the sequentiality of his stages is that they form a Guttman "quasi simplex".

However, Lovinger (1974) and Fincham (1976) point to a serious flaw in his statistical procedure. When scoring a subject's responses, Kohlberg rates each element of the response as being at some stage. Thus, the number of elements at each stage are not independent, Kohlberg, nevertheless, treats this data as a profile, taking the frequency of the scores at each stage and then intercorrelating the stages. The Guttman "quasi simplex" obtained from these intercorrelations is meaningless because of the lack of independence of the scores. Hence, Kohlberg's claim for his sequence of stages on empirical grounds has no basis.

Peters (1971) is of the opinion that Kohlberg's definition of morality in terms of the considerations of justice represents a limited and biased interpretation of morality, as it devalues morality based on consideration of compassion or sympathy. Peters, op.cit. thus pleads for a pluralistic conception of morality.

6.1.1.3 Implications of the above criticisms for the present study

The vagueness of Kohlberg's distinction between stage 5 and 6 and the subjectivity and self admitted unreliability of his scoring system has led to the author of the present study to choose Rest's Defining Issues Test (D.I.T.) as the measuring instrument in the present research. This test, as will be discussed in the following chapter, is an objective measure of moral reasoning based largely on Kohlberg's theory. Since Rest makes a clearer theoretical distinction between stages 5 and 6 than Kohlberg and since this underlies the construction of his test, his conception of these stages will be outlined here.

6.2 Rest's conception of stage 5 and stage 6 morality

Stage 5 and 6 are distinctive in that they deal with the problem of "... devising a plan for co-operation which minimises arbitrary inequities and

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Stage 5 and 6 are distinctive in that they deal with the problem of "... devising a plan for co-operation which minimises arbitrary inequities and

maximises the stake that each individual has in supporting co-operation" (Rest, 1976a, p.21).

Stage 5 "The Morality of Societal Consensus :'What laws the people want to make is what ought to be'"

In defining stage 5, Rest envisions the mind of hypothetical "rational" people and imagines the terms of agreement that such people would accept. This stage

> anticipates that people can reach agreement about their laws if: (1) the law making process reflects the general will of the people and (2) if certain minimal safeguards of people's welfare are guaranteed for everyone" (ibid., p.22)

The latter excludes obedience to rules in an authoritarian system such as in Nazi Germany.

Stage 6 "The Morality of non-arbitrary social co-operation : 'How rational and impartial people would organise co-operation is moral'"

While stage 5, "... attempts to create an equilibrium of social co-operation through the procedures for making laws.."(ibid., p.27) it does not ensure that inequities do not exist. Stage 6 goes further than stage 5 in that it not only attempts to "... anticipate what principles 'rational' people would accept in terms of procedures for making laws, but further, to anticipate what principles they would want to end up with for governing their system of co-operation" (ibid., p.28) i.e. what moral principles should regulate an ideal society. Like Kohlberg, Rest (1976a,p.25) recognises as characteristic of stage 6 reasoning, abstract principles such as Kant's categorical imperative - " act only as you would be willing that everyone should act in the same condition".

6.2.1 Rationale for the use of a measure of principled morality in the present study

The principled level of moral reasoning is particularly relevant for use with students,as,according to Kohlberg (1973) and Rest (1974) students tend

to fall within a transitional stage between conventional and principled morality.

Individuals who evidence largely principled morality are less likely to be influenced by situational pressures for e.g., group pressure and interpersonal contact and, therefore, principled morality is likely to be a more consistent prediction of moral behaviour in the gaming situation than any other stage index.

The morality of the pacifist strategy, used in the present study, should be relevant to and possibly more successful with the more principled subjects.

Furthermore, since Rest (1974) has found that the principled score (P) i.e. a score which combines stage 5 and 6 morality into a single score, is by far the most useful and reliable index from the D.I.T. it seems that Rest's test has made the examination of the principled level of morality a viable proposition. Experimental data will be presented to support this latter conclusion.

6.2.2 Empirical evidence that principled morality is of relevance in a university student population

Data obtained from a cross-sectional sample of junior high school, senior high school, college and graduate students show a gradual increase in percentage of P responses from just over 30% to 70% with increasing education (Rest, 1976b). Rest et al.(1974) studied groups of subjects who should have been at the extremes of the D.I.T. scores. Moral philosophy and doctoral students were chosen as potential representatives of the upper end of the scale and ninth graders as representatives of the lower end of the scale. In-between groups were composed of twelfth graders, college students and seminarians. An analysis of variance across these groups

showed highly significant group differentiation. It seems, therefore, that Principled moral reasoning is of particular interest and relevance with college students.

6.2.3 Research relating level of moral development to aggressive behaviour

Kohlberg (1958, cited in Kohlberg, 1978) administered nine standard moral judgement dilemmas to 13 delinquents and 13 non-delinquent controls resident at a Salvation Army Hostel in Scotland. The delinquents were on probation and the controls were in care because of unfit homes and had no history of delinquent offences. The controls obtained significantly higher moral maturity scores than the delinquents and 92% of the delinquents were predominantly at a preconventional level of moral judgement compared to 58% of the controls. Thus, not only were the delinquents lower in overall moral maturity, but they also scored at the level one would expect on the grounds of their behaviour. Kohlberg, however, points out that preconventional moral reasoning does not cause delinquency, since the majority of preconventional children and adolescents do not engage in severely delinquent behaviour. The greater percentage of conventional moral reasoning amongst the non-delinquents led him to conclude that conventional moral reasoning is, "... a major condition for avoidance of delinquent actions... when personal-need or situational factors provide strong incentives for delinquent action" (Kohlberg, 1978, p.216). In the gaming situation, utilised in the present study, it is similarly hypothesised that principled moral reasoning will act as a condition for avoidance of aggressive action.

Studies by Fodor (1972), Hudgins and Prentice (1973), Campagna and Harter (1975) and Kohlberg (1976) have supported Kohlberg's findings. All these studies are characterised by careful selection of control groups whose members have no history of delinquency. It seems, therefore, that

maturity of moral reasoning is significantly related to the amount of delinquent behaviour evidenced by individuals. Since delinquent behaviour is characterised by aggression directed against other persons and property, the above studies provide indirect evidence of a significant relationship between level of moral reasoning and aggressive behaviour.

As Rest's (1972) test and the accompanying scoring manual (Rest, 1974) have only been developed recently, there is a paucity of studies relating P scores to moral behaviour. A study by McColgan (1975) found that pre-delinquent males obtained significantly lower P scores than a normal comparison group matched with respect to age, I.Q. and socio-economic status.

Ganz (1978) administered the D.I.T. to delinquent and non-delinquent groups of South African adolescents. The groups were matched in terms of age, type of school attended and number of years spent at school. As was predicted, the nondelinquent control group obtained significantly higher P scores than the delinquents ($p > 0,005$).

An important deficit of this study was the failure to control for socio-economic status - a factor often regarded to be of etiological importance in delinquency (West, 1969).

The positive nature of the above findings, together with the positive relationship found in experimental situations between principled morality and aggression (using Kohlberg's unreliable scoring system e.g. Milgram, 1963; Anchor & Cross, 1974) has provided empirical impetus for use of P as a covariate in the primary analysis of the data in the present study. Furthermore, if P correlates negatively and significantly with the measure of aggression used in the present study, it will be examined as a main variable in a secondary analysis. It was hypothesised that higher P scores will be less aggressive than lower P scores.

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CHAPTER 7 - PLAN OF THE STUDY

In this chapter, the experimental design, and details of the subjects, apparatus and procedure will be provided.

7.1 Design of the study

The effectiveness of the activist and pacifist strategies in reducing aggression was investigated by comparing aggressive responses of university students as a function of these strategies in a modified version of the Vincent-Tindell bargaining game.

The influence of two social conditions known to affect aggressive behaviour, namely, interpersonal contact and group pressure was also investigated. The interpersonal contact condition was established by introducing the subjects to their 'opponent' (a confederate) before the game. Subjects in the no interpersonal contact condition did not meet their 'opponents'. The group condition was established by asking the subjects allotted to this condition to name two friends to take part in the research with them. The group pressure manipulation was implemented as discussed in Chapter 3 and as will be detailed in Section 7.4.2.

Each subject's level of moral development was evaluated using Rest's Determining Issues Test and his psychopathic and depressive tendencies were evaluated on the Pd and D scales of the MMPI. These will be discussed in Section 7.3.1.

For clarity, the design of the study may be represented diagrammatically as follows:

	S_1		S_2	
	P_1	P_2	P_1	P_2
C_1	G_1	G_2	G_3	G_4
C_2	G_5	G_6	G_7	G_8

S_1 = Activist strategy

S_2 = Pacivist strategy

P_1 = Group pressure absent

P_2 = Group pressure present

C_1 = Interpersonal contact absent

C_2 = Interpersonal contact present

G_1 to G_8 = Group 1 to Group 8

7.1.1 Primary analysis of the data

The analysis of covariance (ANCOVA) technique of data analysis was used in preference to an analysis of variance. This analysis enabled the experimenter to eliminate the variance which was due to the personality variables (depression, psychopathy and principled morality). In this way a more precise examination of the effects of the situational variables (strategy, interpersonal contact and group pressure) on aggression was made possible (cf. Winer, 1971).

7.1.2 Secondary analysis of the data

In the secondary analysis of the data the Multiple Regression technique was used because it could deal with the continuous data of the personality and moral development scores. Analysis of variance could not be used because it cannot deal with continuous independent variables.

7.2 Subjects

A random selection technique was utilised to obtain a broad cross-section of undergraduates enrolled in the first year Psychology course at the

University of the Witwatersrand, 1980. Each subject allotted to the group pressure condition was asked to bring two friends with her who would also participate in the research.

The subjects had to fit the following criteria:

(1) Age range 17 - 23 years

(2) Students at the university

(3) English speaking

(4) Not enrolled in Psychology II or III

(5) Female

The nature of the paper and pencil tests required that the subjects be English speaking (Rest, 1974). Second and third year Psychology students were regarded as being too informed for this research. Since research has shown that male and female subjects react differently to a female experimenter (Deutsch, 1973) the sex of the subjects was controlled for in the present study. Female subjects were chosen because there are more female psychology students than males and a more truly random sample of females could be obtained. The use of university students ensured that the subjects were of at least average intelligence. This was important in the light of Kohlberg's (1969) findings that moral development correlates between ,30 to ,50 with intelligence. All subjects were volunteers in the sense that all were free to refuse to participate. All subjects, except for the friends in the group pressure condition, were telephoned individually. Subjects allotted to the group pressure condition were asked to bring two friends to the first part of the experiment. They were telephoned again to check that their friends would participate and a time was arranged for all of them to meet the experimenter. At this meeting the experimenter repeated to the friends the details that had been given to the subject over the telephone. Thus, it was ensured that all subjects received the same

instructions about the research.

Altogether 104 students were contacted. Only 88 made up the final sample. Eight subjects had to be excluded for the following reasons:

(1) Three had heard about Milgram's study of obedience (1965) and saw a resemblance between the present study and his.

(2) With three subjects the confederate deviated from the strategy she was required to follow.

(3) The experimenter forgot to tell two of the subjects in the group condition to read the messages from their friends.

Of the remaining eight subjects, four refused to participate when contacted initially and four did not return to take part in the second phase of the experiment.

7.3 Apparatus

7.3.1 Paper and pencil questionnaires

7.3.1.1 Rest's Defining Issues Test

Although Kohlberg has devised a series of moral dilemmas and scoring systems to measure moral judgement these were not used in the present study because of the following limitations:

(1) Subjectivity of the scoring system. Kohlberg is continually revising his scoring system and has even rescored protocols from published research (Kohlberg, 1973; Kurtines & Greif, 1974).

(2) Kohlberg uses a free response format. Results obtained in this way are likely to be biased by variables such as the subject's fluency of verbal expression and the skill and experience of the scorer.

(3) Kurtines and Greif (1974) have pointed out that the lack of independence of the dilemmas used by Kohlberg narrows the range of responses which may be elicited.

Rest's (1972) D.I.T. overcomes these problems by not only providing the subjects with dilemmas but also requiring them to rank statements prototypic of the six stages. The statement ranked highest always represents an issue which the subject regards as being most important in solving the dilemma, the statement ranked second represents the second most important issue and so forth.

While the author realised that much information is lost by using a fixed response format it represents the lesser of two evils when a scorer trained by Kohlberg is not available.

The D.I.T., like Kohlberg's dilemmas, is sexually biased in that all the main characters of the dilemmas are male. While one would expect this to affect the female subjects' abilities to identify with the dilemma situations the bulk of research to date indicates that there is rarely a significant sex difference in responses to the D.I.T. (Rest, 1976c)

The D.I.T. consists of six dilemmas covering controversial social issues such as student protest, racial discrimination, euthanasia, the value of human life and civil disobedience.

Each of these dilemmas is followed by 12 statements each of which are:

(1) representative of the six stages of moral development discussed in Chapter 6, or

(2) lofty sounding but meaningless statements which would reflect the subjects' tendency to endorse statements for their pretentiousness rather than their meaning, or

(3) statements typical of an anti-establishment orientation which condemns tradition and the existing social order.

(a) Scoring

The statement ranked as most important is given a weighting of four, that ranked second a weighting of three and so on. From these weightings the

relative importance which subjects give to the six different stages can be computed. The most useful and reliable index from the D.I.T. is the 'P' score which represents the relative importance that a subject gives to principled (i.e. stage 5 and 6) moral reasoning. This will be the score used in the present study.

The following alterations were made to the standard D.I.T. format to make it applicable to the South African population :

(1) The 'student take over' dilemma was omitted as it would have had to be rewritten to be relevant to South Africans.

(2) The name of the garage attendant in the Webster dilemma was changed from Mr Lee, a Chinese, to Mr Naidoo, an Indian. The term "gas" was changed to "petrol".

(b) Reliability

Rest (1971b) reports that the test-retest stability over several weeks averages ,81 over a number of samples. The internal consistency averages an acceptable ,78.

(c) Validity

The D.I.T. correlates ,68 with Kohlberg's measure of moral judgement (Rest, 1974). Although this is not high enough to regard the two tests as strictly equivalent it is the highest correlation that has been obtained "... between Kohlberg's measure and any other moral judgement variable..." (Rest, 1976c, p.218).

The 'P' score shows promise as a predictor of behaviour. Rest (1976b) for instance, found a significant relationship between delinquency and 'P' scores. Pantowitsch (1974, cited in Rest, 1976b) has found that students doing a course in Ethics at university showed more principled reasoning at the end of the course than at the beginning, whereas students of the same

age doing a logic course showed no such increase. The D.I.T. therefore, appears to be selectively sensitive to moral issues.

Cross-sectional research using the D.I.T. supports Kohlberg's postulated developmental trend in moral judgement (Blackner, 1975; Yussen, 1976, cited in Rest, 1976b). Dortzbach (1975) and Coder (1975) however, found a negative developmental trend amongst older adults. Careful examination of their results (Rest, op.cit.) showed that in both cases the 'P' score was positively and significantly related to level of education. As many of the older adults' education was cut short by the war, the research need not necessarily indicate a decline in level of moral judgement with age. According to Rest (1975) longitudinal research on the D.I.T. to date supports the developmental claim.

In sum, the D.I.T. appears to be a promising test of moral reasoning.

7.3.1.2 MMPI

Psychopathy and depression may, from a psychoanalytic viewpoint, be regarded as involving the presence and absence of overt aggression, respectively (cf. Chapters 4 and 5). The wide use of the MMPI as a clinical and research tool capable of assessing psychopathic and depressive traits led the author to select the Psychopathic deviate (Pd) and Depression (D) scales, thereof, for use in the present study.

The use of only two scales of the MMPI in the present study was justified on the following grounds:

(1) Each scale was originally developed and standardised independently of the other scales.

(2) The use of all 13 scales of the MMPI as covariates in a primary statistical analysis of the data could not be justified on theoretical grounds.

(3) The use of all 13 scales in an exploratory secondary analysis of the data was deemed impractical.

Since the MMPI is a well-known test, the reader is referred to Dahlstrom and Welsh's "An M.M.P.I. Handbook", 1960 for basic information on the standardisation and validity of the test.

There are, however, a few problems with regard to MMPI which need to be considered briefly here. First, since the Pd and D scales were standardised on clinical populations, the use of these scales on a normal student population may be questioned. However, Dahlstrom and Welsh (op.cit.) state that although the scales were originally developed for clinical populations they, "... have been shown to have meaning within the normal range of behaviour..." (p.3).

Second a spate of factor analytic studies have criticised the scales of the MMPI because of their inter-item heterogeneity. The D scale has been the least criticised scale because it has been consistently found to contain a large number of items which load on a factor suggestive of neuroticism (Horn, Wanberg & Appel, 1973; Comrey, 1957). Since there is evidence that the D scale seems to differentiate depressed patients from normals (Dahlstrom & Welsh, 1960), it is likely that it will provide an adequate measure of depressive tendencies for the present study. The Pd scale, however, presents more of a problem in that five or more factors have typically been identified within it (Astin, 1959; Comrey, 1958). Since the scale is composed of 44 items, its adequacy as a measuring instrument needs serious re-evaluation. Nevertheless, the fact that it has been shown to differentiate individuals diagnosed as delinquents/psychopaths from other individuals (cf. Dahlstrom and Welsh, 1960, pp.60-61) and the lack (to the author's knowledge) of a more reliable measure of psychopathy have led to its use in the present research.

7.3.2 The gaming apparatus

A laboratory cubicle was partitioned by means of a softboard screen. The two partitions so formed each contained a table, chair, and a gaming panel. The two gaming panels were electronically interconnected and were mounted on either side of the soft board. Figure 1 is a diagrammatic representation of the layout of the gaming panel.

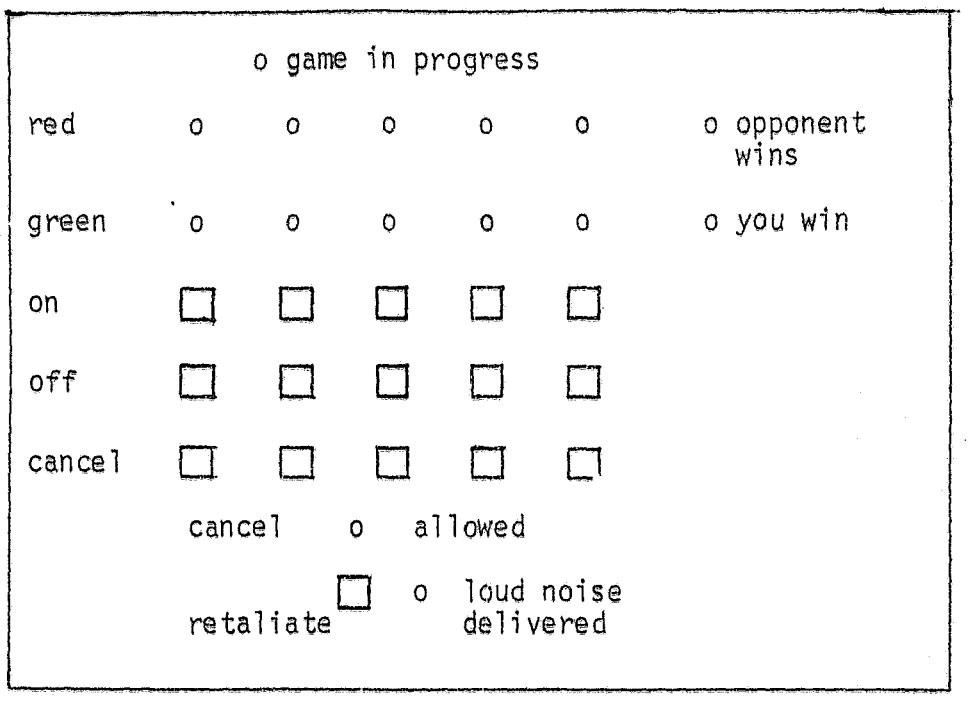

Figure 1 - Subject's panel

7.3.2.1 Operation of panel switches and lights

(1) The five red lights were operated by the "on" and "off" switches on the experimenter's panel.

(2) The subject's lights (green) were controlled by his own "on" and "off" switches.

(3) These lights were connected such that : (i) the two lights in any column could not be lit simultaneously (i.e. if E's light was on and S switched on her light in the same column, both lights went out); and (ii) any light

in a row could be lit only if all the lights in the same row to the left of it were also lit.

(4) The "cancel" switch in any column could be used to extinguish the opponent's light in that column. This cancel facility was operative only when the "cancel allowed" light was on. Only one player had this facility in any one game. Whenever the cancel switch was activated, a loud noise of one second duration was delivered to the earphones of the opponent, and this was indicated by the illumination of a light on the canceller's panel.

(5) Whenever all five lights in any row were switched on, the "win" light was illuminated, and the "game in progress" light was extinguished.

(6) The "retaliate" switch delivered an identical loud noise, but had no effect on the state of the lights. Both players could use the "retaliate" switch at any time.

7.3.2.2 Experimenter's panel

This was the same as the S's panel with the addition of :

(1) a "cancel enable" switch to determine which player could use this facility,

(2) an "end-of-game" switch to reset the lights at the end of each game.

In addition, E had four counters which recorded the following:

(1) number of games won by S

(2) number of games won by E

(3) number of times "cancel" or "retaliate" switch was used by S

(4) number of times "cancel" or "retaliate" switch was used by E.

7.4 Procedure

7.4.1 First phase

The subjects completed the paper and pencil questionnaires in the quiet

ambience of a lecture room in the department of Psychology, University of the Witwatersrand. This was done a day or more before the second phase of the experiment.

7.4.2 Second phase

When contacted for the second phase of the experiment the subjects were informed that they would be required to play a game involving the use of loud noise. They were randomly assigned to one of the eight experimental groups detailed below:

7.4.2.1 No group pressure, interpersonal contact condition

Each subject was introduced to the other "subject" (a confederate) who would be involved in the "gaming task" with her. E instructed them to introduce and identify themselves to each other by name, major courses and year of study at university. The confederate was then seated in the inner partition and S was seated in front of the gaming panel in the outer partition. E read the instructions (to be detailed further on) to S.

7.4.2.2 No group pressure, no interpersonal contact condition

The subject was shown into the outer partition and was informed that another subject who had been told to come slightly earlier was already seated in the inner partition.

7.4.2.3 Group pressure, no interpersonal contact condition

The three subjects (S_1, S_2, S_3) constituting each group met E in a large room adjacent to the experimental cubicles. S_1 was shown into the cubicles containing the gaming apparatus. The game was explained to her and she was asked to choose one of the messages provided (see Appendix 2) to send to her two friends advocating how the three of them as a group should play the game. The chosen messages were placed in separate envelopes and addressed to

her friends. S_1 was then shown into an empty cubicle and given a biographical questionnaire to fill in (see Appendix 3) and a copy of the gaming instructions to read while the game was explained to each of her friends in turn.

The same procedure was followed for S_2 and S_3. E then swapped the messages the Ss had chosen for the exploitative message: "Win as many games as you can by using the cancel switch". S_1 was taken to the gaming cubicle, given the envelopes supposedly containing her friends' messages to read, and left to play the game.

7.4.2.4 Group pressure, interpersonal contact

The same procedure as above was followed except that each S was separately introduced to the confederate before the game was explained to her.

All subjects were read the followi structions:

"As in all games the object is to win. The person [or group] who obtains the most points overall will win R60,00 cash. In the event of a tie the names will be drawn out of a hat."

[For groups only] "The three of you will play together as a group in that your scores will be pooled and averaged to obtain a group score."

Instructions

"In order to win five points you must switch your five lights on in sequence from left to right. Always press the first switch on the left first, the second one next and so on. If you do not do this the lights will not come on. You will obtain five points only when all five of your lights are switched on."

[The experimenter then switched on the lights from left to right until the 'win' light was illuminated.]

"You can see your'win' light is now on. This means you have won five points, which are counted on the electronic apparatus."

"Note that the 'trial in progress' light has gone out. When this happens wait until it comes on again before you press any more switches. Any questions so far ?"

"The other subject has to switch all her lights on from left to right to win five points."

[E then asked the other subject to switch her lights on.]

"But you cannot both switch your lights on at the same time. If you do both lights will go out. I will show you this by putting your number one light on. Now I will put the other subject's light on. As you can see both lights have gone out. This is a deadlock. There are a number of ways to get out of a deadlock. Either you can turn your light off by pressing your off switch [demonstrated] or you can cancel your opponent's light by pressing the appropriate 'cancel switch'. The cancel switch also delivers loud noise to your opponent's ear. You will be given a sample of the noise later."

"In the first game neither of you will have use of the 'cancel' switch. The person who wins the first game will gain the use of the cancel in the second game. The person who wins the second game gains the use of the cancel in the third game and so on. The 'cancel allowed' light will come on when you have the use of the cancel."

"Once you have cancelled the other subject's light she cannot switch them on again in that trial. This means your opponent is completely immobolised once you have used the cancel switch. Thus you must win that game by switching your lights on from left to right and use the cancel switches whenever your opponent blocks you."

"Each trial ends when one of you has won (indicated by the win light coming on). When the win light comes on the 'game in progress' light goes out. Any questions?"

"Each trial begins when the 'game in progress' light comes on. You must watch for this to happen. Operation of the switches prior to the 'game in progress' light coming on does not contribute to the winning of points - it is a waste of time. Any questions?"

"The retaliate switch delivers the same loud noise as the cancel switch to the other subject's earphones. It has no effects on the lights. You may use this switch at any time during the task to 'protest' a move made by the other subject. For example, if she is blasting you with the cancel switch you can blast her back. Any questions?"

"Remember you can always withdraw a move by turning your light/s off using the switches labelled off."

"Now I shall give you a sample of the noise. Rate it on the scale in front of you."

[Each subject was then given four practice games with E demonstrating, to ensure that she understood the operation of the gaming apparatus.]

"In front of you there are ten messages to choose from. You may send these to your opponent at any time during the game. Read through them. Any questions?"

"You have 15 minutes in which to complete 16 games. If either of you wish to send a message before you begin, I suggest you send it now."

The pacifist and activist strategies discussed in Chapter 2 were implemented in the following way:

7.4.2.5 Pacifist strategy

The following five messages were sent to the subjects before games one, two, three, four and five respectively:

(1) You may have the first move.

(2) I believe in fair play; let us alternate in winning games,

(3a) If you are unfair I will not use my cancel or retaliate switches as they cause physical discomfort,

(4a) Play unfairly and I will resist your moves by turning my lights on - I will not use my cancel or retaliate switches,

(5) The cancel and retaliate switches allow us to subject each other to unnecessary physical discomfort.

The subject was allowed to win the first game and hence was entrusted with the use of the cancel switch in the next game. When it was the confederate's turn to win she attempted to do so by switching on all her lights. If S opposed her and used the cancel switch, the confederate sent a message stating her pacifistic intent before the next game. Once messages one to five had been sent, the confederate sent message three after each trial in which the S used her cancel or retaliate switches.

7.4.2.6 Activist strategy

The following messages were always sent to the subject before games one, two, three, four and five respectively:

(1) You may have first move.

(2) I believe in fair play, let us alternate in winning games.

(3b) If you are unfair I will use my cancel and retaliate switches regardless of physical discomfort.

(4b) Play unfairly and I will not just resist your moves by turning my lights on - I will use my cancel or retaliate switches.

(5) The cancel and retaliate switches allow us to subject each other to unnecessary physical discomfort.

The subject was allowed to win the first game and hence was entrusted with the use of the cancel switch in the next game. When it was the confederate's turn to win, she attempted to do so by switching on all her lights. If S opposed her and used the cancel switch before the third game, the confederate sent her message four. If S, after the third game, opposed her and used the cancel switch when it was the confederate's turn to win, the confederate retaliated. The confederate used the cancel switch and

initiated aggression if : (1) she was blocked by the S, and (2) if it was her turn to win, (3) she had use of the cancel and (4) she had warned S of her intent via message three. Aggression was therefore, used with the purpose of reinforcing the confederate's claim for fair play.

7.5 Debriefing

Once the Ss had completed the gaming task, E gave each a questionnaire consisting of basic biographical questions (cf. Appendix 3) and the following questions of relevance to the debriefing :

(1) Give your impressions of your opponent;

(2) What do you think her impressions of you are?

(3) What factors could have influenced the way you played the game?

(4) What do you think the aim of the research is?

(5) Have you read about or heard of similar research?

(6) What criticisms do you have of this research?

The experimenter scanned S's answers to the above, noting any negative reactions which would need to be handled in the debriefing.

All subjects were told that the noise used was not injurious to hearing and that the aim of the experiment was to see whether two unacquainted people would compete or co-operate when placed in a gaming situation. Furthermore, E was also interested in whether the Ss would use the noise or not.

The experimenter did not tell Ss that they had played against a confederate who was implementing a preplanned strategy for the following reasons:

(1) each S might inform other potential Ss of the deception, thus invalidating further research;

(2) this knowledge was not essential to the S's welfare, providing that the S's feelings about herself and the experiment were discussed.

7.5.1 The pacifist condition

Ss were asked how they had felt when the opponent did not use the cancel switch. The experimenter told S that psychological research had shown that prople who were as passive as the opponent tended to irritate and annoy others - had she found this ? Subjects who had used the cancel switch felt at most a little guilty about it. Many remarked that the short duration of the noise, its harmlessness and the fact that it was used in a game justified their use of it. Interestingly, many sent the message: "Do not worry about the loud noise" to their opponent. They were of the opinion that by doing so they had expressed their preparedness to tolerate the noise in return and thus were justified in their use of the noise. All Ss who had used the noise responded positively to and agreed with E's reassurance that some aggression in the form of self assertion is necessary for success in life.

7.5.2 The activist condition

The experimenter once again explored how S felt if and when she had used the cancel and when it was used on her. In contrast to the Ss in the pacifist condition, none of these Ss felt guilty about using the cancel. They viewed their use of the cancel as part of the game. The fact that the opponent had used the cancel appeared to free them of guilt.

7.5.3 The group condition

The experimenter revealed that the messages they had chosen for each other had been swapped for the message encouraging them to use the cancel switch. This deception had been implemented "so that the experimenter could investigate whether people playing in a group would be more inclined to use the cancel if they knew their friends were prepared to us it." Most of the subjects were relieved to hear that their friends had not chosen

the exploitative messages and remarked that their friends' 'choices' had surprised them. As can be seen from the above discussion, none of the subjects showed signs of emotional distress during the debriefing. Nevertheless, E gave all Ss her telephone number and stated that they must contact her under the following conditions:

(1) If they were troubled in any way by the study;
(2) If they wished to hear about the study in more detail;
(3) If they required help with their work for Psychology 1.

The experimenter also maintained friendly contact with the subjects whenever she saw them on campus. Several subjects telephoned for advice on essays and practicals. The experimenter explained the aims of the study to three subjects who requested it when she met them on campus (after the study had been completed). Therefore, the probability that Ss did not report their feelings or anxieties about the research was minimised by E's willingness to maintain contact with them.

In conclusion, it appears that if the 'noxious' stimulus used is not harmful, and if E is prepared to be available to Ss on a long-term basis (for example, for about one year), the negative consequences of a study can be minimised.

CHAPTER 8 - ANALYSIS OF THE DATA

8.1 The primary analysis

Table 1 - Group means ($\bar{x}$) and standard deviation

Strategy		Interpersonal Contact							
		Present				Absent			
		Activist		Pacifist		Activist		Pacifist	
		$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD
Group Pressure	Present	2,000	2,864	1,455	2,067	3,455	4,180	5,000	5,831
	Absent	1,364	1,859	2,273	3,552	5,000	2,324	3,455	3,267

The mean number of aggressive responses together with standard deviations are presented in Table 1. Examination of the standard deviations reveals that the question of the homogeneity of the variances requires investigation before an analysis of covariance can be performed.

The hypothesis that the variances of the different groups are homogeneous was tested initially using the Bartlett-Box and Cochrane tests.

Bartlett-Box test for homogeneity of variance : F = 2,918; p = ,005

Cochrane's test for homogeneity of variance : C = 0,353; p = ,003.

According to both these tests, the null hypothesis must be rejected, i.e. the variances of the groups are heterogenous. However, Winer (1971, p.210) notes that these tests are oversensitive to departures from normality of the distribution of the basic observations. The measures of the skewness of the data revealed that the distributions tend to be positively skewed (cf. Table 2).

Table 2 - Skewness

		Interpersonal Contact			
		Present		Absent	
		Activist	Pacifist	Activist	Pacifist
Group Pressure	Present	1,718	1,324	0,753	1,594
	Absent	1,859	1,280	0,000	0,135

Scheffé's test, which according to Winer (1971, p.210) is less sensitive to departures from normality, was therefore performed on the data.

Scheffé's test: $F = 1,42$; $p > 0,1$.

The result indicates that when the skewness of the distributions is corrected for, the variances may possibly be regarded as homogeneous. Since Scheffé's test is not often quoted in statistical texts and is therefore of uncertain status, it was decided to perform an analysis of covariance on both raw and log-transformed data. A comparison of both analyses enables an evaluation of the robustness of the F- test to be made. This would also test whether Scheffé's test provides a reliable estimate of homogeneity of the variance.

An analysis of covariance was performed on the raw data in order to examine the significance of the effects of the situational variables on aggressive behaviour when the effects of the personality variables had been controlled for. A summary table is presented on p.70.

From this analysis it is evident that interpersonal contact was the only significant situational variable. Principled Morality was the only covariate to achieve significance.

Author Connell G R
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