Psychological aspects of criminal propensity.

By

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Copyright statement

Between the idea and the reality, between the motion and the act, falls the Shadow, for Thine is the Kingdom. Between the conception and the creation, between the emotion and the response, falls the shadow, life is very long.

T.S Elliot. The Hollow Men.

i. Thesis abstract

The psychological aspects of propensity to offend are considered. The relationship between attitude, personality, and reported offending is explored. Some literature considers how attitude influences offending; others look at the relationship between personality and offending. The present thesis proposes that there is a complex relationship between all three.

The Attitude to Offending Style Scale measures preferences towards hypothetical offending styles. Shultzs' FIRO-B explores the structure of interpersonal personality. Finally, an adaptation of Youngs' D42 (D45) explores styles and level of reported offending. 254 members of the general public complete each of these self-report scales.

An SSA-I tests the construct validity and structure of the scales stated above. Multiple regression analyses explore the relationship between attitude and personality, and how these influence level of reported offending. The moderating role of interpersonal personality is also considered.

The findings reveal that Attitudes are categorized as: Instrumental or Expressive high risk, and Low risk. Shultzs' FIRO-B scale has four facets: Expressed Inclusion Expressed Control, Received Inclusion and Received Control. Finally, reported offending is categorised as More or Less serious, Instrumental or Expressive, and target Person or Property. Results show that variations in attitude and personality styles are related to level of reported offending.

Furthermore, it was found that the relationship between attitude and level of reported offending is moderated by level of 'Received Control'. More specifically, when an individual shows a positive attitude towards Instrumental high risk crimes and feel 'controlled by others', their level of reported offending is also likely to be high.

The presented research shows the value of considering attitudes towards offending, the moderating role of interpersonal personality, and how this relates to level of reported offending. The methods employed throughout the thesis demonstrate the strength and validity of self-report measures. Results are applicable to many areas, including direction and methods in future research. The findings can be applied to areas such as rehabilitation, interview techniques and preventative measures.

Dedication

I dedicate this thesis to my Mum, Clare Hughes, and my Dad, Joseph Hughes. Mum, you taught me that it is possible to stand in the darkness and still see the light. Dad, you gave me the determination to carry on when I didn't think it was possible. If you had not been there every step of the way I would not have got through this. Thank you for being such amazing parents and for being a huge inspiration.

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Chapter 1. Psychological factors involved in propensity.

The aim of the present thesis is to explore the psychological factors which may increase propensity to offend. It is proposed that there are multiple factors which may influence or increase this propensity. There are many areas of literature which explore why some people break the norms and laws of society while others do not. It is proposed within the present thesis that propensity to offend can be increased by a combination of attitude and personality. Furthermore, it is proposed that different styles of attitude and personality can be related to different styles of offending.

When considering which factors may influence propensity to offend, it is proposed that several aspects need to be considered. Firstly, cognitive factors such as morality, thinking styles, and how people justify offending need to be considered. An individual may find a particular reason for action more compelling than another.

When an offender explains why they have committed a particular crime, they will usually give a reason for such behaviour. It is possible that one type of motivation may be more compelling than another, these motivations may vary depending on internal moral beliefs and standards. Therefore, it is likely that a combination of cognitive processes will have an effect on levels of criminal propensity.

Individual factors such as personality must also be considered. Aspects such as age, gender, or personality may increase or decrease the likelihood that an individual may offend. However, it is unlikely that level of criminal propensity can be increased by personality alone. It is unreasonable to assume that all of those with a particular type of personality will offend. It is possible that propensity to commit crime can be increased by several internal cognitive processes, combined with style of personality.

The type of crime may also have an effect on a persons' decision to offend or not. An individual may also have a preference towards a particular behavioural style. For example, some individuals may prefer direct contact, or violent type crimes, whereas others may prefer crimes which avoid contact with other people. Therefore, it is necessary to determine whether there are any patterns of consistency in offending behaviour.

There are large bodies of literature which consider morality, criminal thinking, justification styles, personality types that can be linked to offending, and consistency in offence choice. However, there is a lack of understanding of how these processes function collectively to increase propensity to commit a particular type of offence. The relationship between an individual's decision to offend, and the crime that they choose, is likely to incorporate many components. Therefore, several areas of literature must be considered.

1.1. Level of morality

The central purpose of this section is to review the literature which looks at why some individuals follow the norms, rules, and laws of society, while others do not. This is a wide area of literature with many subtleties and conflicting evidence, the challenge for the researcher is to determine which factors are most likely to influence offending behaviour.

The way we evaluate the appropriateness of an act is usually described as our attitude towards it. Attitude has been described as "..a psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor" (Eagly, & Chaiken, 1993, p. 1). Therefore, it can be assumed that several cognitive processes inform ones attitude. The way a person thinks about offending and crime in general, has historically been evaluated in terms of level of morality.

Pioneers in moral development, such as Piaget (1932), have proposed that anti-social and criminal behaviour should be examined as the thoughts and judgements an individual makes, rather than how they behave. Once thoughts and judgements are understood they can be applied across a variety of contexts. Piaget suggested that morality develops throughout childhood and is a learned process. Piaget suggests that individuals construct and reconstruct knowledge of the world through social interactions. Kohlberg (1958, 1971, 1974) extended Piaget's (1932) theory to incorporate morality in adults. However, he did point out that the essence of morality lay in the rules of engagement learned during childhood as suggested by Piaget (1932).

Kohlberg (1958, 1971, 1974) proposes that a person progresses through stages of moral development and use this knowledge as a basis for ethical behaviour. Kohlberg suggests that an appropriate way to measure level of morality is through the use of moral dilemmas. Kohlberg presents participants with moral dilemmas, usually involving a criminal or deviant act, and asks participants whether the act should be carried out. Participants are asked to give a rationale for their response, this rationale is then used as a basis to determine which stage of morality a person is in. Kohlberg's studies could also be described as measuring the participants' attitudes towards the items which are presented within the moral dilemma.

Kohlberg (1958, 1971) suggests that there are 3 stages of moral development, the first stage is the Pre-conventional level. Those in this level are concerned with avoiding punishment. The second stage is the Conventional level; during this stage people are concerned with following social and legal norms. The third and final stage is the Post conventional level, very few people are said to reach this stage, most people stay within the conventional level. Individuals in the Post-conventional level are concerned with universal ethical principles. As a person progresses through these stages, a deeper and more comprehensive understanding is gained, and new principals are integrated with what has already been learned (Kohlberg, 1981). This is suggested to be a one way process.

When this theory of moral development is applied to criminal behaviour, those in the pre-conventional level would refrain from breaking the law because they want to avoid getting caught and sent to jail. Individuals who are in the conventional stage would refrain from breaking the law because they do not want to break from the norms and laws which all else follow. Those in the post-conventional level would refrain from breaking the law because it is unethical. However, this theory of morality is rigid and does not allow for individual or contextual differences. The proposed stages ignore context and emotive factors which may influence offending.

However, in terms of how morality develops, there is much support for Kohlberg's stage theory. For example, Snarey (1985) supports the underlying premise of the theory, and suggests some caveats regarding urban and middle class subcultures. Greenberg (2002) also supports the framework proposed by Kohlberg, and applied the theory to investigate employee theft. Greenberg's findings suggest that those who are in the conventional stage of moral development stole less from the

workplace than those who are in the pre-conventional stage. This infers that level of morality can be directly relevant to offending behaviour.

Authors such as Carpendale (2000) and Turiel (1983) have criticized Kohlberg's theory and have suggested that it should incorporate a wider view of morality. Turiel (1983) began to identify anomalies in the stage sequence in Kohlberg's theory, and suggested that major revisions were necessary. Nucci (2001) highlights that just because a person knows what the right thing to do may be, doesn't mean they will act accordingly. Finally, Parke et al (2010) criticised Kohlberg's stage theory of moral development and suggested that people often show inconsistencies in their moral judgements across various situations. This reflects the concerns others have made about the situational influences on offending behaviours (e.g. Shoda, Mischel & Wright, 1994; Mokros & Alison, 2002).

The literature on moral reasoning has been applied to differentiate between those who offend from those who do not. Chen & Howitt (2007) suggest that moral reasoning stage and moral values are significantly lower in offenders compared to non-offenders. Chen & Howitt conclude that moral reasoning and moral value measures were good at differentiating offenders and non-offenders. However, they found that level of morality is not of use in differentiating those who commit different type of offences.

The studies highlighted above have fallen short of providing a meaningful basis upon which to differentiate offenders. Furthermore, situational and motivational aspects of criminality cannot be explained in terms of level of morality. Studies on moral behaviour are diverse and suggest that level of morality is relevant to issues such as honesty, integrity, and pursuit of specific goals (Veatch, 1962; Rand, 1964). More recently, Graham et al (2011) have suggested five key areas where morality is relevant: Harm/Care, Fairness/Reciprocity, In-group/Loyalty, Authority/Respect and Purity/Sanctity. In sum, although level of morality has an influence on how people behave, such theories cannot account for a range of offending behaviours.

All of these studies on morality indicate that there are individual differences in what people find acceptable. It is reasonable to assume then, that level of morality influences an individual's attitudes towards offending. However, these studies fail to consider the individual circumstances that may be necessary to motivate a person to break the norms and laws of society. For a person to have an attitude, or level of morality, that may predispose them to offend, the way a person thinks and processes information must also be considered. Piaget (1932) suggests that it is appropriate to explore how an individual thinks rather than how they behave when attempting to explain offending behaviour.

1.2. Are there criminal thinking styles?

There is a large body of literature dedicated to understanding the way offenders think, and how this manifests as criminal behaviours. Early empirical investigations into what influences an offender to commit any type of offence have suggested that faulty thinking patterns may influence recidivism. As such, some have recommended that any treatment programs should target the way an offender thinks, rather than how they behave (Fabiano, Porporino & Robinson, 1991). Farringdon (1986) suggests that the motivation to offend is inherent within the individual, and is determined in stages. Farrington suggests that stages of motivation correlate to thinking that maintains offending. Others,

such as Egan et al (2000), have examined the way an offender interprets his or her offending behaviour. Egan et al suggest that factors such as lack of thoughtfulness and wilful hostility influence offending.

Criminal thinking literature assumes offenders are intrinsically different from non-offenders. However, it is possible that multiple components combine to increase the likelihood that a person will offend. It is reasonable to assume that while an offender is not breaking the law, they may share many of the values and behaviours that non-offenders do. This suggests that the intrinsic differences are not always evident.

Walters (1995, 2001, 2005, 2006) has dominated the criminal thinking literature with his Psychological Inventory of Criminal Thinking Styles (PICTS). The PICTS is a measure of criminal cognition and thinking styles that maintains offending. Walters (2006) established that the PICTS is a reliable predictor of general recidivism when correlated with age and prior offending behaviours. Walters (2001) highlights that gender differences are evident, and established that males' scores on this scale are correlated with high problem avoidance, high masculinity, and self-deception. Females' scores are correlated with low levels of interpersonal hostility and high levels of denial of harm.

Egan et al (2000) provides support for the PICTS and goes further to suggest that there are individual differences in lack of thoughtfulness and wilful hostility. Much support has been found for the reliability of this scale (e.g. Walters 1995, 2001, 2009, 2005; Palmer and Hollin, 2003; Healy & O'Donnell, 2006; Johnson et al (2008) also found support for the scale, however, they point out the importance of controlling for age. The PICTS scale has been found to be reliable cross culturally (Palmer & Hollin, 2003). Furthermore, Walters & McCoy (2006) have demonstrated that this scale is not only applicable to incarcerated people, but also to those who are non-incarcerated (undergraduate students).

Walters (2006) further suggests that the PICTS can effectively identify and predict proactive and reactive styles within criminal behaviours. The terms Proactive and Reactive were initially proposed as forms of aggression that children display (Dodge, 1991; Crick &Dodge, 1996). Dodge (1991) investigated theories on aggression and identified two key theories within the literature; the Frustration-Aggression model (Dollard et al, 1939, later refined by Berkowitz 1962, 1978) and Social Learning Theory (Bandura, 1973, 1986). The Frustration-Aggression model suggests that aggression is a hostile angry reaction to perceived frustration or provocation. Whereas Learning Theory suggests aggression is a learned behaviour which is mediated by external rewards. Dodge subsequently re -labelled these Proactive and reactive forms of aggression.

Reactive aggression has been associated with a tendency to view ambiguous behaviours as hostile or threatening (Dodge & Coie, 1987; Day et al 1992; Crick & Dodge, 1996). Proactive aggression has been associated with a tendency to see aggressive behaviour as an effective way to attain external rewards, and unlikely to result in being punished (Crick & Dodge, 1996; Dodge et al, 1997; Schwartz et al, 1998). Walters (2005, 2006) extends the theory of proactive and reactive behaviours to criminal actions, and has identified two factors on his PICTS that predict these criminal thinking styles. The Problem avoidance factor identifies reactive criminal thinking which is associated with hostile attribution bias. The Self-assertion/deception factor identifies proactive criminal thinking which is associated with positive outcome expectancies. Walters (2005, 2006) has suggested that

proactive criminal thinking has been associated with offences such as robbery and burglary. Whereas reactive criminal thinking has been associated with offences such as assault and violence.

It has been suggested that proactive and reactive aggression can be displayed by the same individual, perhaps even during one event. This complicates the matter of differentiating the behaviours of offenders and non-offenders, or between different types of offender (Walters, 2005; Marsee & Frick, 2007). Although this literature furthers our understanding of the factors that maintain offending, it is unclear why some individuals cease their offending behaviour, or show a preference for certain types of crime.

Most of the literature detailed above suggests that criminal thinking allows the individual to maintain offending behaviour. However, the onset of criminal behaviour is not accounted for. This literature also fails to explain why some individuals cease their offending behaviours. Furthermore, much of the literature detailed above, treats crime as an undifferentiated construct. It does not allow for the fact that some offenders may consider crimes against the person as unacceptable, and crimes against property as acceptable, or vice versa. However, these studies do show that the way people think and process information can have a direct effect on their actions.

1.3. Justifying offending behaviour

Sykes and Matza (1957) propose that all behaviour, whether social or deviant, is learned by the process of social interactions. This proposal is based on Sutherland's theory of differential association. Sutherland (1974) asserts that all criminal and deviant behaviour requires an individual to learn techniques of committing crimes, as well as the motives, drives, rationalisations and favourable attitude to breaking the law. Sykes and Matza used this principal to develop Neutralisation theory. They suggest that neutralization techniques reduce social constraints over the individual. Neutralisation theory suggests that all offending behaviour is justified by the individual; this may even precede the offence. These justifications, or rationalisations, are generally given as a defence in court and are believed by the individual, thus protecting him or her from self-blame and the blame of others. Sykes and Matza suggest that there are a limited number of categories for these justifications, and propose five techniques of neutralisation. This suggests that attitude to offending is based on the justification for offending.

The first of these techniques is 'Denial of responsibility'. This technique allows offenders to use external factors to explain their behaviours, for example unloving parents or other factors beyond the control of the individual. When an offender employs this technique they believe they are helplessly propelled into the situation, and view themselves as more acted upon than acting.

The second of the neutralisation techniques is 'Denial of injury'. This technique allows the individual to feel that nobody was hurt or harmed in the offence. For example acts of shoplifting have no visible victim and do not cause any physical harm towards another person.

The third technique is 'Denial of the victim'. In this technique the individual may still acknowledge that an offence has occurred, and that a person may have actually been hurt or harmed; however, they believe that the injury is not wrong in light of the circumstances. In this technique, the injury inflicted is seen as a justified form of retaliation or punishment. Sykes and Matza suggest that the

victim sees himself as an avenger, and the victim is the wrong-doer. An example of this technique may be evident in attacks towards others such as homosexuals because of their sexual orientation.

The fourth neutralisation technique is 'Condemnation of the condemners'. In this technique, the offender shifts the focus of attention away from their own behaviours to those who disapprove. For example, Sykes and Matza suggest that individuals may believe that "…Police, are corrupt, stupid, and brutal. Teachers always show favouritism and parents always "take it out" on their children" (.668) when employing this technique. In adopting this viewpoint, the wrongfulness of the offenders' behaviour is more easily disguised or lost.

The fifth and final neutralisation technique is 'Appeal to the higher loyalties'. By applying this technique, individuals are able to neutralise social controls by "…sacrificing the demands of the larger society for the demands of the smaller social group to which the delinquent belongs" (p. 669). While an offender may recognise the norms and laws of society, other norms and beliefs are seen as more important to him or her. For example, attacks directed at others to defend or protect a friend or family member.

It is possible that these neutralization techniques can have an impact on propensity to offend. If an individual shows a preference for particular neutralization techniques, they could be applied to a range of offending behaviours. In doing so, propensity to offend may be increased. Sykes & Matza's (1957) theory of neutralization techniques infers that it is possible that the reason for action can have just as much, if not more, of an impact on whether or not an individual will engage in offending behaviour.

There has been much support for Neutralisation theory, for example Professor Topalli (2006) used Neutralization theory to explain behaviours of hard-core street offenders. Professor Topalli states: "…guilt is not an issue at all because their crimes are not only considered acceptable, but attractive and desirable with long term consequences that would justify their actions, such as protection of a friend" (p. 475). Mitchel, Dodder & Norris, 1990) lend general support to Neutralisation theory and report that there is a significant correlation between techniques of neutralisation and different types of delinquency. Thurman (1984) identifies a link between morality and neutralisation, suggesting that when moral commitment is low, neutralisation is an effective method for reducing guilt.

As Neutralisation theory is not able to account for why individuals may cease their offending behaviour, Matza (1964) went on to develop Drift theory. Drift theory assumes all of the major components of Neutralisation theory, with the added component of being able to account for why individuals cease offending. Through a process of Preparation and Desperation, an individual 'drifts' between conventional and criminal values.

The term Preparation is used to describe the process whereby an individual understands that once an offence has taken place, it is possible and can happen. The term Desperation describes the process of jumpstarting the will to commit crime due to extraordinary circumstances. Matza (1964) and Gordon (1963) proposes that an offender may highly regard many conventional values such as saving money, getting good grades, as well as holding criminal values. In this way, an offender is neither committed to, nor bound by one set of values, they stand mid-way between the two. According to Matza (1964) gang members may 'sound each other out', outwardly pretending to be

more criminal than the others to test commitment to delinquent group norms. However, Neutralisation theory does not consider the types of crime an individual may commit.

Neutralisation theory and Drift theory outline the ways in which offenders can hold normal values and beliefs at the same time as breaking the law. Other theories focus on societal influences. For example Strain theory posits that individuals become frustrated within society due to a lack of access to financial success, and so turn to crime (Merton, 1957). Other theories, such as Social disorganization theory, suggest that physical and social attributes within a society influence people to commit crime.

However, it is unreasonable to assume that everyone within a deprived society will commit crime. Indeed, many societies contain a mix of offenders and non-offenders. An example of this is white collar crimes such as fraud, often these individuals are affluent and live comfortable lifestyles. It may be reasonable to assume that both context specific factors and individual differences increase propensity to commit crime. The theories on criminality mentioned so far have advanced our understanding of factors that cause individuals to offend; however, they are limited in the factors they each explore. Behaviour can be learned and modified by many different processes; as such any explanation of offending and criminal propensity needs to be multi-faceted.

1.4. A multi domain approach to explaining criminality

One theory which has recognised the need to consider multiple domains when explaining differences in offending behaviour is Social Domain Theory (Turiel, 1983). Social Domain Theory (SDT) was formed on the basis of research from Piaget (1932) and Kohlberg (1958) who suggests that individuals make decisions using personal or social knowledge and experience. Turiel suggests that as actions take place within the context of society, both individual and societal influences need to be considered when explaining behaviour. Turiel (1983) proposes that when individuals contemplate the acceptability of an act, multiple domains are drawn upon. Turiel proposes, contrary to Kohlberg, that morality and convention are distinct parallel domains that individuals consider. Nucci (1981) suggests that it is also necessary to consider the psychological domain, when considering social decision making.

Social Domain Theory is based on the premise that behavioural decisions are informed by three areas: the moral, social, and psychological domains. If behaviour is informed by several areas, it is reasonable to assume that attitude towards behaviour is also. When people consider the moral domain, issues such as rights, welfare, justice, and fairness are evaluated. When considering the societal domain, aspects such as customs, traditions and conventions are evaluated. Finally, when considering the psychological domain, issues such as individual choice and discretion are evaluated. In contrast to Kohlberg (1958), Nucci and Turiel (1978) propose that these domains are distinct at a very early age. Studies such as this infer that propensity to offend could be affected by several cognitive processes.

Crick & Dodge (1996) argue that the mixed domain situations could be appropriately examined using an integration of SDT and Social Identity Theory (SIT). Social Identity Theory (Tajfel & Turner, 1979) proposes that social behaviour is influenced by an individual's personal characteristics, as well as the social category to which that person belongs. SIT suggests that social behaviour will vary along a

continuum, and is a compromise between interpersonal characteristics and the social group to which they belong (Tajfel, 1978).

Other researchers such as Richardson et al (2012) have suggested that SDT could be appropriately modelled through a Hierarchical Competing Systems Model (HCSM). HCSM, developed by Marcovitch & Zelanzo (2009), suggests that individuals make sense of, and interpret situations, by drawing from two systems: the habitual and representational systems. According to Richardson et al (2012), these systems can be described in the following way:

> The habit system depends upon previous experience, while the representational system takes a critical stance toward past experience through reflection on the current problem. (Richardson et al, 2012. P. 6)

HCSM has typically been applied to the study of executive functioning. However, Richardson et al (2012) have shown that it can be extended to social interactions. Studies such as this highlight the importance of both previous experience and current situations which shape how we behave.

SDT has begun to recognise that any decision made in a social setting needs to consider aspects that are relevant to the context and the individual characteristics, as well as the way these processes interact and influence each other. SDT gives an understanding of the factors which influence behaviour in a social context. The theory acknowledges that there are multiple factors that influence behaviour in general, and at an individual level. Those researchers that have suggested integrating aspects of SDT with various other theories have acknowledged the complexities involved in understanding and interpreting behaviour. However, in terms of applying this understanding to offending, SDT is not able to account for why different individuals commit different types of crime.

Another multi-faceted theory of behaviour is the Theory of Reasoned Action. The Theory of Reasoned Action (TRA), developed by Fishbein & Ajzen (1975), proposes that behaviour occurs as a result of attitude and behavioural intention. There are three general constructs within TRA: Attitude (A), behavioural intention (BI), and subjective norm (SN). TRA proposes that behavioural intention depends on the persons attitude about that behaviour and subjective norm (BI=A & SN). TRA suggests that attitude is the belief about the consequences of performing the behaviour, subjective norms is the perceived expectations from other people or groups which that person is influenced by. Combining these two components produces behavioural intention which is defined as the strength of the intention to perform a particular behaviour. However, TRA points out that attitude and subjective norms are not weighted equally, and individuals will vary in how much weight is applied to each component (Fishbein & Ajzen (1975). Ajzen (1991) built upon the original theory and proposed the Theory of Planned Behaviour, which also considers 'Perceived Behavioural Control' (PBC). TRA was developed to allow for situations where people intend to carry out a behaviour, but that behaviour does not occur due to lack of confidence or lack of self-control.

TPB suggests that it is possible to predict behaviour through attitude, subjective norm, behavioural intention, and perceived behavioural control. Therefore, it is reasonable to assume that any consistency in offence choice will be reflected in attitude. Any preferences for behaviour or interaction type evident in a persons' attitude, are likely to be reflected across various contexts. Situational effects should have little impact on such deeply rooted beliefs and preferences. Of

course, the ways in which attitude predicts behaviour is a large area of study with many subtleties. The emphasis here is that behaviour is influenced by many components, of which attitude is one.

The multi-domain approaches outlined above, all suggest that behaviour is informed by several distinct areas. As a result, any propensity to offend is likely to be complex, and is likely to be influenced by several processes or areas. The literature outlined so far has suggested that behaviour is the result of social influences which are likely to have been learned. However, it is also possible that each individual will differ in their experience and understanding of their social setting. Therefore, it may be necessary to consider how individual traits may affect level of propensity.

Chapter 2: Individual characteristics.

Personality has an impact on the way we learn and interact socially. Therefore, it is reasonable to assume that personality types can have an impact on level of criminal propensity. There are a range of studies which examine characteristics of an individual and how these can be linked to crime styles or actions. Such studies suggest that personality characteristics can differentiate between those who offend from those who do not (e.g. Eysenk, 1977). Some authors explicitly state that offender profiling is the identification of personality characteristics from details of the crime (e.g. Knight et al, 1998; Homant & Kennedy, 1998). However, there are a number of personality theories which could be applied. The challenge for the researcher is to determine which of these would be most appropriate to investigate criminal behaviours.

2.1. Are there personality types that predispose individuals to offend?

There are a number of personality theories which differentiate the behaviours of individuals. For example, Eysenk (1947, 1967) proposed that individuals are either Introverts or Extroverts. Whereas Leary (1957) suggests individuals differ in terms of levels of Dominance, Control, Status, and Power. Others, such as Psychodynamic theories, tend to focus on inner drives and conflicts (Freud, 1932). Psychoanalytical principals such as Sublimation and Oppression have also been proposed as a basis to differentiate people (Healy and Bonner 1936; Mitchell, 1987; Halleck 1971). In sum, there are numerous psychological approaches that attempt to differentiate individuals' and their personality.

Some personality theories have been applied to the study of criminal behaviour (e.g. Eysenk, 1977). Eysenk (1977) suggests that the personality traits of Neuroticism and Extroversion can account for differences in individual criminal behaviours. This implies that personality traits can account for whether or not a person is criminal. Furnham & Thompson (1991) examined Eysenk's predictions and discovered a significant correlation between Psychoticism and score on a self-report delinquency scale. However, there was no evidence of correlations between delinquency score and Extraversion or Neuroticism. Other authors have found little evidence for personality difference across crime type (Eysenk, Rust & Eysenk, 1977; Quinsey, Arnold & Pruesse, 1980; McEwan & Knowles, 1984).

There appears to be little evidence of differences in personality across crime type. However, there are only a limited number of studies that examine this relationship (e.g. Eysenk, Rust and Eysenk 1973; Quinsy, Arnold and Pruesse 1980; McEwen, Knowles 1984). Gingrich & Campbell (1995) examined differences in personality across offences, and report that rapists are more extrovert than paedophiles and exhibitionists. Similarly, Ford & Linney (1995) explored personality differences of sex offenders and other types of offender, and found that child molesters expressed a greater need for Control and Inclusion, as measured by the FIRO-B. This limited number of studies highlights the need for more empirical evidence of personality characteristics across various crime types.

The challenge of developing a basis for differentiating between offences is to establish which of the range of possible personality theories is most appropriate. Blonigen & Price (2010) hypothesises that changes in personality underpin changes in everyday social interactions, including anti-social behaviour during adolescence. Blonigen & price propose that personality represents a solid framework on which to understand the interaction between age and propensity for criminal behaviour.

2.2. Which of the range of possible personality frameworks is most appropriate for examining criminal behaviour?

Canter (2000) suggests that any attempt to relate offending actions to individual characteristics is complicated, as the same action may point to different characteristics depending on the context and situation the action occurs in. Schutz (1958) proposes that since interpersonal characteristics are so deeply rooted in ones' attitude and behaviour, any measurement across different situations should consider interpersonal characteristics. Shoda, Mischel & Wright (1994) also suggest that individuals show distinct patterns of behaviours across a range of situations, when the situations are defined in terms of the type of interaction, for example peer v adult.

Some studies tend to categorise offence types according to narrow legal definition (e.g. Kratzer & Hodging, 1999; Soothill, 2010; Heng Choon et al, 2012). This complicates the issue of relating individual characteristics to crime type. However, Canter & Youngs (2009) point out that it is not appropriate to examine groups of offences based on legal definitions. They also point out that any classification of offending behaviour should be based on modes of interaction which are carried out to achieve a range of objectives.

Canter (1989) proposes that crime is an interpersonal interaction, and any measurement of individual differences should consider this. Throughout any criminal action, the offender is interacting with a victim. This may be in a direct way with crimes such as murder, or assault, or in an indirect way with crimes such as burglary or theft. Therefore, an appropriate measure of an offender's personality would be one that focuses on the way the individual habitually interacts with others. Schutz's (1958) Fundamental Interpersonal Relations Orientation (FIRO) scale, measures such interactions as aspects of interpersonal personality.

2.3. Interpersonal personality

Interpersonal personality, as measured by the FIRO-B, considers the ways in which we treat others and the way we respond to others. Youngs (2004) suggests that the FIRO-B is particularly pertinent to the measurement of offenders. Youngs points out that many studies have demonstrated that offenders are not just acting on inner drives, but respond and react to external influences. As the FIRO-B measures interpersonal tendencies, it is an appropriate personality theory to apply when considering offending. However, there is some debate regarding the structure of the proposed facets of this scale.

Schutz (1958) developed the FIRO-B to identify and measure elements of interpersonal tendencies. Schutz made clear that the construction of this scale is based on Facet theory procedures (Guttman, 1954). The first facet describes the form relationships take, this facet has three elements: Control, Affection, and Inclusion. The second facet describes the forms of behaviour into different modes: Expressed or Received. Expressed behaviours are those which we outwardly project, and the way we treat other people. Received behaviours describe the way other people treat us. Schutz (1992) subsequently revised the scale and produced the Element B version of the FIRO-B. This version also differentiates the form: Control, Openness (formerly affection), Inclusion, as well as the mode: Expressed or Received. However, in this later version the components were measured as being Wanted or Actual behaviours.

The FIRO-B is comprised of 54 items, these are categorised as Expressed Inclusion, Expressed Control, Expressed Openness, Received Inclusion, Received Control, and Received Openness. A total of 9 items represent each subgroup. As mentioned, the Element-B measures these components for both actual and wanted behaviours. However, this does create a lengthy time consuming questionnaire of 108 items.

A low Expressed score indicates that an individual may be less comfortable around people and as such may avoid them. Whereas a high Expressed score indicates the person is comfortable around others in social situations. Low Received scores indicate that the individual is not sought out by others or actively included in social situations. Conversely, a high Received score indicates that the individual is sought out and included by others.

The Control facet describes power, authority and dominant components of behaviour. An individual who is high on Expressed Control is dominant in relationships, has authority, and is at ease giving orders to others and leading them. Whereas individuals low on Expressed Control are less demanding of others. Conversely, those who score high on Received Control are more manipulated and influenced by others. Whereas those who score low on Received Control are more rebellious and do not respond well to authority. It is possible that level of control may have an impact on level of propensity towards violent acts. For example, those with higher levels of Control may be more prone to violent offences.

The Inclusion facet describes the behaviours which relate to attention and contact from others. Individuals who are high on Expressed Inclusion have a higher need for contact with others and prefer to include others in their social world. Whereas those low on Expressed Inclusion are more at ease with less contact and interaction with others. Those who are high in Received Inclusion are included by other people, and those who have lower scores are not as actively sought out by others. Again, it is possible that level of Inclusion may have an impact on level of propensity towards crimes which either involve or avoid interaction with others. For example, those who score low in Inclusion may show a higher level of preference for offences which avoid interaction with other people.

Openness (originally Affection) measures the need for relationships and refers to the quality, not quantity, of intimate contact with others. Openness is suggested to outline feelings that relate to closeness and affection. Individuals who score high on Expressed Openness are likely to be highly emotionally involved with others, and will initiate close meaningful contact. Those who score low on Expressed Openness are likely to hold back on their affection with others, and will not initiate close meaningful contact in relationships. People who score high on Received Openness are likely to have close reciprocal relationships in which others are open and affectionate towards them. Whereas those who score low on Received Openness are not likely to have this closeness with others. Level of Openness may also have an impact on level of propensity. For example, it is possible that those who score high in Openness may avoid crime altogether due to increased levels of empathy.

Each of the interpersonal tendencies are not inversely related, for example a person who is high on Expressed Inclusion is not necessarily high on Received Inclusion. Each of these facets and elements describes a distinct independent form of relations with others.

As the FIRO-B was developed using facet theory framework (Guttman, 1959) each of the questions can represent multiple facets. For example, item 9 on the scale '*People invite me to do things*'

represents the facet 'Inclusion' (including and interacting with others) as well as representing the facet 'Received' (the way others behave towards us). Similarly, item 1 '*I seek out people to be with*', also represents 'Inclusion', but reflects 'Expressed' behaviours (the way we treat others).

A number of studies, including Schutz (1978), have highlighted gender differences in the FIRO scores. For example Buhrmester and Furman, (1987) found that females develop intimacy throughout pre-adolescence. Whereas males do not develop the same need for this intimacy throughout the same time frame.

Douvan and Adelson (1966) also suggest that throughout adolescence, females are more concerned with developing and maintaining intimacy, whereas males are more concerned with independence. Gilligan (1982) supports these gender differences, suggesting that females' value caring and responsibility more than males. Other theorists have noted that these gender differences are also evident throughout adulthood (Rubin, 1985; Cook, 1990).

Bakken and Romig (1992) suggest that females score higher than males on Inclusion wanted and Inclusion expressed. Although there were no significant differences found between genders in Control wanted, males score significantly higher in Control expressed. Females also scored higher than males in Affection wanted and expressed. However, a number of other studies have found no such gender differences (Diaz & Berndt, 1982; Zeldin, Small & Savin-Williams, 1982; McRae & Young, 1990). Finally, Schutz (1978) and Ullman et al (1964) demonstrate that males score considerably higher in Expressed Control.

Schutz (1958) first developed and applied the FIRO-B as a tool to assess team performance and compatibility in the US navy. The FIRO is designed as a tool to help individuals and teams work more efficiently with a compatible understanding of Inclusion, Affection, and Control. Since this time the FIRO-B has been applied to diverse domains. For example, it has been used to study work performance (Kuehl, DiMarco & Wims, 1975); Intimate partner abuse (Poorman & Seelau, 2001); alcohol abuse (Turner & Mayr, 1990); and field dependence (McRae & Young, 1990). Studies such as these demonstrate that interpersonal personality styles can have an effect on behaviour across many contexts. Therefore it is possible that interpersonal personality styles can have an effect on level of propensity to offend.

The FIRO has been shown to be a valuable tool in assessing many areas, including: family therapy (Doherty & Colangelo, 1984); decision making (Schutz 1987); working with teams and team leaders (Thompson, 1998); accounting (Siegal & Smith, 2003); and offending behaviours (Youngs, 2004). DiMarco et al (1975) found that the FIRO relates to leadership roles. Kuehl et al (1975) found evidence to link leadership style to FIRO scores. Studies such as these suggest that the FIRO scale is an appropriate way to differentiate individuals across a range of situations.

The reported level of each of the interpersonal tendencies varies largely, depending on the population. The table below shows the range of scores presented by various studies.

Table 2.1 Reported levels of the modes of interpersonal behaviour.

Author	Type of participants	Mean reported levels of Inclusion	Mean reported levels of Control	Mean reported levels of Affection/ Openness
Hurley (1991)	64 undergraduate students	4.6	Not reported	5.2
Furnham (1990)	64 students; 24 male, 40 female	3.60	3.55	3.75
Floyd (1988)	153 undergraduates; 66 female, 56 males	3.91	2.60	3.39
Furnham & Crump (2007)	4143 adult managers. 971 female, remainder male, aged 29-59	5.15	5.21	3.70
Ullmann, Krasner, & Troffer (1964)	47 male, 75 female undergraduates,	5.98	3.98	4.32
Ullmann, Krasner, & Troffer (1964)	40 male psychiatric patients age 37.25 (8.25)	3.62	2.65	2.85
Bakken & Romig (1992)	207 mid-adolescents in high school, 70 male, 137 female.	5.01	3.12	4.68
Bakken & Romig (1992)	70 male	4.20	2.95	3.09
Bakken & Romig (1992)	137 female	5.24	3.16	5.49
Siegel & Miller (2009)	199 USA auditors; mean age 40.9, 49 male, 50 female.	4.86	4.55	4.55
Siegel & Miller (2009)	102Asian auditors, mean age 37.0, 50 female, 52 male	4.78	4.45	4.52
Gilligan (1973)	296 students; 128 female, 168 male aged 17-19	4.7	4.5	2.6

2.4 Offending behaviour and FIRO-B scores

Youngs (2004) differentiated styles of offending behaviour, and examined these in relation to interpersonal personality characteristics using the FIRO-B questionnaire. Youngs demonstrates that different levels of the interpersonal behaviours within the FIRO-B can be linked to preferences for certain styles of crime reported by incarcerated males.

Youngs reports an overall mean Expressed Openness score for young offenders of 3.6 (SD 1.99) which is very close to the mean for under 29-year-old males in the general population of 3.3 (Schutz, 1992). For Expressed Inclusion, Youngs' offending population scored low at 3.7 when compared with the general population norm reported by Schutz of 5.4 (for under 29-year-olds). Youngs' population Received Inclusion scores are 4.5, which is identical to the normative mean for individuals of a similar age (Youngs, 2004).

Offenders who commit crimes which involve interaction with other people, usually through violence, tend to report higher scores on the Expressed Control scale. Youngs reports that within the Expressive Person style offending behaviours, the two highest Expressed Control scores are for those offenders admitting to the behaviours involving use of a weapon (Youngs, 2004).

Youngs also reports that for Received Control, the higher scores are found predominantly for those reporting property crimes. Whereas lower Received Control scores were indicated by those reporting involvement in person crimes. Furthermore, while scores for property offences are generally elevated, it is noticeable that the very highest Received Control scores were found for the vandalism behaviours and carrying gun (Youngs, 2004).

Youngs' study demonstrates that levels of interpersonal personality can be linked to various types or styles of offending. Therefore level of propensity towards different type of offence can be affected by type and level of interpersonal personality.

2.5. Criticisms on structure

Many studies have indicated that the facets of Inclusion and Affection are problematic (Hurley 1990; Macrosson 2000; Mahoney and Stasson 2005; Dancer and Woods 2006; Furnham 2008). Affection refers primarily to feelings whereas Inclusion refers primarily to behaviour. Dancer & Wood (2006) have also raised questions regarding the distinctness of the Affection facet. As such, the term Affection was changed to Openness in an attempt to clarify this (Schutz 1978). A number of revisions were undertaken to the structure of the FIRO, making it easier to understand and interpret. The scale was revised to primarily reflect behaviour and renamed FIRO-B.

The structure of the FIRO-B has been examined using a variety of methods, for example test-retest reliability (Hutchinson, 1965; Schutz 1978; Gluck, 1983,), factor structures (Macrosson, 2000), as well as being compared to a variety of other personality measures (e.g. Mahoney & Stasson, 2005; Furnham, 2007, 2008). The lack of definition among Inclusion and Affection has been suggested to be attributable to the type of participants Schutz originally recruited. Mahoney & Stasson (2005) suggested that as Schutz used participants from Harvard in the 1950's, it is possible that only those with a more sophisticated understanding of social relationships are able to identify the subtle distinction between Affection and Inclusion. As a result of this, Mahoney concludes that the FIRO-B reflects a two dimension scale which measures aspects of Dominance (Control) and Socio-emotional Affect (Inclusion and Affection).

However, Youngs (2004) points out that all of the studies which criticize the structure of the FIRO-B have applied Schutz specifically designed coding framework to assess validity. Schutz provides an ad hoc coding framework which sums up scores into six pre-defined sub-groups, as well as reversing the scores of six items on the scale. However, Youngs suggests that there is little evidence for the psychometric basis of the sub-scales, and indeed if grouping the items in this way is appropriate. There are no published account for the internal validity and psychometric basis for grouping the individual items in this way.

2.6 Chapter summary

In sum then, there are many valid measures of personality; however, not all of them are appropriate for examining differences in offending behaviour. Canter (1989) proposes that as crime is an interpersonal interaction, any comparisons between an offender and the type of crime they choose needs to reflect this. Schutz (1958) suggests that as interpersonal behaviours are deeply rooted in our attitude and behaviour, they are prevalent across a range of situations.

Youngs' (2004) study found evidence to suggest that some of the elements within the FIRO-B scale were linked to styles of offending. As such it is suggested that the FIRO-B scale is an appropriate personality scale to investigate the study of offending behaviour, and infer individual characteristics. Youngs' study also indirectly indicates that level of propensity towards certain crime types can be affected by interpersonal personality type.

A number of studies have criticised the structure of the scale, many have proposed that 'Openness' is not a distinct facet (Floyd, 1988; Hurley, 1992; Dancer and Woods, 2006). However, as pointed out earlier, many of these studies have used the idiosyncratic post-hoc framework provided by Schutz.

Chapter 3. Examining behavioural consistency across offence types.

It is possible that preferences for certain types or styles of crime may increase or decrease the likelihood that in individual will engage in an offence. Some of the literature outlined so far has suggested that different types of offences may increase or decrease the likelihood that a person will engage in the act, thus increasing level of propensity. However, in order to evaluate whether it is possible that type of crimes can be linked to propensity, it must first be established whether or not there is any evidence that individuals show consistency in the type of offence they choose to commit. There is a wide body of literature which considers whether or not there is evidence of consistency in crime choice. Literature of this kind usually comes under the heading of specialisation.

Some of the literature examining consistency in offence choice has suggested that offenders are not specialists and carry out a range of criminal activities. For example, Soothill et al (2010) report that offenders do not specialize in any one type of offence, and carry out a variety of offence types. Authors such as Cohen (1955), Lerman (1968) and Hirschi (1969) also suggest that offenders do not specialize and have attributed the reason for their offending behaviour to contextual community factors.

However, many studies within the specialization literature suggest that individuals do consistently commit the same type of offence. For example, Britt (1996) examines offending patterns by categorising crimes into ten offence classifications. Britt concludes that offenders are much more likely to repeat the same type of offences than to commit another type, thus supporting specialisation. Kratzer & Hodging (1999) propose that those who begin to offend earlier in life tended to commit a larger volume of crime with much more variation compared to those who begin to offend later. This infers that there are multiple factors which influence offending behaviour other than consistency for particular crime types.

There is a large body of literature which suggests that violent crime is an area of specialisation (e.g. Senna, Rathers & Siegel, 1974; Labouvie, 1994; Deane, Armstrong & Felson, 2005; Armstrong, 2008; White & Heng Choon et al, 2012). Deane, Armstrong & Felson (2005) suggest that violent offenders are likely to carry out other violent offences. Conversely, non-violent offenders are likely to carry out other non-violent offences. Piquero, Jennings & Barnes (2012) support the view that offenders are specialist, and state that a small number of chronic offenders are responsible for the majority of violent offences. Heng Choon et al (2012) also propose that violent offenders specialise and suggest that the risk factors for violent offending are age of onset, frequency, low social bond and high impulsivity. Again, this highlights the proposal that individuals will show consistency for crimes which involve violence as well as indicating that multiple factors influence offending.

Other authors suggest that offenders consistently commit crimes which only interact with property (e.g. White & Labouvie, 1994; Armstrong, 2008; Heng Choon et al, 2012). Senna, Rathers & Siegel (1974) propose that crimes against property were one of the areas they discovered specialisation. Whereas Lo, Kim & Cheng (2008) posits that specialisation is evident for violent, drug, miscellaneous and property offences. Heng Choon et al (2012) point out that the number of prior convictions can be a good predictor of specialisation in non-violent offences. Armstrong (2008) summarise that specialisation in violent and property offences changes with age.

It is possible that the lack of consensus on whether offenders consistently commit the same types of crime is due to the way the offences are classified. For example, Blumstein et al (1988) initially used narrow legal definitions to classify offences, and found no evidence for specialisation. However, when offences were summed into similar crimes, specialisation was evident for violent and property offences. This implies that the way various crimes are defined effects the findings. The studies outlined by Blumstein et al (1988), White & Labouvie (1994), Heng Choon et al (2012) and Lo, Kim, & Cheng (2008) all suggest that individuals show consistency in the types of offences they commit, when the crimes are summed into similar offences.

Sullivan et al (2006) states that generality in offending may be due to the variety of methods employed in the various studies. Various scales, measurements, offence classifications, and analysis methods have resulted in inconsistent findings. Fisher & Ross (2006) support this argument and conclude that specialisation exists when a broad rather than narrow classification system are applied. Luengo et al (1994) and Olczac et al (1983) have argued the need for differentiated classification of offending behaviours. Dentler & Monroe (1961) propose a need for Guttman scales to measure the four most common offences, which they propose are: truancy, vandalism, injury to persons, and theft. Similarly, Arnold (1965) suggests the most common categories should be vandalism, attacks against the person, and theft. So although there is a general agreement that crimes should be grouped into similar offences, there is still a lack of agreement on what those categories should be.

3.1 Psychological aspects of crime choice

All of these studies support the view that consistency in offending behaviour is evident when a group of similar offences are examined instead of each individual crime. Again, studies such as these highlight the benefit of summarising groups of similar offences, and infer that aspects other than offence classification can influence specialisation. Canter & Youngs (2009) summarize that a large number of studies show that meaningful distinctions between people who commit a number of offences, is whether they commit crimes against a person or an object. Therefore it is reasonable to assume that propensity can be increased by the type of offence. Some individuals may show a higher level of propensity to commit violent crimes, while others might have a higher level of propensity to commit property crimes.

The violent crimes outlined above can be summarized as crimes against the person, whereas the property crimes can be summarized as crimes against an object. Canter & Youngs (2009) further define this distinction as property crimes relating to outcomes which have an external impact, and person crimes relating to outcomes which have an internal impact. The studies which are outlined above could all be summed up as focusing crimes towards a Person or an Object, the outcomes and expectancies of such offences also needs to be considered.

Canter & Youngs (2009) point out that crime is a socio-legal concept, not a psychological one. They suggest that if we are to understand criminal actions and underlying processes, it is not appropriate to examine these using the legal definitions given to crimes. Canter & Youngs (2009) go on to state that criminal activity needs to be examined in terms of modes of interactions which are carried out to achieve many different objectives. Furthermore, they suggest that there is a need to develop meaningful ways to distinguish between criminal activities.

A study by Canter & Fritzon (1998) shows the advantages of exploring several components within criminal actions simultaneously. The study also shows the value of considering the psychological basis of crime choice. Canter & Fritzon report that it is possible to differentiate between behavioural styles of arsonists. Their study differentiates between the style (Instrumental or Expressive) and target (Object or Person) of the offending behaviour. They propose four themes within arson; Expressive Person, Expressive Object, Instrumental Person, and Instrumental Object. These categories were taken from principals proposed by Fesbach (1964) who defined aggression as being Instrumental or Expressive. Instrumental aggression, and by extension Instrumental crime styles, have external outcomes and benefits. Whereas Expressive aggression and Expressive crime styles, have internal outcomes and benefits. Canter & Fritzon's study explores both style of behaviour and target of the offence. This means that it is possible to consider each of these behavioural components, and how they influence and interact with each other. Other studies within Investigative Psychology have also begun to appreciate the value of identifying the multiple components within any given crime.

A growing number of researchers have acknowledged the value of examining crimes using well-grounded psychological principals such as Instrumental and Expressive behaviours. It has been shown that Instrumental and Expressive behaviours can be displayed across a range of offences. For example, Instrumental and Expressive behaviours have been identified in homicide (Salfati & Canter, 1999; Miethe & Drass, 1999; Salfati, 2000; Santtila et al, 2003; Salfati & Bateman, 2005; Salfati & Dupont, 2006) and arson (Fritzon, 2002; Santtila et al, 2003; Santtila, Fritzon & Tamelander, 2004). Instrumental and Expressive offending styles have also been associated with crime committed during public holidays (Cohn & Rotton, 2003) and changes to welfare (Burek, 2006).

3.2 Measuring self-reported offending

Youngs (2004) proposed an alternative way to explore consistency in offending behaviour, and investigated specialisation by constructing a self-report questionnaire known as the D42. This scale is designed to capture the psychologically active components of behaviours, rather than defining them in legal terms. The questionnaire consists of 42 contextualised criminal and deviant acts. The items on this scale are worded to capture different psychological elements of the offence. For example, some items are defined in terms of their underlying goal, some capture the severity, and others identify the nature of the target. Youngs (2004) suggests that it is possible to examine consistency in offending behaviour by categorizing crimes as having internal or external outcomes, and labels these as Instrumental or Expressive. This supported the findings stated above by Canter & Fritzon (1988). Canter & Youngs (2009) also propose that classifying offences as having internal or external outcomes can be productive in determining consistency.

Youngs' (2004) results suggest that the items on her self-report level of criminality scale can be differentiated on the basis of three facets. The first facet differentiates the target of the act, items were conceptualised as targeting Person or Property. Items that have violent interactions such as beat someone up, use of a weapon, and drug use, were defined as interacting with a Person. Whereas items such as burglary and vandalism are defined as interacting with Property.

The second facet examines the underlying mode of operation, namely Instrumental or Expressive behaviour. Instrumental behaviours are suggested to be conducted in order to achieve some secondary goal, and so are indirect expressions of need or desire. Instrumental crimes are those

which are carried out to achieve some secondary goal, for example robbery for money, burglary for goods etc. These could also be described as having external outcomes. In contrast, Expressive items are those where the behaviour is the primary aim or reward, and are direct expressions of a goal or need. Expressive crimes can also be described as being carried out for their own reward, for example, acts of violence or drug taking behaviour. These could also be described as having internal outcomes.

Finally, the third facet differentiates items into different levels of seriousness, or psychological intensity. Youngs found that general high frequency behaviours are differentiated from lower frequency more serious acts. Youngs concludes that "Particular styles of offending emerge then, as seriousness or intensity increases, relating to the Expressive-Property, Expressive-Person, Instrumental-Property and Instrumental-Person themes" (p. 9). As outlined earlier, Youngs also examined each of these facets in relation to interpersonal personality characteristics. Studies such as this have advanced our understanding of the psychological components that actively influence crime choice.

Youngs (2001) also investigated consistency in offending behaviour by focusing on the type of gain the crime produces. Youngs (2001) proposes that Social Cognitive Theory principals can provide a basis for differentiating preference towards styles of offending. Youngs suggests that whether a particular behaviour occurs or not is determined by whether there is any incentive for the individual to perform it. Bandura (1986) proposes seven fundamental incentives which drive human behaviour. Youngs suggests that three of these incentives are relevant to criminal behaviours.

The first incentive Youngs proposes is directly relevant to offending is 'Monetary'. Bandura posits that this incentive is about acquiring a monetary gain. Youngs suggests that this is relevant to criminal behaviour where this monetary gain is taken from others, for example crimes such as robbery, theft and fraud. Youngs further proposes that this gain could be extended to be relevant to the desire for material goods, and could include goods as well as money in a criminal context. As such, Youngs labels this incentive as Material gain.

The second fundamental incentive that Youngs proposes is relevant to criminal actions is Power and status. This incentive defines the desire for control over other people. Youngs suggests that this control leads to a gain in Power and status and labels this Power gain. This could represent a range of criminal actions such as violence in various forms.

The third and final fundamental incentive that Youngs proposes is relevant to offending behaviour is Sensory. This incentive is based on the desire for pleasurable and stimulating experiences, as well as the avoidance of aspects such as boredom. Youngs points out that this stimulating experience of criminal actions has also been highlighted by Katz (1988) in his book 'The seductive nature of crime'. Some activities can be seen as attempts to either increase excitement, or relieve boredom where the crime is some drug taking behaviour. Youngs suggests that some criminal acts increase levels of excitement because they are defined as criminal.

Youngs (2001) conducted a smallest space analysis on the data and put forward that it is possible to examine individual preferences in both the form and level of the three fundamental incentives. Material, Power and Sensory gains are identified as producing high or low levels of gain. Furthermore, Youngs highlights that specialisation was defined in terms of Material, Power or

Sensory gains, but only when there was a high level of the particular gain. It is possible that these three gain types could encompass the whole range of criminal actions.

The findings presented within this chapter demonstrate that individuals show consistency in offending when the crimes are categorized according to the various psychological and behavioural components. Therefore, levels of criminal propensity can be increased or decreased when examining offending according to these definitions.

In summary, authors such as Shoda, Mischel & Wright (1994) and Mokros & Alison (2002) are keen to highlight that the behaviour an offender exhibits is conditional upon the situation they are in, which makes the inference process much more challenging. Some theorists suggest that there is no evidence for behavioural consistency across offence types (e.g. Cohen, 1955; Lerman, 1968; Hirschi, 1969; Soothill et al, 2010). Others found evidence in support of behavioural consistency across offence types (e.g. Deane, Armstrong & Felson, 2005; Piquero, Jennings & Barnes, 2012; Heng Choon et al, 2012). However, many of these studies focus solely on the offence classification rather than any behavioural components within the various crimes.

Many of the studies outlined in this chapter found evidence for behavioural consistency when individual crimes were grouped into similar styles, such as violent interactions and Property crimes. However, as Canter & Youngs (2009) point out, crime is a socio-legal definition, not a psychological one. Furthermore, they state that criminal activity needs to be examined in terms of modes of interactions and are carried out to achieve many different objectives. They suggest that there is a need to develop meaningful ways to distinguish between crime types. Both Canter & Youngs (2002; 2009) and Mokros & Alison (2002) suggest that any inference process needs to be based on well-grounded psychological theories.

The findings outlined by Canter & Fritzon (1998), and Youngs (2001, 2004) have established that it is possible to make meaningful distinctions between offences. However, in order to establish consistency in offending, crimes need to be classified according to the various behavioural components. Studies such as these have shown the value of examining offending behaviour as interactions and ways of relating to each other, rather than summing offences into artificially created legal classifications.

The literature outlined in this chapter has demonstrated that in order to examine the various forms of offences people carry out, one needs to focus beyond the legal classifications of such acts. It is proposed that crimes should be classified according to aspects such as the target, or behaviours within each act, and the variations in styles of such actions.

3.3 Developing Inferences between offender and crimes

Several areas of literature need to be considered together if there is to be any advances in our understanding of relationship between attitude and personality, and the way these relate to offending styles. As outlined so far, it is possible that level of propensity to commit crime could be affected by several different components. The way we evaluate right and wrong, the way we think, our individual personality, and the type of crime, are all likely to have an impact on level of criminal propensity. In order to understand the factors which may increase propensity to offend, inferences

need to be developed between different aspects of behaviour, motivation and individual differences. Such inferences need to be based on well-grounded psychological principals.

Inference development is a central process within some Investigative Psychology (IP) studies, and is known as the A to C equation. The A's relate to the actions within a crime, and the C's relate to the characteristics of the offender (Canter, 1993). However, Youngs (2007) has highlighted that the relationship between actions and characteristics is canonical, as there will rarely be one action that predicts one characteristic. There are likely to be a range of complexities in the way that these variables relate to each other. Canter & Youngs (2009) elaborate:

> The whole concept of a 'canonical equation' shows that small changes in any one variable can influence the overall outcome. A change in the range of crimes considered, or age of victims, or length of time over which the crimes are examined could produce very different predictions of, for instance, criminal history. (P. 84)

Canter & Youngs (2002) propose that there are limitless possibilities of which actions relate to which characteristics. As such some form of theoretical framework is necessary to indicate relationships between the two. Canter & Youngs (2009) further highlight that the relationship between actions and characteristics can be thought of as a series of 'if-then' statements. However, Canter & Youngs are careful to point out that arguments made in this way require 'warrant'. These usually take the form of well-grounded psychological theories and require some empirical support before the statement can be accepted as true.

3.4 Difficulties in making inferences between actions and characteristics

Alison, Bennell, Mokros, and Ormerod (2002) propose that in order to make inferences between offenders' actions and characteristics, there must be consistency and homology in the way an offender behaves. Alison et al (2010) clarify this by stating:

> The consistency assumption held that the variations in actions (i.e. behaviours) of an offender across their series must be less than the variation in actions by all other offenders. The second assumption holds that people who commit crimes in a similar style will have similar background characteristics – called the homology assumption.(p. 119).

The view that individuals who carry out a crime in a similar way should be similar in their characteristics creates challenges in drawing conclusions about an offenders characteristics from crime scene information (Mokros & Alison, 2002). Shoda, Mischel and Wright (1994) are keen to highlight that the behaviour an offender exhibits is conditional on the situation he or she is in. Mokros & Alison (2002) support this argument and point out that situational influences may inhibit the possibility of inferring offender characteristics from crime scene information, as they state: "…it is possible that the neglect of situational influences seriously confounds any homology." (p. 40). An example of how context and individual situation can affect findings is found in a study by Beauregard et al (2007). This study found that contextual factors such as familiarity with the environment, and type of offence site, can influence the way serial sex offenders carry out an offence.

However, there is evidence to suggest that behaviour can be stable across offences for other types of crimes. For example, Woodhams & Toye (2007) reported that offence behaviour was found to be consistent in commercial robbery. Similarly, Bennell and Jones (2005) report consistency in

behaviour for burglary. Behavioural consistency has been established for a number of offence types including sexual assault (Santtila, Junkkila & Sandnabba, 2005), burglary (Goodwill & Alison, 2006), and arson (Santtila, Fritzon & Tamelander, 2004).

3.5 Thesis proposals

In summary, the present thesis aims to investigate which psychological factors may increase level of criminal propensity. The literature which has been outlined here indicates that there are likely to be many factors involved in this process. However, each area of literature is limited in the factors they each explore. There are several aims within the present thesis.

The main research question is: Which psychological factors combine to produce an increased propensity towards crime? To fully answer this question, several areas need to be considered in a number of studies.

Study 1, chapter 5 - Firstly, the thesis aims to establish how individuals structure their attitude towards offending. The study aims to establish the ways in which attitude to crime is structured, and how this may influence propensity to offend. A more positive attitude towards behavioural styles and offences will indicate a higher level of propensity towards such crimes. Factors such as behaviour, target of the offence, ways of behaving, and motivations to offend will be considered in this exploration.

Study 2, chapter 6 - Secondly, the thesis aims to determine how interpersonal personality is structured. The structure of interpersonal personality needs to be examined before it can be related to behaviour or attitude.

Study 3, chapter 7 - Thirdly, the thesis aims to determine the ways in which people differentiate offending, and whether or not there is evidence to suggest that individuals show consistency towards particular crimes or behavioural styles. By assessing which crimes are committed in combination, it will be possible to infer an increased propensity towards particular styles of offending, rather than assess whether propensity to offend is increased by each individual crime type.

Study 4, chapter 8 – This final section of the thesis aims to consider the interaction of all of the scales presented. Therefore, this study is presented in five phases:

> **Phase 1** - The thesis will investigate whether style of attitudes towards offending can be related to styles of interpersonal personality. It may be possible to relate styles of preferential attitude to interpersonal personality style.
>
> **Phase 2** - The thesis seeks to establish whether particular interpersonal personality styles can related to styles of offending. This exploration will allow a test of the very foundations of offender profiling as there is debate over whether offending actions can related to personality.
>
> **Phase 3 –** The thesis also investigates whether attitude to offending and reported offending are related concepts. The thesis explores whether an increased level of attitude towards a particular offence is likely to be related to an increased level of propensity to commit such

an offence. In establishing the link between actions (reported crime types) and characteristics (interpersonal personality styles), the very foundation of offender profiling will be investigated.

Phase 4 – The thesis investigates whether styles of attitude and interpersonal personality styles can accurately predict level of overall reported offending.

Phase 5 - Finally, the thesis explores whether an individuals' personality can have an impact on the relationship between their attitude and level of reported offending. It will be explored whether or not different styles of interpersonal personality moderate the relationship between attitude and behaviour in relation to offending.

In summary then, there are a number of hypotheses which the present thesis seeks to establish. These can be summarized as follows:

1. Attitude to offending can be differentiated according to the target of the offence, style of behaviour, and justification for action.
2. Interpersonal personality, as measured by the FIRO-B, can be differentiated into behaviours which are Expressed or Received, in terms of Inclusion, Openness, and Control.
3. Reported offending can be differentiated according to the target of the gain, style of interaction, and level of gain which is made.
4. Styles of interpersonal personality can be related to styles of offending.
5. Attitude to offending can be related to similar styles of reported offending.
6. Type of attitude and personality can accurately predict levels of reported offending.
7. Types of interpersonal personality can have an impact on the relationship between attitude styles and reported offending.
8. There will be individual differences in each of the areas explored.

Chapter 4. Methodology.

4.1 Rationale

The measurement of propensity to offend presents several methodological challenges. Future behaviour cannot be measured; therefore propensity has to be inferred by a number of different methods. Another issue to be considered is exactly which psychological factors should be measured? As was highlighted within the earlier chapters, previous studies have been limited in the factors they explore. Some studies investigate the impact that morality or thinking styles has on an individual's decision to offend; others consider the impact of personality on offending. Furthermore, studies which look at the impact of different crime types have only considered the effect this has on consistency in criminal behaviour. However, it is possible that the type of crime has an impact on propensity to offend; an individual may be more willing to carry out one type of crime than another, thus increasing or decreasing propensity.

When these components are measured in isolation, they can distort the level of influence any one of these factors may have on overall propensity. The central preposition within the present thesis is that several psychological factors need to be considered alongside each other to give an overall view of propensity.

The present thesis explores the psychological aspects which may increase propensity to offend. It is argued that measuring attitude will reveal a set of pre-defined levels of acceptability towards different styles of offending. These attitudinal preferences may be related to subsequent offending behaviour. This assumption is based on the Theory of Reasoned Action (Fishbein & Ajzen, 1975, 1980), which postulates that attitude influences behaviour. However, there is also research to suggest that personality influences the way a person behaves (e.g. Shultz, 1958; Eysenk, 1967, 1977). The central preposition of the present thesis is that behaviour is influenced by a combination of attitude and personality.

4.2 Aims and objectives

In order to establish the ways in which attitude and personality are related to offending, it is necessary to examine the structure of each of these components. Once the structure of each of these concepts is established, inferences can then be made between them.

The difficulties of linking particular characteristics to specific crime types have been highlighted in the earlier chapters. These difficulties are further confounded by any situational influences. Although contextual factors have an effect on behaviour, context should have little impact on the dominant styles and themes within behaviour. Therefore, the main focus throughout the thesis is on identifying themes in attitude, personality, and reported crime.

As stated, it is proposed that attitude to offending is composed of many factors. Behaviour is rarely uni-dimensional, and often complex. Therefore it is reasonable to assume that attitude towards a particular set of behaviours is also complex. The aim within the present thesis is to establish how individuals differentiate the various themes within offending. It is proposed that attitude to offending is composed of ways of thinking about: the target of the offence, the behaviours which are necessary to carry out the act, what is to be gained by carrying out the act, and the reason for carrying out the act.

It is also necessary to consider the structure of interpersonal personality. Schutz (1958) developed the FIRO-B interpersonal personality scale. Schutz proposed that this scale could be differentiated into various sub-scales which identify various style of interpersonal behaviours. However, there has been some criticism regarding this proposed structure. Therefore, it is necessary to explore the ways in which individuals differentiate styles of interpersonal behaviour.

It is also important to measure reported offending. Earlier chapters indicated that it is not appropriate to examine offending behaviour based on legal classification. It is more appropriate to examine the psychologically active elements within offending. One of the main objectives within the present thesis is to explore attitude of the general public, who are assumed to be non-offending. However, this is unlikely to be the case. Both academics and official statistics acknowledge that a huge proportion of crime goes un-detected and un-punished. Therefore, while it is likely this will be a low offending population, there will be some reported offending behaviours. This means that when measuring attitude to offending, responses are likely to reflect psychological preferences rather than relying on previous experience.

Once it is understood how offences are differentiated and conceptualized, it will be possible to begin to explore how attitude, personality and offending styles are related. Statistical procedures can be applied to identify themes and styles within all 3 concepts being measured. Then statistical procedures can be applied to explore the ways in which these are related to each other. By gaining a measure of an individuals reported offending behaviour, their attitude to a range of offences, and their personality, inferences can begin to be developed.

4.3. Ethical considerations.

All of the participants who agreed to take part in this research indicated their agreement by signing a consent form (appendix 6). Prior to completing any questionnaire, participants were informed that no information would be taken which could identify them. Each set of printed questionnaires was assigned a number; this number was then used to identify each participant in the data set. British Psychological Society ethical guidelines were followed throughout data collection and analysis procedures. The scales which are used in the present thesis were approved by the University of Huddersfield SREP ethics board.

Issues of ethics and confidentiality are particularly relevant to studies which collect information about crimes for which the person may not have been caught or convicted. The information gathered with the D45 scale may be crimes which the individual has not been caught for or convicted of. At the time of completion the participants are informed that the information given is anonymous. Therefore, from the perspective of the participant it would be unethical for the researcher to forward this information to authorities. To protect participants, only the researcher has access to the information obtained.

This does mean though, that the researcher is withholding information which may relate to unsolved offences, therefore may be unethical from the general communities perspective. However, the information obtained asks about previous offences, therefore disclosure of this information would not have a direct impact on crime prevention. Furthermore, the participants may have already be caught and convicted for these offences; the researcher did not ask whether the reported offences were known to the authorities. The overall objective of this research is to understand the

psychological components which may increase propensity to commit certain crimes. Therefore, the findings may help us to better understand criminality, which may ultimately lead to crime reduction.

The researcher made clear that when participants completed the scales which measure attitudes towards offending, the items are not asking whether or not the individual would actually go out and commit such an offence. Before any data had been collected it was made clear that the scales related to attitude, and not actual or intended behaviour.

4.4 Pilot study details

A pilot study was carried out to determine which aspects of hypothetical crime scenarios are attended to and differentiated. This pilot study was necessary because no previous studies have examined attitude to offending which examine multiple aspects of the offence. The pilot study recruited a male only sample, as males are known to be the most prevalent offenders. Therefore it can be assumed that males would show a more positive attitude to a range of offences. However, once it was determined which components were to be measured, the main study recruited both males and females so that the findings are applicable to a wider population.

The pilot study consisted of an attitude scale, known as the Hypothetical Offending Style Scale (HOSS), the Element B of Schutzs' (1958) interpersonal personality scale 'Fundamental Interpersonal Relations Orientation' (FIRO-B) scale, and demographic information (see appendix 1 for HOSS, appendix 4 for FIRO-B, and appendix 5 for demographic scales). Male participants were recruited for this pilot study. This is because males have consistently been shown to be the more active criminals, with males committing the majority of offences (Farrington, et al, 1988; Walmsley et al, 1992). Therefore, it is reasonable to assume that males would show more of a positive attitude towards various styles of crime. A full description of each scale and the elements it measures are given below.

4.5 Pilot study participants

Ninety seven male participants were recruited using opportunity sampling. Participants were recruited from a variety of leisure venues in North West England using opportunity sampling. Participants took between 10 and 15 minutes to fill out the questionnaires.

The participants age ranged from 18 to 69 with a mean age of 31.5 (SD 12.5), although 60% of this population is under the age of 35. The majority of participants reported their ethnicity as white British (87%). Other ethnicities included Irish (1%), Welsh (1%), black Caribbean (1%), black African (3%), Polish (1%), Indian (1%), Pakistani (2%) and other (2%).

The majority of the participants (54%) were employed, while the remainder were self -employed (15%), students (11%), or unemployed (20%). Most participants had not been convicted of any crime (83%), however some had been convicted (17%). However, 41% said they had carried out a crime and 59% reported that they have never carried out a crime. For level of education, 6% reported no formal qualifications and 94% reported having either GCSE, A levels, higher education or vocational qualifications.

4.6 Main propensity study

The data for phase two of the data collection process is taken from a wider study examining attitudes to crime using a variety of scales. This data collection process was carried out by a group of twelve researchers. The wider study investigating attitude, personality and offending, consisted of two attitude scales, one reported offending scale, and two personality scales. However, the present study only uses one of the attitude scales, one reported offending scale, and one personality scale. Each researcher used different combinations of the scales, according to their specific hypotheses and research aims. As such, there are an unequal number of participants completing each scale in the present study.

4.7 Main study participants

A total of 294 male and female participants of all ages were recruited to allow comparisons between genders and age ranges to be made. The scales which are presented in this thesis include: Attitude to Offending Style Scale (AOSS), D45 scale, FIRO-B scale, and demographic information (see appendix 2 for AOSS, appendix 3 for D45, appendix 4 for FIRO-B, and appendix 5 for demographic scale). A full description of the scales presented is given below.

Of the participants who completed the scales relevant to the present study, the majority of participants (56%) were a cross section of society recruited in leisure venues in Northern England, the remaining 44% were undergraduate/postgraduate students from a West Yorkshire University in the UK. The data set consists of 142 (48%) males and 153 (52%) females. Age ranged from 18 to 69 with a mean age of 26.1 (SD 11.7).

The level of education varied, of the 279 participants that reported GCSE's, 75 indicated they had none, whereas 204 reported obtaining them. Two hundred and seventy two participants answered the question regarding A levels, 11 reported not having any and 161 said they had at least one. A large amount of people also reported having vocational qualifications, 161 reported having these, 11 reported not having any, the remainder did not answer the question.

The majority of the sample (72.6%) are between the ages of 16 to 25. The vast majority of the sample were white (n=246, 87%), while other ethnicities included Black Caribbean (n=4), Black African (n=4), Indian (n=1), Chinese (n=3), Pakistani (n=6) and other (n=4).

A total of 263 participants answered the question regarding criminal background. The majority (86%) of participants indicated that they had no criminal background (n=227), 10% reported having a criminal background (n=26), and 4% indicated they would rather not answer the question (n=10).

The number of participants who completed each of the questionnaires is.

A total of 295 participants completed the Attitude to Offending Style Scale.

A total of 205 participants completed the D45 scale.

A total of 245 participants completed the FIRO-B scale.

The remit of the present study, in terms of participants, was the general population. Therefore, it was important to gather a wide variety of participants of all ages and both genders.

4.8 Details of the scales presented in the thesis

There are two scales presented in the pilot study: the Hypothetical Offending Style Scale and the FIRO-B. There are three scales presented in the main research: the Attitude to Offending Style scale, FIRO-B, and the D45 scale.

4.9 Assessing structure of attitudes towards offending

As indicated in the introductory chapters, it is likely that propensity to offend can be increased by several factors; attitude is one of those factors. It is proposed that this attitude is made up of several cognitive processes including giving consideration to the target, behaviour, and reason for action. Therefore it was necessary to design a scale which could measure several psychological components which inform attitude towards offending. The scales which are employed in the present thesis are all designed using facet theory methodologies. By using a facet theory approach, it is possible to measure several components simultaneously.

4.10 Hypothetical Offending Style Scale

Attitude to offending is initially measured using a previously untested explorative scale called the Hypothetical Offending Style Scale (HOSS). The HOSS was used in a pilot study in order to assess which aspects of hypothetical offending scenarios are attended to and differentiated. The results from this initial study then informed the development of a second untested attitude scale, called the Attitude to Offending Style Scale.

As stated, the HOSS is designed to measure attitude towards hypothetical crime scenarios. The scale is designed using a facet theory approach, which means that each question measures several components. The HOSS is a 48 item scale which presents a variety of hypothetical crime scenarios and incorporates various behavioural styles, justifications, levels of gain, and type of behavioural interactions. Participants are asked to indicate how likely they would be to carry out each item on a seven point Likert scale. A response of one indicated '*never*', and seven indicated '*definitely*'.

A higher numerical response to each item indicates a more positive attitude to the items within it (see appendix 1 for HOSS as presented to participants). Each of the four justifications are combined with the same twelve scenarios, creating a 48 item scale (4 x 12 = 48). The HOSS was developed using literature from a number of areas. Sykes & Matza (1957) Neutralization techniques informed the development of the justifications. The Hypothetical Offending Style Scale (HOSS) is comprised of four justifications; these justifications are presented alongside twelve hypothetical crime scenarios. The elements within the justification facet are constructed to reflect the neutralisation techniques proposed by Sykes and Matza (1957).

Justification A is constructed to represent the neutralisation technique 'Denial of responsibility'. By stating 'you felt out of your mind', the justification indicates that there is a factor which is outside of the person's control. This Neutralisation technique infers that the individual is helplessly propelled in the situation, and that there may be factors beyond that person's control. Justification B is constructed to represent 'Denial of injury'. This technique infers that the action does not cause any physical harm and is stated explicitly within the statement 'If nobody got hurt or harmed'. Justification C is constructed to represent 'Appeal to higher loyalties'. By stating 'you needed to do it to protect your family in some way', this justification implies that other norms and beliefs are more

important. For example, taking care of family members is seen as more important than not breaking the law. Finally, justification D is constructed to represent 'Denial of the victim'. This technique suggests that any injury caused is not wrong in light of the circumstances. In stating 'you'd been done wrong', the justification suggests that the victim deserved it in some way.

As stated in the introductory section, Sykes & Matza (1957) proposed five techniques of neutralisation, however, the present study only utilizes four of them. The fifth neutralisation technique 'Condemnation of the condemners' shifts the focus of attention away from their own behaviours to those who disapprove. In a large scale study this would be difficult to incorporate in a general justification, as it would depend on who is disapproving. Therefore, this technique is not included in the present scale.

The hypothetical crime scenarios are developed from a number of previous studies (e.g. Walters, 1995, 2001, 2005, 2006; Youngs, 2001, 2004). The twelve scenarios contain three different types of gain, and different behaviours which may be used to secure those gains. The scenarios are constructed to represent the different gains proposed by Youngs (2001) as elements; these are Material, Power, and Sensory. Youngs developed these gains to reflect the fundamental incentives proposed by Bandura (1986). These items are also constructed to represent a mixture of avoidant or confronting behaviours as well as reactive or proactive actions (Walters 2005).

Crime scenarios 1, 2, 3, and 4 are constructed to have a *Material gain*; in each of these scenarios, money is the material gain. The wording of the items infers that two of the Material gain items are obtained by direct physical methods (such as grabbing bags from people), or indirect verbal methods (such as lying). Scenarios 5, 6, 7, and 8, are constructed to have a *Power gain*. The wording of these items infers that the gain is made by direct physical actions (such as having a verbal conflict), or indirect methods (such as leaving a message). Scenarios 9, 10, 11, and 12 are constructed to represent a *Sensory gain*. The wording of these items suggests that the level of sensory gain would be high (such as stealing a car or setting fire to bin), or low (such as taking marijuana).

There are various style of action represented in the scenarios, these are Confront or Avoid behaviours, which are Proactive or Reactive. The confront behaviours describe direct physical contact between individuals, for example item 1 '*Grab the handbag from a wealthy woman standing alone on a platform at night*'. The avoidant behaviours represent more of an indirect verbal form of interaction between individuals. An example of avoidant behaviour is item 3 '*Lie about your possessions to the insurance company then pretend to lose some of these possessions*'. The proactive items describe behaviours which are sought out and have a degree of pre-planning, for example item 11 '*Get a friend to bring you some pot to a party*'. Whereas the reactive behaviours are more of an immediate reaction within a situation, for example item 9 '*Try the pot someone offered you at a party*'.

Crime scenarios 1, 5, and 10 are constructed to represent Confront/Reactive behaviours. The scenarios 2, 7, and 12 are constructed to represent Confront/Proactive behaviours. The scenarios 3, 8, and 11 are constructed to represent Avoid/Reactive items. Finally, items 4, 6, and 9 are constructed to represent Avoid/Proactive behaviours.

4.11 Attitude to Offending Style Scale

The results from the Hypothetical Offending Style Scale informed the development of the main attitude scale, the Attitude to Offending Style Scale (AOSS). Previous literature was also used in its development (e.g. Youngs, 2004; Canter & Youngs, 2009)

This scale was also designed using facet theory methods. The Attitude to Offending Style Scale consists of a total of 20 items; four hypothetical crime scenarios are presented alongside five justifications for action. Participants are asked to indicate how likely they would be to carry out each item on a seven point Likert scale. A response of one indicated '*never*', and seven indicated '*definitely*'.

4.12 FIRO-B

Schutzs' (1958) FIRO-B is applied to measure personality. As outlined in the opening chapters, crime is an interpersonal transaction, therefore an interpersonal personality theory is the most appropriate to apply to the study of offending. The FIRO-B scale consists of 54 items which measure various interpersonal tendencies (see appendix 4 for FIRO-B scale). The items are constructed to represent behaviours that reflect levels of Inclusion, Control, and Openness (formerly affection), a total of 18 items represent each form of behaviour. The items also represent two modes of interaction: Expressed and Received, there are an equal number of items within each mode. This constructs a scale which measures interpersonal tendencies in six areas: Expressed Inclusion, Received Inclusion, Expressed Control, Received Control, Expressed Openness, and Received Openness. Each of the six sub-scales are measured by nine different items.

The FIRO-B was also developed using facet theory. This means that each item on the scale measures two aspects of interpersonal behaviour at the same time. For example, item 1 '*I seek out people to be with*' measures levels of Inclusion, as well as whether the Inclusion is Expressed or Received (i.e. how much we include people, and how much other people include us). The FIRO-B is also a self-report questionnaire. Schutz developed the FIRO-B to measure both wanted and actual behaviours, participants complete the 54 item scale once for actual behaviour, and once for the behaviours they want to experience. The present thesis only asks participants about actual behaviours. This is because participants are completing two other scales at the same time, and the researcher wanted to reduce the time constraints of each individual.

4.13 D45

The D45 scale consists of 45 contextualised criminal and deviant acts (See appendix 3 for a copy of D45). Youngs developed the D42 to contain statements that retained psychologically salient aspects within each item. Youngs developed this scale to be applicable to a cohort of young male offenders. In order to be applicable to a wider cohort, the present scale was constructed to include 3 more items than the previous version. The D45 was developed within the International Research Centre for Investigative Psychology. The D45 measures several aspects of criminal behaviour, these are: type of gain which is produced, the target of the offending behaviour, and the mode of behaviour. The type of gain which the act elicits has three elements, these are: Material, Power, and Sensory gains. The target of offending behaviour facet has two elements: Person or Property. Finally, the mode of behaviour also has two elements: Instrumental or Expressive.

Responses to each item are on a 5 point Likert scale; each number is labelled with the number of times of involvement in the acts. For example, a value of 1 = 'never '; 2 = 'once or twice'; 3 = 'A few times (not more than 10)'; 4 = 'Quite often'; 5 = Very often (more than 50 times). This means that level of involvement can be measured accurately.

4.14 Reliability and validity

It is important to ensure that questionnaires are valid and reliable measures of the topic under investigation. The present thesis makes use of self-report questionnaires; research studies using self-report scales have specific weaknesses and benefits. For example, participants may exaggerate or under estimate levels in their responses, or simply have difficulty remembering specific details. There is also the problem of social desirability.

However, self-report style questionnaires allow participants to describe their own experiences, this is particularly important when investigating propensity to offend. The use of self-report scales allows information to be gathered from large samples of people fairly easy and quickly. The collection of information on a self-report questionnaire using a Likert scale also ensures that responses are measured in the same way for all participants.

To ensure reliability and validity in the present thesis, there are several aspects which need to be considered. The items on all of the questionnaires are clear and are not leading in any way. Throughout the various chapters in the present thesis, multi-dimensional scaling techniques assess the structure of each of the scales. These SSA's also demonstrate the reliability of each of the scales.

A pilot study is conducted in order to assess which aspects of hypothetical crime scenarios are attended to and differentiated. The development of this was informed by previous literature. The main attitude scale was developed using results from the pilot study as well as considering several aspects identified in previous literature. The researcher made clear that the scale measures attitude, and not actual or intended behaviour.

The FIRO-B is an established measure of interpersonal personality. There are many studies which have investigated the reliability of this scale. Some of these studies have indicated that the scale may not measure the aspects of interpersonal personality it reports to measure. Therefore the structure of the scale is one of the things under investigation. Although many studies have shown that the FIRO-B scale does measure interpersonal personality.

The majority of items on the D45 scale have been taken from a scale which has already been proven to be reliable and valid (the D42, Youngs, 2001). There is a clear Likert scale to indicate the level of involvement, and the additional items are framed and worded in the same way as the established items. The additional items do not repeat any of the questions which are ion the scale already.

A test of reliability for all of the scales in the present thesis is shown below; the Cronbachs alpha score is presented for each one below.

4.14.1 Pilot attitude scale reliability.

Table 4.1 Reliability statistics for the HOSS

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.966	.966	48

Table 4.2 Reliability of individual HOSS items

Justification	Crime scenario	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
If you were so upset you felt out of your mind	1. Grab the handbag from a wealthy woman standing alone on a platform at night.	.484	.966
	2. Follow a rich looking older couple until they left the main street then grab their bags.	.487	.966
	3. Lie about your possessions to the insurance company then pretend to lose some of these possessions.	.671	.965
	4. Add a few extra very valuable items to the list when reporting a loss to the insurance company.	.560	.965
	5. Threaten a stranger who was rude to you.	.588	.965
	6. Leave a threatening message on the answerphone of someone who treated you really badly.	.691	.965
	7. Go round to the house of someone who'd been telling lies about you to tell them to stop or else.	.522	.965
	8. Write a warning email to someone who you thought was after your partner	.520	.965
	9. Try the pot someone offered you at a party	.600	.965
	10. Take your neighbour's fancy new sports car for a drive without their permission while they were on holiday	.456	.966
	11. Get a friend to bring you some pot to a party	.585	.965
	12. Set fire to a bin to watch the flames then call the fire brigade to tell them (without giving your name).	.406	.966
If nobody got permanently hurt or harmed	13. Grab the handbag from a wealthy woman standing alone on a platform at night.	.444	.966
	14. Follow a rich looking older couple until they left the main street then grab their bags.	.492	.966
	15. Lie about your possessions to the insurance company then pretend to lose some of these possessions.	.651	.965
	16. Add a few extra very valuable items to the list when reporting a loss to the insurance company.	.656	.965
	17. Threaten a stranger who was rude to you.	.721	.965
	18. Leave a threatening message on the answerphone of someone who treated you really badly.	.765	.964
	19. Go round to the house of someone who'd been telling lies about you to tell them to stop or else.	.630	.965
	20. Write a warning email to someone who you thought was after your partner	.624	.965
	21. Try the pot someone offered you at a party	.647	.965
	22. Take your neighbour's fancy new sports car for a drive without their permission while they were on holiday	.525	.965
	23. Get a friend to bring you some pot to a party	.674	.965
	24. Set fire to a bin to watch the flames then call the fire brigade to tell them (without giving your name).	.307	.966

Table 4.3 Reliability of individual HOSS items continued

Justification	Crime scenario	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
If you needed to do it to protect you or your family in some way	1. Grab the handbag from a wealthy woman standing alone on a platform at night.	.611	.965
	2. Follow a rich looking older couple until they left the main street then grab their bags.	.632	.965
	3. Lie about your possessions to the insurance company then pretend to lose some of these possessions.	.704	.965
	4. Add a few extra very valuable items to the list when reporting a loss to the insurance company.	.713	.965
	5. Threaten a stranger who was rude to you.	.623	.965
	6. Leave a threatening message on the answerphone of someone who treated you really badly.	.697	.965
	7. Go round to the house of someone who'd been telling lies about you to tell them to stop or else.	.673	.965
	8. Write a warning email to someone who you thought was after your partner	.667	.965
	9. Try the pot someone offered you at a party	.730	.965
	10. Take your neighbour's fancy new sports car for a drive without their permission while they were on holiday	.659	.965
	11. Get a friend to bring you some pot to a party	.726	.965
	12. Set fire to a bin to watch the flames then call the fire brigade to tell them (without giving your name).	.578	.965
If you'd been done wrong	13. Grab the handbag from a wealthy woman standing alone on a platform at night.	.409	.966
	14. Follow a rich looking older couple until they left the main street then grab their bags.	.433	.966
	15. Lie about your possessions to the insurance company then pretend to lose some of these possessions.	.628	.965
	16. Add a few extra very valuable items to the list when reporting a loss to the insurance company.	.659	.965
	17. Threaten a stranger who was rude to you.	.603	.965
	18. Leave a threatening message on the answerphone of someone who treated you really badly.	.651	.965
	19. Go round to the house of someone who'd been telling lies about you to tell them to stop or else.	.668	.965
	20. Write a warning email to someone who you thought was after your partner	.623	.965
	21. Try the pot someone offered you at a party	.669	.965
	22. Take your neighbour's fancy new sports car for a drive without their permission while they were on holiday	.547	.965
	23. Get a friend to bring you some pot to a party	.665	.965
	24. Set fire to a bin to watch the flames then call the fire brigade to tell them (without giving your name).	.434	.966

The HOSS appears to have good internal consistency, $\alpha = .966$. All items appeared to be worthy of retention: there are no items which would increase the alpha if they were removed. All items correlated with the total score to a good degree (lower $r = .3$). This suggests that all items in the HOSS measures the same underlying construct of attitude to offending.

4.14.2 Main attitude scale reliability

Table 4.4 Reliability statistics for the AOSS

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.961	.963	20

Table 4.5 Reliability if individual AOSS items

Justification	Crime scenario	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
How likely do you think you would be to commit a crime like this in a life and death situation for acquiring money?	1. 'Use force to get a security guard to open the van and take the money'	.729	.960
	2. 'Use necessary threat and force to get a shop assistant to open the till and take the money'	.753	.959
	3. 'Force open a window and take personal property from a house with intention of selling these goods'.	.661	.960
	4. 'Take a purse that appears unattended'.	.658	.960
Are there any circumstances for which you could imagine yourself doing an action like this?	5. 'Use force to get a security guard to open the van and take the money'	.769	.959
	6. 'Use necessary threat and force to get a shop assistant to open the till and take the money'	.760	.959
	7. 'Force open a window and take personal property from a house with intention of selling these goods'.	.731	.960
	8. 'Take a purse that appears unattended'.	.746	.960
Imagine perhaps you were to become intoxicated and you have the extra confidence of for e.g. alcohol or cocaine and this situation presented itself, you possibly wouldn't even remember what happened. Would you consider par taking in a crime like this?	9. 'Use force to get a security guard to open the van and take the money'	.692	.960
	10. 'Use necessary threat and force to get a shop assistant to open the till and take the money'	.795	.959
	11. 'Force open a window and take personal property from a house with intention of selling these goods'.	.778	.959
	12. 'Take a purse that appears unattended'.	.757	.959
Would you consider committing a crime like this if it was dark at night and there were no other people around? No witnesses or any other people's reactions to affect you.	13. 'Use force to get a security guard to open the van and take the money'	.734	.960
	14. 'Use necessary threat and force to get a shop assistant to open the till and take the money'	.721	.960
	15. 'Force open a window and take personal property from a house with intention of selling these goods'.	.801	.959
	16. 'Take a purse that appears unattended'.	.777	.959
How likely do you think you would be to commit a crime like this in a life and death situation for acquiring money?	17. 'Use force to get a security guard to open the van and take the money'	.748	.959
	18. 'Use necessary threat and force to get a shop assistant to open the till and take the money'	.707	.960
	19. 'Force open a window and take personal property from a house with intention of selling these goods'.	.686	.960
	20. 'Take a purse that unatend	.748	.960

The AOSS appears to have good internal consistency, α = .961. All items appeared to be worthy of retention; there are no items which would increase the alpha if they were removed. All items correlated with the total score to a good degree (lower *r* = .6). This suggests that all items in the AOSS measures the same underlying construct of attitude to offending.

4.14.3 FIRO-B scale reliability

Table 4.6 Reliability statistics for the FIRO-B

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.878	.887	54

Table 4.7 Reliability of individual FIRO-B items

FIRO-B item	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
1 I seek out people to be with.	.354	.876
2 People decide what to do when we are together.	.207	.878
3 I am totally honest with my close friends.	.324	.876
4 People invite me to do things.	.541	.873
5 I am the dominant person when I am with people.	.360	.876
6 My close friends tell me their real feelings.	.475	.874
7 I join social groups.	.351	.876
8 People strongly influence my actions.	.358	.876
9 I confide in my close friends.	.512	.873
10 People invite me to join their activities.	.565	.873
11 I get other people to do things I want done.	.275	.877
12 My close friends tell me about private matters.	.472	.874
13 I join social organisations.	.390	.875
14 People control my actions.	.299	.876
15 I am more comfortable when people do not get too close.	-.114	.883
16 People include me in their activities.	.571	.873
17 I strongly influence other people's actions.	.552	.873
18bMy close friends do not tell me about themselves.	-.219	.883
19 I am included in informal social activities.	.298	.877
20 I am easily led by people.	.305	.876
21 People should keep their private feelings to themselves.	-.233	.885
22 People invite me to participate in their activities.	.475	.874
23 I take charge when I am with people socially.	.342	.876
24 My close friends let me know their real feelings.	.496	.874
25 I include other people in my plans.	.309	.876
26 People decide things for me.	.240	.877
27There are some things I do not tell anyone.	.066	.880
28 People include me in their social affairs.	.495	.874
29 I get people to do things the way I want them done.	.440	.874
30 My closest friends keep secrets from me.	-.044	.882
31I have people around me.	.413	.875
32 People strongly influence my ideas.	.293	.877
33 There are some things I would not tell anyone.	.021	.881
34 People ask me to participate in their discussions.	.463	.874
35 I take charge when I am with people.	.334	.876
36 My friends confide in me.	.441	.875
37 When people are doing things together I join them.	.479	.874
38 I am strongly influenced by what people say.	.345	.876
39 I have at least one friend to whom I can tell anything.	.439	.874
40 People invite me to parties.	.610	.873

Table 4.8 Reliability of individual FIRO-B items continued.

FIRO-B item	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
41 I strongly influence other people`s ideas.	.463	.874
42 My close friends keep their feelings a secret from me.	-.294	.885
43vl look for people to be with.	.350	.876
44 Other people take charge when we work together.	.149	.879
45 There is a part of myself I keep private.	.152	.879
46 People invite me to join them when we have free time.	.568	.873
47 I take charge when I work with people.	.401	.875
48 At least two of my friends tell me their true feelings.	.446	.874
49 I participate in group activities.	.470	.874
50 People often cause me to change my mind.	.285	.877
51I have close relationships with a few people.	.378	.875
52 People invite me to do things with them.	.570	.873
53 I see to it that people do things the way I want them to.	.394	.875
54 My friends tell me about their private lives.	.458	.874

The FIRO-B appears to have good internal consistency, α =. 878. All items appeared to be worthy of retention: the greatest increase in alpha would come from deleting item 42, but removal of this item would only increase alpha by .007. All items correlated with the total score to a good degree (lower *r* = .4). This suggests that all items in the FIRO-B measures the same underlying construct of interpersonal personality.

4.14.4 D45 scale reliability

Table 4.9 Reliability statistics for the D45

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.955	.960	45

Table 4.10 Reliability of individual D45 items

D45 item	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
1Broken into house, shop, school and taken money or something else you wanted	.589	.954
2Broken into a locked car to get something from it	.546	.955
3Taken hubcaps, wheels, the battery or some other part of a car without the owner's permission	.623	.954
4Taken things worth between £10 and £100 from a shop without paying for them	.678	.954
5Threatened to beat someone up if they didn't give you money or something else you wanted	.660	.954
6Carried a razor, flick-knife or some other weapon with the intention of using it in a fight	.612	.954
7Pulled a knife, gun or some other weapon on someone just to let them know you meant business	.551	.955
8Beat someone up so badly they probably needed a doctor	.665	.954
9Taken a car belonging to someone you didn't know for a ride without the owner's permission	.631	.954
10Tried to get away from a police officer by fighting or struggling	.702	.954
11Used physical force (like twisting an arm or choking) to get money from another person	.531	.955
12Used a club, knife or other weapon to get something from someone	.570	.955
13Taken things from a wallet/purse (or the whole wallet/purse) while the owner wasn't around or looking	.589	.954
14Taken a bicycle belonging to someone you didn't know with no intention of returning it	.587	.954
15Tried to pass a cheque by signing someone else's name	.376	.955
16Intentionally started a building on fire	.410	.955
17Taken little things (worth less than £5) from a shop without paying for them	.615	.954
18Broken the windows of an empty house or other unoccupied building	.675	.954
19Bought something you knew had been stolen	.572	.954
20Refused to tell the police or some other official what you knew about a crime	.701	.954
21Picked a fight with someone you didn't know just for the hell of it	.474	.955
22Been involved in gang fights	.648	.954
23Been loud, rowdy or unruly in a public place	.648	.954
24Had sex in public	.603	.954
25Attended a demonstration or sporting event to cause a disturbance or be violent	.399	.955
26Smoked marijuana (grass/pot)?	.539	.955
27Driven a car when you were drunk or high on some drugs	.614	.954
28Taken barbiturates (downers) or speed (or other uppers) without a prescription	.678	.954
29Taken ecstasy ('E's)?	.682	.954
30Used heroin(smack) or cocaine	.693	.954
31Cheated at school in tests	.527	.955
32Not returned extra change that a cashier gave you by mistake	.330	.956
33Used fake money in a machine	.477	.955
34Taken things of large value (worth more than £100) from a shop without paying for them	.670	.954
35Been drunk regularly when you were under 16	.439	.956
36Broken into a house, shop, school or other building to break things up or cause other damage	.581	.954
37Dialled 999 just for a joke	.475	.955
38Let off fireworks in the street	.546	.955

Table 4.11 Reliability of individual D45 items continued

D45 item	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
39Deliberately travelled without a ticket on a bus, train or the tube	.608	.954
40Taken money from someone at home without returning it	.501	.955
41Deliberately littered the streets	.610	.954
42Annoyed or insulted a stranger	.525	.955
43Not gone to school when you should have been there	.491	.955
44Sniffed glue or other solvents (e.g. tippex thinner)	.645	.954
45Used or carried a gun to help you commit a crime	.654	.954

The D45 appears to have good internal consistency, $\alpha = .955$. All items appeared to be worthy of retention: the greatest increase in alpha would come from deleting item 32, but removal of this item would only increase alpha by .001. All items correlated with the total score to a good degree (lower $r = .3$). This suggests that all items in the D45 measures the same underlying construct of reported offending.

4.15 Procedure

All of the participants were recruited using opportunity sampling. The present study has the advantage of using a non-incarcerated sample, and as such any responses given to the items on the attitude to offending scales are more likely to reflect psychological preferences rather than relying on previous experience based on opportunity. The responses given towards these styles of behaviour and justification will enrich our understanding of the psychological concepts involved in attitude to offending. Understanding the various components involved in creating an attitude towards offending will give a better understanding of how propensity to crime can be increased or decreased. By understanding this propensity, crime prevention and rehabilitation techniques can be implemented more effectively.

It should be pointed out that the participants in the present study cannot be labelled 'non-offending'. One of the scales applied in the present study asks about criminal and deviant acts which the person may have carried out. The results from this reveal that participants have carried out a range of offences. As such, the present sample is labelled 'non-incarcerated'.

Participants completed the questionnaires in isolation, and were informed that their responses would be completely anonymous. Participants were assured that there were no identifiable personal details recorded. No participant required assistance to fill out their questionnaire. No time constraints were in place, each participant completed their questionnaires in the presence of the researcher. Each questionnaire was pre-numbered, this number was subsequently used to identify each participant. Several participants may have completed questionnaires at the same table, but care was taken to not allow others to see answers. The setting was therefore unlikely to influence people's responses.

A large research team was given full details of the respective studies and as all questions were printed, there was not likely to be any variation in the information which was obtained.

4.16 Facet theory approach

All of the scales presented within this research, including Schutzs' FIRO, are constructed and analysed using Facet Theory (FT) methodologies. FT procedures are an empirical method that allow for valid descriptions of complex sets of issues, such as those explored within the present research. Human behaviours and applied problems are rarely uni-dimensional, and often involve complex relationships between many factors. FT eloquently allows for the consideration of previous theoretical summations, formal definition of the issue(s) being studied, and a formal structure for determining empirical support for the model. Facet theory is comprised of a set of ideas about how to do research, and why it should be done that way (Runkel and McGrath, 1972).

4.17 Historical applications of facet theory

FT procedures have been applied for many years in a variety of different domains. FT procedures are able to produce solutions for complex research problems and have the capacity to be applied to many subject areas. FT is able to formulate laws of human behaviour in a constructive, cumulative way, and is able to handle variables of many types including ordinal and nominal (Shye, 1978). FT produces formal definitions of the subject of concern, which leads to more applicable results. Guttman summarises facet theory as follows:

> "Facet theory is providing an effective approach for fruitful design of content, leading to appropriate data analysis techniques, and producing laws of human behaviour in a cumulative fashion. One by product is the establishment of more solid bases for policy decisions" (Guttman, 1979, p.96).

Guttman (1954) developed FT procedures in response to demands for accurate data from U.S. military during World War 2. However, Canter (1983) points out that FT procedures hold potential for applied psychology due to its ability to handle many aspects of human behaviour. Guttman, a major advocate of FT, has applied FT procedures to the conceptualisation of intelligence (Guttman 1965), attitude towards work, and technological change (Elizur and Guttman, 1976). Amongst other uses, Guttman (1979) also influenced the application of the theory to the design of research projects, the construction of scales to gather data, and the methods to analyse such data.

The application of FT began to gather momentum in the mid 70's. Canter has applied FT to research areas such as the construction of energy conservation by British Universities (Miles and Canter, 1976), the evaluation of prison buildings (Ambrose and Canter, 1979), and housing satisfaction (Canter et al, 1980). Other researchers have applied FT procedures to areas such as job satisfaction (Shye and Elizur, 1976; Payne et al 1976), stress and employee burnout (Shirom, 1982), and even subjects as complex as quantum theory (Robert et al, 1999). In more recent years the subjects that FT has been applied to includes: advertising (Hetsroni, 2000; Hornik et al, 2009), attitudes (Brown and Barnet, 2000), and medicine (Hernandez et al, 2003). Even more recently, FT have been applied to areas such as criminal narratives and emotions (Canter & Ioannou, 2004).

4.18 Procedures to formulate hypotheses and general overview of Facet Theory

FT is concerned with the aim of revealing 'laws' (Shye, 1978). Hornik et al (2009) outline the way in which FT provides guidelines for defining any research project in a formal way. FT procedures allow for the consideration of three major areas within scientific activity: Firstly, it provides a definitional

framework for the universe of observations. Secondly, it provides an empirical structure for the collection of observations. Finally, it gives a hypothesis, or rationale, for the correspondence between the definition and the empirical structure (Canter, 1983; Hornik et al, 2007). Using Facet Theory procedures to analyse the results can also lend validity and reliability to a scale. The use of multidimensional scaling techniques allows a researcher to identify dominant themes and styles in participants' responses. When the themes or styles identified are concordant with hypotheses which are based on previous literature, it shows that the scale is measuring the concepts it proposes to measure.

There is a five stage process by which FT defines what is being studied, the expected relationships and the empirical support that it provides. The first stage is to define what it is that is being studied; Guttman describes this as 'universe of content' (cf Borg, 1978, p. 66). Once a domain is identified, facets are defined; this may be informed by previous literature. Then various elements within these facets are identified. The variables are then examined within a 'Cartesian' space, for regional contiguity, to either support or reject the structural hypotheses. Each of the stages will be elaborated on in the following sections.

4.19 Facets

A formal definition of a facet is: "Any set playing a role of a component set of a 'Cartesian' space, this set being a facet of that space" (Canter, 1977). A 'Cartesian' space refers to a given area in which the relationships between variables are shown as distances, rather than angles or any other specific dimension. The reference to 'Cartesian' space also indicates that no assumptions are being made about the dimensionality of the facets. Observations are classified on all of the facets (Canter, 1985); this issue will be elaborated on more within the SSA plot description.

Simply stated, a facet is a way of categorising observations, or data. FT has the capability of measuring several facets at the same time. However, where several facets are incorporated, each facet must have the same direction to it. Using Schutzs' FIRO scale as an example, there are two facets; a 'mode' facet and a 'form' facet. Having a higher score within the 'mode' facet indicates displaying more of that interpersonal behaviour; higher scores within the 'form' facet must also indicate displaying more of that behaviour. Every item within the questionnaire must measure all of these facets. Each of these facets is then broken down into as many 'elements' as necessary to exhaust the domain of study. Borg (1990) suggests that good facets should be clear enough to allow any expert in that field to be able to classify variables accordingly. A facet can identify a context, modality, or any other descriptive set of contexts, and should exhaust the domain of study.

Each facet is comprised of different elements; these elements must be mutually exclusive. As stated, a facet is a way of categorizing observations which are mutually exclusive; for example, gender could form a facet. Within the gender facet, the elements would be 'male' and 'female'. In Youngs' D42 scale the items within the questionnaire represent various gains of crime, therefore the facet being explored is 'type of gain'. The gains Material, Sensory, and Power/Status, form the elements within that facet. Similarly, Schutzs' FIRO interpersonal personality scale is comprised of two facets; the mode and form of behaviour. The form facet has the elements Inclusion, Control, and Openness. In a similar manner, the mode facet is made up of the elements Expressed and Received. When the facets are presented in the context of a mapping sentence, they provide a rationale for the hypotheses.

4.20 Elements

Elements are the sub categories within a facet, and collectively should exhaust the domain of study whilst remaining mutually exclusive. For example, above it was noted that 'gender' could form a facet; the elements within that facet would be 'male' and 'female'. These two elements are mutually exclusive; one cannot be male and female at the same time. They also exhaust the domain of gender. Within the present thesis, the distinction between the elements is qualitative. Using another example presented earlier; within Schutzs' theory of interpersonal behaviour one of the facets is 'mode' of behaviour. The elements within this facet are 'Expressed' (the way we treat other people) and 'Received' (the way others treat us). These are mutually exclusive as behaviours cannot be both Expressed and Received at the same time. These elements are also exhaustive; there are no other modes of behaviour that could be measured.

4.21 Mapping sentences

Mapping sentences are a key aspect within FT. As stated above, there are several types of facets that combine to create a formal mapping sentence. The first facet, normally symbolised as P (referring to population), defines the participants. The second facet, normally symbolised as S (referring to stimuli), define the content of the variables. These two facets define the 'domain' of a mapping sentence. The final facet is the 'range', commonly referred to as R; this facet defines the 'range' of possible outcomes presented within the questionnaire; for example 1=never…….6=always, this is known as the co-domain. These facets make up the formal aspects of the mapping sentence. The informal part of a mapping sentence is formed by the semantic connectives between each facet. These connectives are a term in ordinary language that connects them and describes what is being studied.

When FT procedures are used to construct a questionnaire, the mapping sentence is a key tool for the formulation of items. Each item on the questionnaire consists of one element from each facet, regardless of how many facets and elements exist. For example, if a mapping sentence has three facets (A, B, and C) with two elements in each one (1 and 2); then each item on the scale would constructed to represent A1, A2, B1, B2, C1, and C2; this is known as a 'structuple'. In the scales presented within this study, there are several items, worded in different ways, to represent each structuple.

A mapping sentence is a formal structure for summarising the domain being studied; a researcher is easily able to communicate a study with the use of a mapping sentence. In a similar way, a researcher can elaborate on others research and domain of study with a mapping sentence. Shye (1978) describes a mapping sentence as: "a verbal statement of the domain and of the range of a mapping including connectives between facets as in ordinary language" (p.413). Hornik et al (2009) proposes that a mapping sentence forces a researcher to think about and define the subject being researched, before embarking on such research. They further suggest that the use of a mapping sentence forms a neat bridge between the objectives and questionnaire design. A mapping sentence for each of the scales presented is included below.

Figure 4.1 Mapping sentence for the Hypothetical Offending Style Scale.

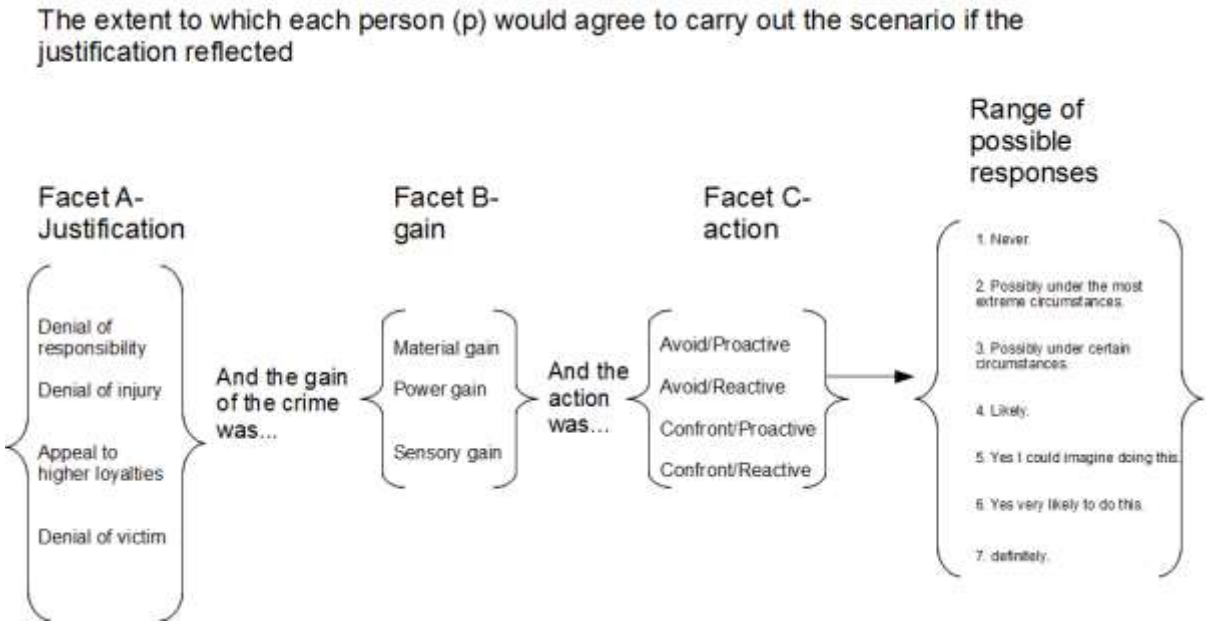


Figure 4.2 Mapping sentence for the Attitude to Offending Style Scale.

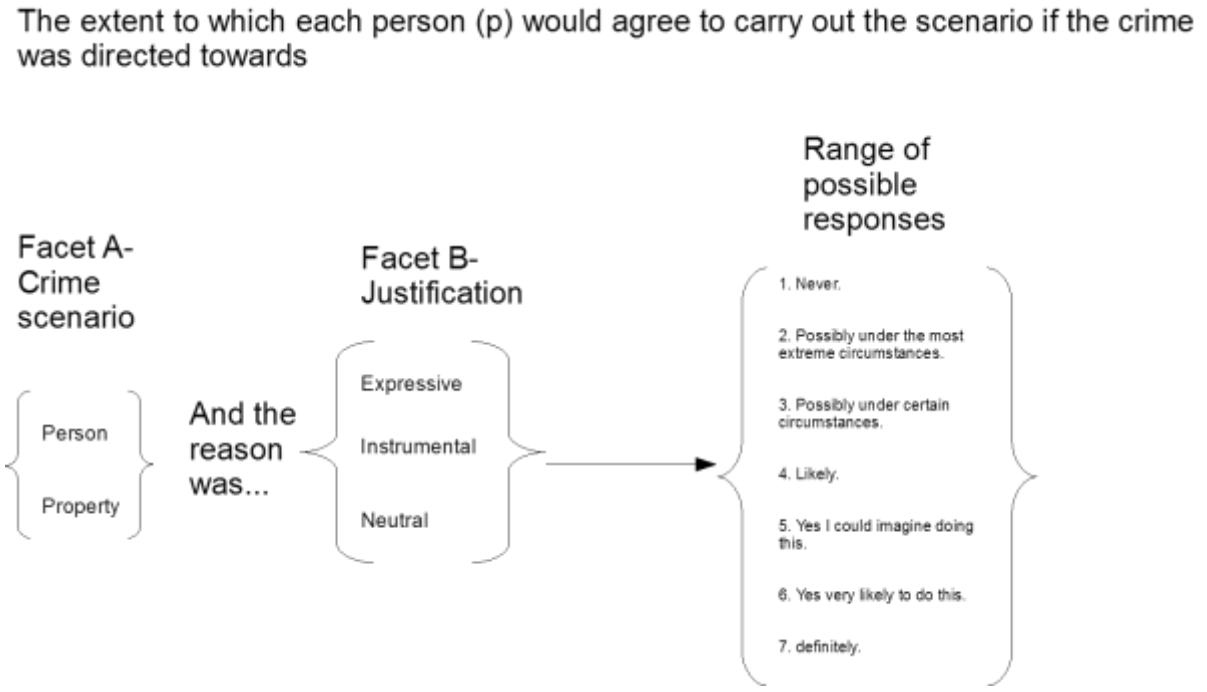


Figure 4.3 Mapping sentence for the FIRO-B scale

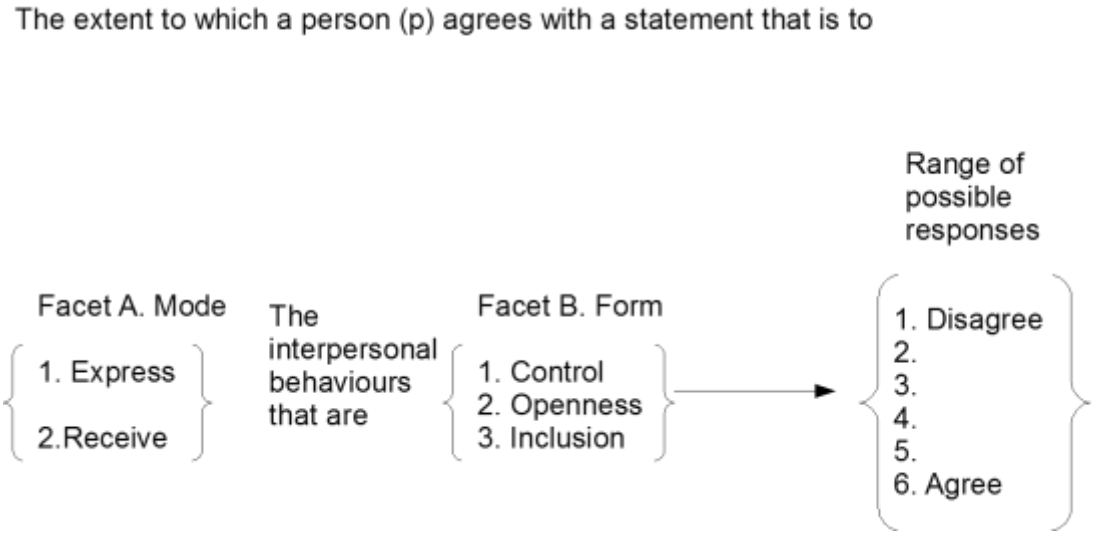
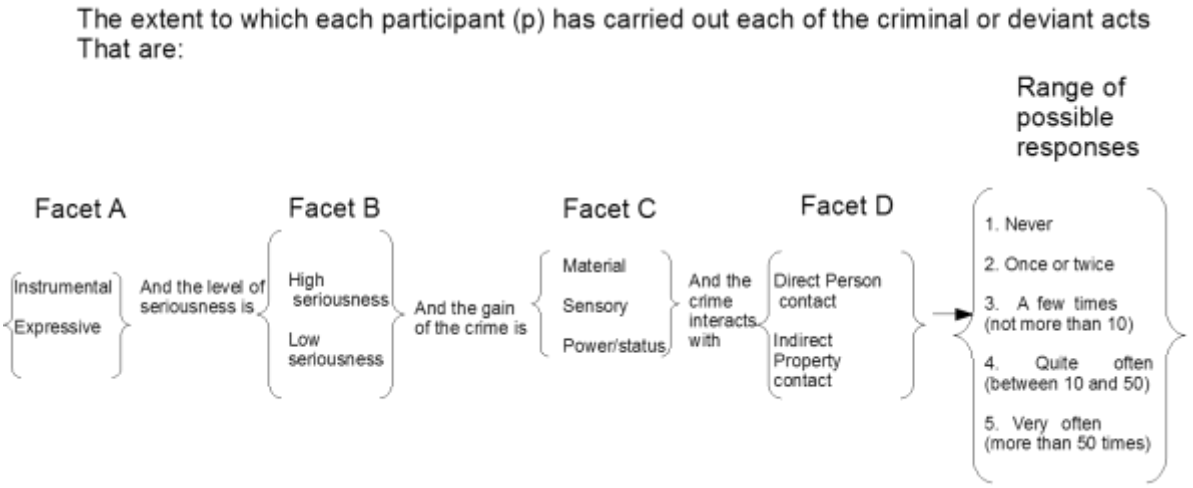


Figure 4.4 Mapping sentence for D45 scale

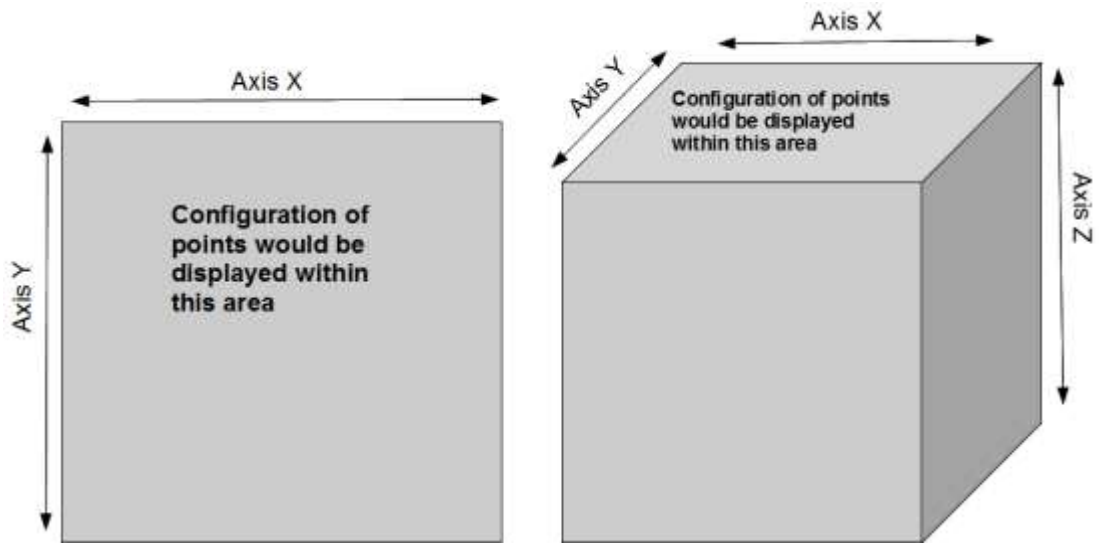


4.22 HUDAP computation.

HUDAP is a statistical computer program which generates a weighted Smallest Space Analysis (SSA) plot from all of the input variables (Amar and Shmuel 2002). This program applies statistical techniques in order to understand the structure of variables within a correlation matrix, and displays these in a geometric form. The data is input and a matrix of correlations is produced; this infers that in any resulting plot, the axes are arbitrary as it is the correlations between each item that produces the placement of variables within an SSA plot. The computer program then rank orders the correlations between all of the items. A spatial configuration of these items identifies each point as a variable; the distances between these items are taken and are also rank ordered. An iterative procedure is applied by HUDAP which compares the ranks of the correlations with the ranks of the distances, altering the items until a 'best fit' is achieved between the two sets of ranks. This best fit would be indicated by the coefficient of alienation; the lower this is, the better the fit. An acceptable coefficient of alienation for applied social psychology, such as that in the present thesis, would be .20 or below.

The researcher limits the dimension prior to analysis; in the present analyses, the minimum dimensionality is two and the maximum dimensionality is three. As noted above the boundaries of the plot are arbitrary; it is the distances between the items that is the key to understanding an SSA plot. Put another way, the items are displayed in a 'Cartesian' space where the items are plotted in relation to distances, not angles or any other measures. In order to demonstrate the dimensionality, if the items were displayed in figure 4.5 below, the square to the left would represent the 2 dimensional solution, and the cube to the right would represent the 3 dimensional solution. According to Guttman and Greenbaum (1998) a 3 dimensional solution is an appropriate way to summarise complex data.

Figure 4.5 Visual representation of dimensions produced by HUDAP computation.



The resulting SSA displays all of the variables within plot, the distances between the items represents the inverse of the correlations between them. In other words, items which are close together have a high correlation, whereas items which are far apart have a low correlation.

4.23 SSA plot

The SSA plot allows a researcher to examine the structure of the variables, which in turn allows the researcher to look for evidence of the elements of a facet. Items closer together are said to form regions; if the hypothesis is supported, then elements would be found within the same region. Lingoes (1979) says that the term 'Guttman's principle of contiguity' is used to describe the configuration of point on the SSA; items relating to similar concepts will be closer together.

In applying Guttman's principle of contiguity, the hypotheses regarding the formation of elements of the facets can be empirically established. If all of the variables from one element are located in the same region or area of the SSA plot, this would be support for that element. In FT language, these are first-order hypotheses. The researcher examines the configuration of the items on the plot, then the researcher defines each region with boundary lines; these lines serve only as a boundary and are not definitive. The purpose of these boundary lines is to highlight regions of similar items.

4.24 Why Facet Theory instead of other statistical methods.

FT procedures have benefits over other procedures such as Factor Analysis. Factor Analysis (FA) methods operate by defining and quantifying the relationship to some theoretical 'factor' assigning factor loadings to each item. Therefore, any theoretical assumptions can only be derived post hoc.

Hornik (2009) also criticises FA, and states "In FA, there is a large investment in the statistical analysis of the data and less in the exploration of the concepts involved, their definition, and the rationale for the particular structure of a content area. The structure of the content area is determined by loading, rather than a prior conceptual analysis." FT approaches research with a clear rational and definition of what is being studied; this can be summarised by the mapping sentence.

The assumptions within FA are also restricting; it assumes that the variables are linearly ordered and at least interval (Tziner, 1987). However, this assumption cannot always be applied to the behaviour of humans. FT has the advantage of not imposing any assumptions and can process several types of data. Also, FT can provide a framework for clearly defining the research problem, and allows a fuller understanding of the structural relationships between variables.

4.25 Criticisms of Facet Theory approach to research.

Some researchers have reported a number of draw backs to applying FT to a research area. Canter (1983) highlights that some methodologists report that when using 'Guttman scales', there is no obvious way of finding items for a cumulative scale. Canter goes further to suggest that the FT literature is vague on how to 'find' facets, and the literature is often too complex for social scientists to fully appreciate its use. However, by applying the principle of regional contiguity a researcher can examine items in any one region and identify common themes; this procedure may highlight groups of variables with similarities, and as such, would form an element.

Other researchers, such as Hornik (2007), have suggested that the interpretation of the results can be very subjective and open to other interpretations, so long as they can be shown to be fruitful. One of the strengths of FT, its extensive application in many domains, has led to FT methods to not be as fully appreciated as it should be.

Chapter 5. Assessing the structure of attitude towards offending.

The purpose of the present chapter is to evaluate the structure of attitude to offending. The opening chapters outlined that attitude towards offending is likely to be complex. The studies outlined in the opening chapters have been limited in the factors they explore.

Studies within Investigative Psychology have demonstrated that offending behaviour should be examined as styles of interaction with certain targets and levels of gain. Therefore, it is reasonable to assume that attitude towards offending can be differentiated in the same way.

5.1 Pilot study into attitude to offending.

A novel scale is developed to measure such attitudes; the scale presents multi-factorial hypothetical crime scenarios. Participants are asked to indicate how likely they would be to engage in the act, thus measuring their attitude towards its contents. This scale is to be utilized in a pilot study and is called the 'Hypothetical Offending Style Scale' (HOSS).

By constructing a scale which presents hypothetical crime scenarios, it will be possible to incorporate a range of factors. As this is a novel way to evaluate attitude to offending, a pilot study is needed to assess which psychological and behavioural factors are attended to and differentiated when evaluating the appropriateness of an act.

The HOSS is constructed using Facet Theory so that it can measure several components of behaviour in each item. The HOSS presents a range of hypothetical crime scenarios which are presented alongside various justifications.

There is evidence to suggest that individuals will show a preference for the gain a crime produces, the thinking styles, and the justification. Previously, these components have been examined in isolation to each other. It is hypothesised that these factors should be examined in combination to determine their influence on each other. As the remit of the present thesis is to examine attitude, the various concepts will be examined by exploring responses to hypothetical scenarios.

It is hypothesised that individuals will show distinct preferences for the level and type of gain a crime produces, and the proactive or reactive nature in the behaviours. More specifically, it is proposed that individuals will differentiate crime scenarios which produce a Material, Power, or Sensory gain. It is also proposed that individuals will differentiate the crime scenarios which contain confronting or avoidant behaviours, and are proactive or reactive. It is also hypothesised that individuals will show preferences for the style of justification which is applied to the scenario's. It is possible that some reasons for actions will be more compelling than others; therefore it is proposed that individuals will differentiate justifications according to the Neutralization techniques outlined by Sykes & Matza (1957).

5.2 Hypothetical Offending Style Scale

The Hypothetical Offending Style Scale (HOSS) is comprised of four justifications; these justifications are presented alongside twelve hypothetical crime scenarios. The elements within the justification facet are constructed to reflect the neutralisation techniques proposed by Sykes and Matza (1957).

A, If you were so upset you felt out of your mind

B. If nobody got permanently hurt or harmed

C. If you needed to do it to protect you or your family in some way

D. If you'd been done wrong

Justification A is constructed to represent the neutralisation technique '*Denial of responsibility'*. By stating '*you felt out of your mind'*, the justification indicates that there is a factor which is outside of the person's control. This Neutralisation technique infers that the individual is helplessly propelled in the situation, and that there may be factors beyond that person's control. Justification B is constructed to represent '*Denial of injury'.* This technique infers that the action does not cause any physical harm and is stated explicitly within the statement *'If nobody got hurt or harmed'*. Justification C is constructed to represent '*Appeal to higher loyalties'*. By stating '*you needed to do it to protect your family in some way'*, this justification implies that other norms and beliefs are more important. For example, taking care of family members is seen as more important than not breaking the law. Finally, justification D is constructed to represent '*Denial of the victim'*. This technique suggests that any injury caused is not wrong in light of the circumstances. In stating '*you'd been done wrong'*, the justification suggests that the victim deserved it in some way.

As stated in the introductory section, Sykes & Matza (1957) proposed five techniques of neutralisation, however, the present study only utilizes four of them. The fifth neutralisation technique '*Condemnation of the condemners'* shifts the focus of attention away from their own behaviours to those who disapprove. In a large scale study this would be difficult to incorporate in a general justification, as it would depend on who is disapproving. Therefore, this technique is not included in the present scale.

The following twelve crime scenarios are presented to participants alongside each of the justifications. The twelve scenarios contain three different types of gain and different behaviours which may be used to secure those gains. The scenarios are constructed to represent the different gains proposed by Youngs (2001) as elements; these are Material, Power, and Sensory. Youngs developed these gains to reflect the fundamental incentives proposed by Bandura (1986). These items are also constructed to represent a mixture of avoidant or confronting behaviours, as well as reactive or proactive actions.

1. *Grab the handbag from a wealthy woman standing alone on a platform at night.*
2. *Follow a rich looking older couple until they left the main street then grab their bags.*
3. *Lie about your possessions to the insurance company then pretend to lose some of these possessions.*
4. *Add a few extra very valuable items to the list when reporting a loss to the insurance company.*
5. *Threaten a stranger who was rude to you.*
6. *Leave a threatening message on the answerphone of someone who treated you really badly.*
7. *Go round to the house of someone who'd been telling lies about you to tell them to stop or else.*
8. *Write a warning email to someone who you thought was after your partner*
9. *Try the pot someone offered you at a party*
10. *Take your neighbour's fancy new sports car for a drive without their permission while they were on holiday*
11. *Get a friend to bring you some pot to a party*

12. *Set fire to a bin to watch the flames then call the fire brigade to tell them (without giving your name).*

Crime scenarios 1, 2, 3, and 4 are constructed to have a *Material gain*; in each of these scenarios, money is the material gain. The wording of the items infers that two of the Material gain items are obtained by direct physical methods (such as grabbing bags from people), or indirect verbal methods (such as lying). Scenarios 5, 6, 7, and 8, are constructed to have a *Power gain*. The wording of these items infers that the gain is made by direct actions (such as having a verbal conflict), or indirect methods (such as leaving a message). Scenarios 9, 10, 11, and 12 are constructed to represent a *Sensory gain*. The wording of these items suggests that the level of sensory gain would be high (such as stealing a car or setting fire to bin), or low (such as taking marijuana).

There are various styles of action represented in the scenarios, these are Confront or Avoid behaviours, which are Proactive or Reactive. The confront behaviours describe direct physical contact between individuals, for example item 1 '*Grab the handbag from a wealthy woman standing alone on a platform at night'*. The avoidant behaviours represent more of an indirect verbal form of interaction between individuals. An example of avoidant behaviour is item 3 '*Lie about your possessions to the insurance company then pretend to lose some of these possessions'*. The proactive items describe behaviours which are sought out and have a degree of pre-planning, for example item 11 '*Get a friend to bring you some pot to a party'*. Whereas the reactive behaviours are more of an immediate reaction within a situation, for example item 9 '*Try the pot someone offered you at a party*'.

Crime scenarios 1, 5, and 10 are constructed to represent Confront/Reactive behaviours. The scenarios 2, 7, and 12 are constructed to represent Confront/Proactive behaviours. The scenarios 3, 8, and 11 are constructed to represent Avoid/Reactive items. Finally, items 4, 6, and 9 are constructed to represent Avoid/Proactive behaviours.

Table 5.1 Mean scores from Hypothetical Offending Style Scale.

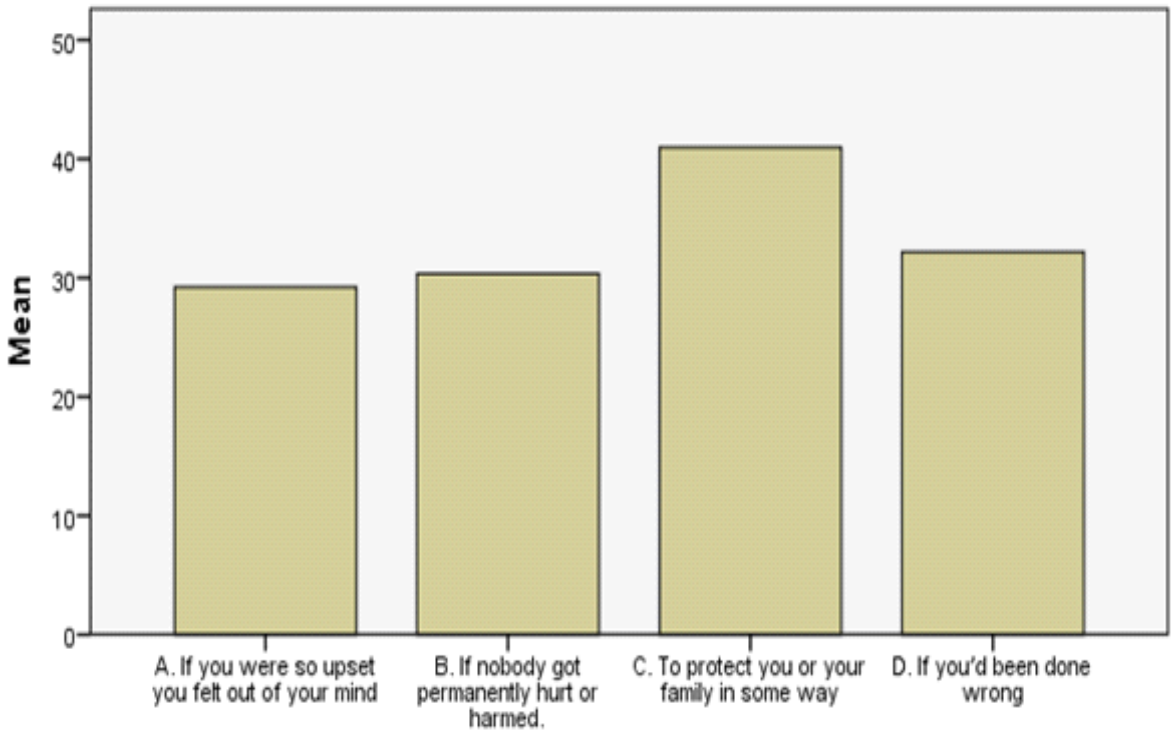
Justifications → / Crime scenarios ↓	**A. If you were so upset you felt out of your mind**	**B. If nobody got permanently hurt or harmed.**	**C. To protect you or your family in some way**	**D. You'd been done wrong**
	Mean (SD)	**Mean (SD)**	**Mean (SD)**	**Mean (SD)**
1. Grab the handbag from a wealthy woman standing alone on a platform at night	1.21 (.8)	1.30 (1.1)	2.24 (2.1)	1.31 (1.0)
2. Follow a rich looking older couple until they left the main street then grab their bags	1.18 (.8)	1.23 (1.0)	2.07 (1.9)	1.33 (1.1)
3. Lie about your possessions to the insurance company then pretend to lose some of these possessions	2.43 (1.8)	2.74 (2.1)	3.68 (2.4)	2.85 (2.1)
4. Add a few extra very valuable items to the list when reporting a loss to the insurance company	2.73 (1.8)	3.18 (2.2)	3.89 (2.3)	3.20 (2.2)
5. Threaten a stranger who was rude to you	3.42 (1.8)	3.57 (2.3)	4.99 (2.1)	3.89 (2.1)
6.Leave a threatening message on the answerphone of someone who treated you really badly	2.94 (1.9)	3.05 (2.0)	4.40 (2.4)	3.60 (2.3)
7. Go round to the house of someone who'd been telling lies about you to tell them to stop or else	3.92 (2.0)	3.86 (2.3)	4.85 (2.3)	4.15 (2.3)
8. Write a warning email to someone who you thought was after your partner	3.86 (2.2)	3.57 (2.3)	4.61 (2.4)	3.76 (2.3)
9. Try the pot someone offered you at a party	2.94 (2.2)	2.87 (2.4)	3.02 (2.4)	2.72 (2.2)
10. Take your neighbour's fancy new sports car for a drive without their permission while they were on holiday	1.47 (1.2)	1.77 (1.7)	2.52 (2.2)	1.74 (1.6)
11. Get a friend to bring you some pot to a party	2.33 (1.9)	2.48 (2.2)	2.94 (2.3)	2.35 (2.1)
12. Set fire to a bin to watch the flames then call the fire brigade to tell them	1.26 (1.1)	1.38 (1.3)	2.25 (2.0)	1.52 (1.4)

5.3 Summary of mean scores of various justifications

Table 5.1 above illustrates that the highest scores are given to items presented with justification C '*to protect family in some way'* ('appeal to higher loyalties' neutralisation technique). This suggests that individuals are most likely to agree to hypothetical crime scenarios when the reason for action is to protect a life. In contrast to this, the majority of crime scenarios (nine out of the twelve) have assigned the lowest scores to items which have justification A. '*If you were so upset you felt out of your mind'* (denial of responsibility). This suggests that participants are least likely to agree to hypothetical scenarios when the reason for action is because they are upset. However, crime scenarios 7 and 8 (Power gains) have the lowest scores for the items which have justification B. '*If nobody got permanently hurt or* harmed' (Denial of injury). This indicates that participants are least willing to seek out Power gains when they believe nobody will get hurt. It is possible that this is due to the nature of the gain. For a person to seek power over another, it may be counter-intuitive to be less willing to do this because someone may be hurt. Crime scenario 9 '*Try the pot someone offered you at a party'* (a Sensory gain) has the lowest score when the justification is D. '*If you'd been done*

wrong' (Denial of the victim). This suggests that for this particular Sensory gain, people are least willing to act when they believe they are the victim. A possible explanation for this may be that the action within this scenario would not enhance the sensory gain, or make the individual feel any less of a victim. The bar chart in figure 5.1 below shows a summary of mean scores for each justification style. It clearly shows the higher scores given to all scenarios when it is to protect a member of the family. The bar chart also shows that there is little variation in scores for the remaining three justifications. Feeling upset is the justification with the lowest scores, however, this is only slightly less than for the justifications 'nobody getting hurt' and 'been done wrong'.

Figure 5.1. Bar chart showing mean scores for each type of justification.

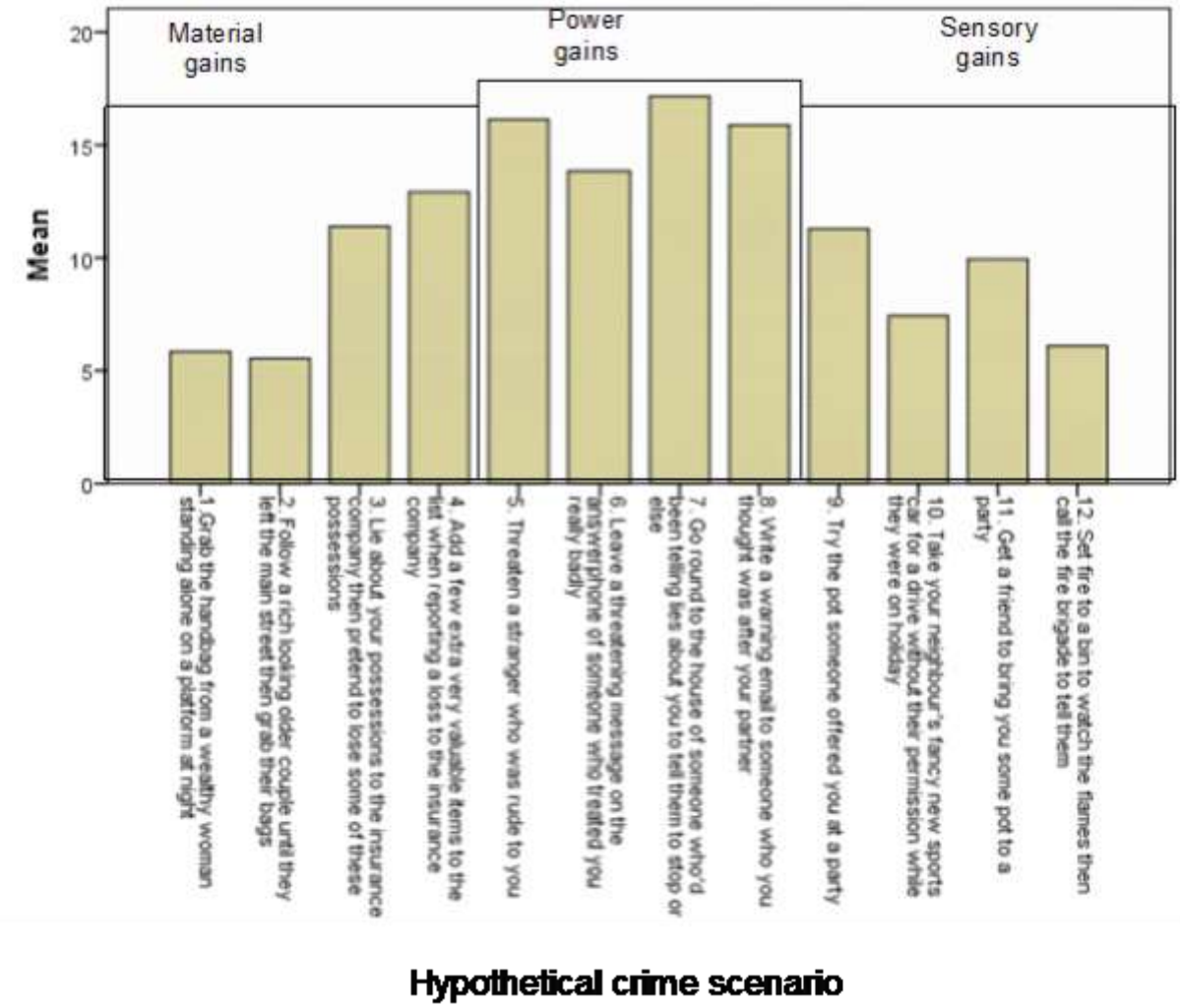


5.4 Summary of mean scores for various crime types

The bar chart in figure 5.2 below shows that the highest scores are for scenarios 5, 6, 7, and 8; these items represent Power gains. This suggests that members of the general public are most likely to carry out scenarios which produce feelings of power. Scenarios 3 and 4 have scores which are just slightly lower than these Power gain items, these two items represent material gains made through verbal methods. This suggests that besides the items representing Power gains, individuals are likely to give high responses to material gains which require a verbal interaction to secure the gain. It is possible that these six high scoring items are understood to be the least serious, as they may result in less serious punishments.

The scenarios with the low scores are 1, 2, 10, and 12. Items 1 and 2 have the lowest scores and these represent Material gains secured by direct physical methods. Items 10 and 12 represent more serious Sensory gains. It is possible that these items are understood to be increasing in both seriousness and perceived punishment if caught.

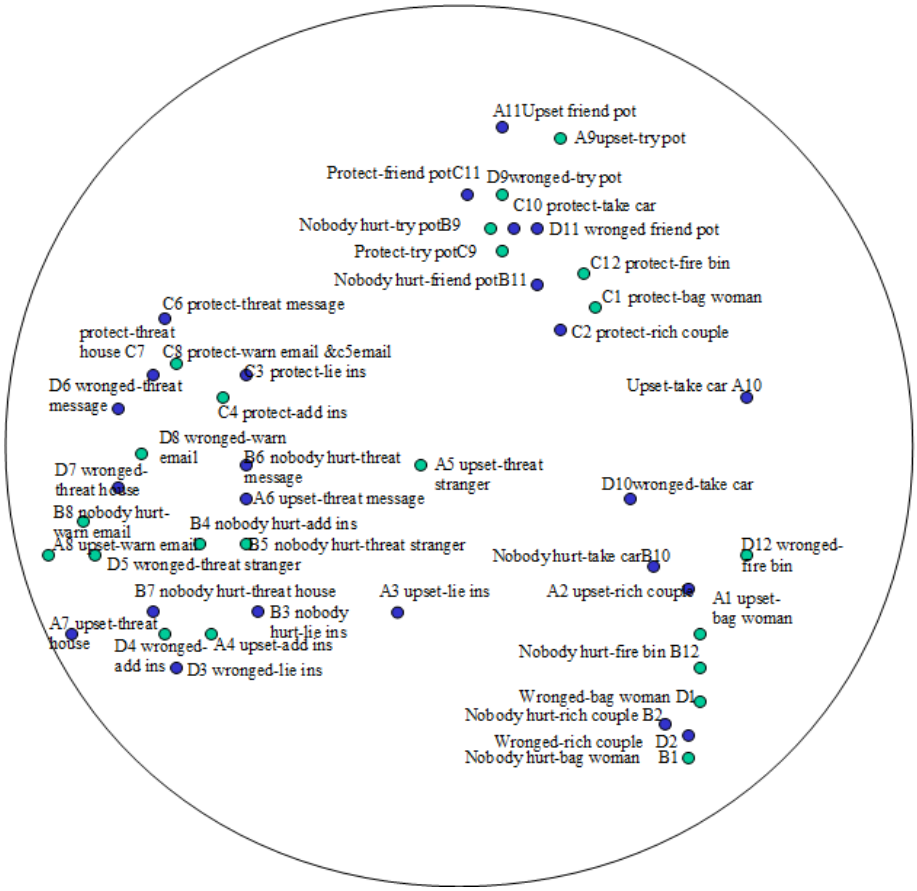
Figure 5.2 Bar chart of mean scores for each crime scenario.



5.5 Examining structure of items using Smallest Space Analysis.

The raw data from the Hypothetical Offending Style Scale is entered into a computer program known as HUDAP and produces an SSA (see chapter 4 for details). An SSA will test the construct validity of a multi-faceted questionnaire such as the one applied in the present study. The first projection (vector 1 by vector 2) of the two dimensional solution was selected. The coefficient of alienation (Borg & Lingoes, 1987) indicates how clearly the rank orders of the distances between the points within the given space, relate to the rank orders of the coefficients between the items. In general the lower the coefficient the better the fit, in this instance the coefficient is .15 which indicates an acceptable overall fit.

Figure 5.3 SSA plot of Hypothetical Offending Style Scale scores.



The results displayed are from a 2 dimensional 1 x 2 projection with a coefficient of alienation of .15615 in 10 iterations.

Table 5.2 Key to HOSS SSA

	Crime scenario
A. If you were so upset you felt out of your mind	1. Grab the handbag from a wealthy woman standing alone on a platform at night.
	2. Follow a rich looking older couple until they left the main street then grab their bags.
B. If nobody got permanently hurt or harmed	3. Lie about your possessions to the insurance company then pretend to lose some of these possessions.
	4. Add a few extra very valuable items to the list when reporting a loss to the insurance company.
	5. Threaten a stranger who was rude to you.
C.If you needed to do it to protect you or your family in some way	6. Leave a threatening message on the answerphone of someone who treated you really badly.
	7. Go round to the house of someone who'd been telling lies about you to tell them to stop or else.
	8. Write a warning email to someone who you thought was after your partner
D.If you'd been done wrong	9. Try the pot someone offered you at a party
	10. Take your neighbour's fancy new sports car for a drive without their permission while they were on holiday
	11. Get a friend to bring you some pot to a party
	12. Set fire to a bin to watch the flames then call the fire brigade to tell them (without giving your name).

5.6 General structure of variables on SSA plot.

Initial consideration of the points within the SSA reveals that there are no distinct areas which show similar justifications together. For example, there are 12 crime scenarios presented with justification A '*If you were so upset you felt out of your mind*', and these 12 items are distributed across the geometric shape, indicating their lack of correlation. Items A1, A2, A9 and A10 are located throughout the right side of the plot whereas items A3, A4, A5, A6, A7, A8 and A9 are located on the left side. Similar distributions are seen for justifications B '*nobody was hurt'* and D '*been wronged'*, there are a dispersal of items across the plot.

There appears to be three main areas on the SSA where items are clustered. The first cluster of items is located to the top right and contains items that mostly represent '*taking pot'*. This structure is evident regardless of the justification applied to it. This suggests that individuals show a similar level of attitude towards these items regardless of the justification for action. Six items in this area have justification C '*to protect family',* which suggests that individuals showed a preference towards this justification when combined with different scenarios. For example, items C9 and C10 represent scenarios which indicate taking pot, whereas items C1 and C2 represent stealing bags from people. These scenarios represent different forms of gain and behaviour, but are still in the same region. This means that individuals show a preference for the justification rather than the scenario. The table of mean scores (table 5.1) indicates that all of the items in this upper right region have the highest values, this would explain their placement together in this region. It is suggested that individuals show a similar level of attitude towards scenarios which have a lower level of gain, except when the justification is to protect family, then higher gain scenarios are also considered.

The second cluster of variables appears in the lower right region of the plot. Again, this region contains items representing all four justifications, suggesting that reason for action is not the primary factor which influences attitude. This region contains items with a higher level of gain, for example, A1, A2, B1, B2, D1 and D2 represent the scenarios which suggest taking a bag from a woman or couple, and would produce a higher level of gain than trying pot at a party.

The third cluster of variables is located to the left side of the plot and contains items which require some verbal interaction to secure the gain. Items in this region include A6, A7 B6, B7, C6, C7, D6 and D7 which represent the scenarios '*Leave a threatening message on the answerphone of someone who treated you really badly',* and '*Go round to the house of someone who'd been telling lies about you to tell them to stop or else'* respectively. Both of these scenarios produce a Power gain and require a verbal method to secure such gain.

Other items in this region also represent Material gains, for example, A3, A4, B3, B4, C3, C4, D3, and D4 represent the scenarios '*Lie about your possessions to the insurance company then pretend to lose some of these items' ,*and '*Add a few extra very valuable items to the list when reporting a loss to the insurance company'* respectively. Although these items represent Material gains, these scenarios require some physical action, rather than verbal, to secure the gain.

The mapping sentence (figure 4.2 in chapter 4) describes the various elements and facets within the HOSS. To systematically explore a number of structural hypotheses, the SSA will be examined to determine if the items relating to each facet can be identified in regional proximity. The SSA will be examined to investigate the following criteria:

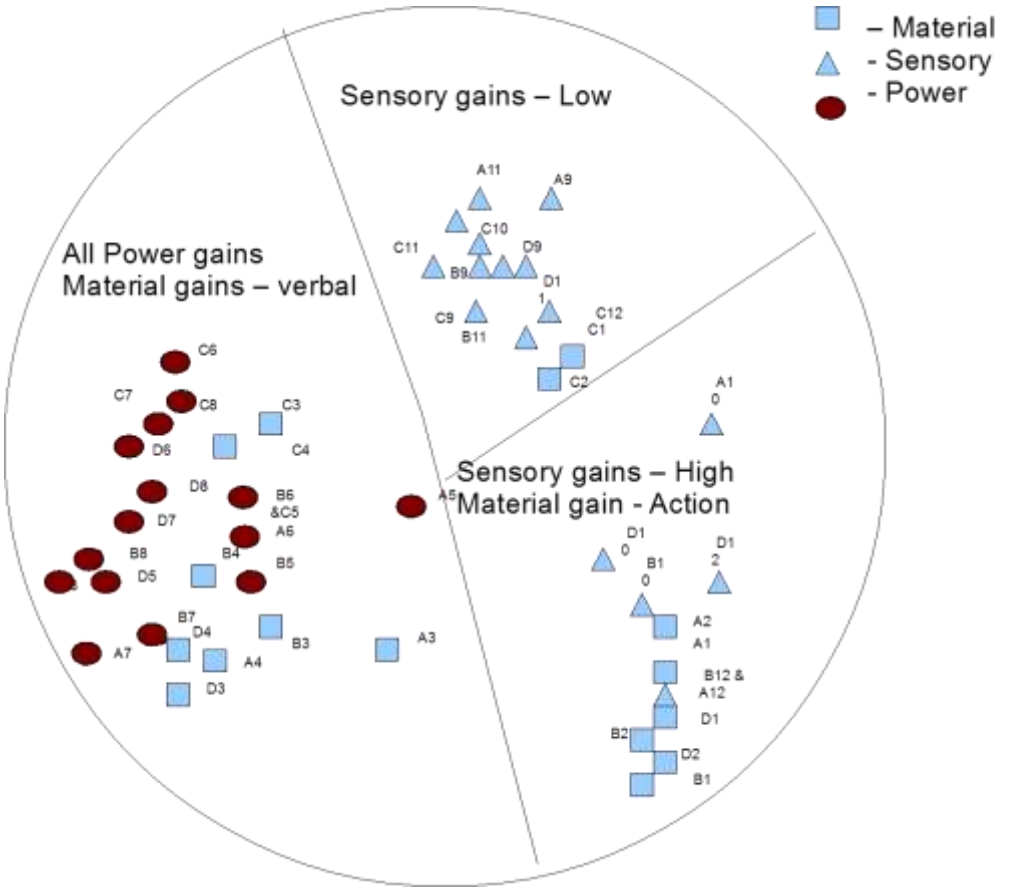
a. Items proposed to measure each of the elements above will be located into distinct region areas.

b. These regions will be geographically exclusive to the concept.

Table 5.3 Table of items representing each gain type.

Material gains	Power gains	Sensory gains
Grab a handbag from a wealthy woman standing alone on a platform at night	*Threaten a stranger who was rude to you*	*Try the pot someone offered you at a party*
Follow a rich looking older couple until they left the main street then grab their bags	*Leave a threatening message on the answerphone of someone who treated you really badly*	*Take your neighbour's fancy new sports car for a drive without their permission while they were on holiday*
Lie about your possessions to the insurance company then pretend to lose some of these possessions	*Go round to the house of someone who'd been telling lies about you to tell them to stop or else*	*Get a friend to bring you some pot to a party*
Add a few extra very valuable items to the list when reporting a loss to the insurance company	*Write a warning email to someone who you thought was after your partner*	*Set fire to a bin to watch the flames then call the fire brigade to tell them (without giving your name)?*

Figure 5.4 SSA plot of Hypothetical Offending Style Scale showing structure of gain types.



This is the same SSA as shown in fig. 5.3, labels have been removed for ease of interpretation.

Table 5.4 Key to HOSS SSA

	Crime scenario
A. If you were so upset you felt out of your mind	1. Grab the handbag from a wealthy woman standing alone on a platform at night.
	2. Follow a rich looking older couple until they left the main street then grab their bags.
B. If nobody got permanently hurt or harmed	3. Lie about your possessions to the insurance company then pretend to lose some of these possessions.
	4. Add a few extra very valuable items to the list when reporting a loss to the insurance company.
	5. Threaten a stranger who was rude to you.
C.If you needed to do it to protect you or your family in some way	6. Leave a threatening message on the answerphone of someone who treated you really badly.
	7. Go round to the house of someone who'd been telling lies about you to tell them to stop or else.
	8. Write a warning email to someone who you thought was after your partner
D.If you'd been done wrong	9. Try the pot someone offered you at a party
	10. Take your neighbour's fancy new sports car for a drive without their permission while they were on holiday
	11. Get a friend to bring you some pot to a party
	12. Set fire to a bin to watch the flames then call the fire brigade to tell them (without giving your name).

5.7 Location of Material gain items.

Figure 5.4 above shows the structure of variables when they are defined as the type of gain they produce. For ease of interpretation the variable labels have been removed, a full description of the SSA labels can be found in table 5.4. The type of gain the items represent is indicated by the shape of the point on the SSA. Material gains are identified with a square, Power gains are identified with a circle and Sensory gains are identified with a triangle. Table 5.3 shows which scenarios represent each gain type.

There are 16 items representing Material gains. Each of the scenarios is presented four times as it is combined with each justification.

The items representing Material gain are not in one particular area of the SSA, therefore criterion **a)** cannot be supported; by extension criterion **b)** cannot be supported either. The SSA in figure 5.4 above shows Material gain items in two regions; one cluster to the right and one cluster to the left. The eight items representing scenarios 1 and 2 (for justifications A, B, C and D) are located on the right side; these scenarios suggest that the Material gain is secured through direct physical methods. The eight items representing scenarios 3 and 4 (for justifications A, B, C and D) are on the left side, these scenarios suggest that the Material gain is secured through indirect verbal methods. The results suggest that the type of gain is not the only factor that influences the level of preference for these items; the method by which the gain is made also influences choice.

5.8 Location of Power gain items.

The sixteen items representing Power gains are all located on the left side of the SSA; this satisfies criterion **a).** However, the left region of the plot is not exclusive to Power gains, and as such criterion **b)** cannot be supported. The eight items representing Material gains (scenarios 3 and 4 (for justifications A, B, C and D), suggest that the Material gain is made through indirect verbal methods, these are located amongst the items representing Power gains. All of the items on the left side of the SSA are more dispersed than those on the right, which suggests that there is more variability in level of responses. However, their proximity to each other does suggest that participants showed a similar level of response to these items.

5.9 Location of Sensory gain items.

The sixteen items representing Sensory gains are on the right side of the SSA, this satisfies criterion **a).** However, criterion **b)** cannot be supported as this region is not exclusive to this concept. There are two regions containing Sensory gain items; one in the upper right and one in the lower right.

The eight items representing scenarios 11 and 12 (for justifications A, B, C and D) are located in the upper right area of the plot. These items suggest that the sensory gain would involve drug taking behaviours, and produce a lower level of gain. The eight items representing scenarios 10 and 12 (for justifications A, B, C and D) suggest that the level of sensory gain would be higher. The majority of these items are located in the lower right region of the plot.

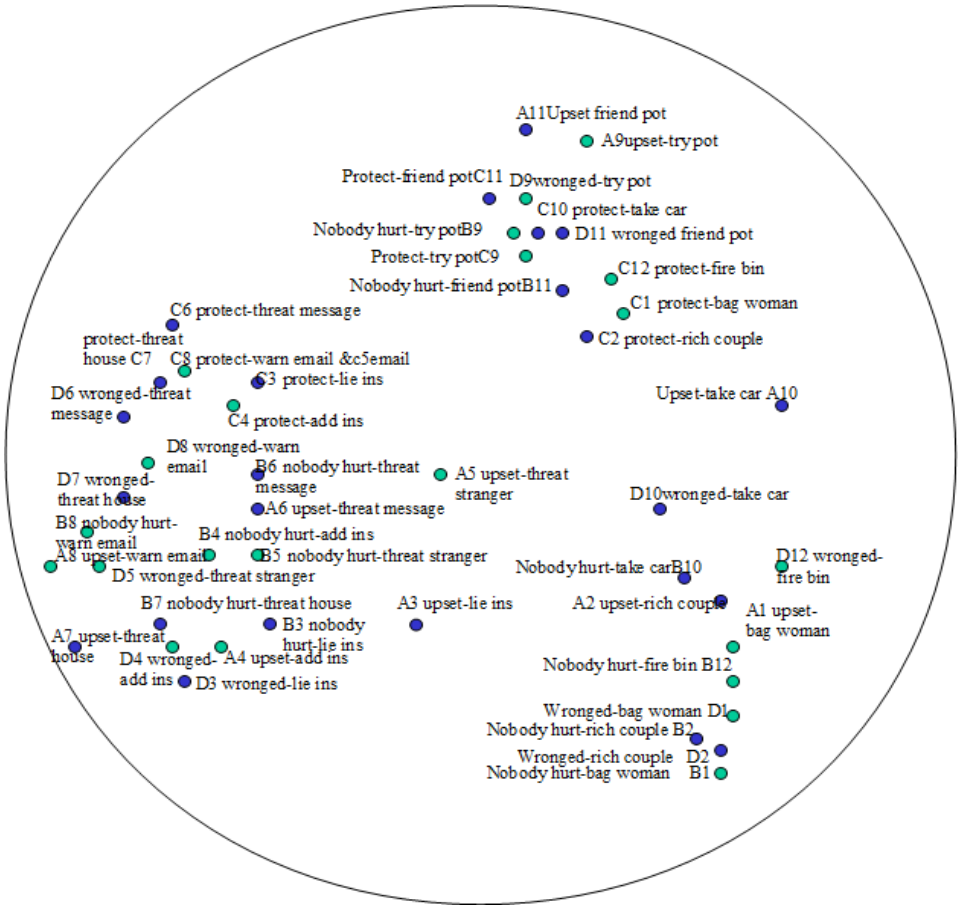
However, the higher level Sensory gains combined with the justification '*to protect family in some way',* are located in the upper right region amongst the lower level Sensory gain items.

This suggests that individuals differentiate these items based on the level of Sensory gain which is produced. However, the high sensory gain items combined with the justification 'to protect family', are located above this amongst the lower level sensory gains. Table 5.1 shows the mean and standard deviation for each item; it reveals that all of the items in the top right hand region of the SSA have higher mean scores than the other items. Items 1 and 2 are located amongst the Sensory gain items. This suggests that individuals show a similar level of preference towards sensory gains and material gains which require a physical action to secure the gain.

5.10 Summary of type of gain.

In sum, items clustered in the top right region are those with the highest frequencies and contain items producing a lower level of Sensory gain, except when the justification is to protect family in some way; then all Sensory items are in the same region regardless of level of gain. This demonstrates that in general, people are most likely to show a positive attitude to items producing a lower level of Sensory gain. The items located in the bottom right of the plot are items producing a higher level of Sensory gain (except for the justification '*protect family')*. The lower right region also contains the Material gains that require a physical action. It is possible that the Material gains requiring a physical action produce a high Sensory component. The cluster of items in the left region contains all the Power gain scenarios. This area of the SSA also contains Material gains that require a verbal action. This suggests that Material gains secured through verbal methods are associated with a Power gain component.

Figure 5.5 SSA plot of Hypothetical Offending Style Scale examining behaviour types.



This is the same SSA as shown in fig. 5.3.

Table 5.5 Key to HOSS SSA

	Crime scenario
A. If you were so upset you felt out of your mind	1. Grab the handbag from a wealthy woman standing alone on a platform at night.
	2. Follow a rich looking older couple until they left the main street then grab their bags.
B. If nobody got permanently hurt or harmed	3. Lie about your possessions to the insurance company then pretend to lose some of these possessions.
	4. Add a few extra very valuable items to the list when reporting a loss to the insurance company.
	5. Threaten a stranger who was rude to you.
C.If you needed to do it to protect you or your family in some way	6. Leave a threatening message on the answerphone of someone who treated you really badly.
	7. Go round to the house of someone who'd been telling lies about you to tell them to stop or else.
	8. Write a warning email to someone who you thought was after your partner
D.If you'd been done wrong	9. Try the pot someone offered you at a party
	10. Take your neighbour's fancy new sports car for a drive without their permission while they were on holiday
	11. Get a friend to bring you some pot to a party
	12. Set fire to a bin to watch the flames then call the fire brigade to tell them (without giving your name).

Table 5.6 Table of items which represent behavioural style

	Confront	Avoid
Reactive	1. *Grab the handbag from a wealthy woman standing alone on a platform at night*	4. *Add a few extra very valuable items to the list when reporting a loss to the insurance company*
	5. *Threaten a stranger who was rude to you*	6. *Leave a threatening message on the answerphone of someone who treated you really badly*
	10. *Take your neighbour's fancy new sports car for a drive without their permission while they were on holiday*	9. *Try the pot someone offered you at a party*
Proactive	2. *Follow a rich looking older couple until they left the main street then grab their bags*	3. *Lie about your possessions to the insurance company then pretend to lose some of these possessions*
	7. *Go round to the house of someone who'd been telling lies about you to tell them to stop or else*	8. *Write a warning email to someone who you thought was after your partner*
	12. *Set fire to a bin to watch the flames then call the fire brigade to tell them (without giving your name)*	11. *Get a friend to bring you some pot to a party*

5.11 Confront and Reactive behaviours.

The items that represent Confront/Reactive are A1, A5, A10, B1, B5, B10, C1, C5, C10, D1, D5, and D10. Table 5.6 gives a list of the scenarios that represent each of the elements. None of the twelve items representing Confront/Reactive can be found in any distinct region of the SSA; therefore criterion **a)** cannot be supported. As a result of this, criterion **b)** cannot be supported either; there are no regions of the SSA that are exclusive to this concept.

5.12 Confront and Proactive behaviours.

The items that represent confront/proactive are A2, A7, A12, B2, B7, B12, C2, C7, C12, D2, D7, and D12. There are no identifiable regions that contain Confront/Proactive items, therefore criterion **a)** cannot be supported, by extension criterion **b)** cannot be supported either. This suggests that preferences are not constructed on the basis of being Confront/Proactive actions.

5.13 Avoid and Reactive behaviours.

The items that represent Avoid/Reactive are A4, A6, A9, B4, B6, B9, C4, C6, C9, D4, D6, and D9. Criterion **a)** cannot be supported as there is no area of the SSA that contains all the items related to this concept, by extension criterion **b)** cannot be supported either. This suggests that preferences are not constructed on the basis of the scenario containing Avoid/Reactive actions.

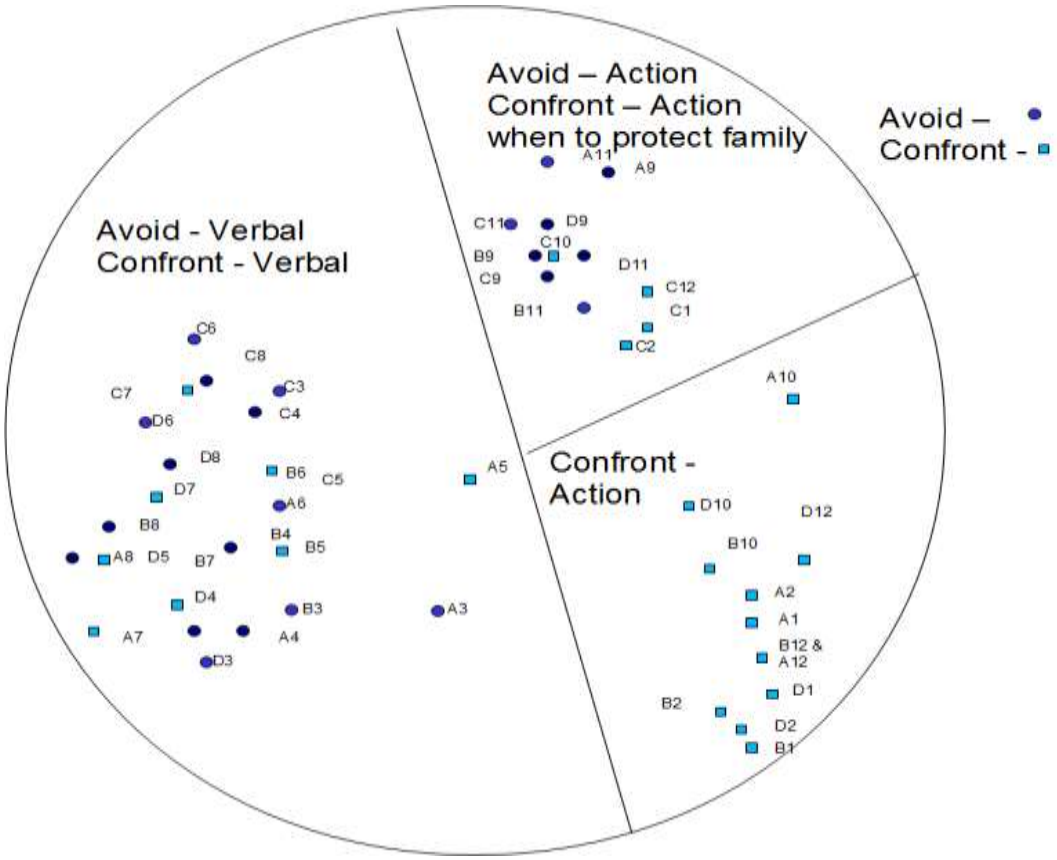
5.14 Avoid and Proactive behaviours.

The items that represent avoid/proactive are A3, A8, A11, B3, B8, B11, C3, C8, C11, D3, D8, and D11. Criterion **a)** cannot be supported as there are no identifiable regions of the SSA that contains all the items related to this concept, by extension criterion **b)** cannot be supported either. This suggests that preferences are not constructed on the basis of the scenario containing Avoid/Proactive actions.

The items that reflect the behavioural categories above could not be identified in distinct regions of the SSA, therefore the structural hypothesis is not supported. The structure of variables were investigated further to establish if *any* elements from the above behavioural categories could be

differentiated. The items on the SSA were examined to establish if the items representing Proactive or Reactive could be identified in distinguishable regions, however, it was not possible to establish any clear regions. The SSA is also examined to establish if there are any regions that differentiated Avoid or Confront behaviours.

Figure 5.6 SSA plot examining structure of Avoidant or Confrontive behaviours.



This is an adaptation of the SSA as shown in fig. 5.3.

Table 5.7 Key to HOSS SSA

	Crime scenario
A. If you were so upset you felt out of your mind	1. Grab the handbag from a wealthy woman standing alone on a platform at night.
	2. Follow a rich looking older couple until they left the main street then grab their bags.
B. If nobody got permanently hurt or harmed	3. Lie about your possessions to the insurance company then pretend to lose some of these possessions.
	4. Add a few extra very valuable items to the list when reporting a loss to the insurance company.
	5. Threaten a stranger who was rude to you.
C.If you needed to do it to protect you or your family in some way	6. Leave a threatening message on the answerphone of someone who treated you really badly.
	7. Go round to the house of someone who'd been telling lies about you to tell them to stop or else.
	8. Write a warning email to someone who you thought was after your partner
D.If you'd been done wrong	9. Try the pot someone offered you at a party
	10. Take your neighbour's fancy new sports car for a drive without their permission while they were on holiday
	11. Get a friend to bring you some pot to a party
	12. Set fire to a bin to watch the flames then call the fire brigade to tell them (without giving your name).

5.15 Location of Avoidant items.

The SSA plot in figure 5.6 above shows the pattern of variables when they are defined as different types of behaviour. The items that represent being avoidant are A3, A4, A6, A8, A9, A11, B3, B4, B6, B8, B9, B11, C3, C4, C6, C8, C9, C11, D3, D4, D6, D8, D9, and D11. Table 5.1.c. gives a summary of the items which represent Avoid or confront.

The twenty four items representing Avoid can be found in two regions of the SSA. As there are two areas containing these variables, criterion **a)** is not supported in this instance. By extension then, criterion **b)** cannot be supported. The cluster of variables to the left side representing Avoid contains items such as '*lie to insurance company….*' and '*leave a threatening message…..*'. The items representing Avoid located in the upper right region contains items such as '*try pot at party…..*' and '*get friend to bring pot …..*'. The factor that differentiates these two clusters of variables appears to be that scenarios in the left region require a verbal action, and scenarios in the right region require a physical action. This reflects the earlier findings which suggested that when constructing preferences towards various gains, whether the scenario requires a verbal or physical transaction affects preference.

5.16 Location of Confronting items.

The items that represent confront are A1, A2, A5, A7, A10, A12, B1, B2, B5, B7, B10, B12, C1, C2, C5, C7, C10, C12, D1, D2, D5, D7, D10, and D12. The twenty four items representing Confront behaviours are also located in two regions of the SSA. This indicates that criterion **a),** and by extension, criterion **b)** cannot be supported. Most of the items representing Confront are in the same region, however, when these scenarios are combined with the justification C '*to protect* family'; they are in a different region. When the frequencies are examined (see table 5.1.a.) the results strongly suggest that the Confront items combined with the justification '*to protect family',* are amongst the highest frequency, and are located with the other high score items in the Avoid/Action region. However, overall level of preference towards confront behaviours is correlated, individuals show a similar level of preference to scenarios which involve direct confront style behaviours. Again, this reflects the findings presented earlier which suggested that when constructing preferences towards various gains, whether the scenario requires a verbal or physical transaction affects preference.

5.17 An examination of Justification styles.

There are four justifications incorporated in the HOSS (refer to table 5.7 above for list of justifications). Each justification is presented twelve times as it is combined with each crime scenario.

The SSA plot in figure 5.6 shows the distribution of justification types which are identified by the letters A to D. It is evident that there are no areas of the SSA which contains any particular justification. Items relating to each justification are dispersed throughout the plot. As such criterion **a)** cannot be supported; by extension, criterion **b)** cannot be supported either. For the particular scenarios presented in this study, it appears that most of the justifications have no influence on preference. However, the items representing the justification '*to protect family'* do appear to be in the same region. This demonstrates the importance and influence of this justification regardless of the crime scenario. Within the present data set there is no evidence to support most of the techniques of neutralisation proposed by Sykes & Matza. However, the present data set is from a

non-incarcerated sample using hypothetical scenarios; it is possible that individuals do not structure hypothetical neutralisations in the way they may do with actual crimes they have committed.

5.18 Summary of results.

Although items could be differentiated into Material, Power, or Sensory gains, it is not in the manner suggested by Youngs (2001). Items with Material gains are conceptualised into those which use physical or verbal methods. Items with Power gains are conceptualised as one psychological construct as hypothesised, and items with Sensory gains are conceptualised into high and low levels of gain. The SSA does show some interaction between these elements, for example Material gains that require a verbal action are amongst the Power gain items. This suggests that when a Material gain is made by verbal methods, it is associated with a notion of Power. The Material gains that are made through direct physical contact are amongst the high Sensory gain items. This suggests that when Material gains are secured using direct contact, a high Sensory component is experienced. Overall, individuals are most likely to show a positive attitude towards items with a low level Sensory gain, as well as items which produce Power gains.

When the items are defined as representing Confront/Reactive, Confront/Proactive, Avoid/Reactive, or Avoid/Proactive, the variables are not located in any particular region. The styles of behaviour were further investigated to establish whether any of these components could be identified. When these items are categorised as Proactive or Reactive events, there are still no regions of the SSA that define these groups. However, when the variables are defined as representing Avoid or Confront, there are distinct regions within the SSA that contains each type of behaviour. The items representing Avoid and Confront behaviours can be differentiated into three regions: Confront and Avoid behaviours which are carried out using verbal methods, Avoid behaviours which are carried out using physical action, and Confront behaviours which are carried out using physical action.

However, when the justification is '*to protect family in some way'*, the Confront/Action items are located in the upper right region with the Avoid/Action items. This is likely to be a consequence of the higher scores for all scenarios when the justification is '*to protect family in some way'*. These findings mirror those found for type of gain, as both SSA's indicate that individuals will show a similar level of attitude towards scenarios which involve a verbal transaction and scenarios which require a physical transaction.

Within the present data set there is no evidence to support the techniques of neutralisation proposed by Sykes & Matza. However, the present data set employs a non-incarcerated sample using hypothetical scenarios; it is possible that individuals do not structure hypothetical neutralizations in the way they may do with actual crimes they have committed.

5.19 Some proposals for developing an attitude to offending scale.

The HOSS showed that individuals did not differentiate type of gain in the way that was expected. Members of the general public do not differentiate offences into those which produce Material, Power, or Sensory gains. The SSA revealed that there is an area relating to Power gains combined with Material gains which were made through some verbal action, and all of the items in this area of the SSA interact with people. This means that all of these hypothetical scenarios share some similar quality. It is possible that Material gains made through verbal methods are associated with an

increased feeling of Power. It is proposed that these items reflect a dominant component within offending.

As a result of this finding, it is proposed that the revised attitude scale should include hypothetical scenarios which are dominant offences and interact with a person. As highlighted in the earlier chapters, there is a large body of literature which suggests that offenders show consistency in offending, when the crimes are defined as interacting with a person or an object. It is possible that the findings from the HOSS are a reflection of this. Therefore, it is proposed that the revised attitude to offending scale should include scenarios which interact with people in a dominant way, and scenarios which only interact with objects or property.

The items relating to sensory gains are distributed into two areas of the SSA. The SSA in figure 5.4 shows that items which produce a Sensory gain are differentiated on the basis of the level of gain. The more serious offences, which include arson and theft, produce a higher gain and are in the lower region. The less serious offences, which include the use of pot, produce a lower gain and are in the upper region. These findings demonstrate that scenarios are differentiated according to level of gain and level of seriousness. The opening chapters included evidence form Youngs (2001), who found that young offenders differentiated type and level of gain. It is appears that although members of the general public do not differentiate the type of gain, they do differentiate the level of gain. Therefore, it is proposed that the revised attitude to offending scale should examine this further, and include scenarios with different levels of gain.

The justifications which are applied to the hypothetical scenarios within the HOSS are based on the neutralization techniques proposed by Sykes and Matza (1957). The SSA reveals that members of the general public do not differentiate the justifications according to the majority of these neutralization techniques. However, when the justification is '*to protect family in some way*', the items relating to all crime scenarios are in the same area. This demonstrates that all of these items are differentiated according to the justification, rather than any behaviour or gain presented in the item. It is proposed that individuals show a preference for this type of justification due to the emotive nature of it. In the earlier chapters, it was noted that many studies within I.P. found that people show consistency in offending, when the items were defined as producing an internal or external benefit. It is possible that this could be extended to justifications for action. Therefore, in order to test this hypothesis, it is proposed that the revised attitude to offending scale should include justifications which are based on either emotive or objective reasons.

In summary, a revised attitude to offending scale is required in order to further test the concepts which have been found so far. It is proposed that the revised attitude scale should include items which interact with people in a dominant way, as well as scenarios which only interact with objects or property. It is also proposed that these scenarios should include various levels of gain. The justifications which are presented alongside the crime scenario should include emotive and objective reasons for action.

5.20 A revised attitude to offending scale: The attitude to Offending Style Scale

From the information detailed above, a second attitude to offending scale was produced. This is a previously untested scale and was developed by the author using information from the pilot scale as well as relevant literature. The scale is called the Attitude to Offending Style Scale (AOSS). This scale

consists of a total of 20 items; four hypothetical crime scenarios are presented alongside five justifications for action (4 x 5 = 20). Participants are asked to indicate how likely they would be to carry out each item on a seven point Likert scale. A response of one indicated '*never*', and seven indicated '*definitely*'.

There are a number of revised hypotheses in the main attitude to offending scale study. These hypotheses were developed using the results from the pilot study as well as relevant literature. It is hypothesised that attitude to offending can be differentiated according to the target of the act; person or property. Furthermore, it is proposed that level of gain will be differentiated into high or low. It is also hypothesised that individuals will differentiate justification styles into those which are for internal or external benefits. Significant differences in level of attitude between gender and age range are expected.

The structure of the AOSS is clearly outlined in chapter 4, however, below is a brief summary of its contents.

The crime scenarios are as follows:

> *A. 'Use force to get a security guard to open the van and take the money'*
>
> *B. 'Use necessary threat and force to get a shop assistant to open the till and take the money'*
>
> *C. 'Force open a window and take personal property from a house with intention of selling these goods'.*
>
> *D. 'Take a purse that appears unattended'.*

Scenarios A and B are representative of direct violent interaction (Person) behaviours, scenarios C and D are representative of indirect interaction (Property) behaviours. Scenarios A, B and C produce a higher level of gain, and item C produces a lower level of gain.

The justifications applied to each crime scenario are as follows:

> *1.How likely do you think you would be to commit a crime like this in a life and death situation for acquiring money?*
>
> *2.Are there any circumstances for which you could imagine yourself doing an action like this?*
>
> *3.Imagine perhaps you were to become intoxicated and you have the extra confidence of for e.g. alcohol or cocaine and this situation presented itself, you possibly wouldn't even remember what happened. Would you consider par taking in a crime like this?*
>
> *4.Would you consider committing a crime like this if it was dark at night and there were no other people around? No witnesses or any other people's reactions to affect you.*
>
> *5.Consider a situation in which someone very close to you needed a very expensive operation and this would be the only way to acquire the funding. Would you ever consider an action like this?*

Justifications one and five represent Expressive justifications, the focus of these justifications is on the preservation of life. Justifications three and four represent Instrumental justifications, the focus of these is the reduced risk of detection. Justification two is presented as a neutral item, it gives participants an opportunity to consider any situations they could imagine which would influence them to carry out the acts.

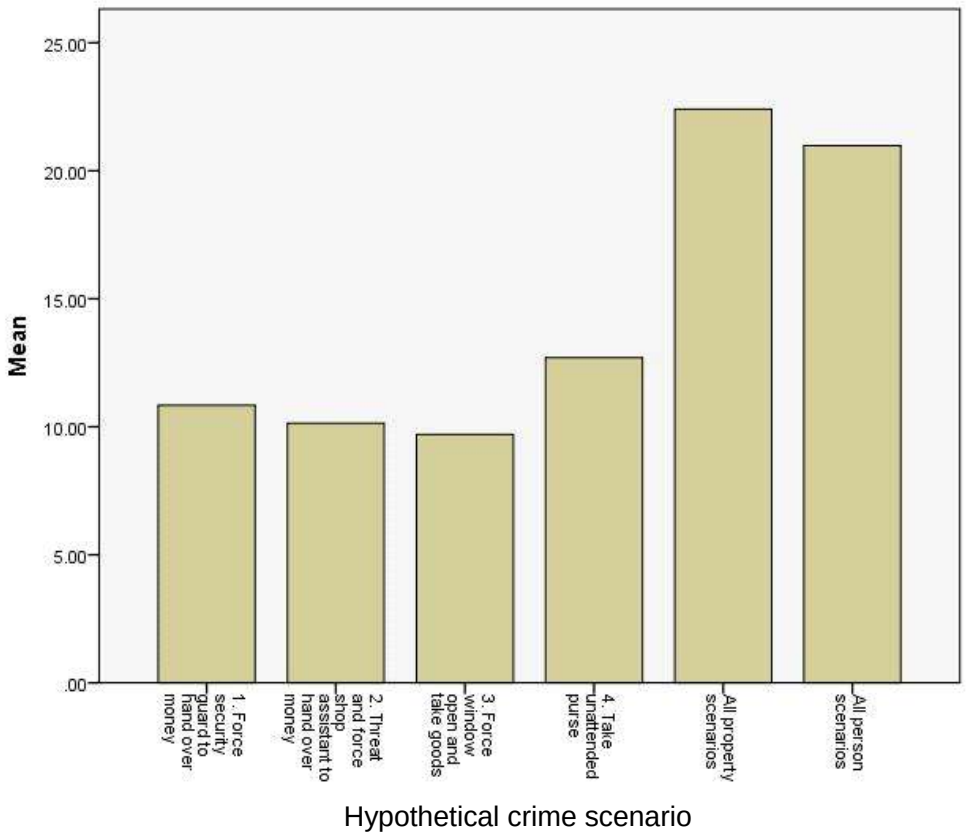
5.21 Summary of mean scores on AOSS.

Table 5.8. Mean scores for the Attitude to Offending Style Scale.

	A. 'Use force to get a security guard to open the van and take the money'	**B.'Use necessary threat and force to get a shop assistant to open the till and take the money'**	**C.'Force open a window and take personal property from a house with intention of selling these goods'.**	**D.'Take a purse that appears unattended'.**
	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)
1)How likely do you think you would be to commit a crime like this in a life and death situation for acquiring money?	2.56 (1.9)	2.38 (2.0)	2.18 (1.9)	2.72 (2.0)
2)Are there any circumstances for which you could imagine yourself doing an action like this?	2.05 (1.5)	1.83 (1.4)	1.76 (1.4)	2.27 (1.6)
3)Imagine perhaps you were to become intoxicated and you have the extra confidence of for e.g. alcohol or cocaine and this situation presented itself, you possibly wouldn't even remember what happened. Would you consider par taking in a crime like this?	1.84 (1.3)	1.72 (1.3)	1.71 (1.4)	2.32 (1.8)
4)Would you consider committing a crime like this if it was dark at night and there were no other people around? No witnesses or any other people's reactions to affect you.	1.72 (1.4)	1.71 (1.4)	1.66 (1.5)	2.40 (1.8)
5)Consider a situation in which someone very close to you needed a very expensive operation and this would be the only way to acquire the funding. Would you ever consider an action like this?	2.67 (1.9)	2.49 (1.8)	2.35 (1.9)	2.95 (2.1)

The AOSS is designed to examine the way in which individuals respond to combinations of different styles of crime scenarios and justifications. Table 5.8 above, gives the mean and standard deviation for each item; the majority of scores are low, however, there is some variation in response to different items. This suggests that individuals would be more prepared to give a positive response to some combination of variables over others. The bar charts in figures 5.7 and 5.8 below, gives a summary of scores for both crime scenario and justification style.

Figure 5.7 Bar chart of mean scores for each crime scenario in the Attitude to Offending Style Scale.



The bar chart in figure 5.7 above indicates that the highest responses are given to the crime type '*Take purse that appears unattended'. T*he higher mean responses demonstrate a higher level of preparedness to carry out this act, regardless of the justification. The mean score for the five items containing this scenario is 12.7 (8.5) which is higher than all the other scenarios. This suggests that individuals are most prepared to act for a Low gain. One possible explanation for this is that participants understand this to be the least serious crime with minimal interaction.

The bar chart above indicates that the scenario people would be least willing to participate in, is '*Force open a window and take personal property from a house with intention of selling these goods'*. The mean score for these five items is 9.7 (6.9) demonstrating that individuals are least likely to show a positive response to this high gain scenario. This may be, in part, due to the scenario involving several components; forcing open a window, taking the goods, and selling them on. It is also possible that preparedness to act in this scenario is reduced because there is no immediate gain, and the act involves some degree of planning.

The two scenarios involving direct contact with a victim are the second and third most likely scenario's to be acted upon. The mean score for forcing a security guard to hand over money is 10.8 (6.6), the mean response for force shop assistant to hand over money is 10.1 (6.5). This shows a similar level of preparedness for both scenarios. This may simply be a consequence of the scenario '*taking a purse…*' being the easiest act, and '*forcing open a window*….' scenario not giving an

immediate gain. Another possible explanation for the two person scenarios being in this position is that after the taking purse scenario, these give an immediate gain.

Scenario one '*Use force to get a security guard to open the van and take the money'* has slightly higher overall mean responses than scenario two '*Use necessary threat and force to get a shop assistant to open the till and take the money'*. These two scenarios have many similar components, such as using force on a person, and there being an immediate gain. The only difference between these scenarios is the victim. Being the driver of a security van may be considered a more high risk occupation than working in a shop. It is possible that this component has influenced participants' responses. The two bars on the far right in figure 5.2.i. show the level of response for the two Property focused scenarios, and the two Person focused scenarios. The mean score for the ten items representing interaction with a person is 20.9 (12.8), the mean score for the scenarios interacting with property is 22.4 (14.2). This suggests that participants are more willing to carry out Property crimes. The findings so far suggest that participants show a preference for indirect interaction with Property.

Table 5.9 Correlations between hypothetical scenarios.

	1. Force security guard to hand over money	2. Threat and force shop assistant to hand over money	3. Force window open and take goods	4. Take unattended purse
1. Force security guard to hand over money	1	.916	.783	.654
2. Threat and force shop assistant to hand over money	.916	1	.808	.655
3. Force window open and take goods	.783	.808	1	.692
4. Take unattended purse	.654	.655	.692	1

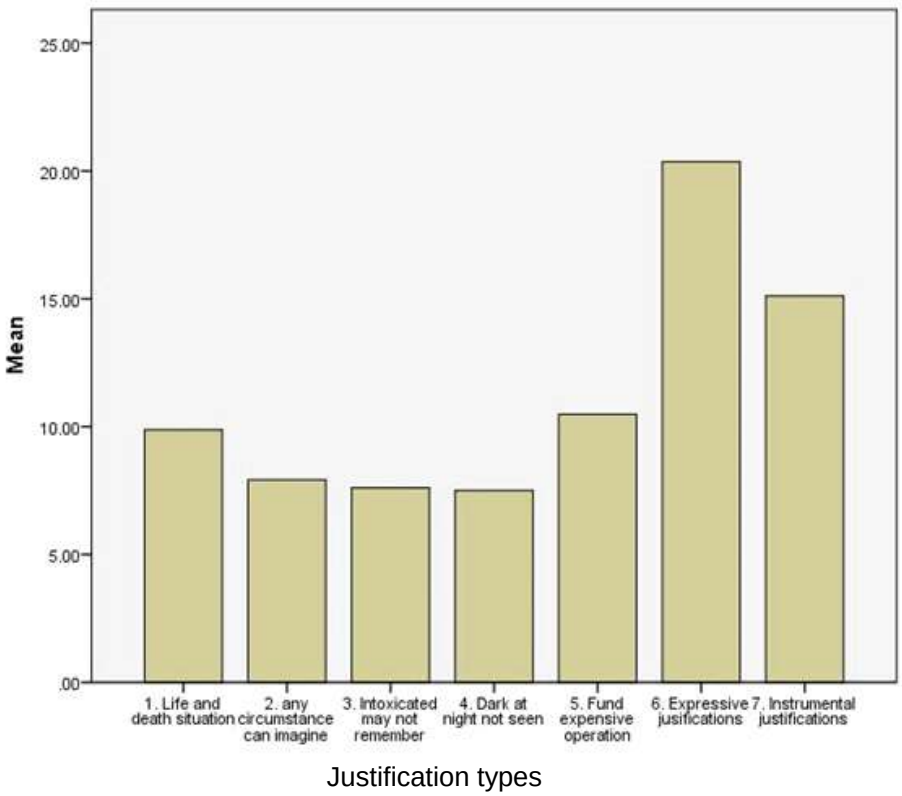
The table above shows the Pearson's correlations between the hypothetical crime scenarios. Although they are all significantly correlated, there is strength in the relationship between them. For example, scenario 1 has the highest correlation with scenario 2. Both of these scenarios involve a violent interaction with a person. This indicates that some individuals will show a higher level of preference to all scenarios which interact with a person. Scenario 3 has the highest correlation with scenarios 1 and 2; all of these scenarios produce a higher level of gain. However, scenario 4 'Take a purse that appears unattended' has low correlations with all other scenarios. This may indicate that those who show a preference for this scenario are much less willing to agree to other more serious ones.

Table 5.10 Correlations between justification types.

	1. Life and death situation	2. any circumstance can imagine	3. Intoxicated may not remember	4. Dark at night not seen	5. Fund expensive operation
1. Life and death situation	1	.736	.649	.625	.786
2. any circumstance can imagine	.736	1	.712	.783	.756
3. Intoxicated may not remember	.649	.712	1	.821	.681
4. Dark at night not seen	.625	.821	.821	1	.674
5. Fund expensive operation	.786	.681	.681	.674	1

The table above shows the Pearson's correlations between all five justifications presented in the AOSS. Although all of the correlations are significant, there I variation in the strength of such relationships. Justification 1 indicates that the crime would be carried out for an emotive reason, this justification is most strongly correlated with justification 5. Justification 5 also indicates that the action would be necessary to protect someone. This indicates that their preferred justification style is an emotive one. Similarly, justification 3 indicates that the action would be carried out because there is less chance of getting caught. This justification has the highest correlation with justification 4 'Dark at night'. This indicates a preference for objective justifications that indicate there is less chance of getting seen or caught.

Figure 5.8 Bar chart of mean scores for each justification type in the Attitude to Offending Style Scale.



The justification with the highest overall score is 5: '*someone very close to you needed a very expensive operation and this would be the only way to acquire the funding'* (mean 10.5 [6.9]). The second highest responses are for justification 1: '*in a life and death situation for acquiring money'* (mean 9.9 [7.0]).

Justification 2: '*are there any circumstances…..*' is the third most likely justification indicated. The mean score is 7.9 (5.0). The mean score of this justification reflects its ambiguity. Individuals can think of some situations where they would be likely to carry out the act, and some situations where they would be unlikely to do so.

Justification 3 *'… intoxicated and have extra confidence…'* is 7.6 (5.0) and justification 5 *'…dark at night…*' is 7.5 (5.1) have lower mean scores. This demonstrates that participants are less likely to act based on these justifications.

The justifications have been worded to indicate that the action is necessary to either save a life or indicates a reduced risk of detection. The justifications which indicate action is necessary to save a life are labelled Expressive. The justification which indicate a reduced risk of getting seen or caught are labelled Instrumental.

Figure 5.8 above shows that overall participants indicated they would be most likely to act on Expressive justifications. The mean score for the Expressive justifications is 20.4 (13.2), compared to a mean of 15.1 (9.6) for Instrumental justifications.

5.22 Exploring the structure of preferences for various elements.

Table 5.11 below shows which crime scenarios are representative of interactions with a person, and which interact with property. The table also shows the justifications which are Instrumental or Expressive.

Table 5.11 List of items that represent each concept being measured by the Attitude to Offending Style Scale.

Scenarios which interact with person	Scenarios which interact with property	Instrumental justifications	Expressive justifications	Neutral justification
'Use force to get a security guard to open the van and take the money'	*'Force open a window and take personal property from a house with intention of selling these goods'.*	*Imagine perhaps you were to become intoxicated and you have the extra confidence of for e.g. alcohol or cocaine and this situation presented itself, you possibly wouldn't even remember what happened. Would you consider par taking in a crime like this?*	*How likely do you think you would be to commit a crime like this in a life and death situation for acquiring money?*	*2)Are there any circumstances for which you could imagine yourself doing an action like this?*
'Use necessary threat and force to get a shop assistant to open the till and take the money'	*'Force open a window and take personal property from a house with intention of selling these goods'.*	*Would you consider committing a crime like this if it was dark at night and there were no other people around? No witnesses or any other people's reactions to affect you.*	*Consider a situation in which someone very close to you needed a very expensive operation and this would be the only way to acquire the funding. Would you ever consider an action like this?*	

Table 5.8 reveals that the four items which describe Instrumental Person type scenarios have similar scores. For example, items 4 (guard/dark), 8 (shop/intox), and 9 (shop/dark) have scores of 1.72, 1.72, and 1.71 respectively. Item 3 (guard/intox) has a slightly higher score of 1.84. The four items representing Instrumental Property style scenarios have more variability. For example, items 13 (window/intox) and 14 (window/dark) have scores which are similar to those in Instrumental Person (1.71 and 1.66 respectively). However, items 18 (purse/intox) and 19 (purse/dark) have much higher responses of 2.32 and 2.40. This indicates a higher level of preparedness to carry out scenarios which are less serious, and produce less of a gain.

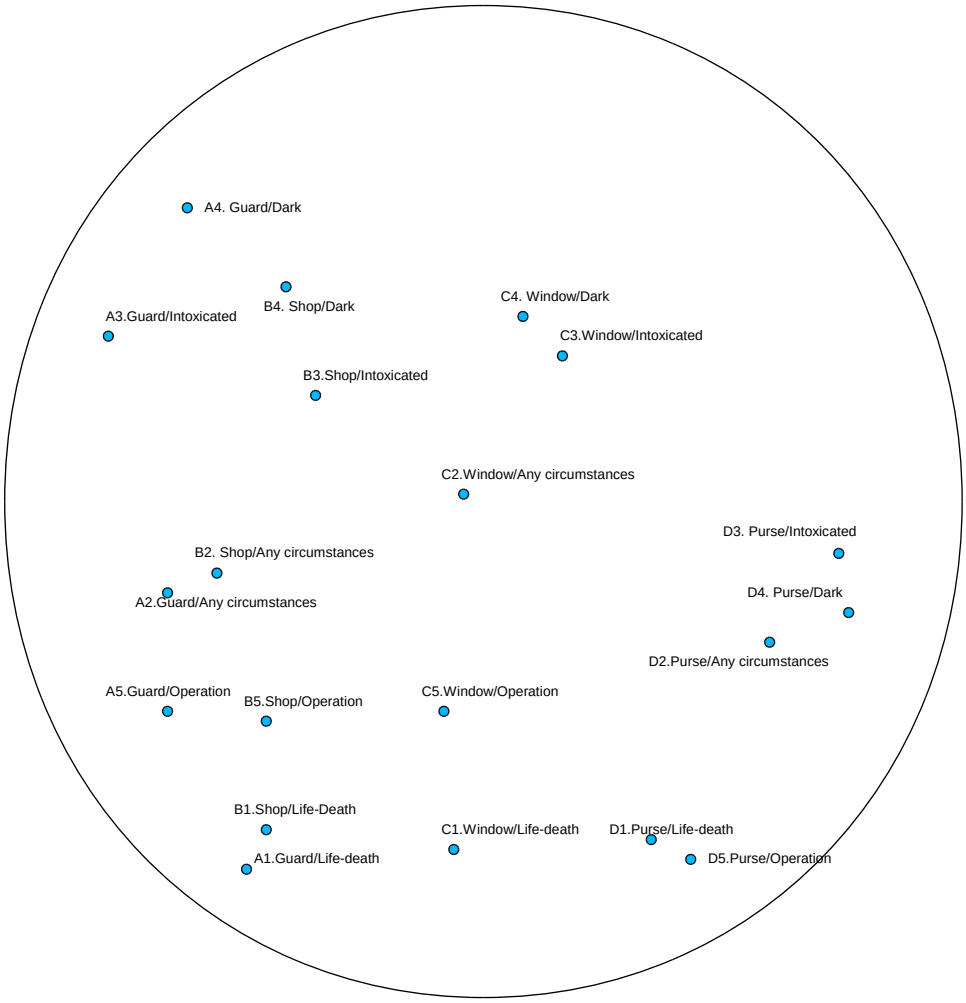
The four items representing Expressive Person style scenarios have slightly higher responses. For example, items 1 (guard/life death) and 5 (guard/expensive operation) score 2.56 and 2.69 respectively. Whereas items 6 (shop/life death) and (shop/expensive operation) have slightly lower scores of 2.38 and 2.49. This suggests that participants showed a higher level of preparedness to carry out a direct interaction attach on a guard when the scenario indicates the action is needed to save a life.

The four items representing Expressive Property also have higher scores, however there is more variation between the individual item scores. For example, items 11 (window life death 2.18) and 12 (window/ expensive operation 2.35) have scores which are below those indicated for Expressive justifications, when directed at a shop assistant (2.38 and 2.49). However, the responses given to items 16 (purse/life death) and 20 (purse/expensive operation) have the highest scores in the scale (2.72 and 2.95 respectively). This suggests that the participants in this study are most prepared to carry out low serious crimes which produce low level of gain, when combined with justifications which indicate the need to protect a life.

In summary, when both crime and justification preferences are considered, individuals are most likely to commit crimes with minimal interaction, and immediate gains. These are most likely combined with justifications that involve the preservation of life. Individuals are least likely to carry out crimes with no immediate gain, and involve property. These are likely to be combined with justifications which indicate a reduced risk of detection.

The raw data from the AOSS is entered into a computer program known as HUDAP, which produces an SSA (see chapter 4 for details). An SSA will test the construct validity of a multi-faceted questionnaire such as the one applied in the present study. Using HUDAP software, the first projection (vector 1 by vector 2) of the two dimensional solution was selected. The coefficient of alienation (Borg & Lingoes, 1987) indicates how clearly the rank orders of the distances between the points within the given space, relate to the rank orders of the coefficients between the items. In general the lower the coefficient the better the fit, in this instance the coefficient is .21, which indicates an acceptable overall fit.

Figure 5.9. SSA plot showing structure of items on the Attitude to Offending Styles Scale.



The results displayed are from a 2 dimensional, 1 x 2 projection with a co-efficient of .21392.

Table 5.12 Key to AOSS SSA

Crime scenario	Justification
A.'Use force to get a security guard to open the van and take the money'	1.How likely do you think you would be to commit a crime like this in a life and death situation for acquiring money? 2.Are there any circumstances for which you could imagine yourself doing an action like this? 3. Imagine perhaps you were to become intoxicated and you have the extra confidence of for e.g. alcohol or cocaine and this situation presented itself, you possibly wouldn't even remember what happened. Would you consider par taking in a crime like this? 4.Imagine perhaps you were to become intoxicated and you have the extra confidence of for e.g. alcohol or cocaine and this situation presented itself, you possibly wouldn't even remember what happened. Would you consider par taking in a crime like this? 5. Would you consider committing a crime like this if it was dark at night and there were no other people around? No witnesses or any other people's reactions to affect you.
B.'Use necessary threat and force to get a shop assistant to open the till and take the money'	
C.'Force open a window and take personal property from a house with intention of selling these goods'.	
D.'Take a purse that appears unattended'.	

5.23 Notes on general structure of items on the SSA.

The SSA shown in figure 5.9 above displays the variables dispersed around the plot; this suggests that there is some variability of responses for the various items. The item descriptions have been shortened for ease of interpretation, see table 5.12 for full item description and SSA labels. The plot shows eight variables in the bottom left region (items 1, 2, 5, 6, 7, 11, & 15). Items from the same scenario are located here, such as: 1 '*security guard/life or death*' and 5 '*security guard/expensive operation*'. Their placement together indicates their high correlation, and reflects that individuals have shown a similar level of preference to these two items containing this crime scenario.

Also amongst these items in the lower left region are items 6 *'shop assistant/life or death'* and 10 '*shop assistant/expensive operation'*. This also supports the suggestion that individuals will show a preference for scenarios which involve direct interaction with a person. The other items in this region are 11 & 15, which contain the scenario '*force open a window…*' The placement of these scenarios together in this region indicates that although these items are from three different scenarios, they have a common factor that individuals will show a preference for. All of these crime scenarios produce a high level of gain combined with a higher level of risk; this suggests that individuals will show a preference for crime scenarios which produce a high risk/high gain. Similarly, all four of these items have emotive justifications which indicate internal benefits such as saving another person's life. This is possibly another component that influences individuals to show a similar level of preference.

Above this region, also on the left are items 3, 4, 8, 9, 12, 13 & 14. Items such as 4 '*security guard/dark no witnesses',* and 8 '*shop/intoxicated not remember'* are located here. This is further evidence to suggest that the style of crime scenario influences individuals' level of preference. Item 12, 13, & 14 in this region are representative of the scenario '*force open window….*' This suggests that there is a common factor between all of these items. All of these items are similar to those in the lower left region as they produce a high risk/high gain component. However, all the justifications in this region indicate external benefits, such as not getting seen or caught. This suggests that the style of the crime scenario is not the only factor which influences people's level of preference; the style of the justification will also influence participants' responses.

The final region to the lower right contains items 16, 17, 18, 19 & 20. All of these items represent the scenario '*take a purse that appears to be unattended*'. Although all of these items are in the same region, the justification types are differentiated. The upper area of this lower right region has the two Instrumental justifications along with the neutral justification, and the lower area of the region contains the two Expressive justifications. This suggests that all of the Instrumental justifications, regardless of crime scenario, are in the upper half of the plot and all of the Expressive justifications are in the lower half. The five items in this lower right region are less serious than the other items. For example, if a person was caught stealing a purse, the punishment would be less than if they broke into a house. Also, this scenario would produce a much lower level of gain than the other scenarios, which may have also influenced level of preference.

The application of facet theory denotes that variables are examined on the basis of regional contiguity. Variables in the same region show a high correlation. The boundaries on the SSA denote regions of similar sets of variables, these lines serve as a boundary for each region rather than being a definitional rule. Items that are closer to the borders may indicate that they share similar qualities of each adjoining region.

An appropriate way to test the hypotheses using an SSA is to establish two criterion. In order for the hypotheses to be supported variables must:

a. Items proposed to measure each of the elements above will be located into distinct region areas.

b. These regions will be geographically exclusive to the concept.

Figure 5.10 SSA plot showing structure of items defined as type of target.

The figure above is an adaptation of figure 5.9.

Table 5.13 Key to AOSS SSA

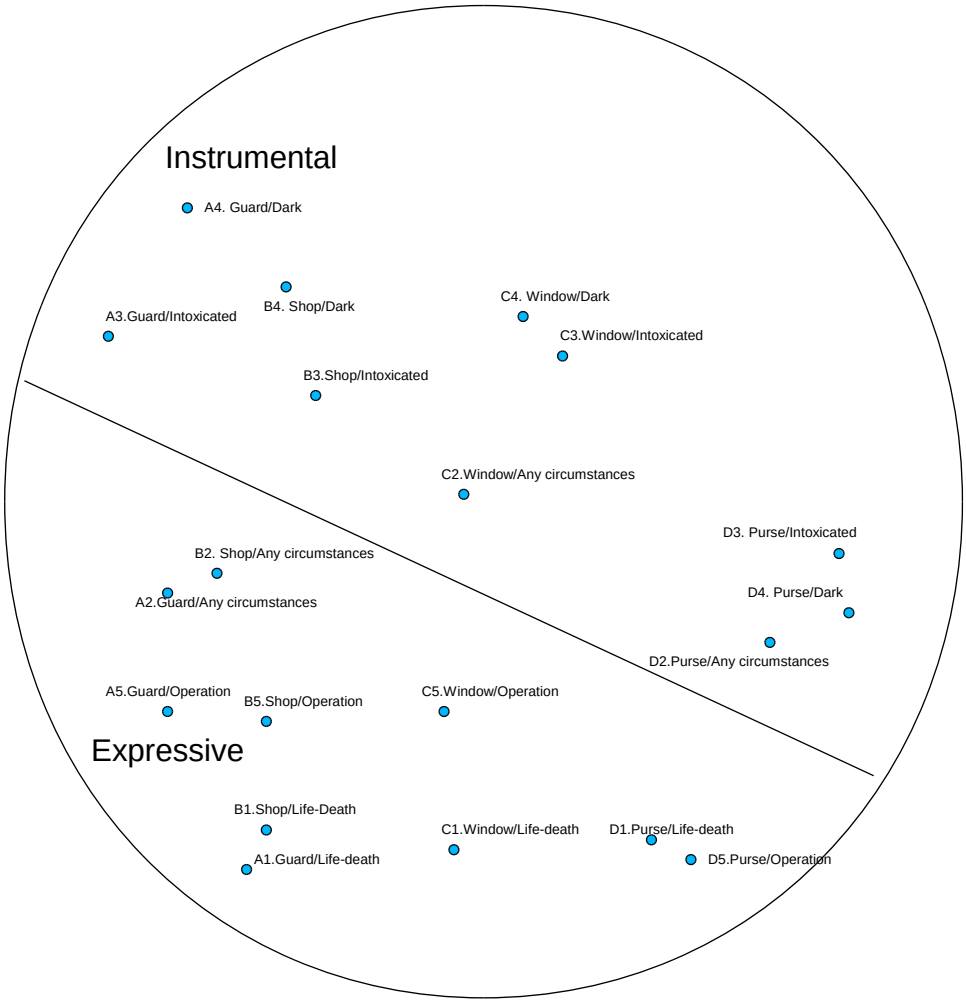
Crime scenario	Justification
A.'Use force to get a security guard to open the van and take the money'	1.How likely do you think you would be to commit a crime like this in a life and death situation for acquiring money? 2.Are there any circumstances for which you could imagine yourself doing an action like this? 3. Imagine perhaps you were to become intoxicated and you have the extra confidence of for e.g. alcohol or cocaine and this situation presented itself, you possibly wouldn't even remember what happened. Would you consider par taking in a crime like this? 4.Imagine perhaps you were to become intoxicated and you have the extra confidence of for e.g. alcohol or cocaine and this situation presented itself, you possibly wouldn't even remember what happened. Would you consider par taking in a crime like this? 5. Would you consider committing a crime like this if it was dark at night and there were no other people around? No witnesses or any other people's reactions to affect you.
B.'Use necessary threat and force to get a shop assistant to open the till and take the money'	
C.'Force open a window and take personal property from a house with intention of selling these goods'.	
D.'Take a purse that appears unattended'.	

5.24 Structure of items representing crime scenarios targeting Person or Property

Items one to ten represent scenarios which indicate direct interaction with a victim (Person). Figure 5.10. above shows that all ten of these items are in the left region of the plot; therefore satisfying criterion **a).** There are no other items in this region of the plot; this satisfies criterion **b).** This demonstrates the high inter-correlation amongst these items, and the distinct preference for scenarios involving direct contact with People, over those with only indirect contact through Property. Item numbers one to five represent the scenario *'Force a security guard to hand over the money'*, and items six to ten represent *'Force a shop assistant to hand over the money*'. These ten items are distributed throughout the left side of the SSA with no clear area containing each crime type. This indicates that the majority of participants showed a similar attitude to all ten items; level of preference is influenced by the style of offence rather than individual acts. The Cronbachs alpha scores for the ten items representing Person interactions is.947 which shows that all of these items are measuring the same underlying construct.

Items eleven to twenty represent scenarios which indicate indirect interactions (Property). Figure 5.10 above shows that all ten of these items are located to the right side of the plot, this satisfies criterion **a).** The right side of the SSA is exclusive to Property scenarios, this satisfies criterion **b)**. Although this region satisfies both criterions, therefore representing a distinct region, the items representing each of the two crime scenarios are in distinct identifiable areas. This suggests that participants made a distinction between the content of these scenarios. The scenario '*force open a window and take goods with the intention of selling them on'* includes two actions. The first action is forcing open a window, and the second action is to sell the goods on. These acts may require some degree of planning and do not produce an immediate gain. Whereas the item *'Take a purse that appears to be unattended'* is more of an opportunistic act which requires no planning. Another distinction between these scenarios may be the level of seriousness and level of gain. Breaking into a house and taking goods could be thought of as a higher risk and higher gain activity. Whereas taking an unattended purse is less of a risk with a lower level of gain. The Cronbachs alpha scores for the ten items representing Property interactions is .946 which shows that all of these items are measuring the same underlying construct.

Figure 5.11 SSA plot showing structure of items defining justification styles.



The figure above is an adaptation of figure 5.9.

Table 5.14 Key to AOSS SSA

Crime scenario	Justification
A.'Use force to get a security guard to open the van and take the money'	1.How likely do you think you would be to commit a crime like this in a life and death situation for acquiring money? 2.Are there any circumstances for which you could imagine yourself doing an action like this? 3. Imagine perhaps you were to become intoxicated and you have the extra confidence of for e.g. alcohol or cocaine and this situation presented itself, you possibly wouldn't even remember what happened. Would you consider par taking in a crime like this? 4.Imagine perhaps you were to become intoxicated and you have the extra confidence of for e.g. alcohol or cocaine and this situation presented itself, you possibly wouldn't even remember what happened. Would you consider par taking in a crime like this? 5. Would you consider committing a crime like this if it was dark at night and there were no other people around? No witnesses or any other people's reactions to affect you.
B.'Use necessary threat and force to get a shop assistant to open the till and take the money'	
C.'Force open a window and take personal property from a house with intention of selling these goods'.	
D.'Take a purse that appears unattended'.	

5.25 Structure of items representing Instrumental or Expressive justifications.

Items 3, 4, 8, 9, 13, 14, 18 and 19 represent the two Instrumental justifications combined with each of the crime scenarios. Items 3, 8, 13 and 18 are the justification '*Imagine perhaps you were to become intoxicated and you have the extra confidence of for e.g. alcohol or cocaine and this situation presented itself, you possibly wouldn't even remember what happened. Would you consider par taking in a crime like this?*'. Items 4, 9, 14 and 19 are '*Would you consider committing a crime like this if it was dark at night and there were no other people around? No witnesses or any other people's reactions to affect you*.'

Figure 5.11 shows that all of the Instrumental justifications are located in the upper region of the SSA, thus satisfying criterion **a).** The upper region of the SSA is exclusive to Instrumental justifications, therefore satisfying criterion **b).** As all of the items representing Instrumental justifications are in the same region, support is given to the hypothesis that these styles form a distinct element. The results suggest that individuals show a preference towards either Instrumental or Expressive justifications. The upper region also contains items 12 and 17, these represent the neutral justification '*Are there any circumstances for which you could imagine yourself doing an action like this?'* combined with the Property crime scenarios. This indicates that participants show a similar level of preference towards Property scenarios and Instrumental justifications. As all of the items representing Instrumental justifications are in the same region, support is given to the hypothesis that these styles form a distinct element. The Cronbachs alpha scores for the ten items representing Instrumental justifications is .920 which shows that all of these items are measuring the same underlying construct.

Items 1, 5, 6, 10, 11, 15, 16, and 20 represent Expressive style justifications. Items 1, 6, 11 and 16 are the justification '*How much do you think you could commit a crime like this in a life and death situation for acquiring money?*' Items 5, 10, 15 and 20 are the justification '*Consider a situation in which someone very close to you needed a very expensive operation and this would be the only way to acquire the funding. Would you ever consider an action like this?*'

Figure 5.11 above shows that all of the Expressive items are located in the lower region of the plot, thus satisfying criterion **a).** The results suggest that individuals show a similar attitude towards Expressive justifications regardless of the crime scenario it represents. This lower region contains items 2 and 7, these contain the neutral justification '*Are there any circumstances for which you could imagine yourself doing an action like this?*' combined with Person crime scenarios. This indicates that participants show a similar level of preference towards Person scenarios and Expressive justifications. As all of the items representing Expressive justifications are in the same region, support is given to the hypothesis that these styles form a distinct element. The Cronbachs alpha scores for the ten items representing Expressive justifications is .948 which shows that all of these items are measuring the same underlying construct.

Figure 5.12 SSA plot defining both crime scenario and justification styles.

The figure above is an adaptation of figure 5.9.

Table 5.15 Key to AOSS SSA

Crime scenario	Justification
A.'Use force to get a security guard to open the van and take the money'	1.How likely do you think you would be to commit a crime like this in a life and death situation for acquiring money? 2.Are there any circumstances for which you could imagine yourself doing an action like this? 3. Imagine perhaps you were to become intoxicated and you have the extra confidence of for e.g. alcohol or cocaine and this situation presented itself, you possibly wouldn't even remember what happened. Would you consider par taking in a crime like this? 4.Imagine perhaps you were to become intoxicated and you have the extra confidence of for e.g. alcohol or cocaine and this situation presented itself, you possibly wouldn't even remember what happened. Would you consider par taking in a crime like this? 5. Would you consider committing a crime like this if it was dark at night and there were no other people around? No witnesses or any other people's reactions to affect you.
B.'Use necessary threat and force to get a shop assistant to open the till and take the money'	
C.'Force open a window and take personal property from a house with intention of selling these goods'.	
D.'Take a purse that appears unattended'.	

The joint action of the Scenario and Justification facets produces four distinct regions on the SSA shown in figure 5.12. The structure of the SSA demonstrates that preferences for different types of crimes depend on the justification applied to it, and vice versa. The type of crime and the justification applied to it, combine to produce the following groups:

Expressive Property-The scenario indicates it is necessary for indirect interaction with objects, combined with justifications which have internal benefits such as saving a life.

Instrumental Property- The scenario indicates it is necessary for indirect interaction with objects, combined with justifications which have external benefits such as not getting seen or caught.

Expressive Person-The scenario indicates it is necessary for direct interaction with a person, combined with justifications which have internal benefits such as saving a life.

Instrumental Person- The scenario indicates it is necessary for direct interaction with a person, combined with justifications which have external benefits such as not getting seen or caught.

5.26 Using Factor Analysis to examine structure of scale.

When exploratory factor analysis is conducted on the raw data, a three factor structure is suggested.

Table 5.16 Table of factor loadings for items on the Attitude to Offending Style Scale.

	Component		
	1	2	3
6necessary force & threat on shop assist, life & death situ	.898	.406	.491
10necessary force & threat on shop assist, only way for operation	.893	.387	.594
1force security van, life & death situ	.843	.401	.496
5force security van, only way for operation	.840	.367	.622
11Force window & intend to sell, life & death situ	.832	.566	.497
15Force window & intend to sell, only way for operation	.826	.507	.609
2force security van, any circumstance can imagine	.780	.356	.681
7necessary force & threat on shop assist,any circumstance can imagine	.766	.310	.687
19take unattended purse, dark no witness reaction	.433	.930	.527
18take unattended purse, intoxicated not remember	.431	.910	.596
17take unattended purse, any circumstance can imagine	.545	.884	.559
16take unattended purse, life & death situ	.739	.821	.406
20take unattended purse, only way for operation	.701	.815	.393
9necessary force & threat on shop assist, dark no witness reaction	.527	.369	.866
8necessary force & threat on shop assist,intoxicated not remember	.579	.460	.851
14Force window & intend to sell, dark no witness reaction	.544	.477	.837
4force security van, dark no witness reaction	.503	.356	.819
13Force window & intend to sell, intoxicated not remember	.557	.541	.790
3force security van, intoxicated not remember	.518	.382	.788
12Force window & intend to sell, any circumstance can imagine	.710	.426	.740

Extraction Method: Principal Component Analysis.
Rotation Method: Oblimin with Kaiser Normalization.

Table 5.16 above shows the Factor Analysis values and indicates three components; these can be labelled High gain Expressive items, High gain Instrumental items, and Low gain items. This is a slightly different interpretation than that already presented. The Cronbach's Alpha score for the 7 items representing High gain objective reason is .924, which indicates that these items are measuring the same construct.

5.27 Items loading on Factor 1: High gain Emotive.

The items with the highest loadings in factor 1 represent activities that could be considered high gain. For example, table 5.16 shows that item 6 has the highest loading in factor 1 (.898), the crime scenario is '*Use necessary threat and force to get a shop assistant to open the till and take the money'*; this reflects the high gain element. All of the items within this factor have Expressive justifications, for example, the justification in item 10 '*Consider a situation in which someone very close to you needed a very expensive operation and this would be the only way to acquire the funding. Would you ever consider an action like this*?' is Expressive as it suggests emotive internal benefits. The term 'Expressive' is also used by a number of researchers to describe crime styles, therefore it is suggested that the justification style be labelled 'Emotive' to reduce any confusion regarding terms. The Cronbach's Alpha score for the 8 items representing High gain emotive reason is .941, which indicates that these items are measuring the same construct.

5.28 Items loading on Factor 2: Low gain.

The items with the highest loading on factor 2 are all from the scenario '*Take a purse that appears unattended*' (items 16, 17, 18, 19, and 20). As noted above, it is possible that this scenario may be perceived as a lower risk activity; however, the gain acquired from this scenario would perhaps not be as high as that which could be gained from other scenarios. The items loading on this factor contains both Expressive and Instrumental justifications. The Cronbach's Alpha score for the 5 items representing Low gain all reason is .939, which indicates that these items are measuring the same construct.

5.29 Items loading on Factor 3: High gain Instrumental.

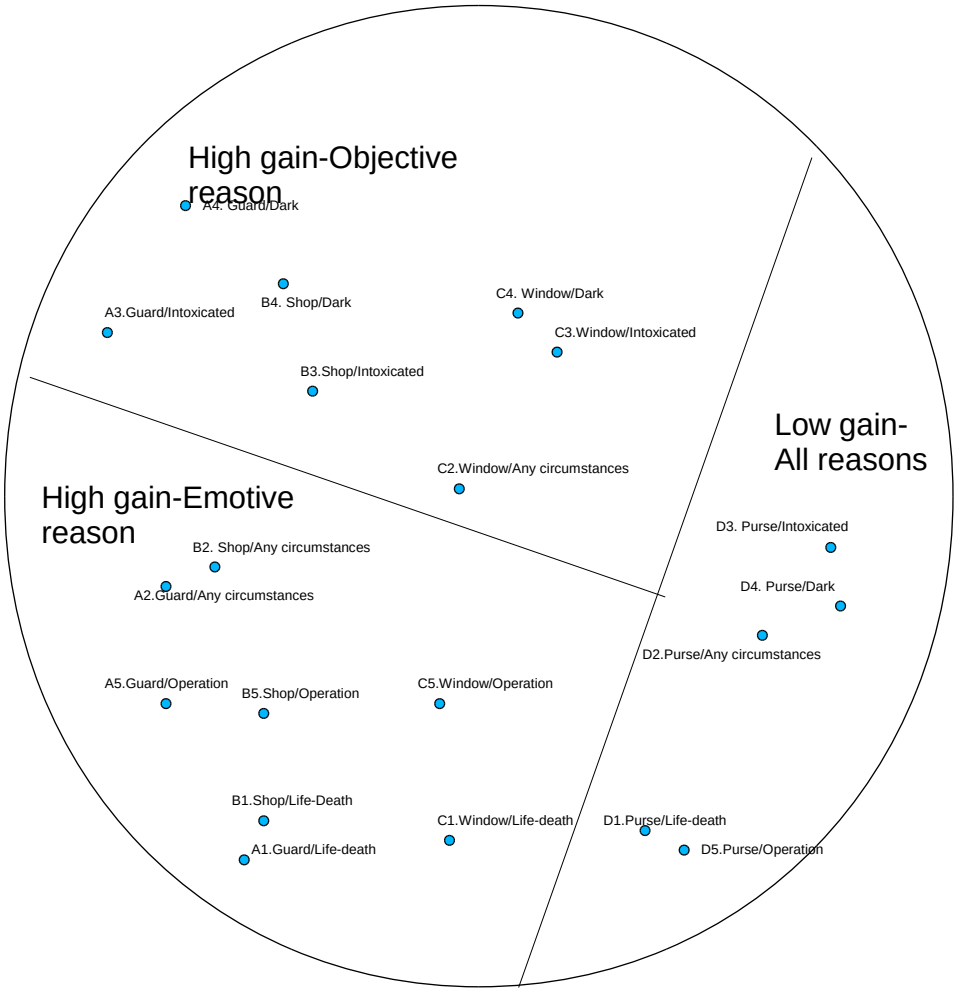
The items with the highest loadings in factor 3 also represent activities that could be considered high risk and high gain. For example; item 4 (.819) is from the scenario '*Use force to get a security guard to open the van and take the money'*. All of the justifications within this factor are Instrumental justifications. For example, item3 has the justification '*Would you consider committing a crime like this if it was dark at night and there were no other people around? No witnesses or any other people's reactions to affect you*.' These justifications are Instrumental as they suggest external benefits such as not getting seen or caught. Similar to that stated above, the term 'Instrumental' is used by a number of researchers to define offending. Therefore, this justification style is labelled 'Objective' in order to reduce confusion.

5.30 Summary of structure of attitudes.

The SSA's outlined earlier, differentiated between Instrumental/Expressive elements; the factor analysis supports this distinction by also differentiating Instrumental and Expressive style justifications. However, the factor analysis does not differentiate between Person/Property scenarios; instead it defines level of gain. This means that the three regions could be labelled 'High

gain scenarios with Objective justifications', 'High gain scenarios with Emotive justifications', and low gain'. The SSA plot below shows the way in which these factor loadings map onto to the SSA.

Figure 5.13 SSA plot showing structure of items defining three factors.



The figure above is an adaptation of figure 5.9.

Table 5.17 Key to AOSS SSA

Crime scenario	Justification
A.'Use force to get a security guard to open the van and take the money'	1.How likely do you think you would be to commit a crime like this in a life and death situation for acquiring money? 2.Are there any circumstances for which you could imagine yourself doing an action like this? 3. Imagine perhaps you were to become intoxicated and you have the extra confidence of for e.g. alcohol or cocaine and this situation presented itself, you possibly wouldn't even remember what happened. Would you consider par taking in a crime like this? 4.Imagine perhaps you were to become intoxicated and you have the extra confidence of for e.g. alcohol or cocaine and this situation presented itself, you possibly wouldn't even remember what happened. Would you consider par taking in a crime like this? 5. Would you consider committing a crime like this if it was dark at night and there were no other people around? No witnesses or any other people's reactions to affect you.
B.'Use necessary threat and force to get a shop assistant to open the till and take the money'	
C.'Force open a window and take personal property from a house with intention of selling these goods'.	
D.'Take a purse that appears unattended'.	

The factor analysis adds to the understanding of the way in which individuals represent various crime scenarios, gains, and justifications. The SSA in figure 5.13 above, shows the scenarios which involve interaction with a person on the left, scenarios with interaction with property on the right, Instrumental justification in the upper region and Expressive justification in the lower region. However, when the overall configuration of points is carefully examined, it is evident that there is a distinct space between the items representing the scenario '*take a purse….*' and the other scenarios. When this evidence is combined with the factor analysis results, it indicates that it would be more appropriate to consider scenarios in terms of the level of gain, instead of whether they interact with Person or Property.

In summary, initial consideration of the configuration of points on the SSA indicated that items could be defined as Instrumental or Expressive justifications, and the crime scenarios defined as Person or Property, as such the SSA should be divided into four regions. It was further suggested that Property crime scenarios can be conceptualised into Low gain and High gain. However, results from the factor analysis indicate that the items should be defined as being High gain Objective, High gain Emotive, and Low gain. After careful consideration of the distances between points on the SSA plot, it is concluded that the SSA should be defined by the three factors indicated in factor analysis.

5.31 Examining individual differences in levels of preference.

A total of 140 males and 150 females completed the AOSS

A total of 234 people were under the age of 30 and 56 were over the age of 30.

Table 5.18 Age and gender difference in AOSS regions

AOSS subgroup	Gender	Age bracket	Mean	SD	N
High gain Objective reason	Male	Under 30	15.16	9.349	117
		Over 30	12.26	10.678	23
		Total	14.69	9.600	140
	Female	Under 30	10.28	5.119	117
		Over 30	8.45	3.751	33
		Total	9.88	4.899	150
	Total	Under 30	12.72	7.909	234
		Over 30	10.02	7.574	56
		Total	12.20	7.905	290
High gain Emotive reason	Male	Under 30	23.38	13.692	117
		Over 30	15.13	11.944	23
		Total	22.02	13.727	140
	Female	Under 30	16.58	9.941	117
		Over 30	10.73	4.382	33
		Total	15.29	9.326	150
	Total	Under 30	19.98	12.415	234
		Over 30	12.54	8.545	56
		Total	18.54	12.117	290
Low gain all reasons	Male	Under 30	15.15	8.762	117
		Over 30	10.22	9.826	23
		Total	14.34	9.095	140
	Female	Under 30	11.91	7.690	117
		Over 30	8.58	6.394	33
		Total	11.17	7.532	150
	Total	Under 30	13.53	8.385	234
		Over 30	9.25	7.941	56
		Total	12.70	8.459	290

5.31.1 Individual differences in High gain objective reasons.

A 2x2 design was employed to investigate scores on High gain objective reason, where gender and age were between subject's factors.

The main effect of gender is significant $F_{(1, 3)} = 14.715$, $p < 0.0001$, with a large power of .969.

The main effect of age is significant $F_{(1, 3)} = 4.361$, $p < 0.05$, with a medium power of .548.

The main effect of age x gender is not significant $F_{(1, 3)} = 0.225$, $p = .636$, with a small power of .076.

The results from the ANOVA, and table 5.18 above, both show that males have significantly higher scores than females in the AOSS region 'High gain objective reasons'. The ANOVA shows that the differences between these scores are large. The table and ANOVA also reveal that those who are under 30 years old have significantly higher scores than those over 30. However, the power shows that the difference between these scores is fairly small. There was no significant interaction effect between age and gender.

5.31.2 Individual differences in High gain Emotive reasons.

A 2x2 design was employed to investigate scores on High gain emotive reason, where gender and age were between subject's factors.

The main effect of gender is significant $F_{(1, 3)} = 10.677$, $p < 0.005$, with a large power of .903.

The main effect of age is significant $F_{(1, 3)} = 16.926$, $p < 0.0001$, with a large power of .984.

The main effect of age x gender is not significant $F_{(1, 3)} = 0.487$, p= .486, with a small power of .107.

The ANOVA and table 5.18 above both show that males have significantly higher scores than females in the AOSS region of 'High gain emotive reasons'. The ANOVA reveals that the difference between these scores is large. The table and ANOVA also show that those under 30 have significantly higher scores than those over 30, the difference between these scores is large. However, there were no significant interaction effects between age and gender.

5.31.3 Individual differences in Low gain all reasons.

A 2x2 design was employed to investigate scores on Low gain all reason, where gender and age were between subjects factors.

The main effect of gender is significant $F_{(1, 3)} = 3.919$, $p < 0.05$, with a medium power of .505.

The main effect of age is significant $F_{(1, 3)} = 11.203$, $p < 0.005$, with a large power of .916.

The main effect of age x gender is not significant $F_{(1, 3)} = .423$, $p = .516$, with a small power of .099.

The ANOVA and table 5.16above reveal that males have significantly higher scores than females in the AOSS region of 'Low gain all reasons'. However, the difference between these scores is relatively small. The results also show that those who are under 30 have significantly higher scores than those over 30, and this is a large difference. There were no significant interaction effects between age and gender.

5.32 Summary of AOSS.

The Attitude to Offending Style Scale presents participants with a range of hypothetical crime scenarios and justification styles. This scale measures attitude towards these items by asking participants to indicate what crimes they would be prepared to carry out under the various circumstances. The responses indicate which styles of crime and justifications participants have a positive attitude towards, and as such reveal preference for different styles of action.

As stated in the opening chapters, the Theory of Reasoned Action proposes that behaviour is influenced by attitude. Therefore, it is reasonable to assume that any attitudinal preferences are likely to be reflects in behaviour across various contexts. Situational effects should have little effect on such deeply rooted beliefs and preferences.

Initial consideration of the configuration of points on the SSA plot suggests that similar levels of preference are shown for crime scenarios involving either Person or Property. Preferences were also evident for Instrumental (reduced risk of detection) or Expressive (to preserve life) justification styles. This resulted in the SSA being divided into four regions of preferences: Instrumental Person, Instrumental Property, Expressive Person and Expressive Property. However, after consideration of results from exploratory factor analysis, the SSA is divided into three regions: High gain objective reason, High gain emotive reason, and Low gain all reason preferences. Individuals have the highest scores for items in the low gain all reason region, and the lowest scores for items in the high risk/high gain Instrumental region.

There are individual differences in all three regions of the SSA, males score significantly higher than females. This suggests males have more of a positive attitude towards these styles of crime and justifications. Similarly, those under 30 have significantly higher scores than those over 30 for all three regions. These results reflect those found in a wide variety of literature which suggests that males under 30 have a more favourable attitude towards many crime styles than females and those over 30.

The scores from this scale can provide a useful and meaningful way of measuring attitude and preferences towards crime, in the form of hypothetical scenarios. The structure of these attitudes reveals stylistic preferences which may be evident across a range of situations.

Chapter 6. Evaluating the structure of interpersonal personality as measured by the FIRO-B.

Canter (1989) proposes that crime is an interpersonal interaction, and any measurement of individual differences should consider this. Throughout any criminal action, the offender is interacting with a victim, this may be in a direct way with crimes such as murder, or assault, or in an indirect way with crimes such as burglary or theft. Therefore, an appropriate measure of an offender's personality would be one that focuses on the way the individual habitually interacts with others. Shultz's (1958) Fundamental Interpersonal Relations Orientation (FIRO) scale, measures such interactions as aspects of interpersonal personality.

Schutz (1958) developed the FIRO-B to identify and measure elements of interpersonal tendencies. Schutz made clear that the construction of this scale is based on Facet theory procedures (Guttman, 1954). The first facet describes the form relationships take, this facet has three elements: Control, Affection, and Inclusion. The second facet describes the forms of behaviour into different modes: Expressed or Received. Expressed behaviours are those which we outwardly project and the way we treat other people. Received behaviours describe the way other people treat us.

The scale is structured into six sub groups which represent different combinations of interpersonal tendencies. However, there has been much criticism over the structure of the scale. Many studies have indicated that the facets of Inclusion and Affection are problematic (Hurley 1990; Macrosson 2000; Mahoney and Stasson 2005; Dancer and Woods 2006; Furnham 2008). As pointed out in the opening chapters, Schutz provides an ad hoc coding structure and items are summed into these sub groups. However, there is no test of the ways in which the individual items are related. Therefore, the purpose of the present chapter is to examine the structure of the FIRO-B. The analysis will examine the scores for each individual item rather than using the coding framework proposed by Schutz.

It is hypothesised that the individual items will be differentiated into those which represent Inclusion, Control, and Openness. It is also hypothesised that the items will be differentiated into those which are Expressed (the way we treat others) and Received (the way others treat us). It is proposed that the mode and form of behaviour will combine to produce six distinct styles of interpersonal tendencies: Expressed Inclusion, Expressed Control, Expressed Openness, Received Inclusion, Received Control, and Received Openness. Significant differences between genders, ages and those with or without a criminal background are expected.

As stated in the earlier chapters, a pilot study was conducted to assess the structure of attitude towards offending. During this pilot study participants completed the HOSS as well as the FIRO-B. This means that in the present study, there is a smaller all male population and a larger mixed gender population. The present chapter will explore the structure of each individual data set, if the data sets are similar in their overall scores, these will be combined to produce one large data set. The smaller all male sample will be referred to as 'data set 1', and the larger mixed gender data set will be referred to as 'data set 2'. Where these two samples are combined to produce a much larger third data set, these will be referred to as 'combined data set'.

Table 6.1 Mean scores for FIRO-B items for combined data set.

FIRO item	Mean (SD)	FIRO item	Mean (SD)
1. I seek out people to be with.	3.5 (1.7)	*28. People include me in their social affairs.*	4.6 (1.3)
2. People decide what to do when we are together.	3.3 (1.5)	*29. I get people to do things the way I want them done.*	3.0 (1.5)
3. I am totally honest with my close friends.	5.0 (1.3)	*30. My closest friends keep secrets from me.*	3.0 (1.7)
4. People invite me to do things.	5.0 (1.3)	*31. I have people around me.*	5.0 (1.2)
5. I am the dominant person when I am with people.	3.4 (1.4)	*32. People strongly influence my ideas.*	2.9 (1.5)
6. My close friends tell me their real feelings.	4.9 (1.3)	*33. There are some things I would not tell anyone.*	4.0 (2.0)
7. I join social groups.	3.9 (1.7)	*34. People ask me to participate in their discussions.*	4.6 (1.3)
8. People strongly influence my actions.	2.9 (1.5)	*35. I take charge when I am with people.*	3.3 (1.4)
9. I confide in my close friends.	4.7 (1.4)	*36. My friends confide in me.*	4.6 (1.3)
10. People invite me to join their activities.	4.8 (1.3)	*37. When people are doing things together I join them.*	4.6 (1.2)
11. I get other people to do things I want done.	3.0 (1.5)	*38. I am strongly influenced by what people say.*	2.8 (1.5)
12. My close friends tell me about private matters.	4.9 (1.3)	*39. I have at least one friend to whom I can tell anything.*	5.1 (1.4)
13. I join social organisations.	3.5 (1.7)	*40. People invite me to parties.*	5.0 (1.2)
14. People control my actions.	2.0 (1.2)	*41. I strongly influence other people`s ideas.*	3.3 (1.5)
15. I am more comfortable when people do not get too close.	3.4 (1.6)	*42. My close friends keep their feelings a secret from me.*	2.9 (1.7)
16. People include me in their activities.	4.7 (1.2)	*43. I look for people to be with.*	3.0 (1.6)
17. I strongly influence other people's actions.	3.2 (1.5)	*44. Other people take charge when we work together.*	2.9 (1.4)
18. My close friends do not tell me about themselves.	2.8 (1.9)	*45. There is a part of myself I keep private.*	4.0 (1.9)
19. I am included in informal social activities.	4.3 (1.5)	*46. People invite me to join them when we have free time.*	4.9 (1.2)
20. I am easily led by people.	2.2 (1.4)	*47. I take charge when I work with people.*	3.6 (1.4)
21. People should keep their private feelings to themselves.	3.0 (1.7)	*48. At least two of my friends tell me their true feelings.*	4.8 (1.4)
22. People invite me to participate in their activities.	4.7 (1.3)	*49. I participate in group activities.*	4.6 (.3)
23. I take charge when I am with people socially.	3.4 (1.4)	*50. People often cause me to change my mind.*	3.0 (1.5)
24. My close friends let me know their real feelings.	4.9 (1.2)	*51. I have close relationships with a few people.*	4.9 (1.4)
25. I include other people in my plans.	5.0 (1.1)	*52. People invite me to do things with them.*	4.9 (1.2)
26. People decide things for me.	2.4 (1.4)	*53. I see to it that people do things the way I want them to.*	2.9 (1.5)
27. There are some things I do not tell anyone.	4.0 (1.9)	*54. My friends tell me about their private lives.*	4.9 (1.4)

Table 6.1 above shows the mean score for each item on the FIRO-B scale when both data sets are combined. There are a variety of scores, some high, and some low. It is interesting to note however, that the majority of the higher mean scores are for Inclusion or non-reversed Openness behaviours. Whereas the lower scores mostly represent control or reversed Openness behaviours. For example, the item with the highest mean score is 39 '*I have at least one friend to whom I can tell anything'* (mean 5.1). Item 3 '*I am totally honest with my close friends'* also has a high mean score of 5.0. Both of these items represent Received Inclusion. High mean scores were also found for the following items:

4 '*People invite me to do things*'

25 '*I include other people in my plans*'

31 '*I have people around me'*

40 '*People invite me to parties*'

All of these items have a mean score of 5.0 and represent Expressed Inclusion. This suggests that overall levels of Inclusion are fairly high.

Some items from Expressed Control have low mean scores, for example, items, 29 '*I get people to do things the way I want them done'*, and 53 '*I see to it that people do things the way I want them to',* both have a mean score lower than 3.0. Finally, the majority of items representing Received Control have a mean score of less than 3.0:

8 '*People strongly influence my actions'*

20 '*I am easily led by people'*

26 '*People decide things for me*'

32 '*People strongly influence my ideas'*

38 '*I am strongly influenced by what people* say'

42 '*My close friends keep their feelings a secret from me'*

44 '*Other people take charge when we work* together'

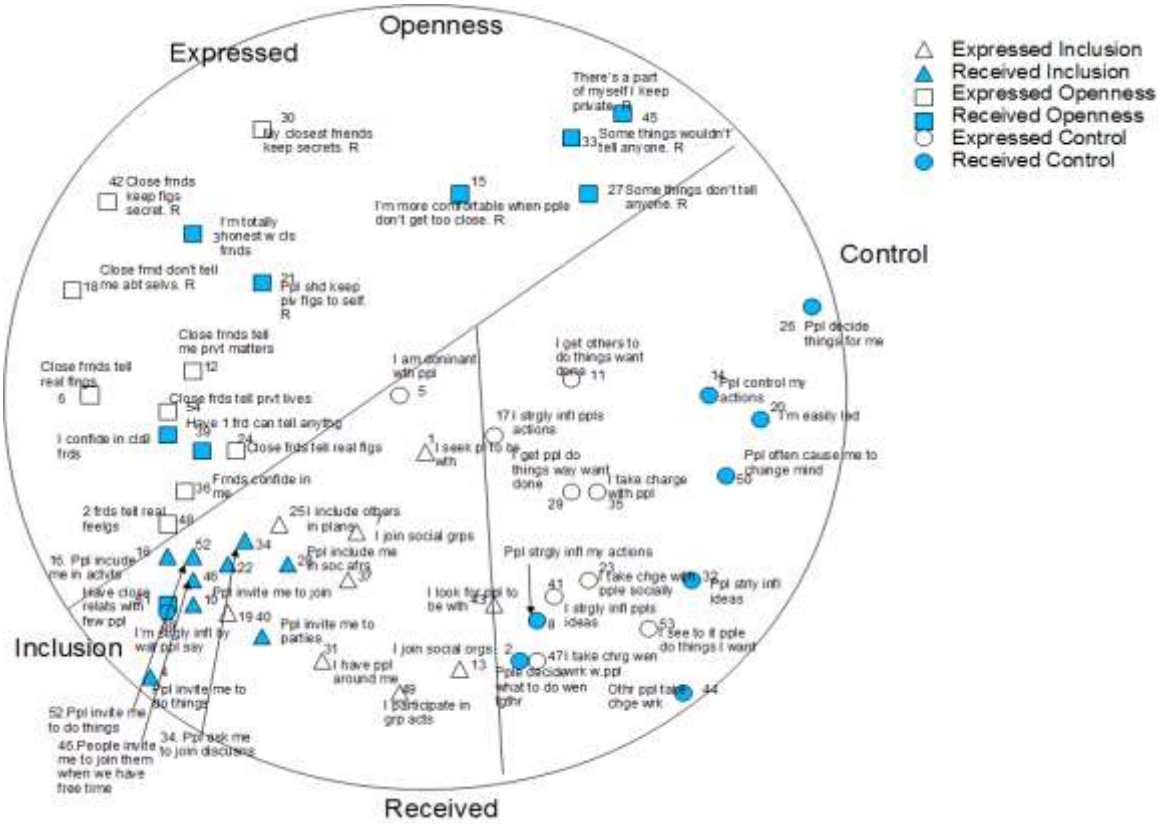
50 '*People often cause me to change my mind*'

The pattern of higher and lower mean scores infers that the participants in the present study show a high level of Inclusion (both Expressed and Received), and lower levels of Control (both Expressed and Received)

It is hypothesised that items within the FIRO-B scale will be differentiated into the facets defined by Shultz. It is proposed that the items on the FIRO-B scale will be correlated into three modes of interpersonal behaviours outlined by Shultz; these are Inclusion, Openness and Control. It is also hypothesised that the modes of these behaviours will be differentiated as either Expressed or Received.

6.1 Results from pilot study data set

Figure 6.1 SSA plot showing configuration of FIRO-B items for phase one participants.



The results displayed are from a 3 dimensional 1x2 projection with a coefficient of alienation of .17073 in 12 iterations.

Table 6.2 Key to FIRO-B SSA

FIRO items		
1. I seek out people to be with.	*19. I am included in informal social activities.*	*37. When people are doing things together I join them.*
2. People decide what to do when we are together.	*20. I am easily led by people.*	*38. I am strongly influenced by what people say.*
3. I am totally honest with my close friends.	*21. People should keep their private feelings to themselves.*	*39. I have at least one friend to whom I can tell anything.*
4. People invite me to do things.	*22. People invite me to participate in their activities.*	*40. People invite me to parties.*
5. I am the dominant person when I am with people.	*23. I take charge when I am with people socially.*	*41. I strongly influence other people`s ideas.*
6. My close friends tell me their real feelings.	*24. My close friends let me know their real feelings.*	*42. My close friends keep their feelings a secret from me.*
7. I join social groups.	*25. I include other people in my plans.*	*43. I look for people to be with.*
8. People strongly influence my actions.	*26. People decide things for me.*	*44. Other people take charge when we work together.*
9. I confide in my close friends.	*27. There are some things I do not tell anyone.*	*45. There is a part of myself I keep private.*
10. People invite me to join their activities.	*28. People include me in their social affairs.*	*46. People invite me to join them when we have free time.*
11. I get other people to do things I want done.	*29. I get people to do things the way I want them done.*	*47. I take charge when I work with people.*
12. My close friends tell me about private matters.	*30. My closest friends keep secrets from me.*	*48. At least two of my friends tell me their true feelings.*
13. I join social organisations.	*31. I have people around me.*	*49. I participate in group activities.*
14. People control my actions.	*32. People strongly influence my ideas.*	*50. People often cause me to change my mind.*
15. I am more comfortable when people do not get too close.	*33. There are some things I would not tell anyone.*	*51. I have close relationships with a few people.*
16. People include me in their activities.	*34. People ask me to participate in their discussions.*	*52. People invite me to do things with them.*
17. I strongly influence other people's actions.	*35. I take charge when I am with people.*	*53. I see to it that people do things the way I want them to.*
18. My close friends do not tell me about themselves.	*36. My friends confide in me.*	*54. My friends tell me about their private lives.*

The Guttman-Lingoes coefficient of alienation is 0.17, this indicates an acceptable level of fit between the rank order of Pearson's coefficient, and their corresponding rank order of geometric distances in the plot. The labels on the SSA are shortened version of the full item, table 6.2 gives details of the full items and the SSA labels.

The items within the SSA plot will be examined to determine if the items relating to each element within the form and mode facets can be identified in regional proximity. The SSA will be examined to investigate the following criterion:

a) Items proposed to measure each of the elements above will be located into distinct region areas.

b) These regions will be geographically exclusive to the concept.

6.1.1 Measurement of Form within the SSA.

The items which represent each form of behaviour are detailed in table 6.3 below.

Table 6.3 Items representing mode and form of behaviour

Inclusion	Openness	Control
Expressed	**Expressed**	**Expressed**
1. I seek out people to be with	*3. I am totally honest with my close friends.*	*5. I am the dominant person when I am with people.*
7. I join social groups.	*9. I confide in my close friends.*	*11. I get other people to do the things I want done.*
13. I join social organisations.	*15. I am more comfortable when people do not get too close (R).*	*17. I strongly influence other peoples actions.*
19. I am included in informal social activities.	*21. People should keep their private feelings to themselves (R).*	*23. I take charge when I am with people socially.*
25. I include other people in my plans.	*27. There are some things that I do not tell anyone (R).*	*29. I get people to do things the way I want them done.*
31. I have people around me.	*33. There are some things I would not tell anyone (R).*	*35. I take charge when I am with people.*
37. When people are doing things together I join them.	*39. I have at least one friend whom I can tell anything.*	*41. I strongly influence other peoples ideas.*
43. I look for people to be with.	*45. There is a part of myself I keep private (R).*	*47. I take charge when I work with people.*
49. I participate in group activities.	*51. I have close relationships with a few people.*	*53. I see to it that people do things the way I want them done.*
Received	**Received**	**Received**
4. People invite me to do things.	*6. My close friends tell me their real feelings.*	*2. People decide what to do when we are together.*
10. People invite me to join their activities.	*12. My close friends tell me about private matters.*	*8. People strongly influence my actions.*
16. People include me in their activities	*18. My close friends do not tell me about themselves (R).*	*14. People control my actions.*
22. People invite me to participate in their activities.	*24. My close friends let me know their real feelings.*	*20. I am easily led by people.*
28. People include me In their social affairs.	*30. My closest friends keep secrets from me (R).*	*26. People decide things for me.*
34. People ask me to participate in their discussions.	*36. My close friends confide in me.*	*32. People strongly influence my ideas.*
40. People invite me to parties.	*42. My close friends keep feelings a secret from me (R).*	*38. I am strongly influenced by what people say.*
46. People invite me to join them when we have free time.	*48. At least two of my friends let me know their true feelings.*	*44. Other people take charge when we work together.*
52. People invite me to do things with them.	*54. My friends tell me about their private lives.*	*50. People often cause me to change my mind.*

6.1.2 Structure of items representing Inclusion.

The items that Schutz defined as representing Inclusion are identified with a triangle on the SSA plot in fig. 6.1 Schutz formulated these items to represent attention seeking behaviours. Nine of these represent Expressed behaviours, and nine represent Received behaviours. High scores within the Expressed Inclusion region outline the ways in which the individual seeks out attention from others. High scores within the Received Inclusion region describe the way in which individuals are included by other people. All of the items that represent Inclusion are located in the left region of the SSA, this satisfies criterion **a).** However, the region in the lower left is not exclusive to Inclusion; as such criterion **b)** cannot be supported. The Inclusion items within this region reflect seeking out people to be with, such as 31 '*I have people around me',* as well as reflecting others seeking attention from us, such as 16 '*People invite me to do things*'. There is one item that Shultz formulated to represent Expressed Control also located in this left region: '*5. I am the dominant person when I am with*

people'. This item suggests a form of control within the social realm. Also in this region is one item that Schutz formulated to represent Received Openness: *'51. I have close relationships with a few people'*. This item suggests a notion of having close relationships with people, rather than a simple seeking of attention. The placement of these two items implies that they have been interpreted to reflect aspects of Inclusion as well as Openness and Control. However, item 5 is very close to the boarder of these regions which further implies that it is understood to contain elements of both forms of behaviour.

6.1.3 Structure of items representing Control.

The items that define the Control element are represented with a circle on the SSA plot. Again, there are nine items that represent Expressed Control; these items reflect having direct control of other people. Nine of the items represent Received Control; these items describe behaviours where other people have direct control over you. The Control items are located in the lower right region of the SSA plot; therefore criterion **a)** can be supported. This region of the SSA is exclusive to Control items, as such criterion **b)** is supported. All of the items in this region infer having direct control over others or other people having direct control. For example item 23 '*I take charge socially'* represents having control over others, whereas item 14 '*People control my actions'* represents other people having control. As stated above, there is one item that Schutz defined as representing Control that is located in the Inclusion region. Item 2 '*People decide what to do when we are together'* is located very near the border of Control and Inclusion. This implies that this item is also understood to contain an element of both Control and Inclusion.

6.1.4 Structure of items representing Openness.

The items which represent Openness are marked with a square on the SSA plot. Within the Openness facet, nine items represent Expressed Openness. High scores within this region represent a high level of reciprocal sharing of personal information. High scores within the nine items that define Received Openness, indicates that other people share their personal information with you. The upper left region of the SSA contains the items that define the element of Openness; as such criterion **a)** is supported. This region is exclusive to items representing Openness, as such criterion **b)** is supported. The items representing Openness in this area include Expressed Openness, such as item 3 '*I am totally honest with my close friends'*. These items reflect opening up, and freely giving information about ourselves to others. Also in this area are items that represent Received Openness, such as item 6 '*My close friends tell me their real feelings'*. These items reflect other people in our lives sharing their personal thought and feelings.

In summary, there is strong support for Schutzs' form facet of Inclusion, Control and Openness. Most of the items representing each of the interpersonal behaviours are defined well within the SSA of individual FIRO-B items from this data set.

6.1.5. Structure of items representing Expressed behaviours.

The items that represent Expressed behaviours can be identified by an outline of the various shapes on the SSA plot; the Expressed behaviours are those which we display towards other people. There does not appear to be any region of the SSA plot that is exclusive to Expressed behaviours. As such, criterion **a),** and by extension criterion **b)** cannot be supported.

6.1.6 Structure of items representing Received behaviours.

Items representing Received behaviours can be identified by a solid fill shape; the Received behaviours are those which we experience other people demonstrating towards us. As with the Expressed element above, there is no region of the SSA that is exclusive to Received behaviours. As such, criterion **a),** and by extension criterion **b)** cannot be supported.

6.1.7 Summary of results for pilot study data set

In summary, the items on the SSA in fig. 6.1 above do not appear to differentiate between Expressed and Received behaviours well. For example, in the lower left Inclusion region, Received Inclusion items such as 22, 34, 40 and 52 are alongside Expressed Inclusion items such as 7, 19, 25, and 37. A similar pattern is also found within the Control region; Received Control items such as 2, 8, 32 and 44 are amongst Expressed Control items such as 23, 41, and 53. Finally, the same mixed pattern is displayed in the upper left Openness region; Expressed Openness items such as 3, 9, 31, and 39 are next to Received Openness items such as 6, 12, 24, and 54.

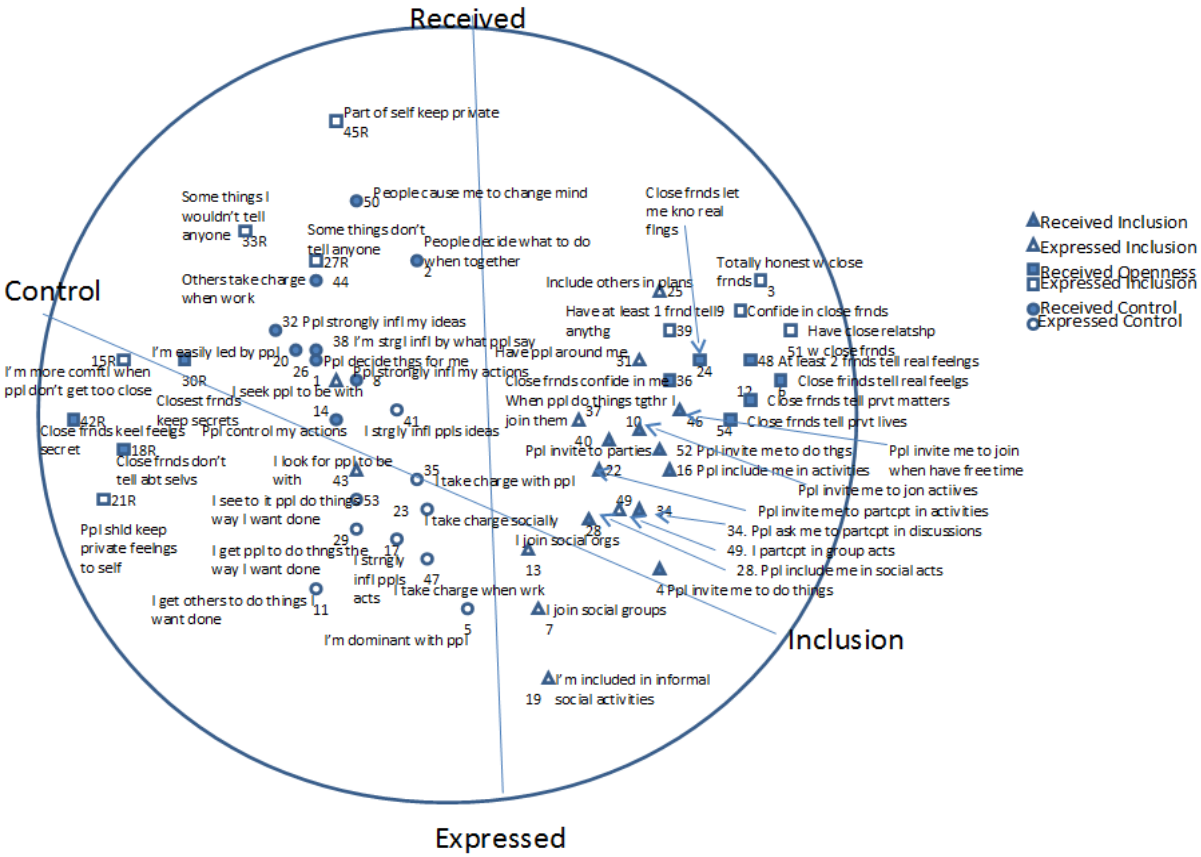
6.2 Main study data set

This section explores the same structural hypothesis as already stated for the larger mixed gender data set. In order to systematically examine the results, the SSA will be examined to determine if the items relating to each concept can be identified in regional proximity. The SSA will be examined to investigate the following criterion:

a) Items proposed to measure each of the elements above will be located into distinct regional areas.

b) These regions will be geographically exclusive to the concept.

Figure 6.1. SSA plot showing configuration of FIRO-B items for phase two participants.



The results displayed are from a 3 dimensional 1 x 2 projection with a coefficient of alienation of .14.

Table 6.4 Key to FIRO-B SSA

FIRO items		
1. I seek out people to be with.	*19. I am included in informal social activities.*	*37. When people are doing things together I join them.*
2. People decide what to do when we are together.	*20. I am easily led by people.*	*38. I am strongly influenced by what people say.*
3. I am totally honest with my close friends.	*21. People should keep their private feelings to themselves.*	*39. I have at least one friend to whom I can tell anything.*
4. People invite me to do things.	*22. People invite me to participate in their activities.*	*40. People invite me to parties.*
5. I am the dominant person when I am with people.	*23. I take charge when I am with people socially.*	*41. I strongly influence other people`s ideas.*
6. My close friends tell me their real feelings.	*24. My close friends let me know their real feelings.*	*42. My close friends keep their feelings a secret from me.*
7. I join social groups.	*25. I include other people in my plans.*	*43. I look for people to be with.*
8. People strongly influence my actions.	*26. People decide things for me.*	*44. Other people take charge when we work together.*
9. I confide in my close friends.	*27. There are some things I do not tell anyone.*	*45. There is a part of myself I keep private.*
10. People invite me to join their activities.	*28. People include me in their social affairs.*	*46. People invite me to join them when we have free time.*
11. I get other people to do things I want done.	*29. I get people to do things the way I want them done.*	*47. I take charge when I work with people.*
12. My close friends tell me about private matters.	*30. My closest friends keep secrets from me.*	*48. At least two of my friends tell me their true feelings.*
13. I join social organisations.	*31. I have people around me.*	*49. I participate in group activities.*
14. People control my actions.	*32. People strongly influence my ideas.*	*50. People often cause me to change my mind.*
15. I am more comfortable when people do not get too close.	*33. There are some things I would not tell anyone.*	*51. I have close relationships with a few people.*
16. People include me in their activities.	*34. People ask me to participate in their discussions.*	*52. People invite me to do things with them.*
17. I strongly influence other people's actions.	*35. I take charge when I am with people.*	*53. I see to it that people do things the way I want them to.*
18. My close friends do not tell me about themselves.	*36. My friends confide in me.*	*54. My friends tell me about their private lives.*

The Guttman-Lingoes coefficient of alienation is 0.14, this indicates an acceptable level of fit between the rank order of Pearson's coefficient and their corresponding rank order of geometric distances in the plot. The three dimensional solution (vector one by vector two) was considered to best represent the pattern of relationships between the variables.

6.2.1 Structure of items representing Inclusion.

The items that Schutz formulated to represent the form of Inclusion are identified with a triangle in the SSA plot in fig. 6.2 above. The inclusion items are located on the right side of the SSA. Criterion **a)** is satisfied as the items representing Inclusion are grouped together in one regional area of the SSA. This indicates that the individual items representing Inclusion have a high correlation and give support to that element. Items 13 *I join social organisations*, 17 *I strongly influence other people actions,* and 19 *I am included in informal social activities*, are close to the boarder of the region that differentiates between Control and Inclusion. This implies that these items capture an element of assertiveness as well as Inclusion. There are a number of items that Schutz originally defined as Openness amongst this region of Inclusion items. Items 3, 6, 9, 12, 24, 36, 39, 48, 51, and 54 are in this region, indicating that these items may require some revision. Criterion **b)** cannot be satisfied as the SSA area is not geographically exclusive to this element.

6.2.2 Structure of items representing Openness.

The items that represent Openness are identified with a square shape on the SSA plot. The Openness items are displayed in two separate areas of the plot; items 3, 6, 9, 12, 24, 36, 39, 48, 51, and 54 are located on the right side of the plot. Items 15, 18, 21, 27, 30, 33, 42, and 45 are located on the left side of the plot amongst the region containing Control items. Therefore criterion **a),** and by extension, criterion **b),** cannot be satisfied. Shultz devised eight of the items within the Openness element to be reversed; this means that high scores for these items indicate a lack of the concept being measured.

It is interesting to note that it is the reversed items that are located on the left amongst the Control items. This indicates that these items measure a different concept to the other Openness items on the right. The reversed items on the left are:

15. I am more comfortable when people do not get too close.
18. My close friends do not tell me about themselves.
21. People should keep their private feelings to themselves.
27. There are some things that I do not tell anyone.
30. My closest friends keep secrets from me.
33. There are some things I would not tell anyone.
42. My close friends keep feelings a secret from me.
45. There is a part of myself I keep private.

This suggests that the items Schutz defined as representing reversed Openness require revision in the way they are defined. All of these reversed Openness items are located amongst the Control items. This infers that the withholding of information produces a form of control. This cluster of items represents a form of social control by withholding information from others.

As noted, there are a number of items representing Openness that are located in the right region amongst the Inclusion items. These items are:

3. I am totally honest with my close friends.
6. My close friends tell me their real feelings.
9. I confide in my close friends.
12. My close friends tell me about private matters.
24. My close friends let me know their real feelings.
36. My close friends confide in me.
39. I have at least one friend whom I can tell anything.
48. At least two of my friends let me know their true feelings.
51. I have close relationships with a few people.
54. My friends tell me about their private lives.

The items representing Openness on the right hand side of the SSA are amongst the Inclusion items, this suggests that these particular items produce a notion of seeking or receiving attention. The disparity between the results presented here and the way in which Schutz defined these items suggests that there may be a need to revise the way in which these items are defined.

It is possible that sharing personal information with others and having others share personal information with you, produces feelings of inclusion. Whereas withholding information may be seen as a form of social control.

6.2.3 Structure of items representing Control.

The items that Schutz constructed to represent Control are identified with a circle on the SSA plot. All of the items that represent this form of interpersonal behaviour are located in the left region of the SSA plot. This means that criterion **a)** is satisfied. As noted above, this region is not exclusive to Control items; therefore criterion **b)** cannot be satisfied. It is interesting to note that there are two Inclusion items in the left region amongst the items representing Control:

1. I seek out people to be with.
43. I look for people to be with.

This implies that these two items evoke a feeling of Control as well as Inclusion. It is possible that participants think of these items as containing elements of Inclusion and Control. This is a likely consequence of the reciprocal nature of interpersonal relationships; it is only by seeking out people that one can experience controlling behaviours.

6.2.4 Structure of items representing Expressed and Received behaviours

The items that Schutz defined as representing Expressed behaviours are identified with an outline of the various shapes. There is strong support for the Expressed mode of behaviour; the majority of Expressed items are in the lower area of the plot. All except one of the items representing Expressed Control are in the lower region of the plot. Item 41, '*I strongly influence other people's ideas'* is amongst the upper Received Control region. Overall, it is the items representing Control that differentiate well between Expressed and Received behaviours. The items representing Expressed and Received Inclusion are clustered in the right region and do not differentiate between the mode of behaviour. The items representing Openness do not differentiate between Expressed and Received

behaviours either. For example, the Expressed Openness items 3, 39 and 51 are located in the right region amongst Received Inclusion. Similarly, items 45, 33 and 27 also represent Expressed Openness, however, these are located in the region containing Received Control.

The items representing Received modes of behaviour are mostly located in the upper region of the plot satisfying criterion **a). H**owever, items 18 and 42, representing Received Openness, are in the lower left region alongside the items defining Expressed Control. Criterion **b)** cannot be satisfied as there are a number of items that Schutz defined as measuring Expressed Openness located in the upper right region of the plot.

The items representing Inclusion do not appear to differentiate between Received and Expressed behaviours; there are only three of the nine Expressed Inclusion items in the lower part of the plot. It is possible that the inclusion items are not differentiated on the basis of being Expressed or Received, as Inclusion is understood as a reciprocal act.

In summary, the modes of Inclusion and Control are well supported. However, the concept of Openness cannot be supported and these items require some revision. It is proposed that the Openness items, except for those that are reversed, would be more appropriately placed within the Inclusion mode. Those Openness items that are reversed would be more appropriately defined as representing a form of social control. Furthermore, the element of Control differentiates those behaviours that are Expressed or Received. However, items representing Inclusion and Openness are not differentiated in this way; this is likely due to the reciprocal nature of inclusion.

6.3 Summary of results from both data sets presented.

The chapter has so far detailed the structure of items on the FIRO-B for two data sets. The forms of Inclusion and Control can be defined in each study. However, the results from phase two data set indicate that the items Schutz defied as representing Openness require some revision, whereas the results from phase one support Openness as a distinct element. Strong support was found for Expressed Control interpersonal behaviours; however, the Expressed mode was not well supported within Inclusion and Openness forms. Inclusion items in data set two appear to be clustered in the upper Received region.

In summary, it is proposed that the data sets should be combined to represent a broad range of individuals of both genders and all ages. Moreover, it is proposed that the items Schutz defined as representing Openness should be revised. It is suggested that the Reversed Openness items should be re-defined as Control, and the non-reversed Openness items should be revised to represent Inclusion.

In order to examine the differences between the data sets, the table below gives a summary of scores for each region.

Table 6.5 Table of mean (SD) values to compare data sets.

FIRO-B group	Data set	N	Mean	SD
Expressed Inclusion	Data set 1	90	65.3	14.6
	Data set 2	223	68.7	11.2
	Combined data	313	67.6	12.3
Expressed Control	Data set 1	93	45.2	10.3
	Data set 2	230	38.5	10.4
	Combined data	323	40.4	10.8
Received Inclusion	Data set 1	92	42.9	8.1
	Data set 2	227	44.3	8.7
	Combined data	319	43.9	8.6
Received Control	Data set 1	92	39.5	8.8
	Data set 2	229	40.9	10.0
	Combined data	321	40.5	9.6

There were no significant differences between data sets for levels of Expressed Inclusion ($t = 1.981$, $df = 132.976$, $p = .056$, one tailed, equal variances not assumed). Data set 1 has a mean of 65.3 (14.6), whereas data set 2 has a mean Expressed Inclusion score of 68.7 (11.2).

There were no significant differences between data sets for levels of Received Inclusion ($t = 1.348$, $df = 317$, $p = .179$, one tailed, equal variances assumed). Data set 1 has a mean of 42.9 (8.1), whereas data set 2 has a mean Received Inclusion score of 44.3 (8.7),

There were significant differences between data sets for levels of Expressed Control ($t = -5.210$, $df = 321$, $p < 0.001$, one tailed, equal variances assumed). Data set 1 has a mean Expressed Control score of 45.2 (10.3), whereas data set 2 has a mean of 38.5 (10.4).

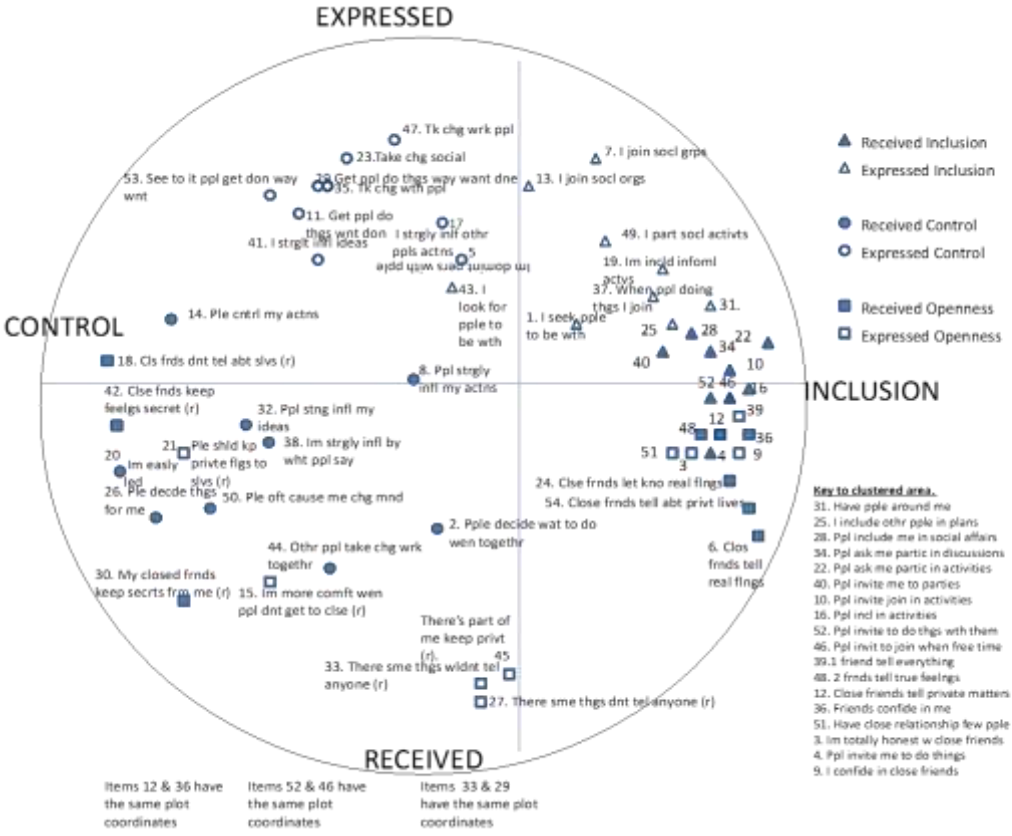
There were no significant differences between data sets for levels of Received Control ($t = 1.225$, $df = 319$, $p = .221$, one tailed, equal variances assumed). Data set 1 has a mean of 39.5 (8.8), whereas data set 2 has a mean Received Control score of 40.9 (10.0).

Table 6.5 above shows that the mean scores for each of the FIRO groups are similar. The T tests above indicate that for most of the FIRO-B subgroups there is no difference between the scores in data set 1 and 2. However, there is a significant difference in levels of Expressed Control; data set 1 score higher than data set 2. It must be noted though, that the participants in data set one are all males, and it has been well documented that males have higher scores in levels of Expressed Control. It is therefore argued that these two data sets should be combined to produce one large data set that is representative of a wider cohort.

6.4 Results from combined data set

The results detailed below show the configuration of items when both data sets are combined.

Figure 6.3 SSA plot showing configuration of FIRO-B items for combined data set.



The results displayed are from a 3 dimensional 1x2 projection with a coefficient of alienation of .15.

Table 6.6 Key to FIRO-B SSA

FIRO items		
1. I seek out people to be with.	*19. I am included in informal social activities.*	*37. When people are doing things together I join them.*
2. People decide what to do when we are together.	*20. I am easily led by people.*	*38. I am strongly influenced by what people say.*
3. I am totally honest with my close friends.	*21. People should keep their private feelings to themselves.*	*39. I have at least one friend to whom I can tell anything.*
4. People invite me to do things.	*22. People invite me to participate in their activities.*	*40. People invite me to parties.*
5. I am the dominant person when I am with people.	*23. I take charge when I am with people socially.*	*41. I strongly influence other people`s ideas.*
6. My close friends tell me their real feelings.	*24. My close friends let me know their real feelings.*	*42. My close friends keep their feelings a secret from me.*
7. I join social groups.	*25. I include other people in my plans.*	*43. I look for people to be with.*
8. People strongly influence my actions.	*26. People decide things for me.*	*44. Other people take charge when we work together.*
9. I confide in my close friends.	*27. There are some things I do not tell anyone.*	*45. There is a part of myself I keep private.*
10. People invite me to join their activities.	*28. People include me in their social affairs.*	*46. People invite me to join them when we have free time.*
11. I get other people to do things I want done.	*29. I get people to do things the way I want them done.*	*47. I take charge when I work with people.*
12. My close friends tell me about private matters.	*30. My closest friends keep secrets from me.*	*48. At least two of my friends tell me their true feelings.*
13. I join social organisations.	*31. I have people around me.*	*49. I participate in group activities.*
14. People control my actions.	*32. People strongly influence my ideas.*	*50. People often cause me to change my mind.*
15. I am more comfortable when people do not get too close.	*33. There are some things I would not tell anyone.*	*51. I have close relationships with a few people.*
16. People include me in their activities.	*34. People ask me to participate in their discussions.*	*52. People invite me to do things with them.*
17. I strongly influence other people's actions.	*35. I take charge when I am with people.*	*53. I see to it that people do things the way I want them to.*
18. My close friends do not tell me about themselves.	*36. My friends confide in me.*	*54. My friends tell me about their private lives.*

As the two previous SSA's were similar in the structure of variables, the same hypotheses were expected of the new combined data. It is proposed that items will be conceptualised as Inclusion, Openness, and Control. It is further hypothesised that the mode of these behaviours are conceptualised as Expressed or Received.

It is expected that there will be individual differences in the level of scores for each group. It is hypothesised that there will be differences between males and females, those with or without criminal backgrounds, between young and old participants, and between those with different levels of education.

The same systematic procedure will be used to determine if the structural hypotheses are supported. The SSA will be examined to determine if the items relating to each concept can be identified in regional proximity. The SSA will be examined to investigate the following criterion:

a) Items proposed to measure each of the elements above will be located into distinct region areas.

b) These regions will be geographically exclusive to the concept.

6.4.1 Structure of items representing Inclusion.

There are 18 items representing Inclusion, the Cronbach's alpha for these items is .905 (n=312). All of the items representing Inclusion are the same as that stated earlier, they are represented by a triangle and are located in close proximity in the right region of the SSA in fig. 6.3 There is strong support for the Inclusion element proposed by Schutz; there is a clearly defined region of Inclusion variables to the right of the SSA plot. This indicates the high inter-correlation of these items, and the distinctness of the Inclusion element. As all of the items are located on the right side of the SSA, criterion **a)** can be supported, thus proving that these individual items are measuring the same concept. Item 1 '*I seek out people to be with*' is near to the border between Inclusion and Control; this indicates that this particular item contains elements of both of these interpersonal behaviours. However, criterion **b)** cannot be supported; there are a number of items relating to Openness also in this area. Items 3, 6, 9, 12, 24, 36, 39, 48, 51 and 54 are all Openness items that are located amongst the Inclusion items. It is possible that these items may be better understood as relating to Inclusion instead of Openness. It is proposed that these Openness items should be revised and defined under the Inclusion element.

6.4.2 Structure of items representing Openness.

There are 18 items representing Openness, the Cronbach's alpha for these items is .620 (n=319). The items that represent Openness are represented with a circle and are located throughout the SSA; therefore criterion **a)**, and by extension criterion **b),** cannot be supported. There are Openness items within Inclusion and Control, the meaning of these items may be better understood when considered alongside these. The following Openness items are located amongst the Inclusion items:

3. I am totally honest with my close friends.
6. My close friends tell me their real feelings.
9. I confide in my close friends.
12. My close friends tell me about private matters.

24. My close friends let me know their real feelings.
36. My friends confide in me.
39. I have at least one friend to whom I can tell anything.
48. At least two of my friends tell me their true feelings.
51. I have close relationships with a few people.
54. My friends tell me about their private lives.

All of these items contain an aspect of sharing personal information; it is possible that this sharing of personal information produces feelings of being included, and including others in ones' life. Therefore, it is proposed that these items should be redefined as representing Inclusion. The remainder of the Openness items are located amongst the Control items. As with the previous SSA's, all of the reversed Openness items are amongst the Control items. The items are as follows:

15. I am more comfortable when people do not get too close (R).
18. My close friends do not tell me about themselves (R).
21. People should keep their private feelings to themselves (R).
27. There are some things I do not tell anyone (R).
30. My closest friends keep secrets from me (R).
33. There are some things I would not tell anyone (R).
42. My close friends keep feelings a secret from me (R).
45. There is a part of myself I keep private (R).

As stated earlier, the reversed items indicate the non-restriction of personal information; it is possible that individuals interpret the reciprocal regulation of personal information to be a form of Control. It is proposed that these eight items should be revised to represent Control behaviours.

6.4.3 Structure of items representing Control.

There are 18 items representing Control, the Cronbach's alpha for these items is .859 (n=318). The items that represent Control are represented by a square and are located in the left region of the SSA, this indicates that criterion **a)** is supported. However, criterion **b)** cannot be supported as the area is not exclusive to Control items. As stated above, there are a number of items relating to Openness also in this area and may be better understood as representing Control.

6.4.4 Structure of items representing Expressed and Received behaviours.

The items representing Expressed behaviours are identified by an outline of their shape; they are mostly located in the upper region of the SSA. Criterion **a)** can be supported as most of the items representing Expressed behaviours are located there. However, there are a small number of Expressed items in the lower region. Criterion **b)** can also be supported as this upper area is exclusive to Expressed items.

The items that represent Received behaviours are all located in the lower region of the SSA, therefore criterion **a)** can be supported. However, the items in the lower region are not exclusive and contain some items relating to Expressed behaviours; therefore criterion **b)** cannot be supported.

The elements of Inclusion and Control lend strong support to Expressed and Received behaviours; however, the element of Openness does not differentiate Expressed and Received behaviours well.

For example, within the Received Inclusion region there are a number of Expressed Openness items such as 12, 24, 36, and 48, which are alongside some Received Openness items such as 3, 9, 39, and 51.

Similarly, within the Received Control region, there are a number of Expressed Openness items such as 18, 30, and 42, which are alongside Received Openness items such as 15, 21, 27, 33, and 45.

The items within the SSA plot highlight that there are four conceptually homogeneous regions that are clearly differentiated from each other. These four distinct subsets are Expressed Inclusion, Expressed Control, Received Inclusion, and Received Control. It is proposed that Openness items need some revision to reflect their semantic interpretation.

The first region of variables in the upper left area of the SSA represents Expressed Control. This region contains statements of direct control such as 47 '*I take charge when I work with people',* as well as control over thoughts, for instance 41 '*I strongly influence peoples* thoughts'. Among these items is one Expressed Inclusion item: 43 'I look for people to be with'; this has been interpreted as representing an aspect of control. It is possible that its placement reflects a need to seek people in which to have control over.

The second region in the upper right area of the SSA represents Expressed Inclusion. All of these items reflect a seeking out of other people. For instance items such as 1 '*I seek out people to be with*', and 7 '*I join social organisations*' are in this region to reflect this concept.

The third region in the lower right area of the SSA plot represents Received Inclusion. Within this area are the items that Schutz defined as Received Inclusion, such as 22 '*People ask me to participate in social activities',* and 52 '*People invite me to do things with them*'. Also in this region are a number of Expressed Openness items such as 51 '*I have a close relationship with a few people*', as well as a number of Received Openness items such as 48 '*At least two of my friends tell me their true feelings*'. This suggests that this region defines items in terms of social inclusion as well as affection and intimacy.

Finally, the fourth region in the lower left area represents Received Control. Within this region are items that Schutz defined as others exerting control, such as 8 '*People decide what to do when we are together',* and 14 '*People control my actions*'. However, this region also contains Received Openness items such as 18 '*My closest friends do not tell me about themselves'* (R) as well as Expressed Openness items such as 15 *'I'm more comfortable when people don't get too close' (R)*. The items in this region reflect control over others as well as control of affection and intimacy. When others withhold personal information, it is understood as others exerting Control.

Therefore, it is proposed that the items which represent Openness require some revision. The items which represent reversed Openness should be included with items representing Control. The non-reversed Openness items should be revised to represent Inclusion.

6.5 Exploring individual differences in style of interpersonal personality.

The structure of items on the FIRO-B has so far been established with the SSA's. It has been established that the FIRO-B should be divided into four regions; Expressed Inclusion, Expressed

Control, Received Inclusion and Received Control. For each region of the FIRO-B, the difference between groups of individuals is investigated.

Table 6.7 Mean FIRO-B scores for those with or without a criminal record.

FIRO-B group	Criminal background	N	Mean	SD
Expressed Inclusion	No	164	72.13	12.403
	Yes	25	77.00	9.768
Expressed Control	No	169	37.62	10.091
	Yes	25	43.24	10.068
Received Inclusion	No	170	39.81	8.158
	Yes	24	36.21	8.708
Received Control	No	172	40.21	9.669
	Yes	23	45.78	11.685

There were no significant differences in levels of Expressed Inclusion between those with or without a criminal record ($t = -1.876$, $df = 187$, $p = .062$, one tailed equal variances assumed). Although, those with a criminal record have a mean Expressed Inclusion score of 77.0 (9.7) and those with no criminal record have a mean of 72.13 (12.403).

There were significant differences in levels of Expressed Control between those with or without a criminal record ($t = -2.599$, $df = 192$, $p < .05$, one tailed equal variances assumed). Those with a criminal record have a mean Expressed Control score 43.24 (10.06) and those with no criminal record have a mean score of 37.62 (10.09).

There were significant differences in levels of Received Inclusion between those with or without a criminal record ($t = 2.009$, $df = 192$, $p < .05$, one tailed equal variances assumed). Those with a criminal record have a mean Received Inclusion 36.21 (8.70) and those with no criminal record have a mean score of 39.1 (8.15).

There were significant differences in levels of Received Control between those with or without a criminal record ($t = -2.531$, $df = 193$, $p < .05$, one tailed equal variances assumed). Those with a criminal record have a mean Received Control score 45.78 (11.68) and those with no criminal record have a mean score of 40.21 (9.66).

The results show that those who score higher in have a criminal background have significantly higher scores for Expressed Control and Received Control. Those with a criminal background also have significantly lower scores in Received Inclusion. That is to say, those who say that they include others, are controlled by others, and that others do not include them, are more likely to have a criminal background.

A total of 105 males and 108 females completed the FIRO-B scale.

A total of 171 people were under the age of 30 and 42 were over the age of 30.

Table 6.8 Mean scores of age and gender for FIRO-B regions

FIRO-B subgroup	Gender	Age bracket	Mean	SD	N
Expressed Inclusion	Male	Under 30	73.86	10.926	86
		Over 30	59.00	18.031	19
		Total	71.17	13.670	105
	Female	Under 30	75.04	9.114	85
		Over 30	66.39	13.048	23
		Total	73.19	10.623	108
	Total	Under 30	74.44	10.053	171
		Over 30	63.05	15.746	42
		Total	72.20	12.234	213
Expressed Control	Male	Under 30	41.65	10.330	86
		Over 30	41.37	9.873	19
		Total	41.60	10.202	105
	Female	Under 30	35.59	8.789	85
		Over 30	36.39	11.704	23
		Total	35.76	9.429	108
	Total	Under 30	38.64	10.038	171
		Over 30	38.64	11.071	42
		Total	38.64	10.223	213
Received Inclusion	Male	Under 30	37.07	8.108	86
		Over 30	32.68	11.986	19
		Total	36.28	9.026	105
	Female	Under 30	43.16	4.631	85
		Over 30	40.04	8.304	23
		Total	42.50	5.715	108
	Total	Under 30	40.10	7.267	171
		Over 30	36.71	10.669	42
		Total	39.43	8.135	213
Received Control	Male	Under 30	43.13	10.357	86
		Over 30	40.32	7.725	19
		Total	42.62	9.959	105
	Female	Under 30	40.85	9.231	85
		Over 30	35.87	9.493	23
		Total	39.79	9.466	108
	Total	Under 30	41.99	9.851	171
		Over 30	37.88	8.920	42
		Total	41.18	9.793	213

6.5.1 Individual differences in Expressed Inclusion

A 2x2 design was employed to investigate scores on Expressed Inclusion, where gender and age were between subject's factors.

The main effect of gender is significant $F_{(1, 3)} = 4.803$, $p < 0.05$, with a medium power of .588. Males scores 71.1 (13.6) and females scored 73.2 (10.6).

The main effect of age is significant $F_{(1, 3)} = 36.159$, $p < 0.0001$, with a large power of 1.00.Thise under 30 scored 74.4 (10.1) and those over 30 scored 63.1 (15.7).

The main effect of age x gender is not significant $F_{(1, 3)} = 2.529$, $p = .113$, with a small power of .353.

The ANOVA and table 6.8 above reveals that females score significantly higher than males in the FIRO-B subgroup 'Expressed Inclusion', however, the difference between these scores was medium. Those who are under the age of 30 score significantly higher than those over 30, there is a large

difference between these scores. However, there were no significant interaction effects between age and gender.

6.5.2 Individual differences in Expressed Control

A 2x2 design was employed to investigate scores on Expressed Control, where gender and age were between subject's factors.

The main effect of gender is significant $F_{(1, 3)} = 4.803$, $p < 0.005$, with a medium power of .588. Males scored 41.6 (10.2) and females scored 35.8 (4.9).

The main effect of age is not significant $F_{(1, 3)} = 0.023$, $p = .878$, with a small power of .053.

The main effect of age x gender is not significant $F_{(1, 3)} = 2.529$, $p = .113$, with a small power of .353.

The ANOVA and table 6.8 above reveal that males score significantly higher than females in the FIRO-B subgroup 'Expressed Control', there was a medium size difference between their scores. The results also showed that there is no difference between those under or over 30 years old; both groups have identical scores. There were no significant interactions between age and gender.

6.5.3 Individual difference in Received Inclusion

A 2x2 design was employed to investigate scores on Received Inclusion, where gender and age were between subject's factors.

The main effect of gender is significant $F_{(1, 3)} = 27.547$, p, .0001, with a large power of .999.Males scored 36.3 (9.0) and females scored 42.5 (5.7).

The main effect of age is significant $F_{(1, 3)} = 8.576$, $p< .005$, with a large power of .830. Those under 30 scored 40.1 (7.3) and those over 30 scored 36.7 (10.7).

The main effect of age x gender is not significant $F_{(1, 3)} = 0.243$, $p= 0.622$, with a small power of .078.

The ANOVA and table 6.8 above shows that females have significantly higher scores than males in the FIRO-B subgroup 'Received Inclusion', there is a large difference between their scores. The results also show that those under 30 have significantly higher scores than those over 30, the difference between these scores is large. However, there were no significant interaction effects.

6.5.4 Individual differences in Received Control

A 2x2 design was employed to investigate scores on Received Control, where gender and age were between subject's factors.

The main effect of gender is significant $F_{(1, 3)} = 4.094$, $p < 0.05$, with a medium power of .522. Males scored 42.6 (9.9) and females scored 39.8 (9.5).

The main effect of age is significant $F_{(1, 3)} = 5.490$, $p < 0.05$, with a medium power of .645. Those under 30 scored 42.0 (9.9) and those over 30 scored 37.9 (8.9).

The main effect of age x gender is not significant $F_{(1, 3} = 0.424$, $p = .516$, with a small power of .099.

The ANOVA and table 6.8 above shows that males have significantly higher scores than females in the FIRO-B subgroup; Received Control', there is only a medium difference between these scores. Those who are under 30 have significantly higher scores than those over 30, the difference between these is medium. However, there were no significant interaction effects between gender and age.

6.6 Chapter summary

In summary, the present analysis investigates the structure of the FIRO-B by using the raw scores given by participants. This procedure allows the structure to be investigated without imposing any potentially restrictive groupings of items. There are two sets of participants who completed the FIRO-B. The first was a smaller data set consisting of all male participants, whereas the second data set was much larger and included males and females of all ages. The results from these data sets were then combined to form one large data set. The results reveal that the modes of Inclusion and Control are well supported. However, the concept of Openness cannot be supported and these items require some revision. It is proposed that the items representing non-reversed Openness behaviours, would be more appropriately categorized as representing Inclusion. Those Openness items that are reversed would be more appropriately defined as representing Control. Furthermore, the element of Control differentiates those behaviours that are Expressed or Received. However, Inclusion and Openness items do not differentiate the items on this facet; this is likely due to the reciprocal nature of including others and having others include you.

ANOVA tests revealed that females score significantly higher than males in Expressed and Received Inclusion. Whereas males scored significantly higher than females in Expressed Control. Younger participants score significantly higher than older participants in Expressed and Received Inclusion and Received Control. This reflects the findings of other studies which report gender differences in levels of Inclusion and Control.

Chapter 7. Structure of reported offending

The purpose of the present chapter is to investigate the structure of reported offending. Before attitude and personality styles can be related to offending, the structure of such offending needs to be established. Some of the literature outlined in the opening chapters noted that some studies within Investigative psychology have shown the value of considering consistency in offending according to well-grounded psychological principals. For example, Canter & Fritzon (1998) demonstrate that actions of arsonists can be differentiated into the style (Instrumental or Expressive) and target (Object or Person) of the offending behaviour. Similarly, Youngs (2001) suggests that offending behaviour can be differentiated into different types and levels of gain.

The present chapter aims to investigate the structure of the extended 45 item version of Youngs' (2001) D42 scale. Youngs' study recruited offenders, whereas the present study investigates these principals with a non-incarcerated population. It is expected that non-offenders in the present study will show the same structure of preferences as offenders.

The D45 scale consists of 45 contextualised criminal and deviant acts. Youngs developed the D42 to contain statements that retained psychologically salient aspects within each item. Youngs developed this scale to be applicable to a cohort of young male offenders. In order to be applicable to a wider cohort, the present scale was constructed to include 3 more items than the previous version. The D45 measures several aspects of criminal behaviour, these are: type of gain which is produced, the target of the offending behaviour, and the mode of behaviour. The type of gain which the act elicits has three elements, these are: Material, Power, and Sensory gains. The target of offending behaviour facet has two elements: Person or Property. Finally, the mode of behaviour also has two elements: Instrumental or Expressive.

It is hypothesised that offences can be differentiated into Instrumental or Expressive crimes. It is further hypothesised that the target of the offending behaviour can be differentiated into targeting a Person or Property. It is proposed that the type and level of gain will be differentiated into those crimes which produce a high or low level of Material, Power, and Sensory gains. It is hypothesised that there will be gender and age differences in the level of self-reported offending behaviour.

7.1 Structure of the D45 scale

The items which represent Material gains suggest that the criminal or deviant behaviour would produce some kind of monetary or other material gain. For example, items such as 4 '*Taken things worth between £10 and £100 from a shop without paying for them?*', and 14 '*Taken a bicycle belonging to someone you didn't know with no intention of returning it?*', are within this element.

The items which represent Power gains suggest that the gain would be some form of status or control over others. For example, items such as 7 '*Pulled a knife, gun or some other weapon on someone just to let them know you meant business?*', 12 '*Used a club, knife or other weapon to get something from someone?*', and 21 '*Picked a fight with someone you didn't know just for the hell of it?*'.

The items which represent Sensory gains suggest that the gain would stimulate the senses in some way. Items such as 16 '*Intentionally started a building on fire?*', 18 '*Broken the windows of an empty house or other unoccupied building?*', or 26 '*Smoked marijuana (grass/pot)?*' are within this element.

These three types of gain can produce high or low level of each particular gain, creating six categories of gain type. A summary of the items which make up each gain type and level is below in table 7.1.

The items which represent Person directed acts all involve direct violent contact with a victim, for example items such as 6 '*Carried a razor, flick-knife or some other weapon with the intention of using it in a fight?*', and 11 '*Used physical force (like twisting an arm or choking) to get money from another person?*', are within this element. Tables 7.1 and 7.2 give a summary of the items in each category. The items which represent Property acts all involve indirect contact with a victim, taking money or goods without interacting with the victim. Items such as 13 '*Taken things from a wallet/purse (or the whole wallet/purse) while the owner wasn't around or looking?*', and 36 '*Broken into a house, shop, school or other building to break things up or cause other damage?*', are within this element.

The items which represent Instrumental modes of behaviour are items which are carried out to achieve some secondary goal. For example items such as 3 'Taken hubcaps, wheels, the battery or some other part of a car without the owner's permission?', and 17 '*Taken little things (worth less than £5) from a shop without paying for them?*', are within this element. A summary of the items within each of these elements is given in table7.5 below.

7.2 Summary of mean scores

The full list of items is shown in the table below; next to each item are the mean and standard deviation values. As all of the mean scores are fairly low, the final column of the table shows the percentage of participants who have carried out the acts at least once.

Table 7.1 Table of mean scores for D45 items

Question	Mean	SD	% reported at least once
1. Broken into house, shop, school and taken money or something else you wanted?	1.30	.75	15
2. Broken into a locked car to get something from it?	1.20	.60	78
3. Taken hubcaps, wheels, the battery or some other part of a car without the owner's permission?	1.30	.69	20
4. Taken things worth between £10 and £100 from a shop without paying for them?	1.34	.80	20
5. Threatened to beat someone up if they didn't give you money or something else you wanted?	1.19	.59	13
6. Carried a razor, flick-knife or some other weapon with the intention of using it in a fight?	1.19	.60	7
7. Pulled a knife, gun or some other weapon on someone just to let them know you meant business?	1.10	.50	6
8. Beat someone up so badly they probably needed a doctor?	1.29	.67	19
9. Taken a car belonging to someone you didn't know for a ride without the owner's permission?	1.15	.61	7
10. Tried to get away from a police officer by fighting or struggling ?	1.18	.60	12
11. Used physical force (like twisting an arm or choking) to get money from another person?	1.17	.80	5
12. Used a club, knife or other weapon to get something from someone?	1.11	.53	4
13. Taken things from a wallet/purse (or the whole wallet/purse) while the owner wasn't around or looking?	1.23	.62	20
14. Taken a bicycle belonging to someone you didn't know with no intention of returning it?	1.24	.66	14
15. Tried to pass a cheque by signing someone else's name?	1.25	.75	5
16. Intentionally started a building on fire?	1.24	.93	5
17. Taken little things (worth less than £5) from a shop without paying for them?	1.81	.90	55
18. Broken the windows of an empty house or other unoccupied building?	1.48	.98	25
19. Bought something you knew had been stolen?	1.61	.84	41
20. Refused to tell the police or some other official what you knew about a crime?	1.44	.96	24
21. Picked a fight with someone you didn't know just for the hell of it?	1.51	.82	19
22. Been involved in gang fights?	1.40	1.16	18
23. Been loud, rowdy or unruly in a public place?	2.00	1.18	64
24. Had sex in public?	1.94	1.12	59
25. Attended a demonstration or sporting event to cause a disturbance or be violent?	1.16	.61	9

Table 7.2 Table of mean scores for D45 items continued.

Question	Mean	SD	% reported at least once
26. Smoked marijuana (grass/pot)?	2.22	1.83	63
27. Driven a car when you were drunk or high on some drugs?	1.44	.96	27
28. Taken barbiturates (downers) or speed (or other uppers) without a prescription?	1.37	.98	18
29. Taken ecstasy ('E's)?	1.63	1.10	25
30. Used heroin (smack) or cocaine?	1.54	1.01	19
31. Cheated at school in tests?	1.69	.96	50
32. Not returned extra change that a cashier gave you by mistake?	1.91	.93	77
33. Used fake money in a machine?	1.62	1.09	24
34. Taken things of large value (worth more than £100) from a shop without paying for them?	1.14	.52	7
35. Been drunk regularly when you were under 16?	2.31	1.34	73
36. Broken into a house, shop, school or other building to break things up or cause other damage?	1.32	.82	10
37. Dialled 999 just for a joke?	1.41	.81	18
38. Let off fireworks in the street?	1.66	1.08	36
39. Deliberately travelled without a ticket on a bus, train or the tube?	2.34	1.20	68
40. Taken money from someone at home without returning it?	1.62	.97	36
41. Deliberately littered the streets?	2.17	1.25	59
42. Annoyed or insulted a stranger?	1.64	.93	46
43. Not gone to school when you should have been there?	2.13	1.24	74
44. Sniffed glue or other solvents (e.g. tippex thinner)?	1.33	.85	18
45. Used or carried a gun to help you commit a crime?	1.12	.55	5

The tables above shows that all of the items have a fairly low mean score. However, there are some items with higher scores than others, this indicates that there are a number of participants who have carried out all of the acts at least once.

Nine of the items above have a high percentage (over 50%) of the population reporting committing them at least once. These are as follows:

2. Broken into a locked car to get something from it (78%)
17. Taken little things (worth less than £5) from a shop without paying for them (55%)
23. Been loud, rowdy or unruly in a public place (64%)
24. Had sex in public (59%)

26. Smoked marijuana (grass/pot)? (63%)
31. Cheated at school in tests (50%)
32. Not returned extra change that a cashier gave you by mistake (70%)
35. Been drunk regularly when you were under 16 (72%)
39. Deliberately travelled without a ticket on a bus, train or the tube (67%)
41. Deliberately littered the streets (59%)
43. Not gone to school when you should have been there (74%)

These nine items can be understood as deviant events, these are amongst the least serious items within the questionnaire. The high percentage of individuals reporting participation in these events reflects the results detailed in chapter 5. Participants are most likely to engage in low risk, less serious crimes.

Twelve of the items from the D45 have a moderate percentage of participants reporting committing them (20-49%). These are:

3. Taken hubcaps, wheels, the battery or some other part of a car without the owner's permission (20%)
4. Taken things worth between £10 and £100 from a shop without paying for them (20%)
13. Taken things from a wallet/purse (or the whole wallet/purse) while the owner wasn't around or looking (20%)
18. Broken the windows of an empty house or other unoccupied building (25%)
19. Bought something you knew had been stolen (41%)
20. Refused to tell the police or some other official what you knew about a crime (24%)
27. Driven a car when you were drunk or high on some drugs (27%)
29. Taken ecstasy ('E's) (27%)
33. Used fake money in a machine (24%)
38. Let off fireworks in the street (36%)
40. Taken money from someone at home without returning it (36%)
42. Annoyed or insulted a stranger (46%)

Items 19, 18, 40 and 42 above have a higher percentage of participants reporting carrying out these acts at least once when compared to the other items in this section. These items reflect mostly deviant acts, and they would not produce a large gain of any type. Again, this reflects the findings in chapter 5 that individuals are most likely to show more of a positive attitude to the lower risk, low gain items. Remaining items in this section also reflect a lower level of different types of gains that may be interpreted as more deviant than criminal.

There are twelve items that have a small percentage of individuals reporting committing them at least once (between 10-19%). These are:

1. Broken into house, shop, school and taken money or something else you wanted (15%)
5. Threatened to beat someone up if they didn't give you money or something else you wanted (13%)
8. Beat someone up so badly they probably needed a doctor (19%)
10. Tried to get away from a police officer by fighting or struggling (12%)
14. Taken a bicycle belonging to someone you didn't know with no intention of returning it (14%)

21. Picked a fight with someone you didn't know just for the hell of it (19%)

22. Been involved in gang fights (18%)

28. Taken barbiturates (downers) or speed (or other uppers) without a prescription (18%)

30. Used heroin (smack) or cocaine (19%)

36. Broken into a house, shop, school or other building to break things up or cause other damage (10%)

37. Dialled 999 just for a joke (18%)

44. Sniffed glue or other solvents (e.g. tippex thinner) (18%)

All of the items above have a small percentage of participants reporting involvement on at least one occasion. Most of these items in this section produce sensory gains which are mainly in the form of drug taking behaviours, however, there is one item relating to a material gain (item 1). The sensory gains in the paragraph above may be understood as being more serious in nature than the deviant items that 20-49% reported carrying out. For example, item 30 '*used heroin or cocaine'* is a criminal offence involving a class A drug, whereas 26 '*Smoked marijuana (grass/pot)*' is a class C drug. All of these items produce a higher level of Sensory and Material gain than the items in the previous two paragraphs.

Finally, ten of the items have a minimal percentage (less than 10%) of participants reporting involvement on at least one occasion. These are:

6. Carried a razor, flick-knife or some other weapon with the intention of using it in a fight (7%)

7. Pulled a knife, gun or some other weapon on someone just to let them know you meant business (6%)

9. Taken a car belonging to someone you didn't know for a ride without the owner's permission (7%)

11. Used physical force (like twisting an arm or choking) to get money from another person (5%)

12. Used a club, knife or other weapon to get something from someone (4%)

15. Tried to pass a cheque by signing someone else's name (5%)

16. Intentionally started a building on fire (5%)

25. Attended a demonstration or sporting event to cause a disturbance or be violent (9%)

34. Taken things of large value (worth more than £100) from a shop without paying for them (7%)

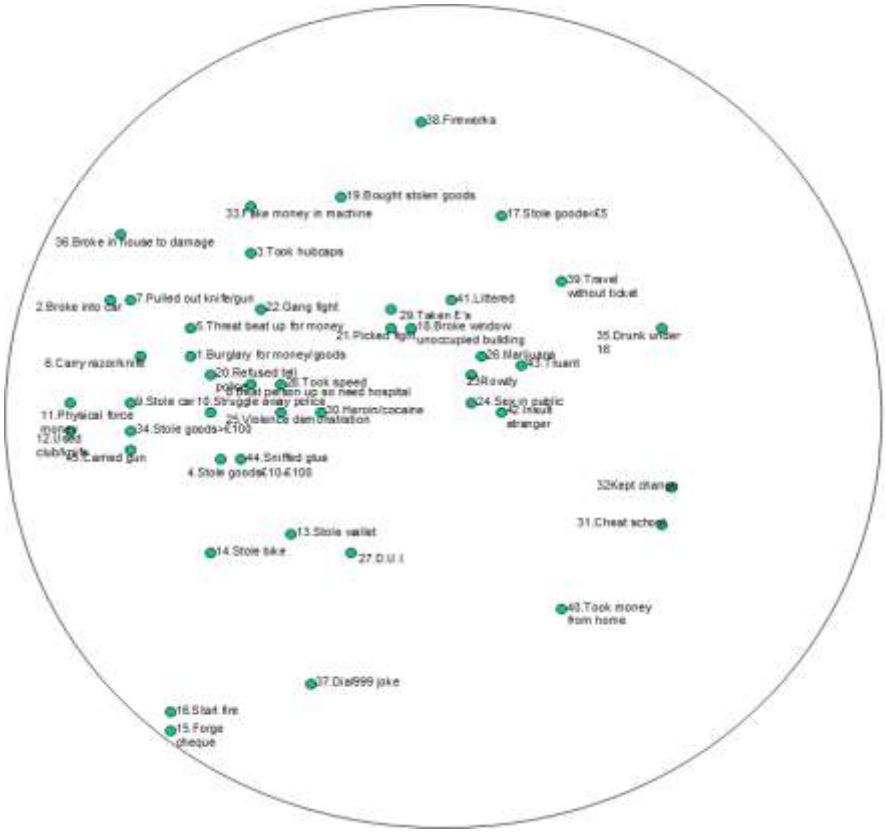
45. Used or carried a gun to help you commit a crime (5%)

These ten items are the least reported of the 45 items; all of the items on the D45 have at least one person reporting carrying out the crime. These items may be understood as the most serious of those listed. These items would produce a higher level of gain and a higher level of psychological intensity than the items listed in the sections above. For example, item 34 '*Taken things of large value (worth more than £100) from a shop without paying for them',* would yield a higher material gain than item 17 '*Taken little things (worth less than £5) from a shop without paying for them'*. Similarly, item 6 '*Carried a razor, flick-knife or some other weapon with the intention of using it in a fight'* would produce a higher level of Power gain than item 42 '*Annoyed or insulted a stranger'*.

7.3 Using Smallest Space Analysis to examine structure.

Using HUDAP software, the first projection (vector 1 by vector 2) of the two dimensional solution was selected. The coefficient of alienation (Borg & Lingoes, 1987) indicates how clearly the rank orders of the distances between the points within the given space relate to the rank orders of the coefficients between the items. In general the lower the coefficient the better the fit, in this instance the coefficient is .21 which indicates an acceptable overall fit.

Figure 7.1 SSA plot of configuration of D45 items



The results displayed are from a 2 dimensional 1 x 2 projection with a coefficient of alienation of .21.

Table 7.3 Key to items on the D45 SSA

D45 item		
1Broken into house, shop, school and taken money or something else you wanted	16Intentionally started a building on fire	31Cheated at school in tests
2Broken into a locked car to get something from it	17Taken little things (worth less than £5) from a shop without paying for them	32Not returned extra change that a cashier gave you by mistake
3Taken hubcaps, wheels, the battery or some other part of a car without the owner's permission	18Broken the windows of an empty house or other unoccupied building	33Used fake money in a machine
4Taken things worth between £10 and £100 from a shop without paying for them	19Bought something you knew had been stolen	34Taken things of large value (worth more than £100) from a shop without paying for them
5Threatened to beat someone up if they didn't give you money or something else you wanted	20Refused to tell the police or some other official what you knew about a crime	35Been drunk regularly when you were under 16
6Carried a razor, flick-knife or some other weapon with the intention of using it in a fight	21Picked a fight with someone you didn't know just for the hell of it	36Broken into a house, shop, school or other building to break things up or cause other damage
7Pulled a knife, gun or some other weapon on someone just to let them know you meant business	22Been involved in gang fights	37Dialled 999 just for a joke
8Beat someone up so badly they probably needed a doctor	23Been loud, rowdy or unruly in a public place	38Let off fireworks in the street
9Taken a car belonging to someone you didn't know for a ride without the owner's permission	24Had sex in public	39Deliberately travelled without a ticket on a bus, train or the tube
10Tried to get away from a police officer by fighting or struggling	25Attended a demonstration or sporting event to cause a disturbance or be violent	40Taken money from someone at home without returning it
11Used physical force (like twisting an arm or choking) to get money from another person	26Smoked marijuana (grass/pot)?	41Deliberately littered the streets
12Used a club, knife or other weapon to get something from someone	27Driven a car when you were drunk or high on some drugs	42Annoyed or insulted a stranger
13Taken things from a wallet/purse (or the whole wallet/purse) while the owner wasn't around or looking	28Taken barbiturates (downers) or speed (or other uppers) without a prescription	43Not gone to school when you should have been there
14Taken a bicycle belonging to someone you didn't know with no intention of returning it	29Taken ecstasy ('E's)?	44Sniffed glue or other solvents (e.g. tippex thinner)
15Tried to pass a cheque by signing someone else's name	30Used heroin(smack) or cocaine	45Used or carried a gun to help you commit a crime

7.4 Notes on general structure of items in the SSA plot

The items from the D45 are dispersed around the plot which indicates variability in the level of response. A consideration of the variables that relate to violence reveals that all of these items are within close proximity to each other. This suggests that these items are likely to co-occur. Violent behaviours have previously been suggested as one area of specialism. This cluster of violent behaviours includes:

5 '*Threatened to beat someone up if they didn't give you money or something else you wanted'*
8 '*Beat someone up so badly they probably needed a doctor'*
11 '*Used physical force (like twisting an arm or choking) to get money from another person*'
21 '*Picked a fight with someone you didn't know just for the hell of it*'
22 '*Been involved in gang fights'*
25 '*Attended a demonstration or sporting event to cause a disturbance or be violent*'.

Interestingly, although items 5 and 11 suggest the use of violence is a method to secure a gain, their placement within the SSA suggests that the violence within those acts is more salient than the gain. This cluster of items relating to violence is differentiated from the violent acts that make use of a weapon. There is a small cluster to the left of these items which include violent acts involving a weapon. This suggests that the use of a weapon in violence is differentiated from violent acts with no weapon. These items are:

6 'Carried a razor, flick-knife or some other weapon with the intention of using it in a fight'
7 'Pulled a knife, gun or some other weapon on someone just to let them know you meant business'
12. 'Used a club, knife or other weapon to get something from someone'

There is another small cluster of variables slightly to the right of these that also indicates violence. However, these could be considered as less serious from those already mentioned. The items clustered in this area are:

23 'Been loud, rowdy or unruly in a public place'
24 'Had sex in public'
26 'Smoked marijuana (grass/pot)'
42 'Annoyed or insulted a stranger'
43 '*Not gone to school when you should have been there*'

This cluster suggests that the violent behaviours in items 23 and 42 are most likely to be committed by individuals who should be at school, and are being generally disruptive. Interestingly, in a study carried out by Youngs (2001), all of the violent items which either included a weapon or not, regardless of the level of seriousness, were clustered together in the same region. This highlights the differences in behavioural preferences between incarcerated and non-incarcerated participants.

The SSA plot has a central cluster of behaviours, in which all of the items are very close together, indicating a high likelihood of co-occurrence. Within this cluster are items such as general anti-police behaviours such as:

10 'Tried to get away from a police officer by fighting or struggling'
20 '*Refused to tell the police or some other official what you knew about a crime*'

Youngs (2001) also reported the close proximity of these items in her doctoral thesis. It also contains some items describing general drug taking behaviours including:

28 'Taken barbiturates (downers) or speed (or other uppers) without a prescription'
30 'Used heroin (smack) or cocaine'
44 '*Sniffed glue or other solvents (e.g. tippex thinner)*'

In Youngs PhD thesis (2001), she reported a central cluster of behaviours, which includes some of those stated in the present studies central cluster. Youngs reported that items 19, 20, and 30 have a high percentage of the population reporting involvement. The present study finds that there is a low involvement within this central cluster of variables. This suggests that the behaviours in this cluster could be central to offending.

An interesting point to note is that the following items relating to car crime are not within close proximity to each other.

2 'Broken into a locked car to get something from it'
3 'Taken hubcaps, wheels, the battery or some other part of a car without the owner's permission'
9 '*Taken a car belonging to someone you didn't know for a ride without the owner's permission*'

This suggests that although these three items are in the same general left region, the items are not as likely to co-occur as other items. For example, item 7 is closest to item 2, suggesting a high correlation between them. Youngs reported that these car crime items were in close proximity, suggesting car crime as an area of specialism. The results found that non-incarcerated individuals do not follow this same pattern, again highlighting another area of differences between incarcerated and non-incarcerated participants.

The items which indicate shoplifting behaviours are not located in close proximity; instead, these items appear to be dispersed. The items appear in order of value from low to high across the SSA plot. For instance, item 17 '*Taken little things (worth less than £5) from a shop without paying for them'* is located in the upper right region. Item 4 '*Taken things worth between £10 and £100 from a shop without paying for* them' is located slightly further to the left of this in the lower region. Finally, item 34 '*Taken things of large value (worth more than £100) from a shop without paying for them'* is located further still to the left, again in the lower region. This pattern of progression in level of seriousness is reflected in the items around each of these items. Intriguingly, Youngs also found this same pattern of the increase in level of seriousness with these shoplifting items.

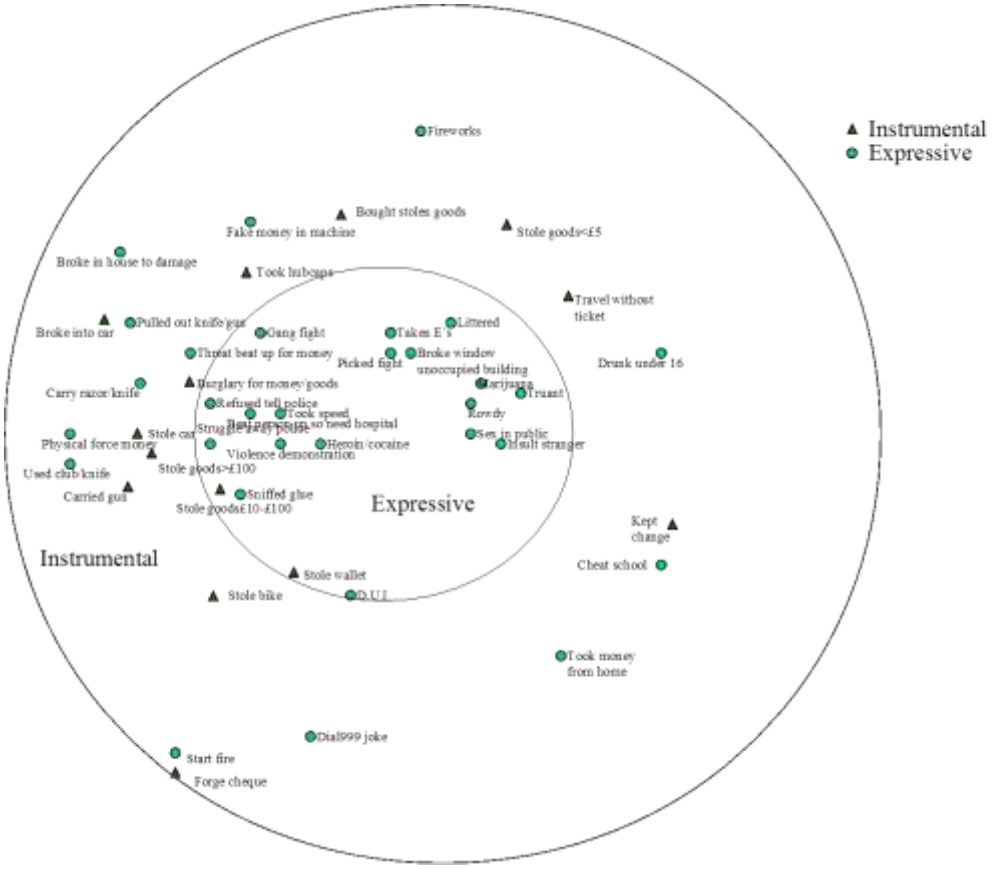
Finally, there is a central cluster of variables on the SSA which are close together, however, towards the outer edges of the plot the items are more dispersed and distinct. For instance, items in the mid right region reflect minor deviant acts such as 31 '*Cheated at school in tests'*, 32 '*Not returned extra change that a cashier gave you by mistake'*, and 40 '*Taken money from someone at home without returning it'.* Individuals who carry out one of these acts are more likely to carry out the other low gain less seriousness behaviours.

An appropriate way to test the hypotheses using an SSA is to establish two criterion. In order for the hypotheses to be supported variables must:

a. Items proposed to measure each of the elements above will be located into distinct region areas.

b. These regions will be geographically exclusive to the concept.

Figure 7.2 SSA plot showing structure of behaviours



The SSA above is an adaptation of that displayed in fig. 7.1.

Table 7.4 Key to D45 SSA

D45 item		
1Broken into house, shop, school and taken money or something else you wanted	16Intentionally started a building on fire	31Cheated at school in tests
2Broken into a locked car to get something from it	17Taken little things (worth less than £5) from a shop without paying for them	32Not returned extra change that a cashier gave you by mistake
3Taken hubcaps, wheels, the battery or some other part of a car without the owner's permission	18Broken the windows of an empty house or other unoccupied building	33Used fake money in a machine
4Taken things worth between £10 and £100 from a shop without paying for them	19Bought something you knew had been stolen	34Taken things of large value (worth more than £100) from a shop without paying for them
5Threatened to beat someone up if they didn't give you money or something else you wanted	20Refused to tell the police or some other official what you knew about a crime	35Been drunk regularly when you were under 16
6Carried a razor, flick-knife or some other weapon with the intention of using it in a fight	21Picked a fight with someone you didn't know just for the hell of it	36Broken into a house, shop, school or other building to break things up or cause other damage
7Pulled a knife, gun or some other weapon on someone just to let them know you meant business	22Been involved in gang fights	37Dialled 999 just for a joke
8Beat someone up so badly they probably needed a doctor	23Been loud, rowdy or unruly in a public place	38Let off fireworks in the street
9Taken a car belonging to someone you didn't know for a ride without the owner's permission	24Had sex in public	39Deliberately travelled without a ticket on a bus, train or the tube
10Tried to get away from a police officer by fighting or struggling	25Attended a demonstration or sporting event to cause a disturbance or be violent	40Taken money from someone at home without returning it
11Used physical force (like twisting an arm or choking) to get money from another person	26Smoked marijuana (grass/pot)?	41Deliberately littered the streets
12Used a club, knife or other weapon to get something from someone	27Driven a car when you were drunk or high on some drugs	42Annoyed or insulted a stranger
13Taken things from a wallet/purse (or the whole wallet/purse) while the owner wasn't around or looking	28Taken barbiturates (downers) or speed (or other uppers) without a prescription	43Not gone to school when you should have been there
14Taken a bicycle belonging to someone you didn't know with no intention of returning it	29Taken ecstasy ('E's)?	44Sniffed glue or other solvents (e.g. tippex thinner)
15Tried to pass a cheque by signing someone else's name	30Used heroin(smack) or cocaine	45Used or carried a gun to help you commit a crime

Table 7.5 Table of items that represent form of behaviour

Instrumental	Expressive
1. Broken into house, shop, school and taken money or something else you wanted?	*5. Threatened to beat someone up if they didn't give you money or something else you wanted?*
2. Broken into a locked car to get something from it?	*6. Carried a razor, flick-knife or some other weapon with the intention of using it in a fight?*
3. Taken hubcaps, wheels, the battery or some other part of a car without the owner's permission?	*7. Pulled a knife, gun or some other weapon on someone just to let them know you meant business?*
4. Taken things worth between £10 and £100 from a shop without paying for them?	*8. Beat someone up so badly they probably needed a doctor?*
9. Taken a car belonging to someone you didn't know for a ride without the owner's permission?	*10. Tried to get away from a police officer by fighting or struggling?*
13. Taken things from a wallet/purse (or the whole wallet/purse) while the owner wasn't around or looking?	*11. Used physical force (like twisting an arm or choking) to get money from another person?*
14. Taken a bicycle belonging to someone you didn't know with no intention of returning it?	*12. Used a club, knife or other weapon to get something from someone?*
15. Tried to pass a cheque by signing someone else's name?	*16. Intentionally started a building on fire?*
17. Taken little things (worth less than £5) from a shop without paying for them?	*18. Broken the windows of an empty house or other unoccupied building?*
19. Bought something you knew had been stolen?	*20. Refused to tell the police or some other official what you knew about a crime?*
32. Not returned extra change that a cashier gave you by mistake?	*21. Picked a fight with someone you didn't know just for the hell of it?*
34. Taken things of large value (worth more than £100) from a shop without paying for them?	*22. Been involved in gang fights?*
39. Deliberately travelled without a ticket on a bus, train or the tube?	*23. Been loud, rowdy or unruly in a public place?*
45. Used or carried a gun to help you commit a crime?	*24. Had sex in public?*
	25. Attended a demonstration or sporting event to cause a disturbance or be violent?
	26. Smoked marijuana (grass/pot)?
	27. Driven a car when you were drunk or high on some drugs?
	28. Taken barbiturates (downers) or speed (or other uppers) without a prescription?
	29. Taken ecstasy ('E's)?
	30. Used heroin (smack) or cocaine?
	31. Cheated at school in tests?
	33. Used fake money in a machine?
	35. Been drunk regularly when you were under 16?
	36. Broken into a house, shop, school or other building to break things up or cause other damage?
	37. Dialled 999 just for a joke?
	38. Let off fireworks in the street?
	40. Taken money from someone at home without returning it?
	41. Deliberately littered the streets?
	42. Annoyed or insulted a stranger?
	43. Not gone to school when you should have been there?
	44. Sniffed glue or other solvents (e.g. tippex thinner)?

7.5 Structure of items representing Instrumental behaviours.

Youngs proposed that all behaviours within criminal acts could be described as being Instrumental (produce some external gain or reward) or Expressive (produce some internal gain or reward). The items in table 7.5 above show which items Young defines as representing Instrumental and Expressive offences. There are a total of 14 items representing Instrumental offences; the

Cronbach's alpha is .875. The items in the SSA plot above shows many of the Instrumental items in the outer region; this satisfies criterion **a).** However, the outer region is not exclusive to Instrumental items which mean that criterion **b)** cannot be satisfied. The Expressive items in the outer region include:

6. Carried a razor, flick-knife or some other weapon with the intention of using it in a fight?
7. Pulled a knife, gun or some other weapon on someone just to let them know you meant business?
11. Used physical force (like twisting an arm or choking) to get money from another person?
12. Used a club, knife or other weapon to get something from someone?
16. Intentionally started a building on fire?
31. Cheated at school in tests?
33. Used fake money in a machine?
35. Been drunk regularly when you were under 16?
36. Broken into a house, shop, school or other building to break things up or cause other damage?
38. Let off fireworks in the street?

These Expressive behaviours have been included in the Instrumental area which means that participants have interpreted these as producing some form of external reward. Items 11 and 12 have been defined as Expressive due to the violence within the item. However, it is possible that participants have understood this violence as necessary to secure an external or monetary gain. Others are near to the border and so can be understood to contain both Instrumental and Expressive benefits.

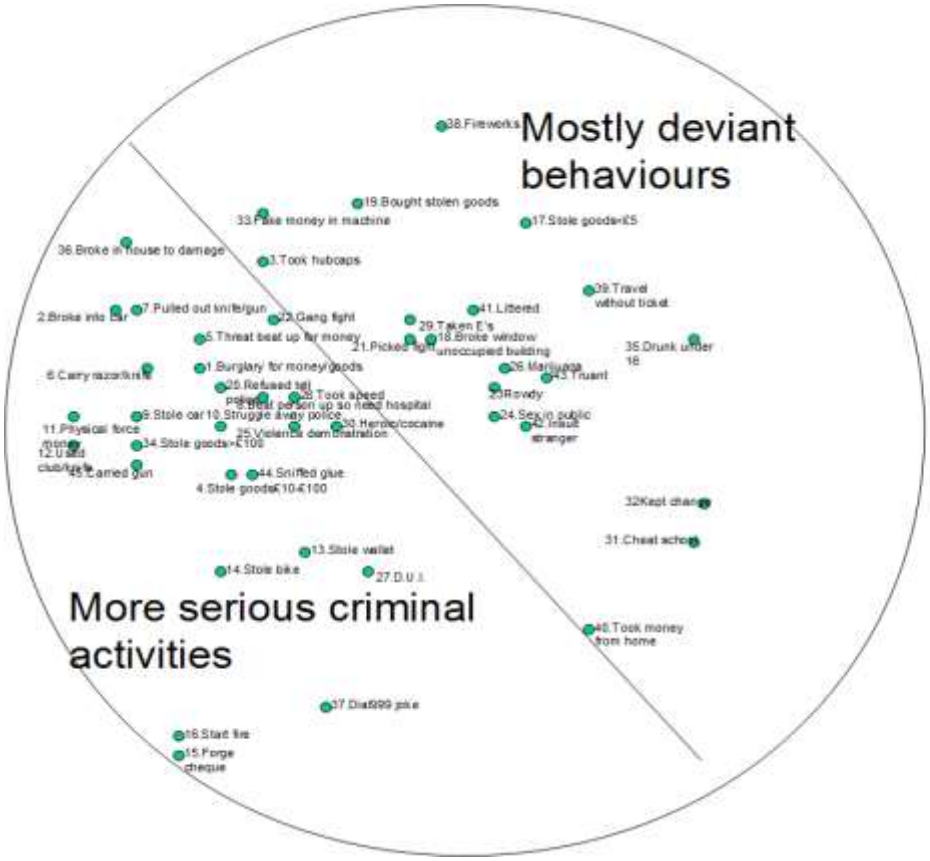
7.6 Structure of items representing Expressive behaviours.

There are 31 items representing Expressive offences; the Cronbach's alpha is .937. The items in the inner region of the SSA are all Expressive; this satisfies criterion **a).** The inner region is exclusive to Expressive items which satisfies criterion **b).** However, there is one item in the inner area which was designed to represent an Instrumental gain:

13. Taken things from a wallet/purse (or the whole wallet/purse) while the owner wasn't around or looking?

This item is very near to the border of the two regions, and so although there is an external gain of the money stolen from home, it is possible that there is the internal gain of excitement which is also produced.

Figure 7.3. SSA plot showing structure of items representing level of seriousness.



The SSA above is an adaptation of that displayed in fig. 7.1.

Table 7.6 Key to D45 SSA

D45 item		
1Broken into house, shop, school and taken money or something else you wanted	16Intentionally started a building on fire	31Cheated at school in tests
2Broken into a locked car to get something from it	17Taken little things (worth less than £5) from a shop without paying for them	32Not returned extra change that a cashier gave you by mistake
3Taken hubcaps, wheels, the battery or some other part of a car without the owner's permission	18Broken the windows of an empty house or other unoccupied building	33Used fake money in a machine
4Taken things worth between £10 and £100 from a shop without paying for them	19Bought something you knew had been stolen	34Taken things of large value (worth more than £100) from a shop without paying for them
5Threatened to beat someone up if they didn't give you money or something else you wanted	20Refused to tell the police or some other official what you knew about a crime	35Been drunk regularly when you were under 16
6Carried a razor, flick-knife or some other weapon with the intention of using it in a fight	21Picked a fight with someone you didn't know just for the hell of it	36Broken into a house, shop, school or other building to break things up or cause other damage
7Pulled a knife, gun or some other weapon on someone just to let them know you meant business	22Been involved in gang fights	37Dialled 999 just for a joke
8Beat someone up so badly they probably needed a doctor	23Been loud, rowdy or unruly in a public place	38Let off fireworks in the street
9Taken a car belonging to someone you didn't know for a ride without the owner's permission	24Had sex in public	39Deliberately travelled without a ticket on a bus, train or the tube
10Tried to get away from a police officer by fighting or struggling	25Attended a demonstration or sporting event to cause a disturbance or be violent	40Taken money from someone at home without returning it
11Used physical force (like twisting an arm or choking) to get money from another person	26Smoked marijuana (grass/pot)?	41Deliberately littered the streets
12Used a club, knife or other weapon to get something from someone	27Driven a car when you were drunk or high on some drugs	42Annoyed or insulted a stranger
13Taken things from a wallet/purse (or the whole wallet/purse) while the owner wasn't around or looking	28Taken barbiturates (downers) or speed (or other uppers) without a prescription	43Not gone to school when you should have been there
14Taken a bicycle belonging to someone you didn't know with no intention of returning it	29Taken ecstasy ('E's)?	44Sniffed glue or other solvents (e.g. tippex thinner)
15Tried to pass a cheque by signing someone else's name	30Used heroin(smack) or cocaine	45Used or carried a gun to help you commit a crime

As previously noted, some of the items in the D45 are more serious in nature than others. The items have not been marked as More or less serious on the SSA plot above, as this distinction is more of a continuum, with an increasing level of seriousness from the top right to bottom left.

Table 7.7. Table of items that represent levels of seriousness

More serious acts	Less serious acts
1. Broken into house, shop, school and taken money or something else you wanted?	*3. Taken hubcaps, wheels, the battery or some other part of a car without the owner's permission?*
2. Broken into a locked car to get something from it?	*17. Taken little things (worth less than £5) from a shop without paying for them?*
4. Taken things worth between £10 and £100 from a shop without paying for them?	*18. Broken the windows of an empty house or other unoccupied building?*
5. Threatened to beat someone up if they didn't give you money or something else you wanted?	*19. Bought something you knew had been stolen?*
6. Carried a razor, flick-knife or some other weapon with the intention of using it in a fight?	*21. Picked a fight with someone you didn't know just for the hell of it?*
7. Pulled a knife, gun or some other weapon on someone just to let them know you meant business?	*23. Been loud, rowdy or unruly in a public place?*
8. Beat someone up so badly they probably needed a doctor?	*24. Had sex in public?*
9. Taken a car belonging to someone you didn't know for a ride without the owner's permission?	*26. Smoked marijuana (grass/pot)?*
10. Tried to get away from a police officer by fighting or struggling?	*29. Taken ecstasy ('E's)?*
11. Used physical force (like twisting an arm or choking) to get money from another person?	*31. Cheated at school in tests?*
12. Used a club, knife or other weapon to get something from someone?	*32. Not returned extra change that a cashier gave you by mistake?*
13. Taken things from a wallet/purse (or the whole wallet/purse) while the owner wasn't around or looking?	*33. Used fake money in a machine?*
14. Taken a bicycle belonging to someone you didn't know with no intention of returning it?	*35. Been drunk regularly when you were under 16?*
15. Tried to pass a cheque by signing someone else's name?	*38. Let off fireworks in the street?*
16. Intentionally started a building on fire?	*39. Deliberately travelled without a ticket on a bus, train or the tube?*
20. Refused to tell the police or some other official what you knew about a crime?	*40. Taken money from someone at home without returning it?*
22. Been involved in gang fights?	*41. Deliberately littered the streets?*
25. Attended a demonstration or sporting event to cause a disturbance or be violent?	*42. Annoyed or insulted a stranger?*
27. Driven a car when you were drunk or high on some drugs?	*43. Not gone to school when you should have been there?*
28. Taken barbiturates (downers) or speed (or other uppers) without a prescription?	
30. Used heroin (smack) or cocaine?	
36. Broken into a house, shop, school or other building to break things up or cause other damage?	
34. Taken things of large value (worth more than £100) from a shop without paying for them?	
37. Dialled 999 just for a joke?	
44. Sniffed glue or other solvents (e.g. tippex thinner)?	
45. Used or carried a gun to help you commit a crime?	

7.7 Structure of items representing less serious items.

There are 19 items representing Less serious offences; the Cronbach's alpha is .911.As the SSA plot in fig. 7.3 above shows the upper right region contains actions that are mostly deviant. This region contains items which an individual would not normally be prosecuted for. Table 7.7 above list all of

the items which are less serious. All of the less serious items are in this right region which satisfies criterion **a).** The right region is exclusive to less serious acts, thus satisfying criterion **b).**

Some of the less serious items are nearer to the border of the regions and may contain an aspect of both elements. For example, item 3 '*Taken hubcaps, wheels, the battery or some other part of a car without the owner's permission'* is close to the border of the regions. This suggests that this item is interpreted as more serious in nature than item 38 '*Let off fireworks in the street',* which is located on the far right hand side of the plot. Similarly, item 40 '*Taken money from someone at home without returning it'* is close to the border of the regions, again suggesting that this act is interpreted as more serious than items on the far right. All of the items in the right region are spaced further apart than items on the left, this suggests that there is more variability in the interpretation of the level of seriousness of these items.

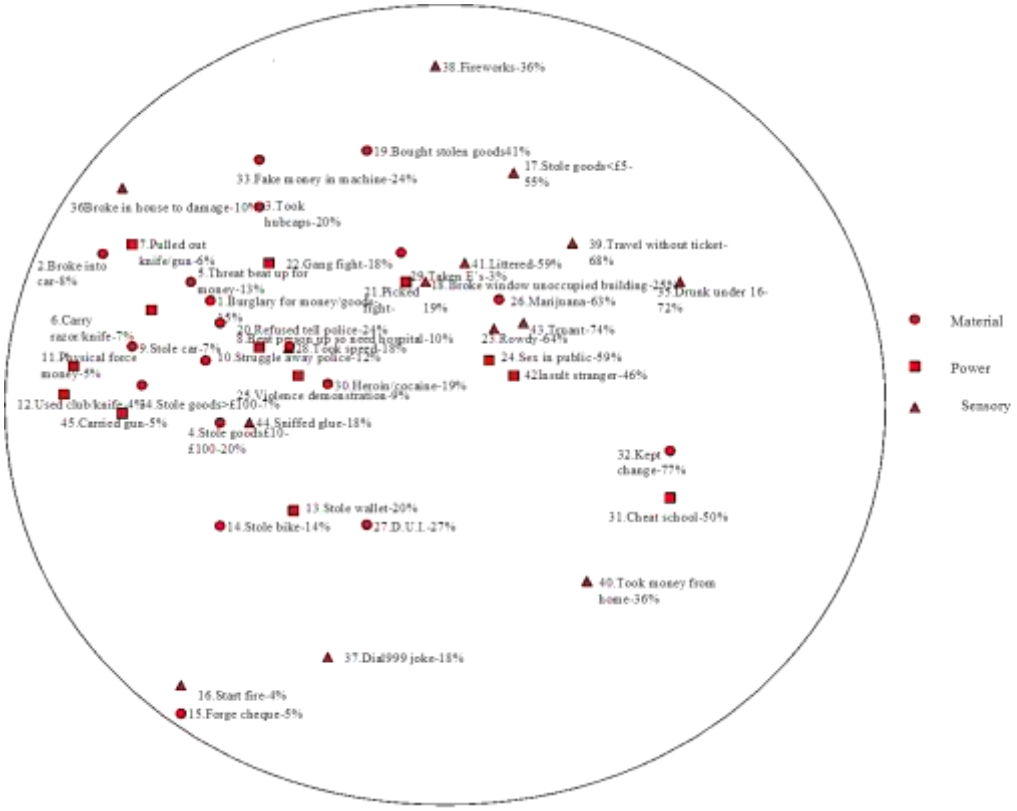
7.8 Structure of items representing more serious items.

There are 26 items representing More serious offences; the Cronbach's alpha is .937.The items that are located in the lower left region are more serious. All of the items that represent more serious acts are in the left region, this satisfies criterion **a).** The left region is exclusive to more serious acts and as such supports criterion **b).**

All of the items in this left region are interpreted as being more serious than the items in the right region. Most of the items in this region are crimes for which the individual may be prosecuted. For example, item 34 '*Taken things of large value (worth more than £100) from a shop without paying for them',* has a higher level of seriousness than item 17 '*Taken little things (worth less than £5) from a shop without paying for them'* due to the increased level of value.

Some of the items are nearer to the border of the regions than others which suggest some differentiation in the level of seriousness. For example, item 36 '*Broken into a house, shop, school or other building to break things up or cause other damage',* is closer to the inner part of the plot than item 45 *'Used or carried a gun to help you commit a crime'*. This suggests that the level of seriousness has a directional element to it. The top right of the plot appears to contain the least serious acts, whereas the bottom left appears to contain the most serious acts.

Figure 7.4 SSA plot showing structure of items representing type of gain



The SSA above is an adaptation of that displayed in fig. 7.1.

Table 7.8 Key to D45 SSA

D45 item		
1Broken into house, shop, school and taken money or something else you wanted	16Intentionally started a building on fire	31Cheated at school in tests
2Broken into a locked car to get something from it	17Taken little things (worth less than £5) from a shop without paying for them	32Not returned extra change that a cashier gave you by mistake
3Taken hubcaps, wheels, the battery or some other part of a car without the owner's permission	18Broken the windows of an empty house or other unoccupied building	33Used fake money in a machine
4Taken things worth between £10 and £100 from a shop without paying for them	19Bought something you knew had been stolen	34Taken things of large value (worth more than £100) from a shop without paying for them
5Threatened to beat someone up if they didn't give you money or something else you wanted	20Refused to tell the police or some other official what you knew about a crime	35Been drunk regularly when you were under 16
6Carried a razor, flick-knife or some other weapon with the intention of using it in a fight	21Picked a fight with someone you didn't know just for the hell of it	36Broken into a house, shop, school or other building to break things up or cause other damage
7Pulled a knife, gun or some other weapon on someone just to let them know you meant business	22Been involved in gang fights	37Dialled 999 just for a joke
8Beat someone up so badly they probably needed a doctor	23Been loud, rowdy or unruly in a public place	38Let off fireworks in the street
9Taken a car belonging to someone you didn't know for a ride without the owner's permission	24Had sex in public	39Deliberately travelled without a ticket on a bus, train or the tube
10Tried to get away from a police officer by fighting or struggling	25Attended a demonstration or sporting event to cause a disturbance or be violent	40Taken money from someone at home without returning it
11Used physical force (like twisting an arm or choking) to get money from another person	26Smoked marijuana (grass/pot)?	41Deliberately littered the streets
12Used a club, knife or other weapon to get something from someone	27Driven a car when you were drunk or high on some drugs	42Annoyed or insulted a stranger
13Taken things from a wallet/purse (or the whole wallet/purse) while the owner wasn't around or looking	28Taken barbiturates (downers) or speed (or other uppers) without a prescription	43Not gone to school when you should have been there
14Taken a bicycle belonging to someone you didn't know with no intention of returning it	29Taken ecstasy ('E's)?	44Sniffed glue or other solvents (e.g. tippex thinner)
15Tried to pass a cheque by signing someone else's name	30Used heroin(smack) or cocaine	45Used or carried a gun to help you commit a crime

Table 7.9. Table of items that represent type of gain

Material gain items	Power gain items	Sensory gain items
High gain	**High gain**	**High gain**
1. Broken into house, shop, school and taken money or something else you wanted?	6. Carried a razor, flick-knife or some other weapon with the intention of using it in a fight?	16. Intentionally started a building on fire?
2. Broken into a locked car to get something from it?	7. Pulled a knife, gun or some other weapon on someone just to let them know you meant business?	17. Taken little things (worth less than £5) from a shop without paying for them?
9. Taken a car belonging to someone you didn't know for a ride without the owner's permission?	8. Beat someone up so badly they probably needed a doctor?	18. Broken the windows of an empty house or other unoccupied building?
15. Tried to pass a cheque by signing someone else's name?	11. Used physical force (like twisting an arm or choking) to get money from another person?	35. Been drunk regularly when you were under 16?
26. Smoked marijuana (grass/pot)?	12. Used a club, knife or other weapon to get something from someone?	36. Broken into a house, shop, school or other building to break things up or cause other damage?
28. Taken barbiturates (downers) or speed (or other uppers) without a prescription?	22. Been involved in gang fights?	37. Dialled 999 just for a joke?
29. Taken ecstasy ('E's)?	24. Had sex in public?	40. Taken money from someone at home without returning it?
30. Used heroin (smack) or cocaine?	25. Attended a demonstration or sporting event to cause a disturbance or be violent?	43. Not gone to school when you should have been there?
	42. Annoyed or insulted a stranger?	
	45. Used or carried a gun to help you commit a crime?	
Low gain	**Low gain**	**Low gain**
3. Taken hubcaps, wheels, the battery or some other part of a car without the owner's permission?	5. Threatened to beat someone up if they didn't give you money or something else you wanted?	23. Been loud, rowdy or unruly in a public place?
4. Taken things worth between £10 and £100 from a shop without paying for them?	13. Taken things from a wallet/purse (or the whole wallet/purse) while the owner wasn't around or looking?	38. Let off fireworks in the street?
10. Tried to get away from a police officer by fighting or struggling?	21. Picked a fight with someone you didn't know just for the hell of it?	39. Deliberately travelled without a ticket on a bus, train or the tube?
14. Taken a bicycle belonging to someone you didn't know with no intention of returning it?	31. Cheated at school in tests?	41. Deliberately littered the streets?
19. Bought something you knew had been stolen?		44. Sniffed glue or other solvents (e.g. tippex thinner)?
20. Refused to tell the police or some other official what you knew about a crime?		
27. Driven a car when you were drunk or high on some drugs?		
32. Not returned extra change that a cashier gave you by mistake?		
33. Used fake money in a machine?		
34. Taken things of large value (worth more than £100) from a shop without paying for them?		

Many of the items that are defined as Material gain can clearly be understood as a gain in money or goods, for example, item 2 'Broken into a locked car to get something from it', and item 19 'Bought something you knew had been stolen. Youngs proposes that Material gains can be extended to be

the reward that comes from possession of any desired goods. Youngs suggests that drugs are one of the material possessions which is highly desired within a criminal context, as such she proposes that items which indicate the possession or taking of drugs should be described as a Material gain.

Youngs proposed that items which indicate the use of force over another represent Power gains. Items such as 8 '*Beaten someone up so badly they probably needed a doctor*' and 22 '*Been involved in gang fight*' show exertion over another. Youngs suggests items which use force to get something from someone (such as money) should be categorized as Power gains as they forcefully prize the goods or money directly from a victim. Therefore, items such as 12 '*Used a club, knife, or other weapon to get something from someone*' should be defined as Power gains. Youngs also proposes that item 24 '*Had sex in public*' should be defined as a Power gain. Youngs says that this is an act of power over others, and states "This is an example of a behaviour that focuses on the acquisition of control through enhanced status rather than physical prowess. The public nature of the behaviour would unquestionably lead to an increase in status among young men!" (Youngs 2001, p. 160).

Youngs describes Sensory gains as producing a stimulating, pleasurable experience. Sensory gains can be achieved in items which indicate destruction or damage of property, such as 18 '*Broken the windows of an empty property other unoccupied building*'. Youngs suggests items which indicate rebellion are also Sensory gains. For example, items such as 39 '*Deliberately travelled without a ticket on a bus, train or the tube*' , 40 '*Taken money from someone at home without returning it*' and 41 '*Sniffed glue or other solvents (e.g. tippex thinner*' are all rebellious and as such are Sensory gains.

In sum, all of the items in table 7.9 above are defined as representing the various gain as proposed by Youngs (2001).

7.9 Structure of items representing Material gains

The items that represent material gains are defined with a circle shape on the SSA in figure 7.4 above. There are a total of 18 items that represent this type of gain. The Cronbach's Alpha is .908. There are no identifiable regions within the SSA plot that contains all of the items that represent Material gains. Therefore, criterion **a),** and by extension criterion **b),** cannot be supported.

7.10 Structure of items representing Power gains.

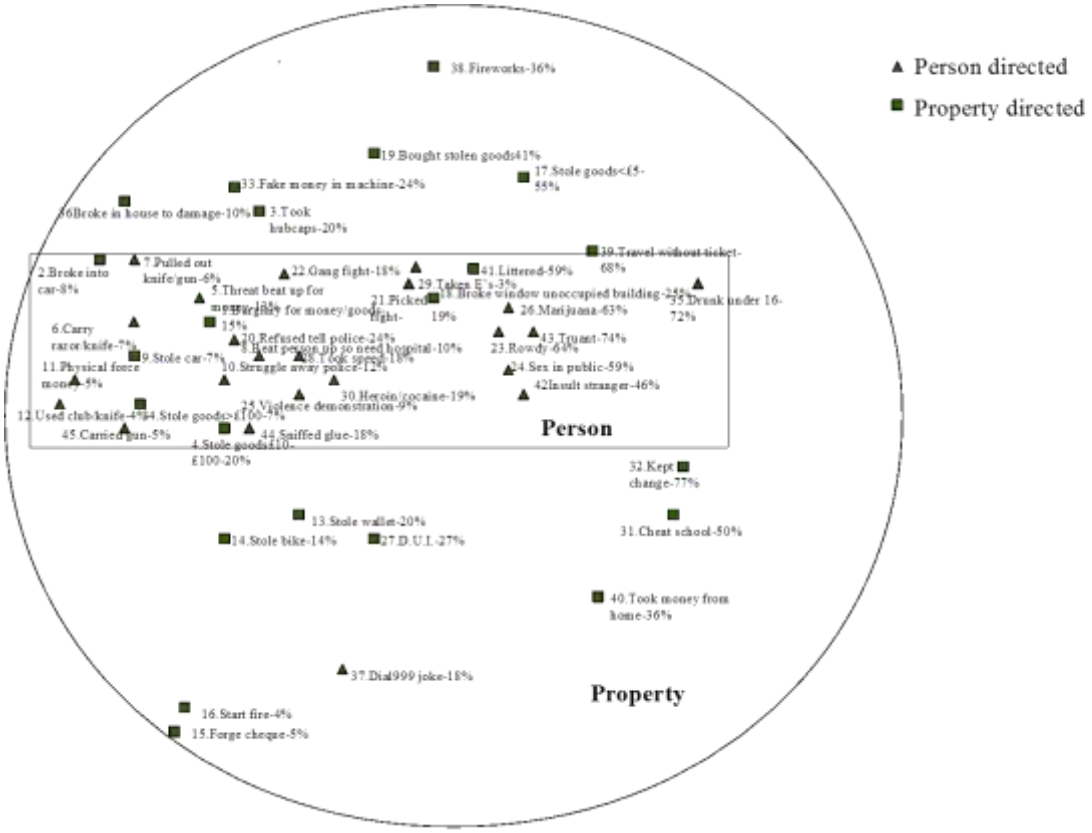
The items that represent Power gains are identified with a square on the SSA plot. There are a total of 14 items that represent this gain, the Cronbach's Alpha is .874. The Power gain items are not restricted to any one region of the plot. Therefore criterion **a)** cannot be supported. By extension, criterion **b)** cannot be supported either, as there is no region to restrict the placement of items relating to Power gains.

7.11 Structure of items representing Sensory gains.

The items that represent Sensory gains are identified with a triangle on the SSA plot. There are a total of 14 items that represent this gain, the Cronbach's Alpha is .863. There is no particular region of the SSA that contains items relating to Sensory gains. Therefore criterion **a),** and by extension criterion **b)** cannot be supported.

The gains of crime, as proposed by Youngs (2001), cannot be identified in this particular study; all of the Material, Power, and Sensory gain items are dispersed throughout the plot. This indicates that although there are some criminal and deviant events being reported by the general public, consistency in behaviour is not based on the gain which the crime produces.

Figure 7.5 SSA plot showing structure of items representing form of interaction



The SSA above is an adaptation of that displayed in fig. 7.1.

Table 7.10 Key to D45 SSA

D45 item		
1Broken into house, shop, school and taken money or something else you wanted	16Intentionally started a building on fire	31Cheated at school in tests
2Broken into a locked car to get something from it	17Taken little things (worth less than £5) from a shop without paying for them	32Not returned extra change that a cashier gave you by mistake
3Taken hubcaps, wheels, the battery or some other part of a car without the owner's permission	18Broken the windows of an empty house or other unoccupied building	33Used fake money in a machine
4Taken things worth between £10 and £100 from a shop without paying for them	19Bought something you knew had been stolen	34Taken things of large value (worth more than £100) from a shop without paying for them
5Threatened to beat someone up if they didn't give you money or something else you wanted	20Refused to tell the police or some other official what you knew about a crime	35Been drunk regularly when you were under 16
6Carried a razor, flick-knife or some other weapon with the intention of using it in a fight	21Picked a fight with someone you didn't know just for the hell of it	36Broken into a house, shop, school or other building to break things up or cause other damage
7Pulled a knife, gun or some other weapon on someone just to let them know you meant business	22Been involved in gang fights	37Dialled 999 just for a joke
8Beat someone up so badly they probably needed a doctor	23Been loud, rowdy or unruly in a public place	38Let off fireworks in the street
9Taken a car belonging to someone you didn't know for a ride without the owner's permission	24Had sex in public	39Deliberately travelled without a ticket on a bus, train or the tube
10Tried to get away from a police officer by fighting or struggling	25Attended a demonstration or sporting event to cause a disturbance or be violent	40Taken money from someone at home without returning it
11Used physical force (like twisting an arm or choking) to get money from another person	26Smoked marijuana (grass/pot)?	41Deliberately littered the streets
12Used a club, knife or other weapon to get something from someone	27Driven a car when you were drunk or high on some drugs	42Annoyed or insulted a stranger
13Taken things from a wallet/purse (or the whole wallet/purse) while the owner wasn't around or looking	28Taken barbiturates (downers) or speed (or other uppers) without a prescription	43Not gone to school when you should have been there
14Taken a bicycle belonging to someone you didn't know with no intention of returning it	29Taken ecstasy ('E's)?	44Sniffed glue or other solvents (e.g. tippex thinner)
15Tried to pass a cheque by signing someone else's name	30Used heroin(smack) or cocaine	45Used or carried a gun to help you commit a crime

Table 7.11 Table of items representing form of interaction

Person directed acts	Property/object directed acts
5. Threatened to beat someone up if they didn't give you money or something else you wanted?	*1. Broken into house, shop, school and taken money or something else you wanted?*
6. Carried a razor, flick-knife or some other weapon with the intention of using it in a fight?	*2. Broken into a locked car to get something from it?*
7. Pulled a knife, gun or some other weapon on someone just to let them know you meant business?	*3. Taken hubcaps, wheels, the battery or some other part of a car without the owner's permission?*
8. Beat someone up so badly they probably needed a doctor?	*4. Taken things worth between £10 and £100 from a shop without paying for them?*
10. Tried to get away from a police officer by fighting or struggling?	*9. Taken a car belonging to someone you didn't know for a ride without the owner's permission?*
11. Used physical force (like twisting an arm or choking) to get money from another person?	*13. Taken things from a wallet/purse (or the whole wallet/purse) while the owner wasn't around or looking?*
12. Used a club, knife or other weapon to get something from someone?	*14. Taken a bicycle belonging to someone you didn't know with no intention of returning it?*
20. Refused to tell the police or some other official what you knew about a crime?	*15. Tried to pass a cheque by signing someone else's name?*
21. Picked a fight with someone you didn't know just for the hell of it?	*16. Intentionally started a building on fire?*
22. Been involved in gang fights?	*17. Taken little things (worth less than £5) from a shop without paying for them?*
23. Been loud, rowdy or unruly in a public place?	*18. Broken the windows of an empty house or other unoccupied building?*
24. Had sex in public?	*19. Bought something you knew had been stolen?*
25. Attended a demonstration or sporting event to cause a disturbance or be violent?	*27. Driven a car when you were drunk or high on some drugs?*
26. Smoked marijuana (grass/pot)?	*31. Cheated at school in tests?*
28. Taken barbiturates (downers) or speed (or other uppers) without a prescription?	*32. Not returned extra change that a cashier gave you by mistake?*
29. Taken ecstasy ('E's)?	*33. Used fake money in a machine?*
30. Used heroin (smack) or cocaine?	*34. Taken things of large value (worth more than £100) from a shop without paying for them?*
35. Been drunk regularly when you were under 16?	*36. Broken into a house, shop, school or other building to break things up or cause other damage?*
37. Dialled 999 just for a joke?	*38. Let off fireworks in the street?*
42. Annoyed or insulted a stranger?	*39. Deliberately travelled without a ticket on a bus, train or the tube?*
43. Not gone to school when you should have been there?	*40. Taken money from someone at home without returning it?*
44. Sniffed glue or other solvents (e.g. tippex thinner)?	*41. Deliberately littered the streets?*
45. Used or carried a gun to help you commit a crime?	

7.12 Structure of items representing interaction with a person

The items that represent crimes interacting with a Person are identified with a triangle in the SSA plot in fig 7.5 above. There appears to be an area across the centre of the plot which contains the majority of items which are directed at, or interact with, a person. However, there are a number of items which interact with property or objects in this area also. The following items interacting with Property are located amongst the items interacting with a Person.

1. Broken into house, shop, school and taken money or something else you wanted?
2. Broken into a locked car to get something from it?
4. Taken things worth between £10 and £100 from a shop without paying for them?
9. Taken a car belonging to someone you didn't know for a ride without the owner's permission?

18. Broken the windows of an empty house or other unoccupied building?

34. Taken things of large value (worth more than £100) from a shop without paying for them?

41. Deliberately littered the streets?

Some of these items are very near to the border, indicating that they contain elements of person and property interactions. It is possible that items 9 and 18 may be carried out with a number of friends and therefore contain a social interaction element. The Person focused items are in the same central location as the Expressive items; this supports the findings from chapter 5; Person directed crimes are thought of as being Expressive. This also gives support for the structure of the hypothetical scenarios as both hypothetical and actual scenarios show the same structure.

7.13 Structure of items representing interaction with property

The items that represent Property directed acts are identified with a square shape on the SSA plot. The items interaction with property or objects are located in the outer region of the SSA. Most of these items which represent interaction with Property are located in the outer region of the plot; this satisfies criterion **a).** However, the outer region is not exclusive to indirect Property items therefore criterion **b)** cannot be satisfied. Item 37 *'Dialled 999 just for a joke?'* is located towards the outer edge on the bottom of the plot. This item does not interact with a property or object, however, is located amongst other items interacting with property. It is possible that the location on the outer edge is a consequence of the low number of participants reporting carrying out this item act, and reflects its rarity.

These Property directed acts are in the same outer area as the Instrumental items. This gives support to the findings in chapter 5; Property crimes are thought of as Instrumental. As stated above within the Person scenarios, this also supports the proposal that the same patterns and structures can be demonstrated in hypothetical and actual crime scenarios.

7.14 Correlations between each of the subgroups identified in the SSA structures.

The SSA's above have demonstrated that there is some variation in the types of offences that people commit. However, the structures do not indicate whether different people commit different crime styles or whether some are just more criminal than others. Therefore it is necessary to consider the correlations between scores for each of the sub-groups identified.

Table 7.12 Correlations between D45 sub-groups.

	Total D45	More serious	Less serious	Instrumental	Expressive
Total D45	1	.926**	.927**	.979**	.955**
More serious	.926**	1	.715**	.948**	.824**
Less serious	.927**	.715**	1	.866**	.945**
Instrumental	.979**	.948**	.866**	1	.875**
Expressive	.955**	.824**	.945**	.875**	1

Table 7.12 shows the Pearson's correlations, it reveals that the scores in every sub-group are significantly correlated with every other sub-group. This indicates that some people are just more criminal than others. This is evident in the correlations with total D45 score. All of the sub-groups have a high correlation with the total D45 score, meaning that a higher score in any crime style is

likely to indicate a higher level of criminality in general. Those who have a higher score in the more serious region have the highest correlation with the Instrumental region (.948), and the lowest correlation with the Less serious region (.715). Those who score high in the Less serious region have the highest correlation with the Expressive region (.945). These patterns suggest that people may differentiate offending and attitudes into those which are objective and goal driven, or those which are emotive. So although there is some variation in the strength of the correlations, it seems that there are some individuals who are ore criminal than others. However, there is a small amount of variation in the style of offence these individuals commit.

7.15 Exploring individual differences.

A total of 105 males and 105 females completed the D45.

A total of 171 people under the age of 30 and 39 over the age of 30 completed the scale.

Table 7.13 Age and gender differences for D45 subgroups

D45 subgroup	Gender	Age bracket	Mean	SD	N
More serious	Male	Under 30	39.2889	16.31450	90
		Over 30	35.9333	16.33343	15
		Total	38.8095	16.28124	105
	Female	Under 30	29.2963	5.40242	81
		Over 30	26.6667	2.07818	24
		Total	28.6952	4.96357	105
	Total	Under 30	34.5556	13.34612	171
		Over 30	30.2308	11.03454	39
		Total	33.7524	13.03311	210
Less serious	Male	Under 30	39.5222	14.85301	90
		Over 30	40.6667	16.23342	15
		Total	39.6857	14.98096	105
	Female	Under 30	31.0000	8.73928	81
		Over 30	25.6250	5.84445	24
		Total	29.7714	8.45265	105
	Total	Under 30	35.4854	13.02502	171
		Over 30	31.4103	13.14237	39
		Total	34.7286	13.11187	210
Instrumental	Male	Under 30	49.9111	17.59765	90
		Over 30	48.4000	19.64979	15
		Total	49.6952	17.81212	105
	Female	Under 30	38.4815	7.28717	81
		Over 30	33.2500	2.99637	24
		Total	37.2857	6.90696	105
	Total	Under 30	44.4971	14.82818	171
		Over 30	39.0769	14.26328	39
		Total	43.4905	14.84247	210
Expressive	Male	Under 30	28.9000	11.96160	90
		Over 30	28.2000	11.93554	15
		Total	28.8000	11.90297	105
	Female	Under 30	21.8148	6.05622	81
		Over 30	19.0417	5.09458	24
		Total	21.1810	5.94329	105
	Total	Under 30	25.5439	10.23501	171
		Over 30	22.5641	9.41107	39
		Total	24.9905	10.13214	210

7.15.1 Individual differences in More Serious scores

A 2x2 design was employed to investigate scores on the D45 subgroup More serious, where gender, age were between subjects factors.

The main effect of gender is significant $F_{(1, 3)} = 19.418$, $p < 0.001$, with a large power of .992.

The main effect of age is not significant $F_{(1, 3)} = 1.875$, $p = .172$, with a small power of .276.

The main effect of age x gender is not significant $F_{(1, 3)} = 0.028$, $p = 0.868$, with a small power of .053.

The ANOVA and table 7.13 above reveals that males have significantly higher scores than females in the D45 subgroup 'More serious'; the difference between these scores is large. The results also show that those under 30 have higher scores than those over 30, however, these differences are not significant. There were no significant interaction effects between age and gender.

7.15.2 Individual differences in Less Serious scores

A 2x2 design was employed to investigate scores in the Less serious region, where gender and age were between subjects factors.

The main effect of gender is significant $F_{(1, 3)} = 28.271$, $p < 0.0001$, with a large power of 1.00.

The main effect of age is not significant $F_{(1, 3)} = 0.926$, $p = .337$, with a small power of .160.

The main effect of age x gender is not significant $F_{(1, 3)} = 2.198$, $p = 140$, with a small power of .314.

The ANOVA results and table 7.13 above reveal that males have significantly higher scores than females in the D45 subgroup 'Less serious'. Those who are under 30 have higher scores than those over 30, however, these scores are not significant. There were no significant interaction effects between age and gender.

7.15.3 Individual differences in Instrumental scores

A 2x2 design was employed to investigate scores in the Instrumental region, where gender and age were between subject's factors.

The main effect of gender is significant $F_{(1, 3)} = 29.509$, $p < 0.0001$, with a large power of 1.00.

The main effect of age is not significant $F_{(1, 3)} = 1.899$, $p = .170$, with a small power of .279.

The main effect of age x gender is not significant $F_{(1, 3)} = 0.578$, $p = 448$, with a small power of .118.

The ANOVA and table 7.13 above show that males have significantly higher scores than females in the D45 subgroup 'Instrumental', the difference between these scores is large. Those who are under 30 have higher scores than those over 30, however, these differences are not significant. There were no interaction effects between age and gender.

7.15.4 Individual differences in Expressive scores

A 2x2 design was employed to investigate scores in the Expressive region, where gender and age were between subjects factors.

The main effect of gender is significant $F_{(1, 3)} = 22.587$, $p < 0.0001$, with a large power of .997.

The main effect of age is not significant $F_{(1, 3)} = 1.033$, $p = .311$, with a small power of .173.

The main effect of age x gender is not significant $F_{(1, 3)} = 0.368$, $p = .545$, with a small power of .093.

The ANOVA and table 7.13 above show that males have significantly higher scores than females in the D45 subgroup 'Expressive', the difference between these scores is large. Those who are under 30 have higher scores than those over 30, however, these differences are not significant. There were no interaction effects between age and gender.

7.16 Summary

The participants used are from the general public and not an offending sample, so it is reasonable to assume this is a low offending group. However, it is evident from the SSA that there is a reasonable

distribution of reported offending behaviour. The more serious offences such as intentionally starting a fire, attempting to fraudulently sign a cheque, and dialling 999 for a joke, are clustered to the left and are the less frequent acts reported by participants.

The structure of the SSA suggests that items are differentiated by the level of seriousness and psychological intensity. This supports the structural hypothesis that suggests items are conceptualised on the basis of being more or less serious. The findings reveal that items on the D45 cannot be differentiated by the type of gain as proposed by Youngs (2001). Material, Sensory and Power gain crimes are dispersed randomly throughout the plot, therefore this hypothesis is not supported. The results show that items in the inner region are mostly Expressive, and items in the outer region are mostly Instrumental.

The SSA also shows that items in the left half of the SSA represent behaviours which could be considered high in psychological intensity. This area contains items which describe violent acts and direct interactions with victims. Items that are typical of this psychological intensity are here, e.g. '*Struggled to get away from the police'*, '*had sex in public'* and '*been involved in gang fights'*. In Youngs' study, items could be differentiated as being Instrumental or Expressive; the groupings of the current items could be considered to be similar to this.

Finally, males score on the D45 scale is significantly higher than females, and those under 30 score significantly higher than those over 30. This reflects general literature which identifies that males and those under the age of 30 generally offend more.

Chapter 8. Exploring the interactions between attitude, personality, and offending.

The previous chapters have outlined the structure of several questionnaires. Chapter 5 explored attitude towards hypothetical offending styles using the Attitude to Offending Style Scale (AOSS). The findings indicate that individuals show preferences for specific targets of the offending behaviour (Person or Property), the style of interaction (verbal or physical), the style of justification (Instrumental or Expressive), and level of gain which is produced (high or low). Chapter 6 explored interpersonal personality, and concluded that the FIRO-B scale differentiates four styles of interpersonal personality (Expressed Inclusion, Expressed Control, Received Inclusion and Received Control). Finally, chapter 7 explored previous self-reported offending behaviour using the D45 scale. The findings show that offending can be conceptualised into four styles (More serious, Less serious, Instrumental and Expressive). Items relating to Person and Property crimes were also differentiated, however, this distinction was less clear.

The present chapter aims to explore several relationships between the three scales presented in this thesis. The first section will explore the relationship between attitude style preferences, and interpersonal personality styles. The second section will explore the relationship between styles of previous self-reported offending, and interpersonal personality styles. The third section will explore the relationship between attitude style preferences, and styles of previous self-reported offending. By examining the scores for each of these scales, it will be possible to explore how pre-determined preferences for crime styles correlate with self-reported offending. The final section explores the ways in which the relationship between attitude style preference and level of self-reported previous offending, is moderated by interpersonal personality style.

There are a number of hypotheses throughout the present chapter. As mentioned above, the chapter is divided into a number of sections in order to explore the relationship between the scales. It is firstly hypothesised that styles of attitude to hypothetical offending will be related to interpersonal personality styles. It is also hypothesised that styles of reported offending will be related to interpersonal personality styles. It is proposed that styles of preferential attitudes will be correlated to similar styles of reported offending. It is also expected that styles of attitude and interpersonal personality can accurately predict overall level of offending. Finally, it is hypothesised that personality will moderate the relationship between attitude and offending.

8.1 Results section one: Exploring relationship between personality and attitude style preferences.

This section looks at the mean scores for those who score high or low in each of the interpersonal personality styles and how they differ for each region of Attitude to Offending Style Scale (AOSS). The participants were divided into those who scored high or low for each element of the FIRO-B. Those who scored at or above the overall mean were coded as high scorers. Those who scored below the overall mean were coded as low scorers.

Table 8.1 AOSS region scores for those high or low in Expressed Inclusion

AOSS region	High or low in Expressed Inclusion	N	Mean	SD
High gain objective reasons	Low	103	11.60	7.501
	High	117	13.35	8.922
High gain emotive reasons	Low	103	17.39	11.441
	High	117	20.52	13.049
Low gain all reasons	Low	104	12.29	8.302
	High	118	13.36	9.000

There were no significant difference in the AOSS 'High gain objective reasons' scores between those who are high or low in Expressed Inclusion (t = -1.579, df= 217.554,p = .116, one tailed, equal variances not assumed).

There were significant difference in the scores in the AOSS 'High gain emotive reasons' score between those who are high or low in Expressed Inclusion (t= -1.882, df= 218, p < .05, one tailed, equal variances assumed). Those who are high in Expressed Inclusion have a mean score of 11.6 (7.5) whereas those who score low have a mean of 13.4 (8.9).

There were no significant difference in the scores in the AOSS 'Low gain all reasons' score between those who are high or low in Expressed Inclusion (t = -0.922, df= 220,p = .538, one tailed, equal variances assumed).

The T tests indicate that those who score high in Expressed Inclusion have significantly higher scores for the AOSS region 'High gain emotive reason' compared with those who scored low. However, there were no significant differences between the high and low scoring groups for the 'High gain objective reason' and 'low gain all reason' AOSS regions. This means that those who have higher scores for items which indicate 'I include people', are likely to score higher for hypothetical crime scenarios which are high gain and are combined with internal (emotive) benefit justifications. This style of justification would include statements such as '*…life or death situation'*. Those who agreed with statements which indicate 'I do not include others' are likely to show a lower level of preference towards the hypothetical crime scenarios.

Table 8.2 AOSS region scores for those high or low in Expressed Control

AOSS region	High or low in Expressed Control	N	Mean	SD
High gain objective reasons	Low	104	10.74	6.567
	High	124	13.56	9.031
High gain emotive reasons	Low	104	16.99	11.633
	High	124	20.15	12.652
Low gain all reasons	Low	105	11.06	7.360
	High	123	14.24	9.357

There was significant difference in the AOSS 'High gain objective reasons' score between those who are high or low in Expressed Control (t = -2.727, df= 221.732,p < .01, one tailed, equal variances not assumed). Those who are high in Expressed Control have a mean of 13.6 (9.0) whereas those who score low have a mean of 10.7 (6.6).

There was significant difference in the AOSS 'High gain emotive reasons' score between those who are high or low in Expressed Control (t = -1.963, df= 224.070,p < .05, one tailed, equal variances not assumed). Those who are high in Expressed Control have a mean of 20.2 (12.7) whereas those who score low have a mean of 17.0 (11.6).

There was significant difference in the AOSS 'Low gain all reasons' score between those who are high or low in Expressed Control (t = -2.876, df= 224.558,p < .005, one tailed, equal variances not assumed). Those who are high in Expressed Control have a mean of 14.24 (9.4) whereas those who score low have a mean of 11.1 (7.4).

The T tests above demonstrate the significant differences between those who score high or low in Expressed Control. Individuals who agree with statements which indicate 'I control people' score significantly higher in every AOSS region than those who agree with statements which indicate 'I do not control people'.

Table 8.3 AOSS region scores for those high or low in Expressed Inclusion

AOSS region	High or low in Received Inclusion	N	Mean	SD
High gain objective reasons	Low	107	12.68	8.550
	High	120	11.78	7.516
High gain emotive reasons	Low	107	18.79	12.457
	High	120	18.54	12.180
Low gain all reasons	Low	106	13.09	8.809
	High	121	12.41	8.461

There were no significant difference in the AOSS 'High gain objective reasons' score between those who are high or low in Received Inclusion (t = 0.843, df= 225,p = .400, one tailed, equal variances assumed).

There were no significant difference in the AOSS 'High gain emotive reasons' score between those who are high or low in Received Inclusion (t = 0.154, df= 225,p = .877, one tailed, equal variances assumed).

There were no significant difference in the AOSS 'Low gain all reasons' score between those who are high or low in Received Inclusion (t = 0.594, df= 225,p = .553, one tailed, equal variances assumed).

The T tests above indicate that there are no significant differences between those who score high or low in Received Inclusion for any of the AOSS regions. Although those who score low in Received Inclusion do have higher scores in each AOSS region, these are not significantly different. This is the inverse of the pattern for the other FIRO groups. Those who score high in the other FIRO elements show higher scores for each AOSS region. Whereas those who score low in Received Inclusion tend to have higher AOSS scores. This means that those who report that others do not include them, score higher in each hypothetical crime scenario region. However these differences are not statistically different.

Table 8.4 AOSS region scores for those high or low in Received Control

AOSS region	High or low in Received Control	N	Mean	SD
High gain objective reasons	Low	108	10.57	6.660
	High	120	13.74	8.635
High gain emotive reasons	Low	108	16.82	11.324
	High	120	20.13	12.502
Low gain all reasons	Low	108	11.04	7.988
	High	120	14.26	8.685

There was significant difference in the AOSS 'High gain objective reasons' score between those who are high or low in Received Control ($t = -3.118$, $df = 220.949$, $p < .005$, one tailed, equal variances not assumed). Those who are high in Received Control have a mean of 13.7 (8.6) whereas those who score low have a mean of 10.6 (6.7).

There was significant difference in the AOSS 'High gain emotive reasons' score between those who are high or low in Received Control ($t = -2.086$, $df = 226$, $p < .05$, one tailed, equal variances assumed). Those who are high in Received Control have a mean of 20.1 (12.5) whereas those who score low have a mean of 16.8 (11.3).

There was significant difference in the AOSS 'Low gain all reasons' score between those who are high or low in Received Control ($t = -2.904$, $df = 226$, $p < .005$, one tailed, equal variances assumed). Those who are high in Received Control have a mean of 14.2 (8.7) whereas those who score low have a mean of 11.0 (8.0).

The T tests above indicate that there are significant differences between those who score high or low in Received Control for each region of the AOSS. Those who score high in Received Control have significantly higher scores for the High gain objective, High gain emotive, and Low gain AOSS regions. In other words, those who score higher for items which indicate 'others control me', score higher in each hypothetical crime scenario region.

The T tests above highlight some significant differences in AOSS regions for those who score high or low in each FIRO-B element. However, the standard deviations indicated alongside the mean AOSS scores are quite large. This suggests that there is a lot of variation in response to the items within each AOSS group. Therefore, a procedure was adopted from Youngs (2004), which examined the mean score for each FIRO-B element as external variables on an SSA.

The mean score for Expressed Inclusion, Expressed Control, Received Inclusion and Received Control is calculated for each individual admitting that they would carry out the individual item on the AOSS. This is then divided into the number of individual items which make up that FIRO-B element to reflect an average item score. The scores for each FIRO-B element are then examined individually for each AOSS item to see how they vary across regions of the SSA plot.

Figure 8.1 SSA plot showing mean Expressed Inclusion scores for those who agreed to each item on the AOSS

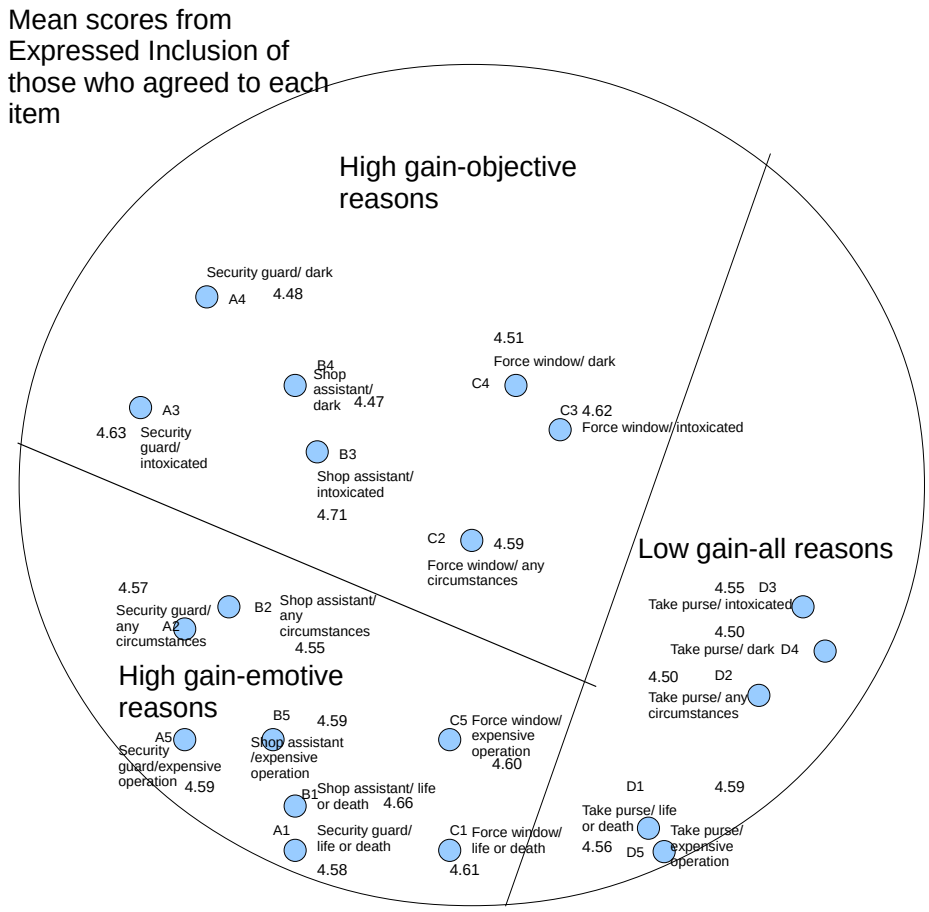


Table 8.5 Key to AOSS SSA

Crime scenario	Justification
A.'Use force to get a security guard to open the van and take the money'	1.How likely do you think you would be to commit a crime like this in a life and death situation for acquiring money? 2.Are there any circumstances for which you could imagine yourself doing an action like this? 3. Imagine perhaps you were to become intoxicated and you have the extra confidence of for e.g. alcohol or cocaine and this situation presented itself, you possibly wouldn't even remember what happened. Would you consider par taking in a crime like this? 4.Imagine perhaps you were to become intoxicated and you have the extra confidence of for e.g. alcohol or cocaine and this situation presented itself, you possibly wouldn't even remember what happened. Would you consider par taking in a crime like this? 5. Would you consider committing a crime like this if it was dark at night and there were no other people around? No witnesses or any other people's reactions to affect you.
B.'Use necessary threat and force to get a shop assistant to open the till and take the money'	
C.'Force open a window and take personal property from a house with intention of selling these goods'.	
D.'Take a purse that appears unattended'.	

The mean Expressed Inclusion scores for those who gave a positive response to each item on the AOSS ranges from 4.48 to 4.71, the mean for the overall population is 4.55. Those who agree to carry out item 8 '*force shop assistant to open till/intoxicated……'* have the highest mean Expressed Inclusion score (4.71), this is much higher than the overall mean. Other high scoring items include:

3 '*force security guard to hand over money/intoxicated…'* (4.63)

11 '*force open window/life or death….'* (4.61)

12 '*force open window/any circumstances….*' (4.61)

13 '*Force open window/intoxicated*…..' (4.62)

15 '*Force open window/expensive operation…..*' (4.60).

This suggests that those who include other people are likely to show a preference for these items which indicate the crime produces a high gain or is high gain.

Items 4 '*force security guard to hand over money/dark at night…*' and 9 '*force shop assistant to open till/dark at night…*' have the lowest mean Expressed Inclusion scores of 4.48 and 4.47, this is lower than the overall mean of 4.55. This suggests that individuals who agree to carry out direct contact (person) scenarios when there is a reduced risk of detection, are likely to be lower in Expressed Inclusion. Other low mean Expressed Inclusion scores are found for those who agreed to carry out the following items:

14 '*force open window/dark at night…'* (4.51)

17 *'take purse/any circumstances…*' (4.50)

19 '*take purse/dark at night…'* (4.50)

This suggests that those who do not include other people are likely to show a preference for scenarios which interact with a person, and indicate a reduced risk of detection.

Individuals who show a positive response to any style of hypothetical scenario when combined with a justification which indicates they may not get caught (dark at night), are likely to have slightly lower levels of Expressed Inclusion, and so feel that others do not include them.

Figure 8.2 SSA plot showing mean Expressed Control scores for those who agreed to each item on the AOSS

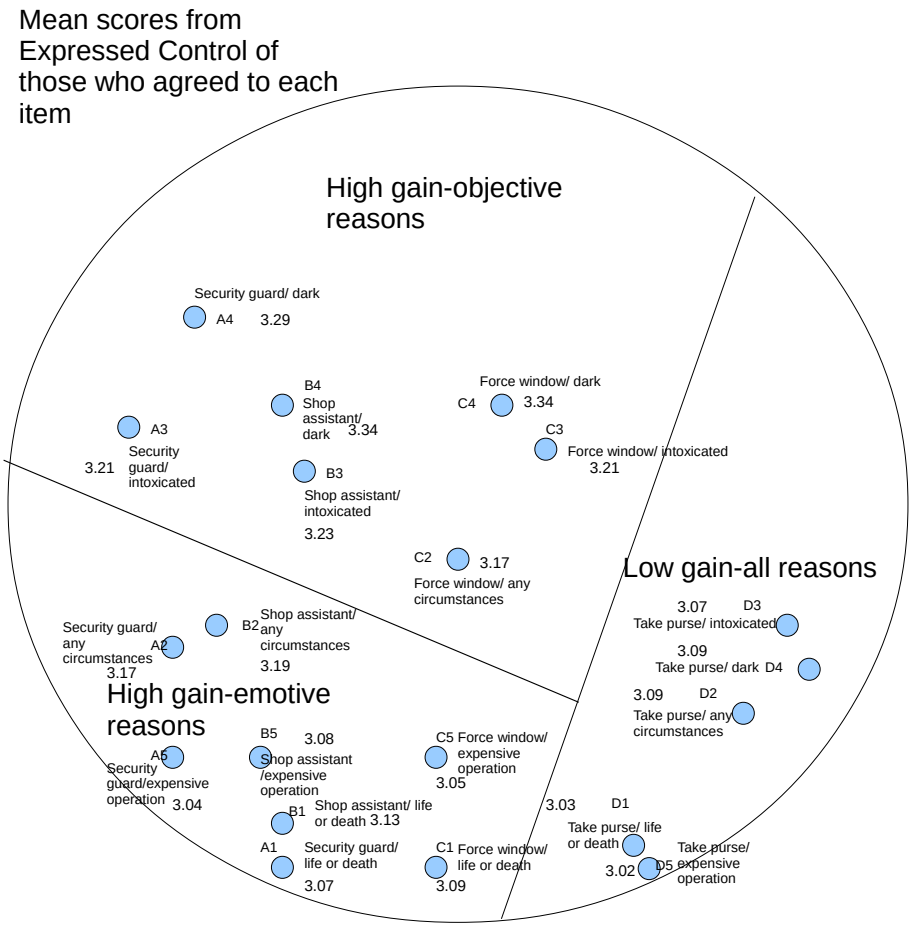


Table 8.6 Key to AOSS SSA

Crime scenario	Justification
A.'Use force to get a security guard to open the van and take the money'	1.How likely do you think you would be to commit a crime like this in a life and death situation for acquiring money? 2.Are there any circumstances for which you could imagine yourself doing an action like this? 3. Imagine perhaps you were to become intoxicated and you have the extra confidence of for e.g. alcohol or cocaine and this situation presented itself, you possibly wouldn't even remember what happened. Would you consider par taking in a crime like this? 4.Imagine perhaps you were to become intoxicated and you have the extra confidence of for e.g. alcohol or cocaine and this situation presented itself, you possibly wouldn't even remember what happened. Would you consider par taking in a crime like this? 5. Would you consider committing a crime like this if it was dark at night and there were no other people around? No witnesses or any other people's reactions to affect you.
B.'Use necessary threat and force to get a shop assistant to open the till and take the money'	
C.'Force open a window and take personal property from a house with intention of selling these goods'.	
D.'Take a purse that appears unattended'.	

The mean Expressed Control scores for those who gave a positive response to items on the AOSS ranges from 3.02 to 3.47, the mean for the overall population is 2.96. This indicates that those who agreed to carry out all of the hypothetical scenarios, scored higher in Expressed Control than those who did not agree. Those who agreed to items in 'High gain objective reason' region have the highest levels of Expressed Control. This suggests that those who agree to carry out acts which produce a high gain scenarios are likely to be dominant over other people. Item 8 '*force shop assistant to open till/intoxicated…*' has a particularly high mean Expressed Control score of 3.47. Those who agree to carry out items in the 'High gain emotive reason' and 'Low gain all reason' regions have slightly lower Expressed Control scores, however, these are still higher than the overall mean.

Figure 8.3 SSA plot showing mean Received Inclusion scores for those who gave a positive response to each item on the AOSS

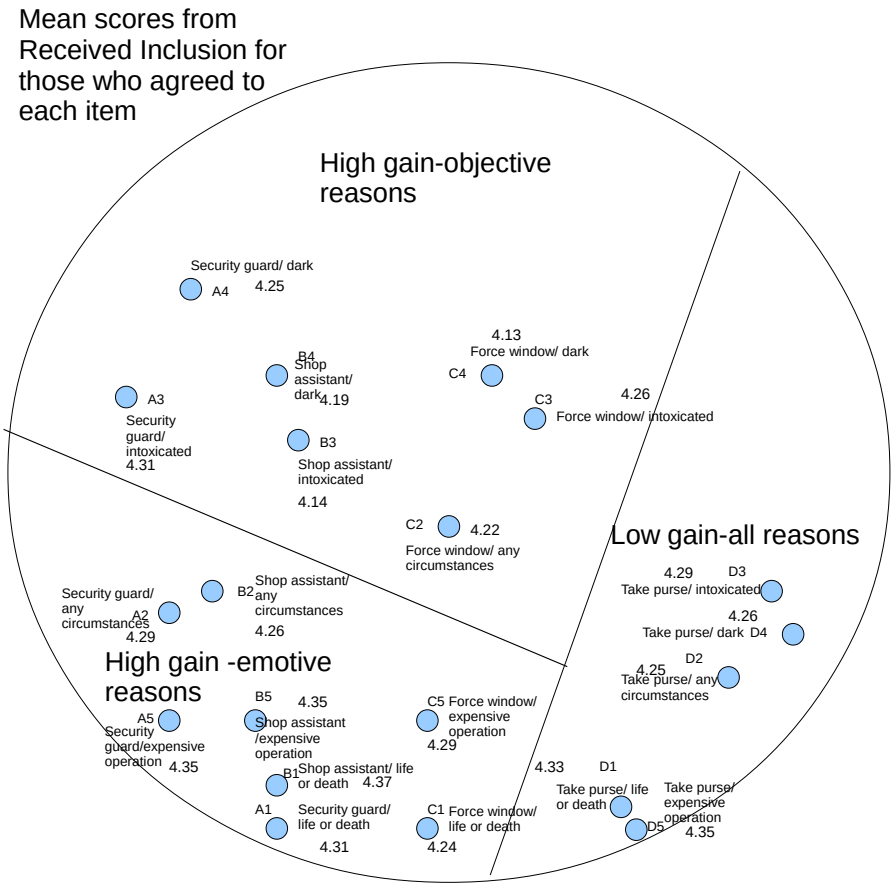


Table 8.7 Key to AOSS SSA

Crime scenario	Justification
A.'Use force to get a security guard to open the van and take the money'	1.How likely do you think you would be to commit a crime like this in a life and death situation for acquiring money? 2.Are there any circumstances for which you could imagine yourself doing an action like this? 3. Imagine perhaps you were to become intoxicated and you have the extra confidence of for e.g. alcohol or cocaine and this situation presented itself, you possibly wouldn't even remember what happened. Would you consider par taking in a crime like this? 4.Imagine perhaps you were to become intoxicated and you have the extra confidence of for e.g. alcohol or cocaine and this situation presented itself, you possibly wouldn't even remember what happened. Would you consider par taking in a crime like this? 5. Would you consider committing a crime like this if it was dark at night and there were no other people around? No witnesses or any other people's reactions to affect you.
B.'Use necessary threat and force to get a shop assistant to open the till and take the money'	
C.'Force open a window and take personal property from a house with intention of selling these goods'.	
D.'Take a purse that appears unattended'.	

The mean Received Inclusion scores for those who gave a positive response to each item on the AOSS ranges from 4.13 to 4.35, the mean for the overall population is 4.36. This indicates that those who agreed to carry out the scenarios have lower Received Inclusion scores than those who did not agree. Items 9 '*force shop assistant to open till/dark at night…*' and 14 '*force window open/dark at night…'* both have very low Received Inclusion scores of 4.13 and 4.14. In other words, those who agreed to most of the items on the AOSS scale are likely to feel that other people do not include them.

Figure 8.4 SSA plot showing mean Received Control scores for those who gave a positive response to items on the AOSS

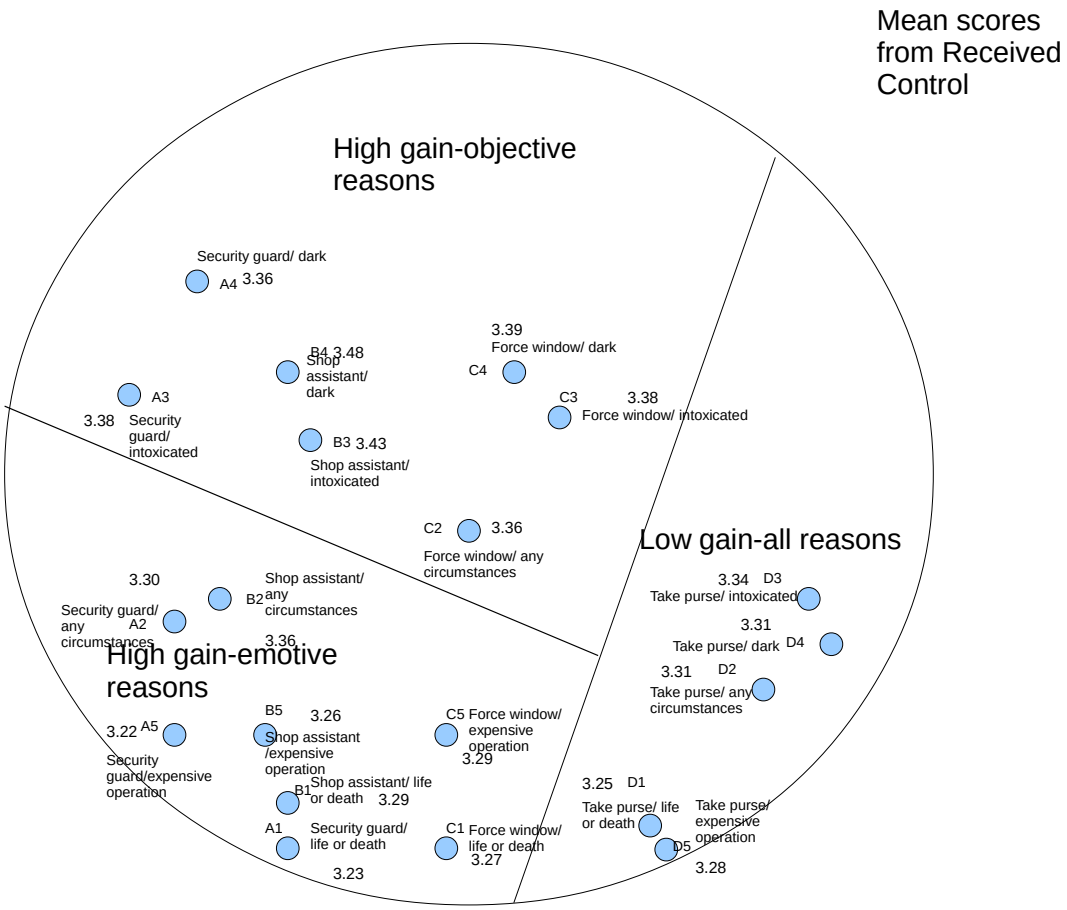


Table 8.8 Key to AOSS SSA

Crime scenario	Justification
A.'Use force to get a security guard to open the van and take the money'	1.How likely do you think you would be to commit a crime like this in a life and death situation for acquiring money? 2.Are there any circumstances for which you could imagine yourself doing an action like this? 3. Imagine perhaps you were to become intoxicated and you have the extra confidence of for e.g. alcohol or cocaine and this situation presented itself, you possibly wouldn't even remember what happened. Would you consider par taking in a crime like this? 4.Imagine perhaps you were to become intoxicated and you have the extra confidence of for e.g. alcohol or cocaine and this situation presented itself, you possibly wouldn't even remember what happened. Would you consider par taking in a crime like this? 5. Would you consider committing a crime like this if it was dark at night and there were no other people around? No witnesses or any other people's reactions to affect you.
B.'Use necessary threat and force to get a shop assistant to open the till and take the money'	
C.'Force open a window and take personal property from a house with intention of selling these goods'.	
D.'Take a purse that appears unattended'.	

The mean Received Control scores for those who agreed to items on the AOSS ranges from 3.22 to 3.48, the mean for the overall population is 3.15. This indicates that those who gave a positive response to the scenarios scored higher than average in Received Control. Those who agree to items in the 'High gain objective reason' region have higher mean Received Control scores. The scores in this region range from 3.36 for items 4 '*force security guard to hand over money/dark at night…*', and 12 '*force window open/any circumstances…*', to 3.43 for item 8 '*force shop assistant to open till/intoxicated…*', and 3.48 for item 9 '*force shop assistant to open till/dark at night'*. Item 8 and 9 have particularly high Received Control scores. This infers that those who agree to force a shop assistant to hand over the money when there is a reduced risk of detection, are likely to feel that others control them.

8.2 Results section two. Exploring relationship between personality and self-reported offending behaviour

This section looks at the mean scores for those who score high or low in each of the interpersonal personality styles, and how they differ for each region of self-reported offending scale (D45). For each of the FIRO-B subgroups, those who scored at or above the overall mean for the current sample are coded as scoring high, and those who score below the overall mean for the current sample were coded as scoring low.

Table 8.9 D45 region scores for those high or low in Expressed Inclusion

D45 group	High or low in Expressed Inclusion	N	Mean	SD
More serious	Low	87	31.28	9.36
	High	112	36.35	15.33
Less serious	Low	91	33.41	12.38
	High	112	36.70	13.44
Instrumental	Low	88	41.03	12.15
	High	112	46.44	16.53
Expressive	Low	90	23.74	8.80
	High	112	26.61	11.02
Total D45 score	Low	87	64.92	20.35
	High	112	73.06	26.75

There was a significant difference in the D45 subgroup 'More serious' scores between those who are high or low in Expressed Inclusion ($t = -2.876$, $df = 187.425$, $p < .005$, one tailed, equal variances not assumed). Those who are high in Expressed Inclusion have a higher score in the 'More serious' region (36.4 (15.3)). Whereas those who are low in Expressed Inclusion have a mean 'More serious' score of 31.3 (9.4).

There were no significant differences in the D45 subgroup 'Less serious' between those who are high or low in Expressed Inclusion ($t = -1.794$, $df = 201$, $p = 0.074$, one tailed, equal variances assumed).

There was a significant difference in the D45 subgroup 'Instrumental' scores between those who are high or low in Expressed Inclusion ($t=-2.666$, $df= 197.181$, $p < 0.01$, one tailed, equal variances not assumed). Those who are high in Expressed Inclusion have a mean score of 36.7 (13.4) whereas those who are low have a mean score of 33.4 (12.4).

There was a significant difference in the D45 subgroup 'Expressive' scores between those who are high or low in Expressed Inclusion (t = -2.058, df= 199.094, p < .05, one tailed, equal variances not assumed). Those who are high in Expressed Inclusion have mean score of 26.6 (11.0), whereas those who are low score 23.7 (8.8).

There was a significant difference in total D45 score between those who are high or low in Expressed Inclusion (t=-2.438, df= 196.928, p < 0.05, one tailed, equal variances not assumed). Those who are high in Expressed Inclusion have a mean total D45 score of 73.06 (26.8) whereas those who score low have a mean score of 64.9 (20.4).

The T tests above indicate that those who score high in Expressed Inclusion have significantly higher D45 scores in the More serious, Instrumental and Expressive regions, compared to those who scored low in this element. Those who score high in this element also have a higher total D45 score than those who score low. Those who score high in Expressed Inclusion also have higher D45 scores in the Less serious region, however, this is not a significant difference. This shows that those who score higher for items which indicate 'I include others', are likely to have reported crimes which are carried out to achieve a secondary goal, crimes where the behaviour is the primary reward, and more serious items. The results somewhat support the results between Expressed Inclusion and Attitude to Offending Style Scale. Earlier it was established that those high in Expressed Inclusion have significantly higher AOSS scores for the 'High gain emotive reason' region.

Table 8.10 D45 region scores for those high or low in Expressed Control

D45 group	High or low in Expressed Control	N	Mean	SD
More serious	Low	89	31.60	10.51
	High	115	35.80	14.67
Less serious	Low	91	32.64	11.35
	High	116	36.77	14.03
Instrumental	Low	89	41.05	12.18
	High	115	45.93	16.48
Expressive	Low	91	23.23	8.47
	High	116	26.65	11.05
Total D45 score	Low	89	64.40	19.87
	High	115	72.62	26.81

There was a significant difference in the D45 subgroup 'More serious' score between those who are high or low in Expressed Control (t=-2.376, df= 200.885, p < 0.05, one tailed, equal variances not assumed). Those who are high in Expressed Control have a mean score of 35.8 (14.7) whereas those who score low have a mean of 31.6 (10.5).

There was a significant difference in the D45 subgroup 'Less serious' score between those who are high or low in Expressed Control (t=-2.339, df= 204.796, p < 0.05, one tailed, equal variances not assumed). Those who are high in Expressed Control have a mean score of 36.8 (14.0) whereas those who score low have a mean of 32.6 (11.4).

There was a significant difference in the D45 subgroup 'Instrumental' score between those who are high or low in Expressed Control (t=-2.432,df= 201.607,p < 0.05, one tailed, equal variances not

assumed). Those who are high in Expressed Control have a mean score of 45.9 (16.5) whereas those who score low have a mean of 41.6 (12.2).

There was a significant difference in the D45 subgroup 'Expressive' score between those who are high or low in Expressed Control (t=-2.522,df= 204.906,p < 0.05, one tailed, equal variances not assumed). Those who are high in Expressed Control have a mean score of 26.7 (11.1) whereas those who score low have a mean of 23.2 (8.5).

There was a significant difference in the total D45 score between those who are high or low in Expressed Control (t=-2.512, df= 201.653, p < 0.05, one tailed, equal variances not assumed). Those who are high in Expressed Control have a mean score of 72.6 (26.8) whereas those who score low have a mean of 64.4 (19.9).

The T tests above indicate that those who score high in Expressed Control have significantly higher D45 scores in the More serious, Less serious, Instrumental, and Expressive regions. Those who score high in Expressed Control also have a higher overall score on the D45.

This shows that those who score higher in items which indicate 'I control other people' have higher scores for most items on the D45. These results are similar to those presented earlier for Expressed Control and Attitude to Offending Styles Scale. Although those who scored high in Expressed Control scored higher in each of the AOSS regions, these differences were not significant. Although, the mean Expressed Control scores for those who agreed to each item on the AOSS did show that those who agreed had much higher scores for this personality style.

Table 8.11 D45 region scores for those high or low in Received Inclusion

D45 group	High or low in Received Inclusion	N	Mean	SD
More serious	Low	94	34.79	13.13
	High	108	32.24	10.79
Less serious	Low	97	36.74	14.64
	High	109	32.83	11.08
Instrumental	Low	95	45.26	15.74
	High	108	41.53	12.44
Expressive	Low	96	26.33	10.77
	High	109	23.55	8.87
Total D45 score	Low	94	71.83	25.80
	High	108	65.08	20.60

There were no significant differences in the D45 subgroup 'More serious' between those who are high or low in Received Inclusion (t = 1.518, df = 200, p = .131, one tailed, equal variances assumed).

There was a significant difference in the D45 subgroup 'Less serious' between those who are high or low in Received Inclusion (t=2.139, df= 177.723, p < 0.05, one tailed, equal variances not assumed). Those who are low in Received Inclusion have a mean score of 36.7 (14.6) whereas those who score high have a mean of 32.8 (11.1).

There were no significant difference in the D45 subgroup 'Instrumental' between those who are high or low in Received Inclusion (t=1.853, df= 178.414, p = 0.066, one tailed, equal variances not assumed).

There was a significant difference in the D45 subgroup 'Expressive' between those who are high or low in Received Inclusion (t=2.001, df= 184.525, p < 0.05, one tailed, equal variances not assumed). Those who are low in Received Inclusion have a mean score of 26.3 (10.8) whereas those who score high have a mean of 23.6 (8.9).

There was a significant difference in the total D45 between those who are high or low in Received Inclusion (t=2.003, df= 177.399, p < 0.05, one tailed, equal variances not assumed). Those who are low in Received Inclusion have a mean score of 71.8 (25.8) whereas those who score high have a mean of 65.1 (20.6).

The T tests above indicate that those who score low in Received Inclusion have significantly higher D45 scores in the Less serious and Expressive regions. In other words, those who agreed with statements which indicate 'others do not include me' are more likely to agree to D45 items where the behaviour is the primary reward and are less serious. Those who scored low in Received Inclusion scored higher overall on the D45. The results are similar to those presented earlier for Received Inclusion and Attitude to Offending Style Scale. Those with lower levels of Received Inclusion did have higher AOSS scores in each of the regions, however, the scores were not significantly different from those who scored low in Received Inclusion.

Table 8.12 D45 region scores for those high or low in Received Control

D45 group	High or low in Received Control	N	Mean	SD
More serious	Low	95	32.27	10.68
	High	111	34.95	14.55
Less serious	Low	98	33.53	12.11
	High	112	35.64	13.43
Instrumental	Low	96	41.78	12.94
	High	111	44.98	16.02
Expressive	Low	97	24.06	8.75
	High	112	25.63	10.72
Total D45 score	Low	95	65.99	21.11
	High	111	70.63	25.97

There were no significant differences in the D45 'More serious' scores between those who are high or low in Received Control (t=-1.485, df = 204, p = 0.139, one tailed, equal variances assumed).

There were no significant differences in the D45 'Less serious' scores between those who are high or low in Received Control (t=-1.190, df = 208, p = 0.236, one tailed, equal variances assumed).

There were no significant differences in the D45 'Instrumental' scores between those who are high or low in Received Control (t=-1.564, df= 205, p = 0.119, one tailed, equal variances assumed).

There were no significant differences in the D45 'Expressive' scores between those who are high or low in Received Control (t=-1.194,df= 207,p = 0.252, one tailed, equal variances assumed).

There were no significant differences in the total D45 scores between those who re high or low in Received Control (t=-1.392, df= 204, p = 0.166, one tailed, equal variances assumed).

The table above shows that those who score high in Received Control, have higher scores in each of the D45 regions. However, these differences are not significantly different from those who score low in Received Control. Those who reported that 'other people control me' score higher in each D45 region, however, these differences are not significant. It was established earlier that those with higher levels of Received Control had significantly higher scores in each of the Attitude to Offending Style Scale regions.

To examine the mean scores for each of the FIRO elements in more detail, the same procedure adopted for the FIRO-B/AOSS scores above will be applied. The mean score will be calculated for each FIRO-B element for those who reported any level of involvement in the D45 items. These mean scores are then recorded next to the items on the SSA to examine any regional patterns of higher or lower scores.

Figure 8.5 SSA plot showing mean Expressed Inclusion scores for those who agreed to each item on the D45

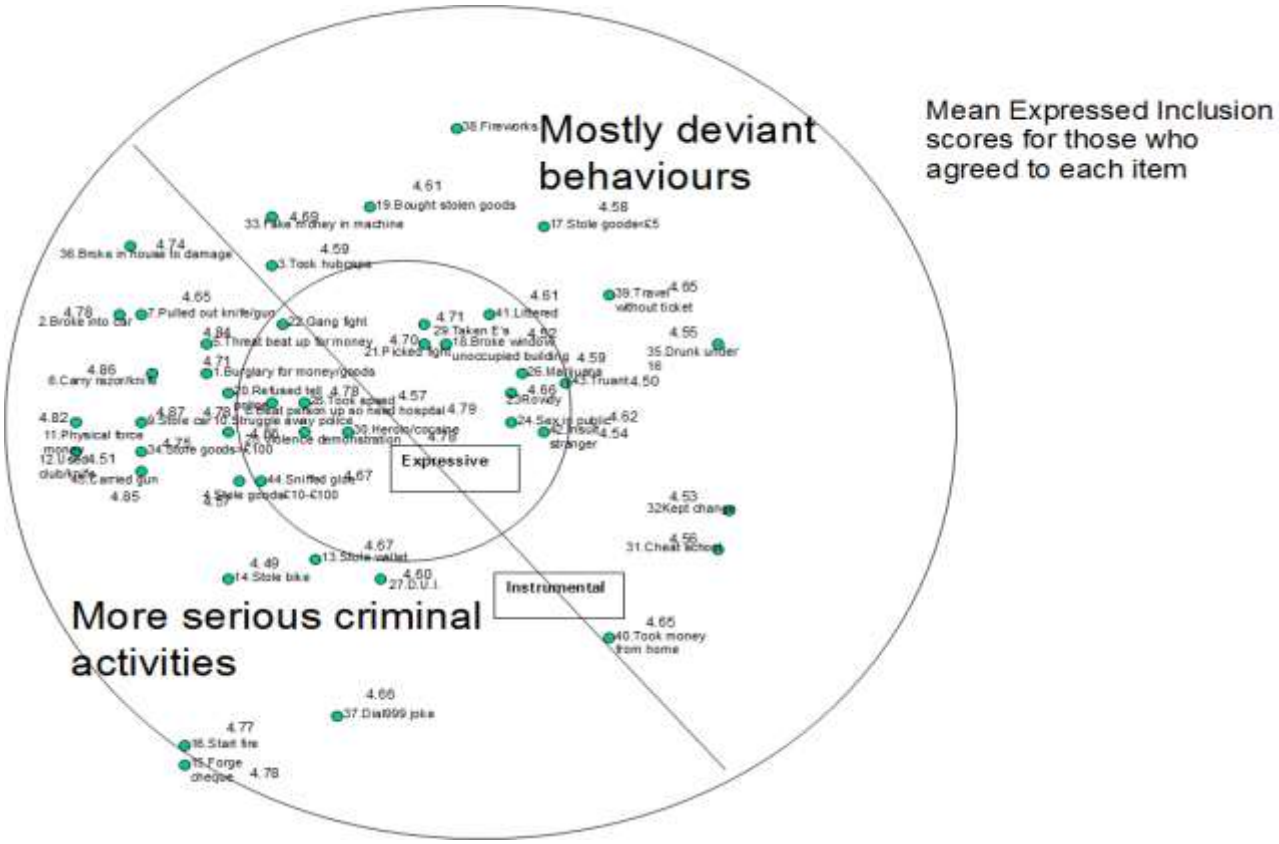


Table 8.13 Key to D45 SSA

D45 item		
1Broken into house, shop, school and taken money or something else you wanted	16Intentionally started a building on fire	31Cheated at school in tests
2Broken into a locked car to get something from it	17Taken little things (worth less than £5) from a shop without paying for them	32Not returned extra change that a cashier gave you by mistake
3Taken hubcaps, wheels, the battery or some other part of a car without the owner's permission	18Broken the windows of an empty house or other unoccupied building	33Used fake money in a machine
4Taken things worth between £10 and £100 from a shop without paying for them	19Bought something you knew had been stolen	34Taken things of large value (worth more than £100) from a shop without paying for them
5Threatened to beat someone up if they didn't give you money or something else you wanted	20Refused to tell the police or some other official what you knew about a crime	35Been drunk regularly when you were under 16
6Carried a razor, flick-knife or some other weapon with the intention of using it in a fight	21Picked a fight with someone you didn't know just for the hell of it	36Broken into a house, shop, school or other building to break things up or cause other damage
7Pulled a knife, gun or some other weapon on someone just to let them know you meant business	22Been involved in gang fights	37Dialled 999 just for a joke
8Beat someone up so badly they probably needed a doctor	23Been loud, rowdy or unruly in a public place	38Let off fireworks in the street
9Taken a car belonging to someone you didn't know for a ride without the owner's permission	24Had sex in public	39Deliberately travelled without a ticket on a bus, train or the tube
10Tried to get away from a police officer by fighting or struggling	25Attended a demonstration or sporting event to cause a disturbance or be violent	40Taken money from someone at home without returning it
11Used physical force (like twisting an arm or choking) to get money from another person	26Smoked marijuana (grass/pot)?	41Deliberately littered the streets
12Used a club, knife or other weapon to get something from someone	27Driven a car when you were drunk or high on some drugs	42Annoyed or insulted a stranger
13Taken things from a wallet/purse (or the whole wallet/purse) while the owner wasn't around or looking	28Taken barbiturates (downers) or speed (or other uppers) without a prescription	43Not gone to school when you should have been there
14Taken a bicycle belonging to someone you didn't know with no intention of returning it	29Taken ecstasy ('E's)?	44Sniffed glue or other solvents (e.g. tippex thinner)
15Tried to pass a cheque by signing someone else's name	30Used heroin(smack) or cocaine	45Used or carried a gun to help you commit a crime

The mean Expressed Inclusion scores for those that reported any level of involvement in the items on the D45, range from 4.49 to 4.86, the mean for the overall population is 4.55. Many of the items have scores above the overall mean. The two items with low Expressed Inclusion are:

> 14 '*Taken a bicycle belonging to someone you didn't know with no intention of returning it'* (4.49)
>
> 43 '*Not gone to school when you should have been there'* (4.50).

These are both low seriousness acts which avoid interaction with others. There are three items which have very high mean Expressed Inclusion scores:

> 5 '*Threatened to beat someone up if they didn't give you money or something else you wanted'* (4.84)
>
> 6 '*Carried a razor, flick-knife or some other weapon with the intention of using it in a fight'* (4.86)
>
> 9 '*Taken a car belonging to someone you didn't know for a ride without the owner's permission'* (4.87).

These consist of a mix of Instrumental/Expressive, and Person/Property style crimes. However, all three of these items are defined as a higher level of seriousness or psychological intensity. All of the other high scoring items (above 4.70) are also a higher level of seriousness:

> 15 '*Tried to pass a cheque by signing someone else's name*' (4.78)
>
> 8 '*Beat someone up so badly they probably needed a doctor'* (4.79)
>
> 30 '*Used heroin (smack) or cocaine*' (4.78)

These results show that those who report involvement in more serious D45 items, are likely to include other people in their lives. These findings support the results of the T tests which also found that those who score high in Expressed Inclusion, have higher scores for more serious crimes.

Figure 8.6 SSA plot showing mean Expressed Control scores for those who agreed to each item on the D45

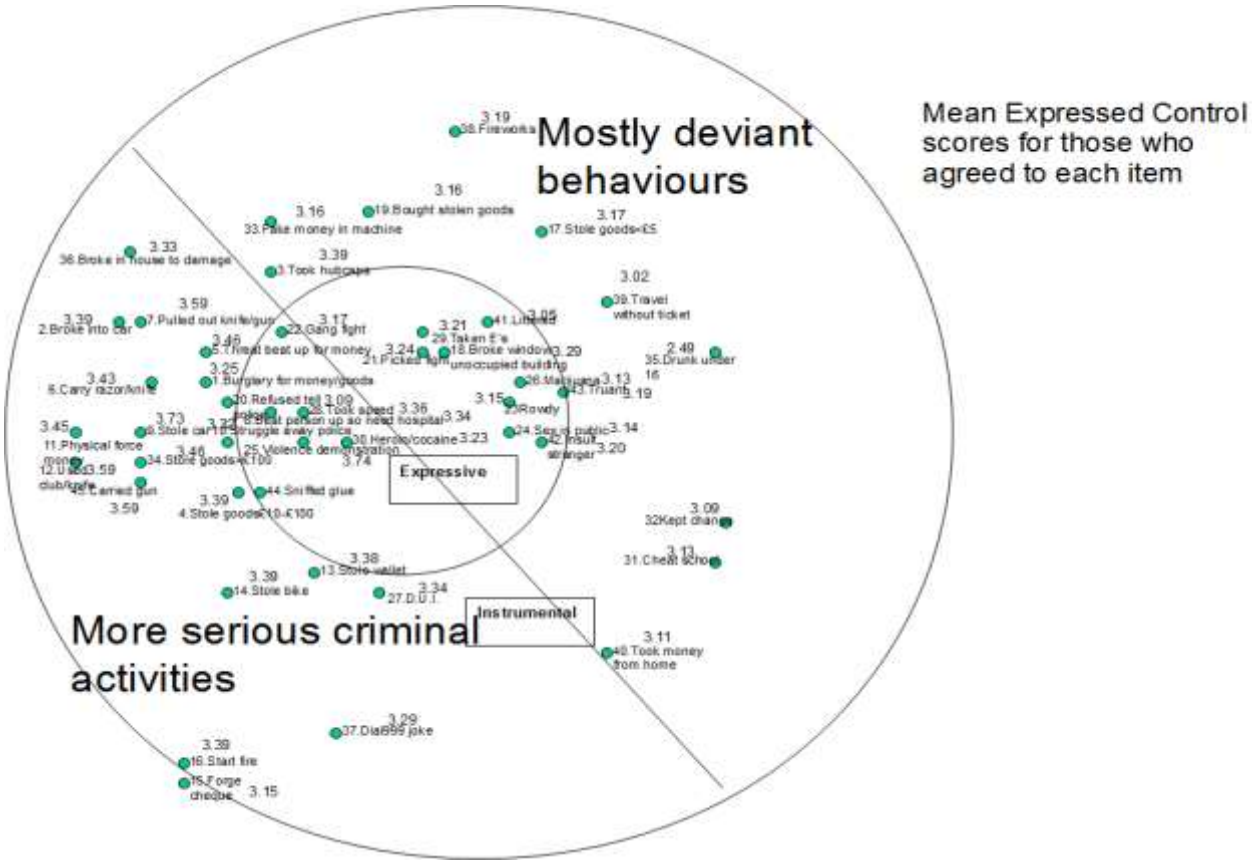


Table 8.14 List of items on SSA

D45 item		
1Broken into house, shop, school and taken money or something else you wanted	16Intentionally started a building on fire	31Cheated at school in tests
2Broken into a locked car to get something from it	17Taken little things (worth less than £5) from a shop without paying for them	32Not returned extra change that a cashier gave you by mistake
3Taken hubcaps, wheels, the battery or some other part of a car without the owner's permission	18Broken the windows of an empty house or other unoccupied building	33Used fake money in a machine
4Taken things worth between £10 and £100 from a shop without paying for them	19Bought something you knew had been stolen	34Taken things of large value (worth more than £100) from a shop without paying for them
5Threatened to beat someone up if they didn't give you money or something else you wanted	20Refused to tell the police or some other official what you knew about a crime	35Been drunk regularly when you were under 16
6Carried a razor, flick-knife or some other weapon with the intention of using it in a fight	21Picked a fight with someone you didn't know just for the hell of it	36Broken into a house, shop, school or other building to break things up or cause other damage
7Pulled a knife, gun or some other weapon on someone just to let them know you meant business	22Been involved in gang fights	37Dialled 999 just for a joke
8Beat someone up so badly they probably needed a doctor	23Been loud, rowdy or unruly in a public place	38Let off fireworks in the street
9Taken a car belonging to someone you didn't know for a ride without the owner's permission	24Had sex in public	39Deliberately travelled without a ticket on a bus, train or the tube
10Tried to get away from a police officer by fighting or struggling	25Attended a demonstration or sporting event to cause a disturbance or be violent	40Taken money from someone at home without returning it
11Used physical force (like twisting an arm or choking) to get money from another person	26Smoked marijuana (grass/pot)?	41Deliberately littered the streets
12Used a club, knife or other weapon to get something from someone	27Driven a car when you were drunk or high on some drugs	42Annoyed or insulted a stranger
13Taken things from a wallet/purse (or the whole wallet/purse) while the owner wasn't around or looking	28Taken barbiturates (downers) or speed (or other uppers) without a prescription	43Not gone to school when you should have been there
14Taken a bicycle belonging to someone you didn't know with no intention of returning it	29Taken ecstasy ('E's)?	44Sniffed glue or other solvents (e.g. tippex thinner)
15Tried to pass a cheque by signing someone else's name	30Used heroin(smack) or cocaine	45Used or carried a gun to help you commit a crime

The mean Expressed Control scores for those that reported any level of involvement in these crimes range from 2.49 to 3.74, the mean for the overall population is 2.96. The majority of people who reported any level of involvement in criminal or deviant acts, score higher in Expressed Control than the overall population. The items which have lower mean scores are:

35 '*Been drunk regularly when you were under 16'* (2.49)

39 '*Deliberately travelled without a ticket on a bus, train or the tube'* (3.02)

41 '*Deliberately littered the streets*'(3.05)

All of these items are classed as low seriousness. This indicates that those who only report involvement in the less serious crimes are likely to show lower levels of control over others. The items with the highest mean Expressed Control scores are:

7 '*Pulled a knife, gun or some other weapon on someone just to let them know you meant business'* (3.59)

9 '*Taken a car belonging to someone you didn't know for a ride without the owner's permission'* (3.73)

12 '*Used a club, knife or other weapon to get something from someone*'(3.59)

25 '*Attended a demonstration or sporting event to cause a disturbance or be violent'* (3.74)

45 '*Used or carried a gun to help you commit a crime'* (3.57).

These high scoring items contain both Instrumental/Expressive and Person/Property crimes. However all of these items are higher in seriousness or psychological intensity, and the majority involve violent behaviours. This suggests that those who indicate involvement in the more serious D45 items, are likely to show control over other people. This suggests that those who Express Control over others are at ease using violence and force to get what they want. These findings reflect the earlier T tests, which showed that those scoring higher in this element have significantly higher D45 scores for all four regions.

Figure 8.7 SSA plot showing mean Received Inclusion scores for those who agreed to each item on the D45

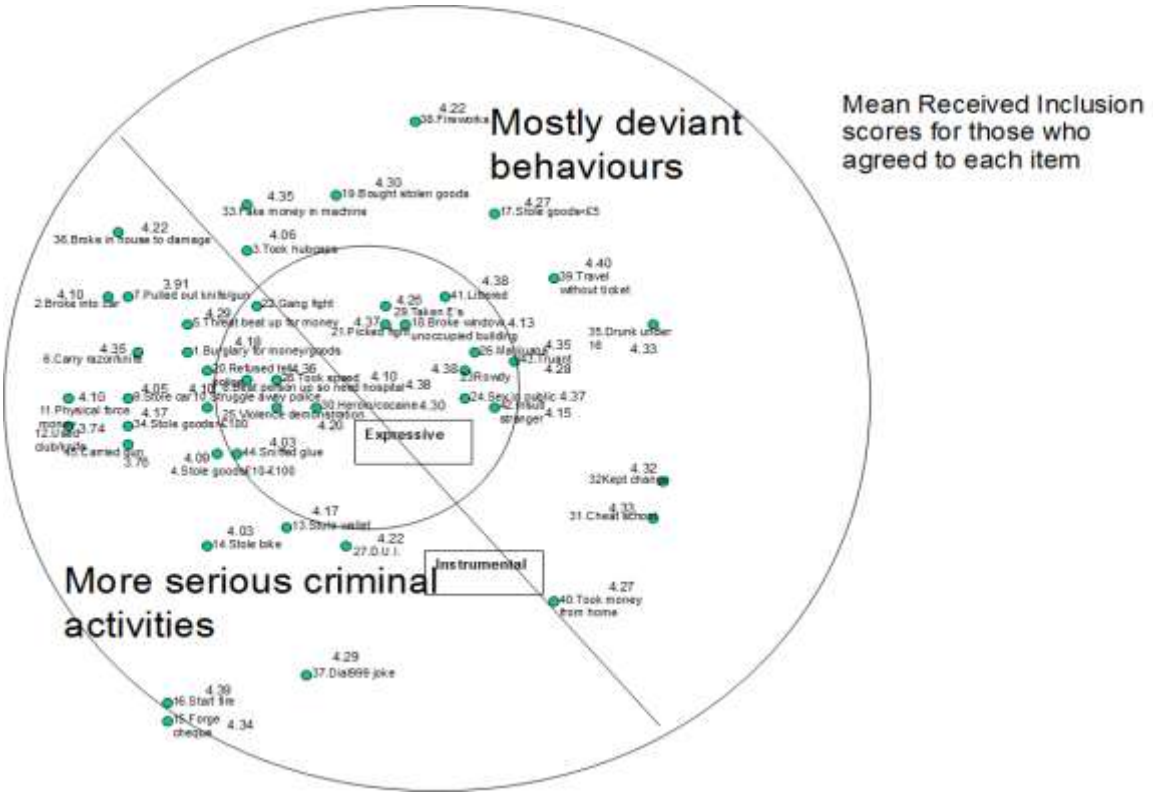


Table 8.15 Key to D45 SSA

D45 item		
1Broken into house, shop, school and taken money or something else you wanted	16Intentionally started a building on fire	31Cheated at school in tests
2Broken into a locked car to get something from it	17Taken little things (worth less than £5) from a shop without paying for them	32Not returned extra change that a cashier gave you by mistake
3Taken hubcaps, wheels, the battery or some other part of a car without the owner's permission	18Broken the windows of an empty house or other unoccupied building	33Used fake money in a machine
4Taken things worth between £10 and £100 from a shop without paying for them	19Bought something you knew had been stolen	34Taken things of large value (worth more than £100) from a shop without paying for them
5Threatened to beat someone up if they didn't give you money or something else you wanted	20Refused to tell the police or some other official what you knew about a crime	35Been drunk regularly when you were under 16
6Carried a razor, flick-knife or some other weapon with the intention of using it in a fight	21Picked a fight with someone you didn't know just for the hell of it	36Broken into a house, shop, school or other building to break things up or cause other damage
7Pulled a knife, gun or some other weapon on someone just to let them know you meant business	22Been involved in gang fights	37Dialled 999 just for a joke
8Beat someone up so badly they probably needed a doctor	23Been loud, rowdy or unruly in a public place	38Let off fireworks in the street
9Taken a car belonging to someone you didn't know for a ride without the owner's permission	24Had sex in public	39Deliberately travelled without a ticket on a bus, train or the tube
10Tried to get away from a police officer by fighting or struggling	25Attended a demonstration or sporting event to cause a disturbance or be violent	40Taken money from someone at home without returning it
11Used physical force (like twisting an arm or choking) to get money from another person	26Smoked marijuana (grass/pot)?	41Deliberately littered the streets
12Used a club, knife or other weapon to get something from someone	27Driven a car when you were drunk or high on some drugs	42Annoyed or insulted a stranger
13Taken things from a wallet/purse (or the whole wallet/purse) while the owner wasn't around or looking	28Taken barbiturates (downers) or speed (or other uppers) without a prescription	43Not gone to school when you should have been there
14Taken a bicycle belonging to someone you didn't know with no intention of returning it	29Taken ecstasy ('E's)?	44Sniffed glue or other solvents (e.g. tippex thinner)
15Tried to pass a cheque by signing someone else's name	30Used heroin(smack) or cocaine	45Used or carried a gun to help you commit a crime

The mean Received Inclusion scores for those that reported any level of involvement range from 3.74 to 4.40, the mean for the overall population is 4.36. The items which have lower mean scores are seen in the high seriousness region of the plot. These include items:

7 '*Pulled a knife, gun or some other weapon on someone just to let them know you meant business'* (3.91)

12 '*Used a club, knife or other weapon to get something from someone'* (3.74)

45 '*Used or carried a gun to help you commit a* crime' (3.76)

All of these items indicate the use of a weapon. That is to say, those who report involvement in violent acts which involve a weapon are likely to feel that others do not include them. It is possible that this reflects a lack of empathy and closeness with others. The items which have higher Received Inclusion scores include:

8 '*Beat someone up so badly they probably needed a doctor'* (4.38)

20 '*Refused to tell the police or some other official what you knew about a crime'* (4.36)

21 '*Picked a fight with someone you didn't know just for the hell of* it' (4.37)

23 '*Been loud, rowdy or unruly in a public place'* (4.38)

24 '*Had sex in public'* (4.37), 39 '*Deliberately travelled without a ticket on a bus, train or the tube'* (4.40)

41 '*Deliberately littered the streets*' (4.38)

All of these items are lower seriousness. This indicates that those who report the less serious items, are likely to report that other people include them in social contexts. Some of these items reflect heated interactions with others, but importantly, they use physical interactions which do not include weapons.

Figure 8.8 SSA plot showing mean Received Control scores for those who agreed to each item on the D45

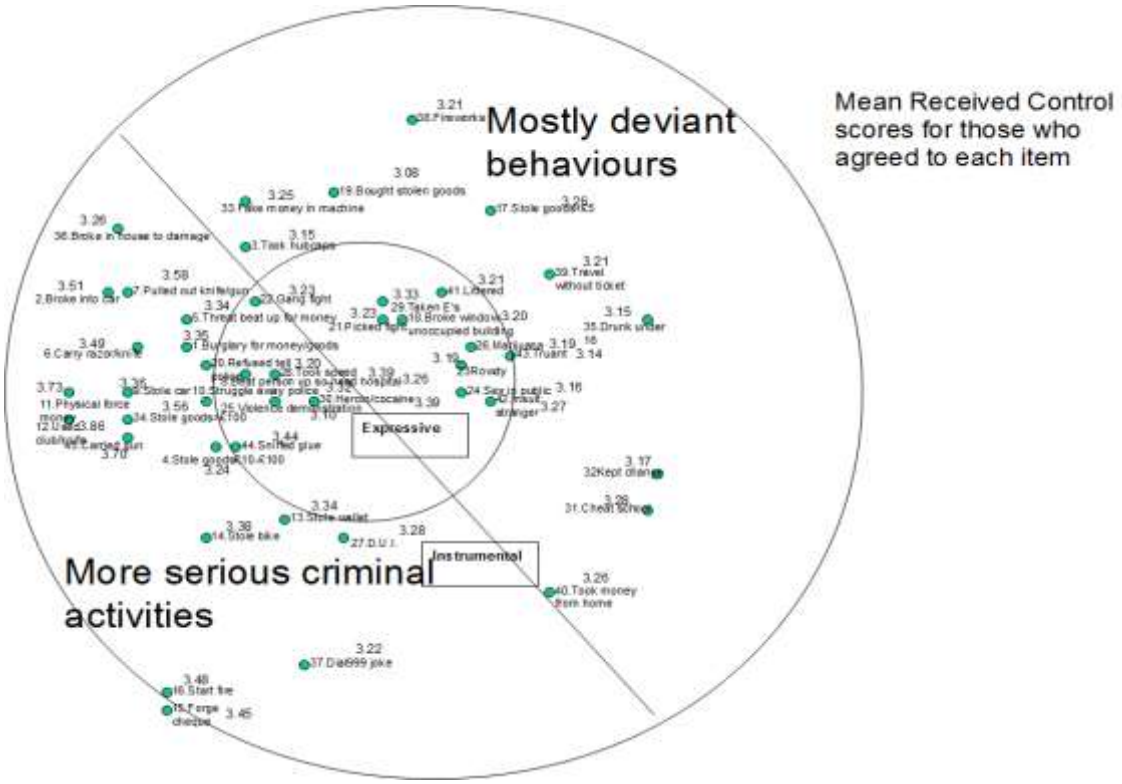


Table 8.16 Key to D45 SSA

D45 item		
1Broken into house, shop, school and taken money or something else you wanted	16Intentionally started a building on fire	31Cheated at school in tests
2Broken into a locked car to get something from it	17Taken little things (worth less than £5) from a shop without paying for them	32Not returned extra change that a cashier gave you by mistake
3Taken hubcaps, wheels, the battery or some other part of a car without the owner's permission	18Broken the windows of an empty house or other unoccupied building	33Used fake money in a machine
4Taken things worth between £10 and £100 from a shop without paying for them	19Bought something you knew had been stolen	34Taken things of large value (worth more than £100) from a shop without paying for them
5Threatened to beat someone up if they didn't give you money or something else you wanted	20Refused to tell the police or some other official what you knew about a crime	35Been drunk regularly when you were under 16
6Carried a razor, flick-knife or some other weapon with the intention of using it in a fight	21Picked a fight with someone you didn't know just for the hell of it	36Broken into a house, shop, school or other building to break things up or cause other damage
7Pulled a knife, gun or some other weapon on someone just to let them know you meant business	22Been involved in gang fights	37Dialled 999 just for a joke
8Beat someone up so badly they probably needed a doctor	23Been loud, rowdy or unruly in a public place	38Let off fireworks in the street
9Taken a car belonging to someone you didn't know for a ride without the owner's permission	24Had sex in public	39Deliberately travelled without a ticket on a bus, train or the tube
10Tried to get away from a police officer by fighting or struggling	25Attended a demonstration or sporting event to cause a disturbance or be violent	40Taken money from someone at home without returning it
11Used physical force (like twisting an arm or choking) to get money from another person	26Smoked marijuana (grass/pot)?	41Deliberately littered the streets
12Used a club, knife or other weapon to get something from someone	27Driven a car when you were drunk or high on some drugs	42Annoyed or insulted a stranger
13Taken things from a wallet/purse (or the whole wallet/purse) while the owner wasn't around or looking	28Taken barbiturates (downers) or speed (or other uppers) without a prescription	43Not gone to school when you should have been there
14Taken a bicycle belonging to someone you didn't know with no intention of returning it	29Taken ecstasy ('E's)?	44Sniffed glue or other solvents (e.g. tippex thinner)
15Tried to pass a cheque by signing someone else's name	30Used heroin(smack) or cocaine	45Used or carried a gun to help you commit a crime

The mean Received Control scores for those that reported any level of involvement in these crimes range from 3.08 to 3.86, the mean for the overall population is 3.15. There are three items which have a low Received Control score:

19 '*Bought something you knew had been stolen'* (3.08)

25 '*Attended a demonstration or sporting event to cause a disturbance or be violent'* (3.10)

43 '*Not gone to school when you should have been there'* (3.14).

This shows that people who report involvement in these minor rebellious acts are likely to report that others do not control them. There are eight items with a high Received Control score (above 3.45):

6 '*Carried a razor, flick-knife or some other weapon with the intention of using it in a fight'* (3.49)

7 '*Pulled a knife, gun or some other weapon on someone just to let them know you meant business'* (3.58)

11 '*Used physical force (like twisting an arm or choking) to get money from another person'* (3.73)

12 '*Used a club, knife or other weapon to get something from someone'* (3.86)

15 '*Tried to pass a cheque by signing someone else's name'* (3.45)

16 '*Intentionally started a building on fire'* (3.48)

34 '*Taken things of large value (worth more than £100) from a shop without paying for them'* (3.56)

45 '*Used or carried a gun to help you commit a crime'* (3.70).

Five of these eight items involves the use of violence, the remaining three are high seriousness. This suggests that those who report involvement in the more serious, possibly violent acts are likely to report that other people control them.

These results reflect those which are found for Received Control and AOSS scores. It was established earlier that those who score low in Received Control, showed a higher level of preference for more serious scenarios involving interaction with a person.

8.3 Results section three. Exploring relationship between attitude style preferences and self-reported offending behaviour.

The following section examines the relationship between attitude preference styles and self-reported offending behaviour.

Table 8.17 Pearson's correlations between AOSS and D45 regions

	High gain objective reasons	High gain emotive reasons	Low gain all regions
More serious D45 items	.691**	.636**	.481**
Less serious D45 items	.603**	.599**	.524**
Instrumental D45 items	.702**	.671**	.557**
Expressive D45 items	.637**	.608**	.482**

**P<0.01

Table 8.17 reveals that every AOSS region is significantly correlated with every D45 region, however, there is variation in the strength of these correlations. The High gain objective reason AOSS region is most highly correlated with the D45 Instrumental and More seriousness regions. This shows that preferences towards hypothetical scenarios which produce a higher gain are correlated with offending behaviours which are more serious in nature. Furthermore, attitude preferences for justifications which have external benefits are correlated with self-reported offending behaviours which are carried out to achieve a secondary goal.

The High gain emotive reason AOSS region is most highly correlated with the Instrumental and More seriousness D45 regions. This demonstrates that preferences towards hypothetical scenarios which produce a higher gain, are correlated with offending behaviours that are more serious in nature. It also indicates that hypothetical preferences for justifications which have internal benefits, are correlated with self-reported offending behaviours which are carried out to achieve a secondary goal.

The correlations between all D45 regions and Low gain all reason AOSS region are much lower. The Low gain all reason AOSS region has the highest correlation with the Instrumental and Less seriousness D45 regions. This indicates that preferences towards hypothetical scenarios which produce a lower gain are correlated with self-reported offending behaviours which are less serious. This also shows that preferences for hypothetical low gain scenarios are also correlated with offences which are carried out to achieve a secondary goal.

This pattern of correlations suggests that the hypothetical stylistic preferences identified with the AOSS are reflective of the styles of crimes individuals have reported involvement in. It is clear that positive attitude towards styles of crime are correlated with styles of crime an individual is likely to have been involved in.

8.4 Results section four. Predicting level of self-reported offending

Two multiple regressions are carried out in order to examine how well preferences for hypothetical crime scenario styles, and interpersonal personality types, are able to predict level of self-reported offending behaviour. The first multiple regression examines how well the AOSS High gain objective reason, High gain emotive reason, and Low gain all reason regions are able to predict total score on the D45 scale. The second multiple regression examines how well the FIRO-B personality styles of Expressed Inclusion, Expressed Control, Received Inclusion and Received Control, predict total score on the D45 scale. The final part of this analysis section investigates whether any of the FIRO-B elements moderates the relationship between AOSS and total score on the D45 scale.

The first multiple regression looks at how well each of the FIRO-B elements predict total D45 score. Using the Enter method, a significant model emerged $F_{(4, 129)} = 11.759$, $P<0.001$. Adjusted R square value = .175, the significance level of each element is outlined in the table below.

Table 8.18 Multiple regression results, FIRO-B elements predicting level of D45

FIRO element	Beta	P
Expressed Inclusion	.301	P<.0001
Expressed Control	.246	P<.01
Received Inclusion	-.338	P<.0001

The second multiple regression looks at how well each of the AOSS elements predict total D45. Using the Enter method, a significant model emerged $F_{(3, 121)} = 58.410$, $P<0.001$. Adjusted R square value = .532, the significance level of each element is outlined in the table below.

Table 8.19 Multiple regression results, AOSS elements predicting level of D45

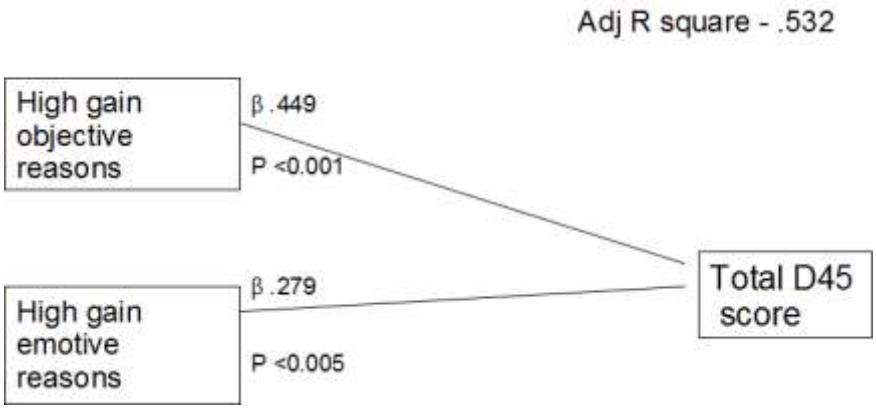
AOSS element	Beta	P
High gain objective reasons	.449	P<.0001
High gain emotive justifications	.279	P<.005
Low risk all reasons	.068	ns

(The Low risk element was not a significant predictor in this model)

The path analysis diagrams in figures 8.9 and 8.10 below shows the complete model for both scales.

Figure 8.9 Path model of FIRO-B elements predicting level of D45.

Figure 8.10 Path model of AOSS elements predicting level of D45



The path model shown in figure 8.9 shows that overall, the AOSS elements 'High gain objective reasons', and 'High gain emotive reasons', are the best predictors of overall level of self-reported offending as measured by the D45. This means that preferences towards high gain hypothetical scenarios, combined with justifications which have internal or external benefits, are good at predicting overall level of self-reported offending.

The interpersonal personality styles of Expressed and Received Inclusion and Expressed Control are also good predictors of total D45 score. There is a positive relationship between Expressed Inclusion and Expressed Control, and the total D45 score. This means that as the scores for the FIRO element increase, so too does the total level of reported offending. However, there is a negative relationship between level of Received Inclusion and the total D45 score. This means that as level of Received Inclusion decreases, level of reported offending increases. The AOSS element low risk and FIRO group of Received Control do not predict overall level of criminality well.

8.5 The moderating effect of personality style on the relationship between attitude style preference and total level of self-reported deviancy.

A sequential moderated multiple regression analysis, as the recommended method for testing interaction effects (Cohen and Cohen, 1983), was applied in order to investigate the predictive relationship between attitude toward crime styles (High gain objective reason, High gain emotive reason, and Low gain all reason) and the total level of criminal behaviour that person self-reports (D45), while examining for the moderating role of each of the four types of interpersonal personality (Expressed Inclusion, Expressed Control, Received Inclusion & Received Control). Four separate models were specified and empirically tested with all predictor and moderator variables being centred as suggested by Aiken and West (1991). The purpose of centering each of the sub-scales is to reduce the correlations between the interaction terms and the predictors, so that each of the predictors are distinguishable from the interactions. The process of centering provides a meaningful zero point for each of the predictors and moderators in the model. All of the moderation analyses were conducted on standardised scale scores.

Table 8.20 Table of moderating effects of Expressed Inclusion

	R	R2	B	SE	β	t
Step 1	.736	.541				
High gain objective reason (I)			.454	.078	.454	5.82**
High gain emotive reason (E)			.266	.083	.266	3.20*
Low gain all reason (L)			.071	.069	.071	1.03
Expressed Inclusion (EI)			.045	.050	.045	.912
Step 2	.737	.543				
High gain objective reason			.643	.079	.463	5.86**
High gain emotive reason			.254	.084	.254	3.03*
Low gain all reason			.064	.070	.064	.92
Expressed Inclusion			.056	.053	.056	1.07
I X EI			-.064	.082	-.079	.78
E X EI			.066	.076	.068	.871
L X EI			.039	.-068	.045	5.69

* p<0.05, **p<.001 level.

Using the Stepwise method, step one of the model is significant $F(4, 194) = 107.12$; $p < .001$, adjusted R square value = .541. Step two of the model is also significant $F(7, 191) = 107.61$; $p < .001$, adjusted R square value = .543. R2 Change = .002; $F(3, 191) = .348$; $p = .790$.

The first model considers the moderating role of Expressed Inclusion. In step one of the sequential moderated multiple regression, four predictors were entered: High gain objective reason, High gain emotive reason, Low gain all reason, and Expressed Inclusion. This model is statistically significant and explains 54.1% of variance in levels of self-reported offending. Two of the four predictors are significant, both High gain objective reason and High gain emotive reason were statistically significant predictors, whereas Low gain all reason and Expressed Inclusion are not.

The final step consists of entering the interaction terms, coding interactions between Expressed Inclusion and all three attitude types. After the entry of the interaction effects, the model as a whole explained 54.3% of variance in level of self-reported offending (D45). The addition of the interaction effects at Step 2 only accounted for an additional 0.2% of variance in levels of D45, this change is not statistically significant. No empirical evidence is found to indicate that level of Expressed Inclusion directly impacts on levels of D45, or moderates the relationship between any attitude style preference and total score on the D45.

Table 8.21 Table of moderating effects of Expressed Control

	R	R2	B	SE	β	t
Step 1	.738	.545				
High gain objective reason (I)			.418	.079	.418	5.32**
High gain emotive reason (E)			.281	.080	.281	3.50**
Low gain all reason (L)			.067	.068	.067	.99
Expressed Control (EC)			.084	.051	.084	1.63
Step 2	.741	.549				
High gain objective reason			.384	.086	.384	4.46**
High gain emotive reason			.298	.083	.298	3.58**
Low gain all reason			.068	.073	.068	.934
Expressed Control			.079	.052	.079	1.51
I X EC			-.012	.069	-.016	-.180
E X EC			.048	.067	.057	.708
L X EC			.031	.063	.033	.482

* p<0.05, **p<.001 level.

Using the Stepwise method, step one of the model is significant $F_{(4, 198)} = 59.32$; $p < .001$. Step two of the model is also significant $F_{(7, 195)} = 33.94$; $p < 0.001$, (R2 Change = .002; $F_{(3, 195)} = .587$; $p = .624$).

The second model considers the moderating role of Expressed Control. In the first step, four predictors are entered: High gain objective reason, High gain emotive reason, Low gain all reason and Expressed Control. This model was statistically significant and explains 54.5% of variance in D45 level. Two of the four variables in the model are statistically significant, High gain objective reason and High gain emotive reason elements are significant.

The final step consists of entering the interaction between Expressed Control and all three attitude style preferences. After the entry of the interaction effects, the model explained 54.9% of variance in self-reported offending. The addition of the interaction effects at Step 2 only accounted for an additional 0.3% of variance in levels of D45, this change is not statistically significant. No empirical evidence is found that level of Expressed Control directly impact on levels of D45, or moderates the relationship between attitude style preference and total score on the D45.

Table 8.22 Table of moderating effects of Received Inclusion

	R	R2	B	SE	β	t
Step 1	.740	.547				
High gain objective reason (I)			.435	.077	.435	5.66**
High gain emotive reason (E)			.291	.081	.291	3.61**
Low gain all reason (L)			.057	.068	.057	.832
Received Inclusion (RI)			-.091	.049	-.091	-1.87
Step 2	.744	.554				
High gain objective reason			.430	.079	.430	5.44**
High gain emotive reason			.268	.093	.268	3.22*
Low gain all reason			.078	.070	.078	1.11
Received Inclusion			-.093	.050	-.093	-1.86
I X RI			-.015	.067	-.020	-.229
E X RI			-.084	.065	-.101	-1.29
L X RI			.061	.061	.076	.996

* p<0.05, **p<.001 level.

Using the Stepwise method, step one of the model is significant F (4, 196) = 59.19; p < .001. Step 2 of the model was also significant F (7, 193) = 34.225; p < .001, R2 Change = .007; F (3, 193) = .974; p = .406.

The third model considers the moderating role of Received Inclusion. Once again, four predictors were entered: High gain objective reason, High gain emotive reason, Low gain all reason and Received Inclusion. This model is statistically significant and explains 54.7% of variance in levels of D45. Two elements are found to be significant predictors of total level of self-reported crime; High gain objective reason and High gain emotive reason.

The final step considers the moderating effect of Received Inclusion on all three attitude style preferences. After the entry of the interaction effects, the model as a whole explained 55.4% of variance in levels of D45. The addition of the interaction effects at Step 2 only accounted for an additional 0.7% of variance in levels of D45, and this change is not statistically significant. No empirical evidence is found to suggest that Received Inclusion has a direct impact or moderates the relationship between attitude style preferences and total score on the D45.

Table 8.23 Table of moderating effects of Received Control

	R	R2	B	SE	β	t
Step 1	.734	.539				
High gain objective reason (I)			.450	.077	.450	5.82**
High gain emotive reason (E)			.279	.080	.279	3.46**
Low gain all reason (L)			.068	.068	.068	1.01
Received Control (RC)			-.006	.050	-.006	-.118
Step 2	.748	.560				
High gain objective reason			.398	.079	.398	5.06**
High gain emotive reason			.282	.079	.282	3.55**
Low gain all reason			.083	.067	.083	1.24
Received Control			-.038	.051	-.038	-.735
I X RC			.135	.065	.179	2.06*
E X RC			-.064	.069	-.082	-.925
L X RC			.044	.059	.054	.749

* p<0.05, **p<.001 level.

Using the stepwise method, step one of the model is significant F (4, 200) = 58.47; p < .001. Step two is also significant F (7, 197) = 35.833; p < .001, R2 Change = .021; F (3, 197) = 3.141; p = .026.

The fourth model considers the moderating role of Received Control. In the first step, four predictors are entered: High gain objective reason, High gain emotive reason, Low gain all reason and Received Control. This model was statistically significant and explains 53.9% of variance in levels of D45. Two elements are significant predictors in the model; High gain objective reason and High gain emotive reason.

The final step consists of entering the interaction terms between Received Control and all three attitude preferences. After the entry of the interaction effects, the model as a whole explains 56% of variance in level of self-reported offending. The addition of the interaction effects at Step 2 accounts for an additional 2.1% of variance in levels of D45, this additional variance is statistically significant. One statistically significant moderating effect was observed for the interaction between High gain objective reason and Received Control. This indicates that the impact of High gain objective reason on levels of D45, depends upon the levels of Received Control.

A slope test explores whether the regression weight for high or low levels of the moderator is significantly different from zero. As there are an infinite number of slopes that could be computed for different combinations of High gain objective reason and Received Control, levels of Received Control are calculated to represent high levels (+1 SD), or low levels (-1 SD). The slope test investigates how high, medium, and low levels of Received Control moderate the relationship between High gain objective reason attitude style preference, and total score on the D45 (see Cohen and Cohen, 1983; Jaccard, Turrisi and Wan, 1990).

Canter & Youngs (2009) suggest that the relationship between actions and characteristics can be thought of as a series of '*if-then'* statements. However, human behaviour is complex and multi-faceted, and statements such as this may be too simplistic. It is possible that the results shown in figure 8.11 can be described in a series of *'if – and- then'* statements. An example of such a statement would be, '*If* an individual has 'x' level of Received Control, *and* 'y' level of attitude towards High gain objective reason acts, *then* level of self-reported offending is likely to be 'z'.' Two statements would be produced for each level of Received Control/ High gain objective reason.

Figure 8.11 Graph showing moderating effects of high medium and low levels of Received Control

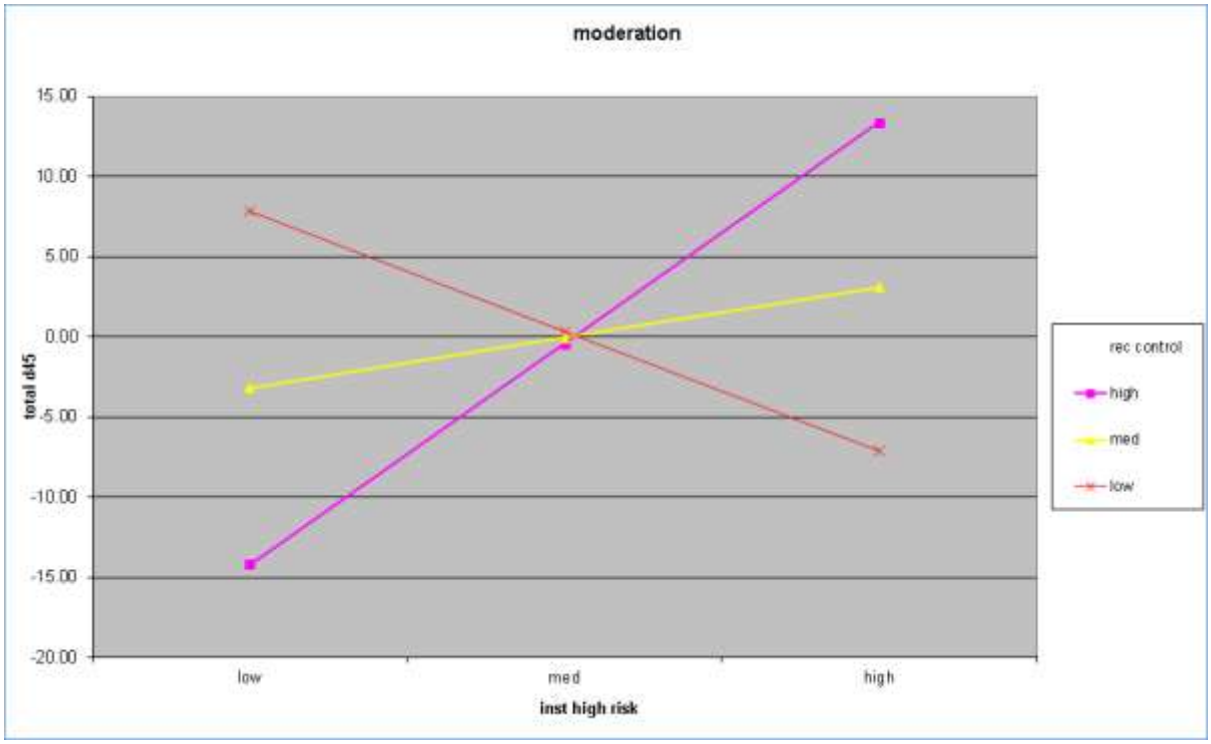


Table 8.24 T tests and beta weights for slope test

	t	p	β
High levels of received control	2.814646	<0.005	1.75
Medium levels of received control	5.1381579	<0.0001	0.40
Low levels of received control	-1.457454	NS	-0.95

8.5.1 Moderating effects of high levels of Received Control.

Figure 8.11 above shows the results of the slope test; each of the lines represents a different level of Received Control. The line marked with a square shape at each end represents high levels of Received Control (i.e. those who score 1 SD above the overall mean). The line marked with triangles at either end represents medium level of Received Control (i.e. those who scored close to the overall mean). Finally, the line marked with a cross at either end represents low levels of Received Control (i.e. those who score 1 SD below the overall mean).

The results suggest that when a person has above average levels of Received Control, there is a positive relationship between score on 'High gain objective reason' and level of reported offending (D45 score). The β weight for this regression line, shown in table 8.24, is 1.75 which is significant. More specifically, those who feel more controlled by others *and* show a higher level of preference towards high gain scenarios which are carried out for objective reasons (to get away with it) are likely to report a higher level of involvement in previous criminal and deviant events.

As suggested above, this relationship could be described in terms of two 'if, and, then' statements:

> *If* an individual has a high level of Received Control, *and* low level of attitude towards High gain objective reason acts, *then* level of self-reported offending is likely to be low.

If an individual has high level of Received Control, *and* high level of attitude towards High gain objective reason acts, *then* level of self-reported offending is likely to be high.

8.5.2 Moderating effect of medium levels of Received Control.

The results suggest that when a person has an average level of Received Control, there is a positive relationship between score on 'High gain objective reason' and level of reported offending (D45 score). The β weight for this regression line, shown in table 8.24 is .40 which is significant. This line also shows a positive relationship between 'High gain objective reason' and level of D45. However this relationship is not as strong as higher levels of Received Control. In other words, those who feel somewhat controlled by others *and* show a higher level of preference towards high gain scenarios which are carried out for objective reasons (to get away with it), are likely to report a higher level of involvement in previous criminal and deviant events.

As suggested above, this relationship could be described in terms of two 'if, and, then' statements:

If an individual has a Medium level of Received Control, *and* low level of attitude towards High gain objective reason acts, *then* level of self-reported offending is likely to be low.

If an individual has Medium level of Received Control, *and* high level of attitude towards High gain objective reason acts, *then* level of self-reported offending is likely to be high.

8.5.3 Moderating effect of low levels of Received Control.

When level of Received Control is below average, the β weight, shown in table 8.24 is -.95 which is not significant. Interestingly though, this line indicates a negative relationship between score on 'High gain objective reason' and total D45 score. This result indicates that when a person has below average levels of Received Control, there is a negative relationship between score on High gain objective reason and total score on D45. In other words, those who feel that other people do not control them *but* score high on 'High gain objective reason' they are likely to report lower levels of involvement in previous criminal and deviant acts.

As suggested above, this relationship could be described in terms of two 'if, and, then' statements:

If an individual has a low level of Received Control, *and* low level of attitude towards High gain objective reason acts, *then* level of self-reported offending is likely to be high.

If an individual has low level of Received Control, *and* high level of attitude towards High gain objective reason acts, *then* level of self-reported offending is likely to be low.

8.5.4 Summary of the moderating effect of Received Control.

Figure 8.12 Schematic representation of curvilinear relationship between level of 'High gain objective reason' and level of D45, moderated by different levels of Received Control.

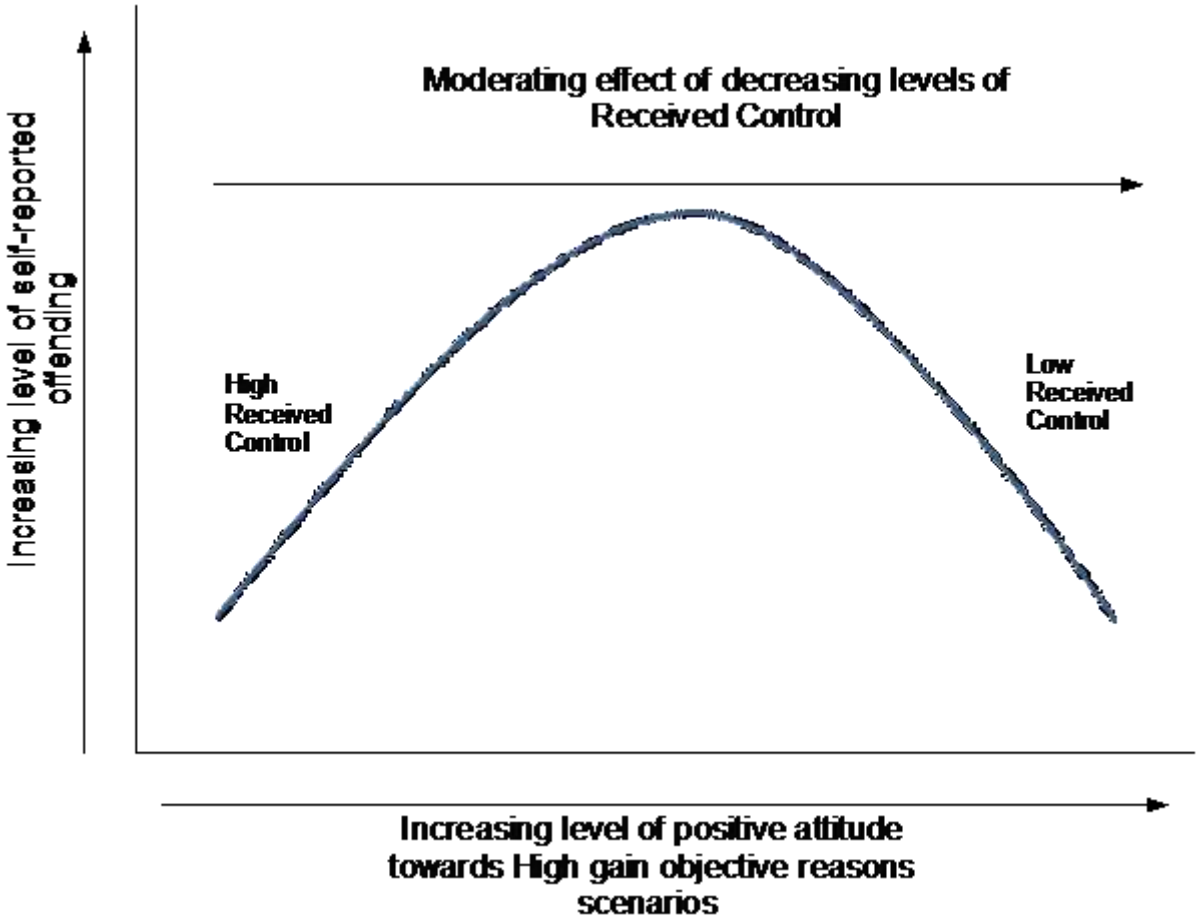


Figure 8.12 above, is a schematic representation of the slope test in fig 8.11. The schematic shows the way in which decreasing levels of Received Control, moderate the relationship between attitude and level of reported offending. The schematic shows that levels of Received Control create a curvilinear relationship between attitude for this style of scenario and self-reported offending level.

The inverted U shape shows that while levels of Received Control are high or medium there is a positive relationship between attitude and offending levels. In other words, as level of attitude towards this style of scenario increases, so too does the level of reported offending. Once levels of Received Control begin to decline, there is a negative relationship between attitude and offending levels. This means that as level of attitude increases, level of reported offending decreases.

This suggests that when individuals feel controlled by others, and their levels of preference towards the hypothetical crime scenarios increase, so too does their level of self-reported offending behaviour. This infers that those who feel controlled by others are more likely to act out on pre-existing preferences.

For those who do not feel controlled by others, i.e. have a low level of Received Control, there is a negative relationship between attitude and offending. This infers that those who do not feel controlled by others are not likely to act out on their pre-existing preferences.

It is interesting to note that fig 8.11 shows that those who have low levels of Received Control, combined with a low level of preference towards High gain objective reason scenarios, have high levels of self-reported offending. Taken by itself this relationship may seem confusing. After all, why would a person show a negative attitude towards hypothetical crimes, yet have a high level of self-reported offending activity?

However, when the levels of Received Control were calculated for each item which had been given a positive response, there was variation of level of Received Control between items. This can be seen in fig 8.8 which shows that those who agreed to the following items on the D45 tended to be lower in Received Control:

3. Taken hubcaps, wheels, the battery or some other part of a car without the owner's permission? (3.15)

19. Bought something you knew had been stolen? (3.08)

23. Been loud, rowdy or unruly in a public place? (3.19)

24. Had sex in public? (3.16)

25. Attended a demonstration or sporting event to cause a disturbance or be violent? (3.10)

32. Not returned extra change that a cashier gave you by mistake? (3.17)

35. Been drunk regularly when you were under 16? (3.15)

43. Not gone to school when you should have been there? (3.19)

It is possible that those who show a negative attitude towards hypothetical crimes, yet have a high level of self-reported offending activity, reflects involvement in less serious rebellious offences such as those stated above.

If those who are low in Received Control reported involvement in the above items on a regular basis, this would explain higher levels of total score on the D45. As previously stated, those who are low in Received Control, tend to be inherently more rebellious and not easily influenced by other people. Therefore, it is reasonable to assume that there is a high level of involvement in the items listed above which would explain a higher total D45 scores.

8.6 Summary of results.

8.6.1 Expressed Inclusion.

The total score for each AOSS region is calculated for those who scored high or low in Expressed Inclusion. T tests reveal that those who score higher in Expressed Inclusion have higher scores in each AOSS region compared to those who scored low. However, these differences are only significant for the High gain emotive reason AOSS region.

The mean Expressed Inclusion score is also calculated for each person who gave a positive response to each of the items on the AOSS. These scores are recorded on the AOSS SSA to explore whether there are regional differences. The results reveal that those who gave a positive response to the

following scenario styles have higher scores in Expressed Inclusion: interaction with a person when there is a reduced risk of detection, and force open window scenarios when there is a reduced risk of detection or to save someone's life. Conversely, those who score low in Expressed Inclusion gave a positive response to scenarios where there is a reduced risk of getting seen.

The total score for each D45 region was calculated for those who score high or low in Expressed Inclusion. The results showed that those who score higher in Expressed Inclusion have higher scores in each of the D45 regions, however, these differences are only significant for the More serious and Expressive regions.

The mean Expressed Inclusion score is then calculated for each person who gave a positive response to each of the items on the D45. These scores are recorded on the SSA to explore whether there are regional differences. The results reveal that those who gave a positive response to most of the items have higher levels of Expressed Inclusion. Those who gave a positive response to items in the more serious region have the highest levels of Expressed Inclusion. Conversely, those who gave a positive response to the less serious items such as '*take bicycle…*' and *'not gone to school….* have lower levels of Expressed Inclusion.

In summary, those who say they include other people in their lives are likely to show preferences for hypothetical scenarios which produce a higher gain, and are carried out for emotive reasons such as preserving life, as well as situations where there is a reduced risk of detection. These individuals are also likely to have been involved in more serious crimes, and those which produce their own reward. Those who do not include other people in their lives are likely to show a preference for scenarios when there is less chance of getting caught. These individuals are also likely to have been involved in less serious deviant acts.

A multiple regression analysis examined how each of the FIRO-B elements predicts overall level of self-reported offending. The findings from this confirm that the level of Expressed Inclusion is a good predictor of total score on the D45. The moderation analysis found that levels of Expressed Inclusion do not moderate the relationship between any of the preferred attitude styles and level of self-reported offending.

8.6.2 Expressed Control.

The total score for each AOSS region is calculated for those who scored high or low in Expressed Control. T tests revealed that those who score higher in Expressed Control have higher scores in each AOSS region compared to those who scored low in this element. However, these differences were not significant in any of the AOSS regions.

The mean Expressed Control score is then calculated for each person who gave a positive response to each of the items on the AOSS. These scores are recorded on the SSA to explore whether there are regional differences. The results reveal that those who gave a positive response to most of the items on the AOSS have higher levels of Expressed Control. Those who gave a positive response to items in the High gain objective reason region have the highest levels of Expressed Inclusion. Conversely, those who gave a positive response to the items in the High gain emotive reason region have lower levels of Expressed Control. However, these scores are still above the overall mean for this FIRO-B element.

The total score for each D45 region is calculated for those who score high or low in Expressed Control. The results showed that those who score higher in Expressed Control, have higher scores in each of the D45 regions. These differences are significant for all four regions of the D45 SSA.

The mean Expressed Control score is then calculated for each person who gave a positive response to each of the items on the D45. These scores were recorded on the SSA to explore whether there are regional differences. The results reveal that those who gave a positive response to most of the D45 items have higher levels of Expressed Control. Individuals who agreed to items *'pulled knife or gun…', 'used club/knife…', attend demonstration for violence…', 'used/carried gun…'* and *'took car…'* all have high levels of Expressed Control, the majority of these items involves the use of violence. Conversely, those who agreed to the low seriousness items of *'drunk under 16…', 'travelled without a ticket…'* and *'littered…'* all have low levels of Expressed Control.

In summary, those who say they control other people are likely to show a preference for high gain scenarios for objective reasons (i.e. a reduced chance of getting seen). These individuals are likely to have reported involvement in a range of criminal and deviant acts, more specifically, acts which involve violence. Those who report that they do not control others do not show any pattern of preferences for hypothetical scenarios, or report involvement in criminal or deviant acts.

The findings from the multiple regression confirms that the level of Expressed Control is a good predictor of total score on the D45. The moderation analysis found that levels of Expressed Control do not moderate the relationship between any of the preferred attitude styles and level of self-reported offending.

8.6.3 Received Inclusion.

The total score for each AOSS region is calculated for those who scored high or low in Received Inclusion. T tests reveal that those who score higher in Received Inclusion have lower scores in each AOSS region, compared to those who scored high in in this element. However, these differences are not significant in any of the AOSS regions. Interestingly, this is the inverse of the pattern observed for the other FIRO-B elements.

The mean Received Inclusion score is then calculated for each person who gave a positive response to each of the items on the AOSS. These scores are recorded on the SSA to explore whether there are regional differences. The results reveal that those who gave a positive response to most of the items have lower levels of Received Inclusion. Those who agreed to the items '*force shop assistant to hand over money/dark at night…*' and '*force open window/dark at night…*' have the lowest levels of Received Inclusion.

The total score for each D45 region is calculated for those who scored high or low in Received Inclusion. T tests reveal that those who score higher in Received Inclusion have lower scores in each D45 region, compared to those who scored low in this element. However, these differences are only significant for the Less serious and Expressive regions.

The mean Received Inclusion score is then calculated for each person who gave a positive response to each of the items on the D45. These scores are recorded on the SSA to explore whether there were regional differences. The results show that those who agreed to the less serious crimes of *'refused to tell police…', 'picked fight…', 'loud or unruly...', 'sex in public…', 'travel no ticket…'*, and

'littered…' have higher levels of Received Inclusion. Whereas those who agreed to the more serious crimes involving weapons *'pulled knife/gun…', 'used club/knife…', 'used/carried gun…'* all have lower levels of Received Inclusion. The other three FIRO-B elements show that higher scores reflect more involvement in higher seriousness crimes, and higher levels of agreement to the various scenarios. Whereas Received Inclusion scores indicate that those involved in more serious crimes, and have higher attitude style preference scores, show lower levels of Received Inclusion.

In summary, those who indicated that other people do not include them in their social lives show a positive response to hypothetical scenarios which interact with a person because of a reduced risk of detection. These individuals are also likely to have reported involvement in more serious crimes involving weapons. Those who say that other people include them in their lives report a lower level of involvement in offending behaviours, these individuals report involvement in the less serious deviant acts.

The results from the multiple regression confirms that the level of Received Inclusion is a good predictor of total score on the D45. The moderation analysis found that levels of Received Inclusion do not moderate the relationship between any of the preferred attitude styles and level of self-reported offending.

8.6.4 Received Control.

The total score for each AOSS region is calculated for those who scored high or low in Received Control. T tests reveal that those who score higher in Received Control have higher scores in each AOSS region, compared to those who scored low in this element. These differences are significant in all three regions of the AOSS.

The mean Received Control score is then calculated for each person who gave a positive response to each of the items on the AOSS. These scores are recorded on the SSA to explore whether there are regional differences. The results reveal that those who gave a positive response to most of the items, have higher levels of Received Control. Those who agreed to the items within the High gain objective reason region, have higher than average levels of Received Control. More specifically, those who agreed to the items '*force shop assistant to hand over money/intoxicated…'* and *'force shop assistant to hand over money/dark at night…'* have the highest scores in this FIRO-B element.

The total score for each D45 region is calculated for those who scored high or low in Received Control. T tests reveal that those who score higher in Received Control have higher scores in each region compared, to those who scored low in this element. However, these differences are not significant in any region of the D45.

The mean Received Control score is then calculated for each person who gave a positive response to each of the items on the D45. These scores are recorded on the SSA to explore whether there are regional differences. The results indicate that those who gave a positive response to more serious items, usually those involving a weapon, have higher levels of Received Control.

Conversely, those who report involvement in rebellious crimes such as '*Bought something you knew had been stolen'*, '*Attended a demonstration or sporting event to cause a disturbance or be violent',* and '*Not gone to school when you should have been there'* tended to have lower levels of Received Control.

In summary, those who report that other people control them show a higher level of preference for scenarios involving a person where there is less chance of getting seen or caught. These individuals are likely to have reported involvement in more serious crimes, usually those involving violence. Those who report that other people do not control them do not show a preference for any particular hypothetical style. However, they are likely to have reported involvement in less serious deviant acts including truancy.

The multiple regression analysis suggests that the level of Received Control is not a good predictor of overall level of criminality as measured by the D45 scale items. However, the moderation analysis shows that levels of Received Control moderate the relationship between High gain objective reason AOSS scores, and total D45 score. For example, when a respondent reports that others control their actions, as well as giving a higher score in the High gain objective reason region, it is likely that their level of self-reported offending activity is also high. Whereas when participants indicate that other people do not control them, and give a higher score in the High gain objective reason region, it is likely that their level of self-reported offending activity is low.

8.6.5 Attitude to Offending Style Scale scores and D45 scores

The correlation table reveals that all AOSS region scores are significantly correlated with every D45 region score, however, some of these correlations are relatively small. The AOSS High Gain objective reason region has the highest correlation with the D45 Instrumental region. This suggests that the crimes which are carried out to achieve a secondary goal can be related to preferences for hypothetical justifications with external benefits. Preferences for these styles of offending would suggest a logical goal driven approach to offending. The link between the AOSS High gain objective reason region, and all D45 high seriousness items, also confirms this logical goal driven approach as the gains in all of these items are high level.

The AOSS High gain emotive reason region has the highest correlation with the Instrumental and more serious D45 regions. This suggests that the crimes which are carried out to achieve a secondary goal, can be related to preferences for hypothetical justifications with emotive benefits. This also suggests that the preference for higher level of gain is evident in both hypothetical and self-reported offending behaviour. Preferences in these areas would infer an emotive pleasurable approach to offending. Similar to that stated above, the link between the AOSS High gain emotive reason region and all D45 high seriousness items, also confirms the preference for a higher incentive for offending as the gains in all of these items are high level.

The Low gain all reason region of the AOSS has the highest correlation with Instrumental and all low seriousness items. This confirms again, that the level of gain that the crime produces is a key factor in preference formation and involvement in these sorts of offences.

The multiple regression analysis confirms that scores in the High gain objective reason and High gain emotive reason regions are significant predictors of overall level of criminality, as measured by the D45 scale. However, the Low gain all reasons region of the AOSS not a significant predictor. As previously stated, scores for the High gain objective reason region are most strongly associated with levels of D45 when levels of Received Control are high.

Chapter 9. Discussion.

Within the present thesis, four main studies were conducted in order to investigate the psychological aspects which may increase propensity to offend. The various chapters explored the structure of attitude, interpersonal personality, reported offending behaviour, and the relationship between them. The results of each study will be discussed below.

9.1 Structure of attitude towards offending

Chapter 5 investigated the structure of preferential attitudes towards different gains of crime, styles of behaviour within a scenario, and the way in which different justification styles influence these preferences. A higher numerical response to each crime scenario and justification combination indicates a more positive attitude. According to the Theory of Reasoned Action, a positive attitude, or higher numerical response to an item, suggests that the propensity to carry out actions which reflect these styles would increase. This is not to say that if a person shows a positive attitude towards a particular crime they would be likely to carry out that act. The purpose of measuring attitude is to explore how individual aspects of behaviour are combined and structured to reflect a preference towards a behavioural style.

9.1.1 Pilot study.

The thesis proposed that as behaviour is multi-factorial, attitude towards a set of behaviours should be also. Therefore, a scale was developed which allowed multiple aspects of behaviour to be measured. As this is a novel way to measure attitude to offending, a pilot study was conducted to assess which aspects of hypothetical crime scenarios were differentiated. The Hypothetical Offending Style Scale was developed as a pilot scale. There were three main hypotheses for the HOSS:

1. Attitude to offending can be differentiated according to the type and level of gain which is produced. It was proposed that individuals would show a preference towards high or low Material, Power, or Sensory gains.

2. Individuals will differentiate the behaviours that are Proactive or Reactive.

3. Some justifications are more compelling than others. It was proposed that individuals will differentiate justifications according to the Neutralization techniques proposed by Sykes & Matza (1957).

The results from the HOSS revealed that although items could be differentiated into Material, Power, or Sensory gains, it is not in the manner suggested by Youngs (2001). Items with Material gains are conceptualised into those which use physical or verbal methods. Items with Power gains are conceptualised as one psychological construct as hypothesised, and items with Sensory gains are conceptualised into high and low levels of gain. The SSA does show some interaction between these elements, for example Material gains that require a verbal action are amongst the Power gain items. This suggests that when a Material gain is made by verbal methods, it is associated with a notion of Power. The Material gains that are made through direct physical contact are amongst the high Sensory gain items. This suggests that when Material gains are secured using direct contact, a high Sensory component is experienced. Overall, individuals are most likely to show a positive attitude towards items with a low level Sensory gain, as well as items which produce Power gains.

The results show that propensity to act is not based on type of gain alone, for Material and Sensory gain the level and type of action also has an influence. The high sensory component and material gains which require physical interaction may be combined in one region of the SSA because they both produce high sensory/excitement levels. This suggests that preferential attitudes could also be based on emotive aspects. The findings show that securing a material gain by verbal methods produces a feeling of power. This indicates that preferential attitudes may be based on emotive aspects as well as type and level of gain. Youngs (2001) also proposes that gains can be differentiated as high or low level, and reports that specialisation is only found for a high level of the various gain types. The findings here suggest that this is evident for Sensory gains in the present study, but not for Power gains. The level of gain is not stated explicitly, nor is it inferred in the scenarios presented in this study. However, it is possible that individuals viewed the items which represent Material action as producing a higher level of gain than Material verbal items. Therefore, hypothesis 1 is rejected and an alternative structure to type and level of gain is proposed. Items are differentiated into those which suggest a dominant aspect (Power gains and verbal Material gains) or an emotive aspect (Sensory gain and physical Material gains).

The findings show that items are not differentiated according to the type of behaviour. Items representing Confront/Reactive, Confront/Proactive, Avoid/Reactive, and Avoid/Proactive, are not differentiated. The styles of behaviour were further investigated to establish whether any of these components could be identified. When these items are categorised as Proactive or Reactive events, they are still not differentiated. However, when the variables are defined as representing Avoid or Confront, there are distinct regions within the SSA that contains each type of behaviour. The items representing Avoid and Confront behaviours can be differentiated into three regions: Confront and Avoid behaviours which are carried out using verbal methods, Avoid behaviours which are carried out using physical action and Confront behaviours which are carried out using physical action. Therefore, hypothesis 2 is rejected and an alternative structure is proposed. Behaviours within the scenarios are differentiated according to being verbal or physical.

The findings demonstrated that there is no evidence to support the majority of Neutralization techniques proposed by Sykes & Matza. However, the results clearly do show that the appeal to higher loyalties neutralisation technique has an influence on participants' scores. This may be due to the high emotive meaning in the justification. It is possible that these neutralisation techniques may be evident in crimes and deviant acts which have been committed. However, it is not possible to establish a preference for any of these in hypothetical scenarios. It is possible that techniques of neutralisation were not considered by participants as being meaningful. A different result may be obtained if real life instances of crimes were recalled, and participants were explicitly asked why they did it. Therefore, hypothesis 3 must be rejected; the only justification which individuals showed a preference for is 'if you needed to do it to protect your family in some way'.

The pilot study has established a number of stylistic preferences in the type and level of gain a crime produces, types of behaviours to secure the gain, and how justifications can influence these choices. These findings help us begin to understand the complexity involved in understanding an increased propensity to commit crime. Previous research into the way gains of crime are conceptualised are based on studies of actual offenders, whereas the present findings are based on hypothetical instances. As such, it is possible to examine the psychological aspects which increase propensity to

offend. The results of this pilot study informed a modified attitude scale to elaborate and build upon these findings.

9.1.2 Main attitude scale.

The findings from the pilot study demonstrated that individuals will differentiate hypothetical crime scenarios; however, it was not in the way that was hypothesised. Therefore, it was necessary to make changes to the attitude to offending style scale to incorporate and measure slightly different aspects.

The Attitude to Offending Style Scale (AOSS) was developed using the findings from the pilot study, as well as literature from a number of areas. The hypotheses were revised as follows:

1. Attitude to offending can be differentiated into those which target a Person or Property.
2. Justifications can be differentiated into those which are emotive and have internal benefits, or objective with external benefits.
3. The level of gain which is produced will be differentiated.
4. There will be significant differences in level of attitude between males and females.
5. There will be significant differences between those under or over 30 years old.

The findings outlined for the AOSS indicate that it is possible to differentiate the hypothetical scenarios and justifications. Initial consideration of the items on the SSA revealed that the items could be differentiated into those which target a Person and those which target Property. Therefore, hypothesis 1 can be accepted. These findings demonstrate that hypothetical crime scenarios can be differentiated in the same way as actual offending.

A number of studies have demonstrated that offenders will show consistency in their offending when offences are defied as targeting Person or Property. For example, Blumstein et al (1988), White & Labouvie (1994), and Lo, Kim & Cheng (2008), Heng Choon et al (2012) have all suggested that offenders show consistency in offending for Person or Property type crimes. Canter & Youngs (2009) suggest that there are a large number of studies which summarize consistency in offending into those which target Person or Property. The findings in the present thesis suggest that individuals show preferences for a particular target; this is evident in their attitude towards the hypothetical scenarios.

The findings presented for the AOSS also reveal that justification style can be differentiated into Instrumental or Expressive reasoning styles. Therefore, hypothesis 2 can be accepted. Justifications which are Expressive suggest action is necessary to preserve life. The scores for this style of justification were amongst the highest scoring items on the scale. These findings reflect those from the pilot study which also demonstrated that individuals showed a preference for this style of justification. This increase in propensity to act for an Expressive justification is evident for both person and property crime types.

The results also demonstrate a similar level of attitude to all justifications which indicate that there is a reduced risk of detection. This Instrumental justification style is evident for property and person style crime types. Reasons for breaking the laws within society have previously been defined in terms of stages, by Kohlberg, and the findings presented here can be related to this. For example, Instrumental justifications identified in the present study, are those which indicate a reduced risk of detection. These can be seen as similar to Kohlberg's 'Pre-conventional level', which is concerned

with avoiding punishment. The present study defines Expressive justifications as those which preserve life. These can be seen as similar to Kohlberg's 'Post conventional' level, which is concerned with universal ethical principles, which may include the preservation of life. However, unlike Kohlberg's stages, these justification styles are interchangeable depending on the type of crime and the situation.

Canter & Fritzon (1998) and Youngs (2004) suggested that criminal and deviant acts can be defined as Instrumental or Expressive. Expressive crime styles are those that carry their own reward; where the act or gain serves as a reward, and produces an emotional gain. Instrumental crime styles achieve a secondary goal or reward; for instance a financial reward. The findings presented in the present study establishes that justifications are differentiated into those which indicate the preservation of life (labelled Expressive), and those which infer a reduced risk of being caught (labelled Instrumental). The five justifications presented, were not an exhaustive list of all those possible, but were designed to be representative of a variety of justification styles.

By examining raw scores of individual items, it is possible to determine how items are responded to in terms of both the crime scenario, and the justification which makes action necessary. It is proposed that instead of measuring crime and justification styles independent of each other, they give a clearer understanding of how propensity to act is increased when examined in combination. Initial consideration of the structure of attitudes identifies four stylistic preferences: Instrumental Person, Expressive Person, Instrumental Property, and Expressive Property scenarios. However, items within the Property scenarios did point to differences in level of preference towards each scenario.

In order to explore whether there was any further difference between the items on the AOSS, the data were subject to Exploratory Factor Analysis. Results from factor analysis somewhat support the proposed structure of findings, and give a clearer indication of the variables which show a similar level of response. The results from this suggested that it would be more appropriate to define stylistic preference as the level of gain the act elicits, combined with the justification styles. The way the justifications were labelled was changed to be clearer and less confusing. As reported offending has been categorised as Instrumental and Expressive, it may be confusing to label the justifications in this way. Therefore, the justification style labels were amended; Instrumental justifications were labelled Objective, and Expressive justifications were labelled Emotive. Re-examination of the SSA defines these three factors in distinct regions, which can be labelled: High gain objective reasons, High gain emotive reasons, and Low gain all reasons.

Items within the High gain objective reason area represent scenarios which may elicit a high level of monetary gain, combined with justifications which indicate that there is a reduced risk of detection. This region does contain scenarios involving both Person and Property interactions. Although these are in the same region there is still a space, and therefore a distinction, between each type of scenario.

The second region, labelled High gain emotive reason, contained items that would elicit a higher level of monetary gain when combined with justifications that protect life. This region also contained crime scenarios which involve both person and property crimes, and show a similar structure to that mentioned above. The items relating to person directed crimes are on one side of the region, and

crimes relating to property are on the other. So again, although this was defined as one region there is still some distinction between the two styles of crimes.

The final region contained all of the items which relate to the scenario '*Take a purse that appears to be unattended*', this group of items is labelled Low gain all reasons. This region contained justifications which represent both objective and emotive reasoning styles; the upper section of the region contained the objective justifications, and the lower section contained emotive justifications. So although this is defined as one region, there is still some distinction between the two styles of justifications.

These findings indicate that individuals differentiate scenarios according to the level of gain. Therefore, hypothesis 3 can be accepted. The findings reported by Youngs (2001) supports the findings presented here. Youngs suggested that young offenders differentiate the type and level of gain; the findings here only differentiate the level. This demonstrates that individuals have pre-existing levels of preferences for the level of gain which would be produced. Future research in this area could include other lower gain scenarios to test this further.

Social Domain Theory (SDT), proposed by Nucci and Turiel (1978), recognizes the complex nature of behavioural decisions in a social context. The findings presented here suggest that there are multiple factors which influence behaviour. SDT supports this view and identifies that there are psychological, situational, and social factors which all influence behavioural decisions. SDT labels these as domains, and suggests that individuals draw from these three domains in parallel to inform action. The findings presented here also suggest that individuals will consider multiple aspects of a scenario before deciding on action. The type and level of gain (high or low), the target of the offending behaviour (person or property), and the reason action is required (objective or emotive) are considered in parallel. These findings enrich our understanding of the factors which increase propensity to commit a crime, and enrich our understanding of theories such as SDT.

Individual differences were found between age and gender groups. Males had significantly higher scores than females in all three regions. Therefore, hypothesis 4 can be accepted. It was also determined that those who are aged under 30 scored significantly higher than those over 30 in all three regions. Therefore, hypothesis 5 can be accepted. These findings support literature such as Farrington et al (1988), who suggested that young males are the ones most likely to commit crime. The present findings suggest that even before any crimes have taken place, males and those under 30 demonstrate more of a positive attitude towards all crime and justification styles.

The current chapter clearly demonstrates that people show preferences for the style of crime they say they would be prepared to commit. At the same time consideration is given to which reasons would be more likely to motivate them to commit that act. In this way, we can begin to understand individual criminal behaviours as a sequence of decisions based on preferences in three areas; styles of crime, styles of justification, and the level of gain. It is reasonable to assume then, that criminal behaviours are based on the preference for style of crime, internal motivations for behaviour, and the level of gain which the crimes produce. This indicates that offenders are not intrinsically different to everybody else. Individuals make decisions based on the styles of behaviour, the motivation or reason for action, as well as what is gained from carrying out such behaviours.

The findings presented in chapter 5 have important implications on our understanding of the types of preferences which may influence what types or styles of crime people carry out. By understanding that individuals show preferences towards different styles of crime, it may be possible to identify those who are more at risk of offending or re-offending. By understanding that it is possible to have a positive attitude towards a crime for one style of justification, and a negative attitude towards the same crime for a different justification, may also be of some advantage in crime linking and rehabilitation techniques.

In the same way, an important finding of the present study is that it is not just crime type that individuals show any level of preference towards, the reason for action also elicits preferences. A range of different crimes could be carried out by the same individual when the justification for doing so is similar. This also has important implications for crime linking.

The way in which people conceptualise their behaviours can be seen as similar across all situations. Although the situation may change, and behaviours adapted to fit each scenario, we are only choosing from a range of possible understandings and preferences. Learning theorists such as Bandura, suggest that all behaviours are learned through positive and negative reinforcements. The findings presented in the present chapter, suggests that this can be extended to our understanding of offending behaviour.

The present study has the advantage of using a non-incarcerated sample. Any responses given to the items are more likely to reflect psychological preferences, rather than relying on previous experience based on opportunity. The attitudes given towards these styles of behaviour and justification enrich our understanding of what drives individuals to act in that way. By understanding the preferred style of behaviour, it is possible to infer an increase in propensity to act according to these attitudes. By understanding this propensity, crime prevention and rehabilitation techniques can be implemented more effectively.

Future research should focus on incorporating a variety of crimes and justifications to test the presented framework. A criminal population would be an advantage in future research to compare groups of preferences. The present study has the advantage of a large sample size, male and female participants of a variety of ages, therefore the population is from a good representation of society. There would also be value of presenting a range of different justifications in future, to establish if they could be grouped as Objective or Emotive.

9.2 Structure of FIRO-B interpersonal personality scale.

Many studies questioned the validity of the facets originally proposed by Schutz (1958). As was detailed in the opening chapters, Youngs (2004) highlighted that many of these studies used the coding framework suggested by Schutz, and as such were not examining the structure of the individual items. The purpose of chapter 6 was to examine the raw scores to determine how individuals structured and differentiate interpersonal behaviours, and to test the construct validity of the FIRO-B.

Chapter 6 outlined results from three data sets. The first data set was a small all-male sample. This data was collected at the same time as the pilot study into attitude to offending. Then, a larger mixed gender data set was employed. These participants completed the FIRO-B scale during the

main body of research. This resulted in two independent data sets. Although the data sets differed in the structure of interpersonal behaviours, statistical methods showed that there were no significant differences between the scores for Inclusion and Openness. There were differences in Control, with the male sample showing a higher level of Expressed Control. Therefore it was decided that it would be of benefit to combine the two samples, to produce a third data set which was much bigger.

Schutz (1958) proposes three forms of interpersonal personality in his FIRO-B; Control, Openness and Inclusion. These forms of behaviour are defined as being Expressed or Received. There are 5 main hypotheses:

1. The individual items on the FIRO-B scale will be differentiated into Inclusion, Control, and Openness.
2. The forms of behaviour will be identified as being Expressed or Received.
3. There will be a significant difference in scores of males and females for each element.
4. There will be a significant difference in scores of those under or over 30 for each element.
5. There will be a significant difference in scores for those with or without a criminal conviction for each element.

The results presented in chapter 6 demonstrate that items representing Control and Inclusion are well defined. Items which represent each of these interpersonal behaviours are in distinct areas of the SSA. However, the items which represent Openness are not so well defined. Items which represent Openness are dispersed throughout the SSA; some Openness items are amongst the Control items and others amongst Inclusion. The items Schutz identified as reflecting Openness are more appropriately defined as measuring the way we see others treating us; as a form of receptiveness to, or acceptance of others' actions. This receptiveness can be in the form of Inclusion and Control.

The structure of results from the smallest space analysis suggests that the form of Inclusion also includes those behaviours that are concerned with reciprocal information sharing. The items defined as Openness are more appropriately defined as reflecting inclusion, both in the social and emotional interest in others. The items that Schutz reversed, to reflect a lack of the concept being present, are more appropriately defined as reflecting Control. These reversed items represent a restriction, or inability to restrict, social and emotional intimacy. As such, the findings suggest two, rather than three, elements of interpersonal behaviour; Openness items are best understood as Received behaviour one experiences, operating within Control and Inclusion. Therefore, hypothesis 1 must be rejected and an alternative structure is proposed. All of the items on the FIRO-B scale measure aspects of Inclusion and Control, but not Openness.

Chapter 6 shows that for Inclusion, participants had a mean score of 4.53 which is similar to other reported findings using mixed gender samples. For example, Siegel & Miller (2009) report a mean of 4.86, Gilligan (1973) reports a norm of 4.7, and Hurley (1991) reports a norm of 4.6. The mean score for Control is 3.02 (0.74), this is a slightly lower score than others report for similar samples. For example, Gilligan (1973) reports a norm of 4.5, Siegal & Miller (2009) report a norm of 4.45, and Furnham & Crump (2007) report a norm of 5.21. However, as Furnham & Crumps sample were managers, level of Control would invariably be higher for their sample. There a much more variability in the reported norm of Openness, for example, Gilligan (1973) reports a norm of 2.6, Floyd (1988) reports a norm of 3.39, Ullman et al (1964)report a norm of 4.68, and Bakken & Romig

(1992) report a norm of 4.68. The participants in the present sample have a mean of 4.21 (0.57) which is slightly higher than some other studies and lower than others.

These findings support much of the literature which suggests that the facet of Affection (or Openness) is not supported. For example, Dancer & woods (2006), Furnham (2008) and Macrosson (2000) all suggest that the facets of Inclusion and Affection are problematic and not well defined. The present findings go further to suggest that the non-reversed items should be grouped with the Inclusion items, and the reversed items should be grouped with the Control items.

Schutz also outlines two modes of behaviours within these forms; Expressed behaviours which describe the way we treat others, and Received behaviours which describe the way we are treated by others. The results in chapter 6 show that only some of the items on the scale differentiate between those behaviours that are Expressed or Received. Therefore, hypothesis 2 must also be rejected. The items that represent Control appear to differentiate between Expressed and Received. This is shown in the SSA with all of the Expressed Control items within one region, and all Received Control items in another. However, the items that represent Expressed Openness are amongst the Received Control behaviours. This suggests that these reversed Received Openness items are better understood as the Control we exert over others. Within the mode of Inclusion, Expressed and Received Inclusion items are not differentiated. This indicates that Inclusion is seen as an interpersonal behaviour that is Expressed towards others, and is understood as being expressed and reciprocated as a dynamic process.

The overall findings suggest that the Control facet is the only one which differentiates the mode of behaviour. Items representing Inclusion cannot be as clearly differentiated into Expressed or Received. This highlights the reciprocal nature of behaviours which involve inclusion.

Chapter 6 also highlighted some individual differences in scores across the mode and forms of interpersonal behaviour. There were significant differences between males and females for each mode and form of behaviour. Females scored higher than males in Expressed Inclusion and Received Inclusion. Whereas Males scored higher than females in Expressed Control and Received Control. Therefore, hypothesis 3 can be accepted. This reflects literature by Bakken & Romig (1992) who also report that females score higher than males in Inclusion. Schutz (1978) and Ullman et al (1964) both found that males score significantly higher in Expressed Control.

There were significant differences between those under or over 30 in Expressed Inclusion, Received Inclusion, and Received Control. Those who are under 30 years old score significantly higher in each of these interpersonal behaviours. Therefore, hypothesis 4 can be accepted.

There were also significant differences between those with a criminal background and those without. Those who have a criminal background score significantly higher than those who do not in Expressed Inclusion and Expressed Control. Those with a conviction have significantly lower Received Inclusion scores than those who do not. This means that hypothesis 5 can be accepted. There is no literature which compares offender and non-offenders FIRO-B scores. However, Youngs did report that young offenders who were high in Expressed Control are more likely to report involvement in violent offences.

In summary, the findings suggest that items within the FIRO-B can identify Control and Inclusion facets of behaviour. However, there is no support to suggest that Openness should be a distinct facet. It is suggested that Control behaviours can be clearly identified as Expressed or Received. Items representing Inclusion do not reflect this distinction very well. This is likely due to the reciprocal nature of inclusion. The FIRO-B is able to differentiate individuals on gender and age. More importantly, the findings indicate that scores within each of the interpersonal personality types differ for those who report a higher level of previous offending behaviour. In sum, the FIRO-B is good at differentiating mode and form of interpersonal behaviour, and can identify individual differences in scores.

9.3 Structure of reported offending behaviour.

Chapter 7 explored the structure of reported offending amongst the sample. Although the respondents were from the general public, the mean scores suggest involvement in a range of criminal and deviant acts. There were 6 hypotheses regarding structure of the D45 and individual differences:

1. Offences can be differentiated into Instrumental or Expressive modes of operation.
2. The target of the offence can be defined as person or property.
3. Items can be differentiated into those that are more or less serious in nature.
4. Items can be differentiated into those which produce a Material, Power, or Sensory gain.
5. Males will have significantly higher scores than females.
6. Those under 30 will have significantly higher scores than those over 30.
7. Those who report having convictions will have significantly higher scores than those who do not.

Although the participants are members of the general public, every item on the scale had at least one person reporting involvement. Nine of the items had at least 50% of participants reporting carrying out the act at least once. However, these are the less serious, more deviant acts. Less than 10% of participants reported involvement in the most serious acts on the scale.

The items within the D45 were constructed to examine the different facets of offending styles. The first structural hypothesis relates to the mode of operation, the hypothesis is that items could be differentiated as being either Instrumental or Expressive. Youngs (2004) applied a principal proposed by Fesbach (1964) and suggested that crimes which are Instrumental are carried out to achieve some secondary goal. In direct contrast to this, Expressive crimes reflect behaviours which are carried out for their own reward. Youngs suggests that the execution of the particular act itself is the primary aim. The D45 items were differentiated within the SSA plot, with Expressive crimes in a central cluster, and Instrumental crimes dispersed around the periphery. Therefore, hypothesis 1 can be accepted.

It was also hypothesised that the target of the offending behaviour could be conceptualised as interacting with Person or Property/object. The findings detailed in chapter 7 suggest this is only somewhat possible. Many of the items relating to Person or Property were differentiated; however, this distinction was less clear for some items. The SSA revealed that the mid-range area contained items that targeted both person and property. There was a central area within the SSA that contained mainly Person offences, and the outer region contained mainly Property offences. However, these areas were similar to those containing Instrumental or Expressive items.

A number of researchers have demonstrated that offences can be differentiated according to whether they are Instrumental, Expressive, Person, or Property. For example, Canter & Fritzon (1998), Salfati & Canter (1999), Meith & Drass (1999) and Youngs (2004) have all found that offences can be defined as Expressive or Instrumental and target a Person or Property.

Instrumental and Expressive crime types appear to be differentiated in the present study. However, offences which target a Person or Property are less well defined. Although the outer area of the SSA contained mostly Property offences, the inner area contained a mix of Person and Property crimes. It seems that non-incarcerated participants do not differentiate the target of the offences in the same way that incarcerated participants do. Therefore hypothesis 1 must be rejected, and hypothesis 2 can be accepted.

The results in chapter 7 also demonstrated that the items were differentiated according to the level of seriousness. The SSA shows a progression from more serious offences to less serious ones. Therefore, hypothesis 3 can be accepted. This ordering of seriousness is reflected most clearly in items relating to shoplifting. For example, variables to the right of the plot represent shoplifting with a low value (£5), the variables increased in value of the shoplifted items as the variables progressed further to the left of the plot. These findings support Youngs (2001) suggestion that offences are differentiated according to level of gain. Youngs (2001) suggested that items reflecting a high or low level of Material, Power, or Sensory gains are differentiated. However, the present findings suggest that non-incarcerated participants differentiate the level, but not type, of gain.

Another type of crime which supports the progression of seriousness is items relating to violence. For example, items to the right of the plot are low level violence, further to the left the items progress to more serious violent behaviours, to those which included the use of a weapon. Youngs' findings suggested that offenders did not differentiate violent offences which involved the use of a weapon or not, whereas the present results do. This is an important difference in the way offenders and non-offenders view violent acts. These findings are similar to those reported by Youngs (2004). Youngs reported that young offenders differentiate crimes according to whether they produce a higher or lower level of psychological intensity. The findings presented in the present study demonstrate that differentiating level of psychological intensity, or seriousness, is true of incarcerated and non-incarcerated individuals.

Amongst the low level violence behaviours were items that indicated general disruptive behaviour and not being at school when meant to be. This suggests that young people who are supposed to be at school are likely to be involved in other general disruptive offences. However, as it was not recorded what age these offences were committed there is no way to examine this further.

The non-incarcerated population employed in the present study showed a higher level of involvement in items which produce lower level gains. This could perhaps have been expected from a non-incarcerated population. The structure of these findings does suggest that classifying offences according to level of seriousness or gain, and Instrumental or Expressive is reliable and robust across different populations.

The structure of variables presented within the SSA contained a central cluster of offending behaviours which were also reported in a central cluster by Youngs. In Youngs (2004) study these were all reported as being committed frequently, whereas the participants in the present study

reported these as infrequent behaviours. This is an important difference between populations as it suggests that involvement in these acts could differentiate between those who can be classed as offenders who regularly break the law, and non-offenders who have broken the law infrequently.

Youngs (2001) suggests that it is possible to infer specialisation in offending behaviour when the offences are classified according to the three fundamental incentives of Material, Power, and Sensory gains. The SSA plot did not show the items relating to these gains in any identifiable area. Therefore, hypothesis 4 must be rejected. However, this could also be an important difference between the thinking patterns of incarcerated and non-incarcerated participants. It was these types of gain that Youngs suggested could be dichotomised into high or low level of gain. Although the structure of gains was not evident in the present study, the level of gain was. This suggests that incarcerated participants are concerned with type and level of gain, whereas non-incarcerated participants are only concerned with level of gain.

The items on the D45 were summed into the various sub-categories and individual differences were examined. The findings showed that males have significantly higher scores than females in all regions. Therefore, hypothesis 5 can be accepted. This reflects general trends within the literature which suggests that males offend more (Farrington et al 1988; Walmsley et al, 1992). No significant differences were found for those under or over 30 years old. However, it must be noted that the age at which the offences took place was not recorded. Unsurprisingly then, there were no significant interactions between age and gender.

The results presented here confirm that the D45 is a robust and reliable way of measuring offending and can be applied to non-offenders (or non-incarcerated) individuals. These findings demonstrate that both attitude and reported offending can be differentiated according to level of gain and level of seriousness. This reflects the robustness of these constructs in both actual and hypothetical instances, and infers that the way in which we think about styles of offending behaviour is a fixed construct.

9.4 Interaction effects of scales

Chapter 8 explored the ways in which all of the processes outlined so far are related. The chapter was presented in four different stages, which included five hypotheses. These are as follows:

1. Styles of attitude towards offending can be related to interpersonal personality style.
2. Styles of reported offending can be related to interpersonal personality.
3. Styles of attitude towards offending can be related to styles of reported offending.
4. Styles of attitude towards offending and interpersonal personality style can accurately predict overall level of reported offending.
5. Styles of interpersonal personality can have an impact on the relationship between attitude styles and reported offending.

9.4.1 Attitude and personality styles

The first section of this chapter explored the way in which interpersonal personality styles are related to preferences for hypothetical crime scenarios. The findings presented in chapter 8

indicated that some interpersonal personality styles can be related to certain styles of hypothetical offending. Therefore, hypothesis 1 can be accepted.

The T tests outlined in chapter 8 found that those who score high in Expressed Inclusion (i.e. they include other people in their lives) are likely to have a more positive attitude towards hypothetical scenarios which produce a higher gain and are carried out for objective reasons. When the FIRO-B scores were examined as external variables on the SSA, it was found that those who agreed to the items which produced a higher gain had higher levels of Expressed Inclusion. These individuals also agree to scenarios which interact with people, but only when there is a reduced chance of getting caught. This reflects the connection which these individuals may have with others, preferring non-contact crimes and person crimes only when the risk of detection is low.

T tests found that those who have higher level of Expressed Control (i.e. they control other people) have significantly higher scores in all three regions of the AOSS. The FIRO-B scores on the SSA confirmed this and also showed that those who agreed to all of the items on the SSA have much higher level of Expressed Control. Those who agreed to items in the high gain objective region have the highest levels of Expressed Control. These higher levels of preference towards the scenarios may reflect the controlling aspect of their personality. It shows that those who show control over others are confident taking control and are willing to take what they desire from others.

The T tests also showed that there were no significant differences in AOSS scores between those who are high or low in Received Inclusion (i.e. others include them). However, it did show that those who reported other people include them have lower AOSS scores than those who say others do not include them. This may be a reflection of their overall value for norms and law within society. The FIRO-B scores on the SSA confirmed this and showed that those who agreed to all the items on the AOSS have low levels of Received Inclusion. This may reflect their lack of closeness with other people and lack of regard for the rules and law.

T tests revealed that those who are high in Received Control (i.e. others control them) have significantly higher scores in each AOSS region. These findings were confirmed by examining the FIRO-B scores as external variables on the SSA. Those who agreed to all items on the AOSS had higher levels of Received Control. Those who agreed to items in the high gain objective region have the highest levels of Received Control. It is possible that those who report that others control them are more easily influenced into offending.

9.4.2 Reported offending and personality

The second section explored the relationship between interpersonal personality style and style of reported offending behaviour. The findings indicated that there are some interpersonal personality styles which are related to offending styles. Therefore, hypothesis 2 can be accepted.

The T tests found that those who scored higher in each of the D45 regions have higher Expressed Inclusion scores. However, these differences were only significant in the More serious, Instrumental, and Expressive regions. The total D45 score was also significantly higher for those who score high in Expressed Inclusion. This means that those who are included by other people are more likely to report involvement in a range of offences. The FIRO-B scores as external variables on the D45 SSA confirmed this; those who agreed to most of the items on the D45 had higher Expressed Inclusion

scores. Higher Expressed Inclusion scores were found for some of the more serious crimes. It is possible that their close relationship with others leads to a lack of inhibition in offending behaviour. However, those who reported involvement in the minor deviant acts have lower levels of Expressed Inclusion. This may indicate that those who do not feel included by others are more likely to avoid interaction, and as such have a lower involvement in offending in general.

The T tests established that those who scored higher in Expressed Control have significantly higher total D45 scores as well as higher scores in each region. This was confirmed with the FIRO-B scores as external variables on the SSA. Those who gave a positive response to most of the items have higher levels of Expressed Control. Those who said they had been involved in violent acts had the highest levels of Expressed Control. This reflects the dominant aspect of their personality. It is possible that these individuals are at ease using violence to get what they want from other people.

These findings are similar to those reported by Youngs (2004); she found that young offenders who were high in Expressed Control tended to report a higher level of involvement in Expressive Person crimes. Youngs also found that those who reported carrying out crimes which involved the use of a weapon have higher levels of Expressed Control. This would suggest that the use of a weapon can be linked to elevated levels of Expressed Control for both incarcerated and non-incarcerated individuals. Therefore, it can be assumed that those who tend to exert control over other people are more prone to commit violent acts. However those who said they had been involved in minor deviant acts had lower levels of Expressed Control.

The T tests showed that those who have lower levels of Received Inclusion have significantly higher scores in the Les serious and Expressive regions, and significantly higher total D45 scores. The FIRO scores as external variables on the SSA confirmed this. Those who gave a positive response to all the items on the D45 have lower Received Inclusion scores. In other words, those who report involvement in crime say that others do not include them. Those who reported involvement in violent acts which involved a weapon scored very low in Received Inclusion. It is possible that the use of violence, which includes the use of a weapon, can be related to a lack of regard for others and a lack of empathy. Those who reported involvement in violent acts which did not use a weapon, as well as some less serious crimes have higher levels of Received Inclusion. However, these levels are still below the average Received Inclusion levels. Again, this may be a reflection of their lack of closeness with other people and a lack of regard for their wellbeing.

The T tests showed that there was no significant difference in D45 scores between those who scored high or low in Received Control. However, when the FIRO-B scores were examined as external variables on the SSA, it was revealed that those who gave a positive response to many of the items on the D45 have higher levels of Received Control. Those who had reported involvement in the more serious crimes which include violence had higher levels of Received Control. It is possible that this violence is some kind of a reaction against the control they feel others have over them. Those who reported involvement in the less serious rebellious acts had lower levels of Received Control. This is likely to be a reflection of a more rebellious type of personality.

Youngs found that young offenders who reported involvement in property crimes had much higher levels of Received Control. This could be an important difference between incarcerated and non-incarcerated participants. Non-incarcerated participants with high levels of Received Control tend to

report involvement in more serious violent crimes. Whereas incarcerated participants with high levels of Received Control report involvement in property crimes.

9.4.3 Attitude and reported offending

The third section examined the relationship between attitude preferences and styles of previous offending behaviour. It was established that styles of attitude towards offending are related to styles of reported offending. Therefore, hypothesis 3 can be accepted.

The findings indicate that preferences for crimes which are Instrumental are correlated with scenarios with objective reasons. This means that crimes which are carried out to achieve a secondary goal can be related to preferences for hypothetical justifications with external benefits. Preferences for these styles of offending would suggest a logical goal driven approach to offending.

It was also found that preferences for Instrumental crimes are most highly correlated with High gain emotive reason hypothetical preferences. This means that crimes which are carried out to achieve a secondary goal can be related to preferences for hypothetical justifications with internal benefits. In this instance, it appears that the level of the gain has the most influence over attitude and behavioural preferences. The low gain region of the AOSS has the highest correlation with Instrumental and all less seriousness items. This confirms again, that the level of gain that the crime produces is a key factor in crime preference formation.

The findings presented so far suggest that individuals form preferences for hypothetical scenarios based on the level of gain and the justification for action. Some individuals will show preferences for hypothetical crime scenarios with emotive benefits such as saving life. Conversely there are individuals who show a preference towards hypothetical crime scenarios because there is less chance of getting caught. As has been demonstrated, these preferences towards the various styles of hypothetical crimes can be linked to styles of reported offending behaviour. Therefore, it can be assumed that measuring preferences towards hypothetical offending styles is a valid way to infer the behaviours which that individual is likely to have been involved in.

9.4.4 Predicting level of reported offending

The fourth section examined the combined effect of attitude and interpersonal personality on level of self-reported offending behaviour. The multiple regression analyses show that preferential attitudes for hypothetical scenarios which produce a higher level of gain are good predictors for level of self-reported offending. However, preferences towards hypothetical scenarios with lower gains are not a good predictor of level of previous offending. Therefore, hypothesis 4 can be accepted as attitude and personality styles can accurately predict overall level of reported offending.

The multiple regression analysis outlined in chapter 7 showed that when attitude to offending scores are summed into various styles and levels of gain, these scores can accurately predict overall level of reported offending. This supports the general proposition of Theory of Reasoned Action (Fishbein & Ajzen, 1975) which proposes that it is possible to predict behaviour from attitude. The results presented here suggest that this can be extended to offending behaviour. A positive attitude towards certain styles of hypothetical offending can accurately predict level of actual offending.

A second multiple regression analysis was presented to investigate whether interpersonal personality styles can accurately predict level of reported offending. The results showed that three out of four interpersonal personality styles are good predictors of level of self-reported offending. Expressed Inclusion and Expressed Control have a significant positive relationship with reported offending. However, level of Received Inclusion has a negative relationship with level of reported offending. That is to say, when an individual reports that they are included by other people, level of self-reported offending is low. However, when people report that others do not include them, level of self-reported offending is high. This suggests that higher levels of Inclusion within society reduce levels of criminality. The more individuals feel included, the less likely they are to commit crimes. Conversely, when individuals do not feel included by others in society, level of offending is higher. It is possible that these feelings of inclusion or non-inclusion have an effect on the values that person has for other people as well as the norms and laws within society.

These findings support the argument proposed by Canter & Youngs (2009) that actions can be related to characteristics when they are defined in terms of themes. To some degree, a series of 'if-then' statements which link these two domains can be created. However, not all of the attitudes and characteristics have a direct relationship with level of offending behaviour. It is possible that a series of 'if-then' statements are too simplistic to explain complex human behaviours.

9.4.5 The moderating effects of personality

The fifth section explored the moderating role of personality on the relationship between attitudes and reported offending. Moderated multiple regression analysis findings revealed that many of the FIRO-B subgroups did not moderate the relationship between attitude and offending. However, one moderating effect was found. It was found that the relationship between high gain objective reason attitude and total D45 score is moderated by high, medium, or low levels of Received Control. Therefore, hypothesis 5 can be accepted as personality can moderate the relationship between attitudes and reported offending.

It is proposed that some relationships between actions and characteristics are more appropriately described as a series of 'if, *and*, then' statements. More specifically, levels of the interpersonal personality style Received Control, moderate the relationship between attitude and behaviour. Level of Received Control moderates the relationship between preferences for High gain objective reason scenarios and level of previous offending.

The results found that when a person has high or medium levels of Received Control, (i.e. other people control them) and show a high level of preference towards High gain objective reason scenarios, the level of self-reported offending tends to be higher. However, when a person has low levels of Received Control (i.e. other people do not control them) and show a high level of preference towards High gain objective reason scenarios, the level of self-reported offending tends to be lower.

These findings suggest that the relationship between attitude and behaviour is moderated by how controlled people feel. Those who feel more controlled are more likely to show a strong relationship between preferences for crime scenarios and actual offending behaviour. This places level of criminality firmly within social contexts, and highlights the influence that other people can have on offending behaviour. It is possible that this feeling of being controlled compels the individual to

offend and act out on beliefs and pre-existing preferences, this could be a reaction against being controlled by others. It is also possible that those who do not feel controlled by others do not feel as compelled to act out on their pre-existing preferences. Again, this highlights the social context of criminality.

9.5 Chapter summary

The results presented in chapter 7 infer that it is possible to reliably link different aspects of an offender to some crime scene behaviour. These findings also indicate that the relationship between actions and characteristics is multi-faceted. Many previous studies which have investigated the ways in which offenders actions can be linked to their characteristics, have produced limited and conflicting findings. It is proposed that this is due to the fact that multiple psychological components need to be considered when attempting to infer offender characteristics from crime scene actions. Aspects such as preferences for styles of behaviour, and types of interaction, as well as interpersonal personality styles, all need to be considered when exploring the link between an offender and the types of crime they commit.

The findings show how attitude to crime styles can be linked with reported offending. The findings also highlight the effects of interpersonal personality styles. This demonstrates that the psychological characteristics of an offender influence their choice in offending behaviour.

The research presented within this thesis provides a solid basis for understanding the ways in which preferences for styles of behaviour can be linked to personality style. These findings can be used as a foundation to help to understand which factors need to be measured when looking at which actions can be reliably linked to offender characteristics.

Chapter 10. Thesis summary.

10.1 Methodological implications.

The aim of the present thesis was to examine which psychological characteristics increase propensity to commit crime. Throughout the thesis it has been proposed that the individual characteristics which should be considered are attitude and interpersonal personality. The thesis also proposed that offending should be examined in terms of styles of behaviour, level of gain and psychological intensity. Participants were required to complete a self-report scale for each of these components. This led to a unique methodological advantage of having two measures of individual characteristics and a set of offending actions for each participant. There are methodological implications and advantages for each individual scale as well as for their interaction.

The present study took the approach that if behaviour is complex and multi-faceted, then attitude towards a particular set of behaviours is also likely to be complex. It has previously been established that attitude can predict behaviour; therefore, it can be assumed that this is true of offending behaviour. The opening chapters of the thesis explored styles and themes of offending which individuals have shown behavioural consistency in. These behavioural styles were incorporated into hypothetical crime scenarios to measure attitude. These scenarios were then combined with rationale and reasoning styles identified in the literature. This created a unique multi-faceted self-report scale which examines attitude to offending. The methodological contributions of this are unique. Many studies demonstrate that behaviour is complex and multi-faceted; designing an attitude to offending scale using a Guttman scale can reflect this complexity.

The earlier chapters also suggested that studies which have attempted to link offending to behavioural styles have been limited in their success. This is due to inappropriate personality theories being applied to socio-legal definitions of offending. Schutz's FIRO-B measures aspects of interpersonal personality. Schutz suggests the FIRO-B measures aspects of Inclusion, Control and Openness. However, a number of studies suggest that Openness is not a distinct facet and propose that the FIRO-B should be defined as measuring aspects of Inclusion and Control. Therefore, the structure of the individual items on the FIRO-B was investigated. Many previous studies have used the coding framework provided by Schutz. Therefore, the methodological advantages of measuring the relationship between each individual items advance our understanding of the mode and forms of interpersonal personality.

The thesis argues that offending behaviour should be measured using a self-report scale called the D45. This scale presents participants with carefully worded criminal and deviant acts which incorporate a range of actions, intentions, and gains. Other methods, such as official criminal records or arrest data, would not reveal such rich information. The precise Likert scale values measure exact level of involvement in these acts. This allows the researcher to explore level of involvement in items which include similar themes or gains. The findings presented in chapter 7 validate the use of the extended version of Youngs (2001) D42 scale. The chapter demonstrates that this scale can measure level of criminality for a large cohort of non-incarcerated participants which include males and females of all ages.

It was important to gather information on reported offending, as this gave an indication of the styles and level of involvement for each individual. Once the level of involvement in various criminal and

deviant acts was known, it was possible to relate these to attitude and interpersonal personality styles. Using self-report methods to explore attitude, personality, and reported offending behaviour meant it was possible to gain insight into the way an individual thinks, feels, and behaves within society. Such methods allow the researcher to examine the way individuals habitually interact with the world. These methods allowed the researcher to gather precise information.

Statistical analyses explored several relationships between these concepts. Firstly, the relationship between attitude and interpersonal personality was measured. Secondly, the relationship between interpersonal personality and reported offending was examined. Third, the relationship between attitude styles and reported offending was explored. Finally, the combined effect that attitude and interpersonal personality has on reported offending can also be explored. Gathering this data on three separate scales allows several aspects of the relationship to be examined.

There is an advantage to exploring the structure of each scale using Facet Theory and Smallest Space Analysis. The SSA's which have been presented throughout the thesis allows one to explore how each scale is differentiated into dominant styles and themes. Once these themes were identified it was possible to use other statistical methods to examine the relationship between the scales and the individual differences within them.

10.2 Theoretical implications.

As with the methodological implications, there are theoretical implications and advances for the overall study as well as for the individual studies presented within it.

The studies in chapter 5 demonstrate that individuals show a preferential attitude towards various aspects of behaviour. This adds to our understanding of literature from learning theorists such as Bandura (1973) who suggests that we use our experience of the word to inform our actions. The findings show that people have pre-existing preferences towards styles of behaviour. These preferences for styles may be applied to a range of situations to create 'themes' in our day to day behaviour. Social Domain Theory (Turiel 1983) proposes that people's actions are informed by knowledge from three domains. The findings presented in this thesis support the idea of different domains informing behaviour and go further to identify themes within those domains.

Some of the justifications which were investigated in chapter 5 were based on the Neutralisation techniques proposed by Sykes & Matza (1957). However, there was no evidence to suggest that people have preferential attitudes towards these. This means that such neutralisation techniques may only be employed in high-stake situations. It is possible such neutralisation techniques are only thought of immediately before, during, or even after the act. The findings show that preferential attitudes are dependent on several factors such as the target of the offence, the type of behaviour required to carry it out including verbal or physical, as well as the nature of what is to be gained from carrying out the act. These findings support literature within I.P. which identify consistency for styles in offending. It was also found that people differentiate justifications into two styles: Instrumental and Expressive. These terms were changed to Objective and Emotive reasoning styles in order to reduce any confusion between terms. However, these justification styles can be related to the internal and external benefits that offenders have shown consistency towards. This means that offending and justification styles can be differentiated in a similar way.

Future consideration of attitude to offending and justification styles should further test the differentiation of higher or lower level gains. A range of scenarios should be produced to represent different levels of gain. Future studies should also consider testing the overall framework of justifications.

The results which are presented in chapter 6, support the literature which criticises the structure of the FIRO-B scale. These findings contribute to the long standing debate on the validity of the scale summed into six sub groups. The findings support literature which suggests that Openness is not a distinct facet. The results also add to the debate on gender and age differences in each of the facets. The findings within the present thesis support the argument made by Youngs (2004), that when considering the characteristics of offenders, one must consider interpersonal tendencies.

Future studies into the structure of interpersonal personality should test the framework by examining the scores of each individual item in relation to each other. It has been demonstrated throughout the thesis that the framework proposed by Schutz is not widely applicable and requires revision.

The D45 has proven to be a useful devise for investigating style and level of involvement in a range of offending activities. The results set out in chapter 7 demonstrate that offending behaviours should be categorised according to themes which are evident in behaviour, gain, and target of offence. Previous studies which have investigated consistency in offending actions have tended to use legal classifications of offences (e.g. Lo, Ki & Chen, 2008; Blumstein et al, 1988). However, the findings within this thesis indicate that it would be more applicable to categorise offences according to the target of the offence, style of behaviour, level of gain, and the target of the offence.

The results support many studies within Investigative Psychology, which have identified preferences towards crimes that are carried out for Instrumental or Expressive reasons (e.g. Salfati & Canter, 1999; Miethe & Drass, 1999). The results detailed also support literature which suggests that individuals show preferences towards crimes which interact with a person or property/object (e.g. Canter & Youngs, 2009; Armstrong, 2008).

Youngs (2001) suggests that offenders will show preferences for crimes with different types of gain. Youngs found that offenders consistently commit crimes which produce Material, Power, or Sensory gains. The findings presented here somewhat support this, and suggest that the level of gain is also an important factor to consider. However, the non-offenders in the present study do not differentiate preferences based on the type of gain. This may be an important difference between offenders and non-offenders. Youngs (2001) also suggests that crimes vary in psychological intensity. The results in chapter 7 support this, and also demonstrate that preferences exist for crimes which are more or less serious in nature.

Chapter 8 shows the relationships between different styles of offending and interpersonal tendencies. Previous literature which has examined the relationship between personality and different types of crime has been inconsistent. Some papers outline evidence to suggest there is a link between personality and crime (Eysenk, Rust & Eysenk, 1977), whereas others have found no such relationship (e.g. Furnham & Thompson, 1991). It is proposed that the reason for this is that the personality scales which have been applied are not as relevant to offending as the FIRO-B.

The interactions between the various scales, detailed in chapter 8, have several important implications. The findings add to our understanding of how attitude preferences towards styles of offending can be related to actual behaviour, which supports literature regarding the Theory of Reasoned Action (Fishbein & Ajzen, 1975). It was found that styles of reported offending behaviour are correlated with styles of attitude towards crimes. The findings also add to our understanding of the ways in which attitude and personality are related. Styles of interpersonal personality can be related to preferences towards styles in the hypothetical scenarios presented.

Much of the literature which examines the relationship between actions and characteristics, examines the relationship between attitude and crime, or personality and crime. However, the findings presented here demonstrate that attitude and personality have a combined effect on offending behaviour. The present thesis advances our understanding of the way in which personality can moderate the relationship between attitude and behaviour. This suggests that if one wishes to understand criminality, it is necessary to consider the way a person thinks and behaves and how this is instantiated by personality.

10.3 Practical implications.

As with the methodological and theoretical implications, there are practical applications and implications that can be derived from each individual study as well as from the overall findings.

Chapter 8 shows that particular interpersonal personality characteristics are associated with styles and levels of offending. The findings presented in the present thesis have the potential to be applied in numerous ways. The thesis has shown that it is possible to identify individual characteristics that are associated with higher levels of offending. By targeting these characteristics through interventions and treatment programs, it may be possible to reduce levels of offending.

With an informed understanding of the way a person sees the world around them, and the way in which they habitually act and react, it may be possible to develop our understanding of existing treatment programs, and make them as effective as possible for different types of offender. For example, there is a rehabilitation program known as the Enhanced Thinking Skills program. This treatment program helps to develop various cognitive skills, and target styles of thinking and attitudes which lead to anti-social behaviour. The program helps to develop cognitive skills including, but not limited to: impulse control, values/moral reasoning, and interpersonal problem solving. Therefore, with a better understanding of how interpersonal personality can moderate the relationship between attitudes and offending behaviour, this program could be developed to be more effective.

Chapter 8 revealed that those who have lower levels of Received Inclusion have a higher level of reported offending. Therefore, a community intervention program could be developed using the findings presented here. The program could be designed to encourage people to interact and include members of their community, thus improving levels of Received Inclusion.

Similarly, the thesis found that higher levels of Expressed Control were found for those who reported violent crimes and crimes involving weapons. Therefore, programs could be introduced which attempt to lower levels of Expressed Control. These kinds of programs could be developed for both offenders and communities.

Intervention and rehabilitation programs are also applicable to changing attitudes. For example, it was established that those who show a more positive attitude towards crimes which produce a higher level of gain and are committed for objective reasons (e.g. not get seen / to get away with it) are likely to have a higher reported involvement in crime. Therefore, by attempting to change attitudes, either passively or actively, one may be able to reduce levels of involvement in offending.

Passive interventions could be in the form of information posters. For example, a poster which highlights the 'hidden victims' of crime, or highlights the wider impact of offences could help to shape attitude towards offending.

The findings can also be used to develop more effective interviewing techniques. Those high in a particular interpersonal style may respond to a particular interviewing style but not another. For example, those who are high in Received Control may respond better to an authoritative interview style. Whereas someone who is low in Received Control, may not respond as well to such an interview style.

In summary, the findings which are presented throughout the present thesis could inform many areas of literature within offender profiling and investigative psychology. These findings significantly add to our understanding of the way attitude and interpersonal personality are related to offending styles. Most importantly, the moderating role of personality needs to be considered when exploring the relationship between attitude and offending.

Chapter 11. Conclusion and future directions.

In conclusion, the present thesis has demonstrated that individual characteristics can be related to styles of offending in a reliable and robust way. In doing this, it has been possible to identify the psychological characteristics which increase propensity to offend. The thesis makes a significant contribution to knowledge in several ways. The overall findings of the thesis demonstrate that the interpersonal personality style 'Received Control' moderates the relationship between attitudinal preferences for higher gain scenarios and level of reported offending. The thesis also makes a contribution to knowledge by highlighting the ways in which interpersonal personality styles and attitudinal preferences are related to, and can predict, levels of reported offending.

The present thesis employed members of the general public as the research was investigating preferences in attitude to offending. If offenders had been recruited, it could be argued that their responses to the hypothetical crime scenarios could reflect previous experiences based on opportunity. However, the findings revealed that members of the general public are not non-offenders, but non-incarcerated. These participants reported involvement in a range of offences; every item on the D45 had a least one participant reporting involvement. There are only a limited number of studies which investigate offending in a non-incarcerated population. Therefore, the present study adds significant understanding to the level and styles of reported offending amongst the general public.

The participants reported involvement in a range of offences, the results revealed how involvement in these was differentiated. Some of the styles and themes identified in the present thesis reflected styles identified in the literature. For example, both incarcerated and non-incarcerated participants differentiate offences with a higher or lower level of psychological intensity. They also differentiate offences as Instrumental or Expressive. However, there were also some differences in the way crimes were differentiated. For example Youngs says that offenders differentiate crimes into those which produce a Material, Power or Sensory gain, however, the present population did not.

The overall level of involvement in a range of offending behaviours allowed an exploration of the relationship between attitude, personality, and offending. This involvement in a range of offending actions meant that it was possible to relate individual characteristics to offending styles. The structure of these relationships adds a significant contribution to knowledge.

The present thesis proposed that the individual characteristics which should be examined are attitude and interpersonal personality. It has been shown that attitude towards a set of behaviours (offending in the present case) is complex and should incorporate multiple components. For example, the target of the offence, the behaviours, the styles of interaction, the level of gain, and the reason for action, all need to be considered. In order to measure multiple components, Guttman scales and Facet theory procedures are required. As this is the first exploration of its kind, the findings make a significant contribution to our understanding of attitude towards offending.

It has also been demonstrated that interpersonal personality is best measured using individual items on the FIRO-B scale rather than any artificial groupings of items. The findings showed that both attitude and personality can accurately predict level of reported offending independent of each other. However, the thesis also demonstrates that personality can moderate the relationship between attitude and offending. Studies have previously examined the direct impact of personality.

The present study has shown that personality can also have a moderating effect. This is a unique finding, and opens up new ways of thinking about how to relate offending actions to individual characteristics.

Future research should expand on all of the issues highlighted within the present thesis. Previous studies have not considered the multi-faceted nature of behaviour when examining attitudes towards it. Therefore, future studies need to build upon the factors which have been identified and test the concepts further. For example, future studies should examine several levels of gain in order to establish the different levels of preferences for each. The justification for action also needs to be further tested. If attitude to offending can be differentiated into reasons for action, then actual offending may also be dependent on reason for action. Therefore, attitude to objective and emotive reasons for action, should be further tested by incorporating them in studies of attitudinal preferences.

Future studies into either psychological aspect of propensity, or linking action to characteristics, should consider both interpersonal personality and multi-faceted attitudes. Both attitude and personality can have an impact on offending behaviour. Importantly though, future studies should consider the moderating role of personality.

Finally, future studies should compare offenders and non-offenders, or more appropriately, incarcerated and non-incarcerated participants. These studies should test the presented framework on both populations to explore differences and similarities between populations.

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Appendix 1: Hypothetical Offending Style Scale

Scenario 1

'Use force to get a security guard to open the van and take the money'

How likely do you think you would be to commit a crime like this in a life and death situation for acquiring money?

1	Never.
2	Possibly under the most extreme circumstances.
3	Possibly under certain circumstances.
4	Likely.
5	Yes I could imagine doing this.
6	Yes very likely to do this.
7	Definitely.

Are there any circumstances for which you could imagine yourself doing an action like this?

1	Never.
2	Possibly under the most extreme circumstances.
3	Possibly under certain circumstances.
4	Likely.
5	Yes I could imagine doing this.
6	Yes very likely to do this.
7	Definitely.

Imagine perhaps you were to become intoxicated and you have the extra confidence of for e.g. alcohol or cocaine and this situation presented itself, you possibly wouldn't even remember what happened. Would you consider par taking in a crime like this?

1	Never.
2	Possibly under the most extreme circumstances.
3	Possibly under certain circumstances.
4	Likely.
5	Yes I could imagine doing this.
6	Yes very likely to do this.
7	Definitely.

Would you consider committing a crime like this if it was dark at night and there were no other people around? No witnesses or any other people's reactions to affect you.

1	Never.
2	Possibly under the most extreme circumstances.
3	Possibly under certain circumstances.
4	Likely.
5	Yes I could imagine doing this.
6	Yes very likely to do this.
7	Definitely.

Consider a situation in which someone very close to you needed a very expensive operation and this would be the only way to acquire the funding. Would you ever consider an action like this?

1	Never.
2	Possibly under the most extreme circumstances.
3	Possibly under certain circumstances.
4	Likely.
5	Yes I could imagine doing this.
6	Yes very likely to do this.
7	Definitely.

Scenario 2:
'Use necessary threat and force to get a shop assistant to open the till and take the money'

How much do you think you could commit a crime like this in a life and death situation for acquiring money?

1	Never.
2	Possibly under the most extreme circumstances.
3	Possibly under certain circumstances.
4	Likely.
5	Yes I could imagine doing this.
6	Yes very likely to do this.
7	Definitely.

Are there any circumstances for which you could imagine yourself doing an action like this?

1	Never.
2	Possibly under the most extreme circumstances.
3	Possibly under certain circumstances.
4	Likely.
5	Yes I could imagine doing this.
6	Yes very likely to do this.
7	Definitely.

Imagine perhaps you were to become intoxicated and you have the extra confidence of for e.g. alcohol or cocaine and this situation presented itself, you possibly wouldn't even remember what happened. Would you consider par taking in a crime like this?

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7	Definitely.

Would you consider committing a crime like this if it was dark at night and there were no other people around? No witnesses or any other people's reactions to affect you.

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4	Likely.
5	Yes I could imagine doing this.
6	Yes very likely to do this.
7	Definitely.

Consider a situation in which someone very close to you needed a very expensive operation and this would be the only way to acquire the funding. Would you ever consider an action like this?

1	Never.
2	Possibly under the most extreme circumstances.
3	Possibly under certain circumstances.
4	Likely.
5	Yes I could imagine doing this.
6	Yes very likely to do this.
7	Definitely.

Scenario 3:
'Force open a window and take personal property from a house with intention of selling these goods'.

How much do you think you could commit a crime like this in a life and death situation for acquiring money?

1	Never.
2	Possibly under the most extreme circumstances.
3	Possibly under certain circumstances.
4	Likely.
5	Yes I could imagine doing this.
6	Yes very likely to do this.
7	Definitely.

Are there any circumstances for which you could imagine yourself doing an action like this?

1	Never.
2	Possibly under the most extreme circumstances.
3	Possibly under certain circumstances.
4	Likely.
5	Yes I could imagine doing this.
6	Yes very likely to do this.
7	Definitely.

Imagine perhaps you were to become intoxicated and you have the extra confidence of for e.g. alcohol or cocaine and this situation presented itself, you possibly wouldn't even remember what happened. Would you consider par taking in a crime like this?

1	Never.
2	Possibly under the most extreme circumstances.
3	Possibly under certain circumstances.
4	Likely.
5	Yes I could imagine doing this.
6	Yes very likely to do this.
7	Definitely.

Would you consider committing a crime like this if it was dark at night and there were no other people around? No witnesses or any other people's reactions to affect you.

1	Never.
2	Possibly under the most extreme circumstances.
3	Possibly under certain circumstances.
4	Likely.
5	Yes I could imagine doing this.
6	Yes very likely to do this.
7	Definitely.

Consider a situation in which someone very close to you needed a very expensive operation and this would be the only way to acquire the funding. Would you ever consider an action like this?

1	Never.
2	Possibly under the most extreme circumstances.
3	Possibly under certain circumstances.
4	Likely.
5	Yes I could imagine doing this.
6	Yes very likely to do this.
7	Definitely.

Scenario 4:
'Take a purse that appears unattended'

How much do you think you could commit a crime like this in a life and death situation for acquiring money?

1	Never.
2	Possibly under the most extreme circumstances.
3	Possibly under certain circumstances.
4	Likely.
5	Yes I could imagine doing this.
6	Yes very likely to do this.
7	Definitely.

Are there any circumstances for which you could imagine yourself doing an action like this?

1	Never.
2	Possibly under the most extreme circumstances.
3	Possibly under certain circumstances.
4	Likely.
5	Yes I could imagine doing this.
6	Yes very likely to do this.
7	Definitely.

Imagine perhaps you were to become intoxicated and you have the extra confidence of for e.g. alcohol or cocaine and this situation presented itself, you possibly wouldn't even remember what happened. Would you consider par taking in a crime like this?

1	Never.
2	Possibly under the most extreme circumstances.
3	Possibly under certain circumstances.
4	Likely.
5	Yes I could imagine doing this.
6	Yes very likely to do this.
7	Definitely.

Would you consider committing a crime like this if it was dark at night and there were no other people around? No witnesses or any other people's reactions to affect you.

1	Never.
2	Possibly under the most extreme circumstances.
3	Possibly under certain circumstances.
4	Likely.
5	Yes I could imagine doing this.
6	Yes very likely to do this.
7	Definitely.

Consider a situation in which someone very close to you needed a very expensive operation and this would be the only way to acquire the funding. Would you ever consider an action like this?

1	Never.
2	Possibly under the most extreme circumstances.
3	Possibly under certain circumstances.
4	Likely.
5	Yes I could imagine doing this.
6	Yes very likely to do this.
7	Definitely.

Appendix 2: Attitude to Offending Style Scale

Scenario A) If you were so upset you felt out of your mind

	1 I would never do this	2 I would almost never do this	3 There is a very small chance I would do this	4 There is a moderate chance I would do this	5 I would maybe do this	6 I would probably do this	7 yes I would do this
1) Grab a handbag from a wealthy woman standing alone on a platform at night?							
2) Follow a rich looking older couple until they left the main street then grab their bags?							
3) Lie about your possessions to the insurance company then pretend to lose some of these possessions?							
4) Add a few extra very valuable items to the list when reporting a loss to the insurance company?							
5) Threaten a stranger who was rude to you?							
6) Leave a threatening message on the answer phone of someone who treated you really badly?							
7) Go round to the house of someone who'd been telling lies about you to tell them to stop or else?							
8) Write a warning email to someone who you thought was after your partner?							
9) Try the pot someone offered you at a party?							
10) Take your neighbour's fancy new sports car for a drive without their permission while they were on holiday?							
11) Get a friend to bring you some pot to a party?							
12) Set fire to a bin to watch the flames then call the fire brigade to tell them (without giving your name)?							

Scenario B) If nobody got permanently hurt or harmed

	1 I would never do this	2 I would almost never do this	3 There is a very small chance I would do this	4 There is a moderate chance I would do this	5 I would maybe do this	6 I would probably do this	7 yes I would do this
1) Grab a handbag from a wealthy woman standing alone on a platform at night?							
2) Follow a rich looking older couple until they left the main street then grab their bags?							
3) Lie about your possessions to the insurance company then pretend to lose some of these possessions?							
4) Add a few extra very valuable items to the list when reporting a loss to the insurance company?							
5) Threaten a stranger who was rude to you?							
6) Leave a threatening message on the answer phone of someone who treated you really badly?							
7) Go round to the house of someone who'd been telling lies about you to tell them to stop or else?							
8) Write a warning email to someone who you thought was after your partner?							
9) Try the pot someone offered you at a party?							
10) Take your neighbour's fancy new sports car for a drive without their permission while they were on holiday?							
11) Get a friend to bring you some pot to a party?							
12) Set fire to a bin to watch the flames then call the fire brigade to tell them (without giving your name)?							

Scenario C) If you needed to do it to protect you or your family in some way

	1 I would never do this	2 I would almost never do this	3 There is a very small chance I would do this	4 There is a moderate chance I would do this	5 I would maybe do this	6 I would probably do this	7 yes I would do this
1) Grab a handbag from a wealthy woman standing alone on a platform at night?							
2) Follow a rich looking older couple until they left the main street then grab their bags?							
3) Lie about your possessions to the insurance company then pretend to lose some of these possessions?							
4) Add a few extra very valuable items to the list when reporting a loss to the insurance company?							
5) Threaten a stranger who was rude to you?							
6) Leave a threatening message on the answer phone of someone who treated you really badly?							
7) Go round to the house of someone who'd been telling lies about you to tell them to stop or else?							
8) Write a warning email to someone who you thought was after your partner?							
9) Try the pot someone offered you at a party?							
10) Take your neighbour's fancy new sports car for a drive without their permission while they were on holiday?							
11) Get a friend to bring you some pot to a party?							
12) Set fire to a bin to watch the flames then call the fire brigade to tell them (without giving your name)?							

Scenario D) If you'd been done wronged

	1 I would never do this	2 I would almost never do this	3 There is a very small chance I would do this	4 There is a moderate chance I would do this	5 I would maybe do this	6 I would probably do this	7 yes I would do this
1) Grab a handbag from a wealthy woman standing alone on a platform at night?							
2) Follow a rich looking older couple until they left the main street then grab their bags?							
3) Lie about your possessions to the insurance company then pretend to lose some of these possessions?							
4) Add a few extra very valuable items to the list when reporting a loss to the insurance company?							
5) Threaten a stranger who was rude to you?							
6) Leave a threatening message on the answer phone of someone who treated you really badly?							
7) Go round to the house of someone who'd been telling lies about you to tell them to stop or else?							
8) Write a warning email to someone who you thought was after your partner?							
9) Try the pot someone offered you at a party?							
10) Take your neighbour's fancy new sports car for a drive without their permission while they were on holiday?							
11) Get a friend to bring you some pot to a party?							
12) Set fire to a bin to watch the flames then call the fire brigade to tell them (without giving your name)?							

Appendix 3: D45 scale.

Below is a list of activities you may have been involved in. Please tell me which you have done (even if you have not been caught). For each item place a tick in one of the boxes. Please be completely honest. Your answers are treated in confidence. Nobody will be referred to, only general trends will be reported.

Question	Never	Once or twice	A few times (not more than 10)	Quite often (between 10 and 50)	Very often (more than 50 times)
1. Broken into house, shop, school and taken money or something else you wanted?					
2. Broken into a locked car to get something from it?					
3. Taken hubcaps, wheels, the battery or some other part of a car without the owner's permission?					
4. Taken things worth between £10 and £100 from a shop without paying for them?					
5. Threatened to beat someone up if they didn't give you money or something else you wanted?					
6. Carried a razor, flick-knife or some other weapon with the intention of using it in a fight?					
7. Pulled a knife, gun or some other weapon on someone just to let them know you meant business?					
8. Beat someone up so badly they probably needed a doctor?					
9. Taken a car belonging to someone you didn't know for a ride without the owner's permission?					
10. Tried to get away from a police officer by fighting or struggling?					
11. Used physical force (like twisting an arm or choking) to get money from another person?					
12. Used a club, knife or other weapon to get something from someone?					
13. Taken things from a wallet/purse (or the whole wallet/purse) while the owner wasn't around or looking?					

Question	Never	Once or twice	A few times (not more than 10)	Quite often (between 10 and 50)	Very often (more than 50 times)
14. Taken a bicycle belonging to someone you didn't know with no intention of returning it?					
15. Tried to pass a cheque by signing someone else's name?					
16. Intentionally started a building on fire?					
17. Taken little things (worth less than £5) from a shop without paying for them?					
18. Broken the windows of an empty house or other unoccupied building?					
19. Bought something you knew had been stolen?					
20. Refused to tell the police or some other official what you knew about a crime?					
21. Picked a fight with someone you didn't know just for the hell of it?					
22. Been involved in gang fights?					
23. Been loud, rowdy or unruly in a public place?					
24. Had sex in public?					
25. Attended a demonstration or sporting event to cause a disturbance or be violent?					
26. Smoked marijuana (grass/pot)?					
27. Driven a car when you were drunk or high on some drugs?					
28. Taken barbiturates (downers) or speed (or other uppers) without a prescription?					
29. Taken ecstasy ('E's)?					
30. Used heroin (smack) or cocaine ?					
31. Cheated at school in tests?					

Question	Never	Once or twice	A few times (not more than 10)	Quite often (between 10 and 50)	Very often (more than 50 times)
32. Not returned extra change that a cashier gave you by mistake?					
33. Used fake money in a machine?					
34. Taken things of large value (worth more than £100) from a shop without paying for them?					
35. Been drunk regularly when you were under 16?					
36. Broken into a house, shop, school or other building to break things up or cause other damage?					
37. Dialled 999 just for a joke?					
38. Let off fireworks in the street?					
39. Deliberately travelled without a ticket on a bus, train or the tube?					
40. Taken money from someone at home without returning it?					
41. Deliberately littered the streets?					
42. Annoyed or insulted a stranger?					
43. Not gone to school when you should have been there?					
44. Sniffed glue or other solvents (e.g. tippex thinner)?					
45. Used or carried a gun to help you commit a crime?					

Appendix 4: FIRO-B

Below is a list of some different ways of behaving towards others that you may have.

Read each statement put an X in one of the 6 boxes to show how much you agree that the statement is *true.*

The more you agree it is true, the nearer your X should be to the AGREE side.

1. I seek out people to be with.	DISAGREE							AGREE
2. People decide what to do when we are together.	DISAGREE							AGREE
3. I am totally honest with my close friends.	DISAGREE							AGREE
4. People invite me to do things.	DISAGREE							AGREE
5. I am the dominant person when I am with people.	DISAGREE							AGREE
6. My close friends tell me their real feelings.	DISAGREE							AGREE
7. I join social groups.	DISAGREE							AGREE
8. People strongly influence my actions.	DISAGREE							AGREE
9. I confide in my close friends.	DISAGREE							AGREE
10. People invite me to join their activities.	DISAGREE							AGREE
11. I get other people to do things I want done.	DISAGREE							AGREE
12. My close friends tell me about private matters.	DISAGREE							AGREE
13. I join social organisations.	DISAGREE							AGREE
14. People control my actions.	DISAGREE							AGREE
15. I am more comfortable when people do not get too close.	DISAGREE							AGREE
16. People include me in their activities.	DISAGREE							AGREE
17. I strongly influence other people's actions.	DISAGREE							AGREE
18. My close friends do not tell me about themselves.	DISAGREE							AGREE
19. I am included in informal social activities.	DISAGREE							AGREE

20. I am easily led by people.	DISAGREE							AGREE
21. People should keep their private feelings to themselves.	DISAGREE							AGREE
22. People invite me to participate in their activities.	DISAGREE							AGREE
23. I take charge when I am with people socially.	DISAGREE							AGREE
24. My close friends let me know their real feelings.	DISAGREE							AGREE
25. I include other people in my plans.	DISAGREE							AGREE
26. People decide things for me.	DISAGREE							AGREE
27. There are some things I do not tell anyone.	DISAGREE							AGREE
28. People include me in their social affairs.	DISAGREE							AGREE
29. I get people to do things the way I want them done.	DISAGREE							AGREE
30. My closest friends keep secrets from me.	DISAGREE							AGREE
31. I have people around me.	DISAGREE							AGREE
32. People strongly influence my ideas.	DISAGREE							AGREE
33. There are some things I would not tell anyone.	DISAGREE							AGREE
34. People ask me to participate in their discussions.	DISAGREE							AGREE
35. I take charge when I am with people.	DISAGREE							AGREE
36. My friends confide in me.	DISAGREE							AGREE
37. When people are doing things together I join them.	DISAGREE							AGREE
38. I am strongly influenced by what people say.	DISAGREE							AGREE
39. I have at least one friend to whom I can tell anything.	DISAGREE							AGREE
40. People invite me to parties.	DISAGREE							AGREE

41. I strongly influence other people`s ideas.	DISAGREE							AGREE
42. My close friends keep their feelings a secret from me.	DISAGREE							AGREE
43. I look for people to be with.	DISAGREE							AGREE
44. Other people take charge when we work together.	DISAGREE							AGREE
45. There is a part of myself I keep private.	DISAGREE							AGREE
46. People invite me to join them when we have free time.	DISAGREE							AGREE
47. I take charge when I work with people.	DISAGREE							AGREE
48. At least two of my friends tell me their true feelings.	DISAGREE							AGREE
49. I participate in group activities.	DISAGREE							AGREE
50. People often cause me to change my mind.	DISAGREE							AGREE
51. I have close relationships with a few people.	DISAGREE							AGREE
52. People invite me to do things with them.	DISAGREE							AGREE
53. I see to it that people do things the way I want them to.	DISAGREE							AGREE
54. My friends tell me about their private lives.	DISAGREE							AGREE

Appendix 5 Demographic information.

Queensgate, Huddersfield, HD1 3DH

The following Questionnaire addresses the various attitudes towards types of crime. The questionnaire is completely confidential and various steps will be taken to ensure that the data is kept safe. You will remain anonymous and you have the right to withdraw at any time.

Please indicate your age - [ ] Ethnicity: _____

Please circle as appropriate:

Ethnicity
Are you
(Please tick)

White? _____

Black-Caribbean? _____

Black-African? _____

Indian? _____

Chinese? _____

Pakistani? _____

Bangladeshi? _____

Other (please specify) _____

Circle as appropriate – Married | Single | Co-habiting | With parents

Are you - Employed | Self-employed | Student | Unemployed/unable to work

Full time. Part time

Circle *all* that at appropriate for your level of education –

GCSE or equivalent | A level or equivalent | Vocational or work based training qualifications | Higher education (Undergraduate, Masters, PhD, MD or other

Have you ever been caught or convicted of a crime besides driving offences? Yes | No

Have you ever carried out a crime but never been caught? Yes | No

Thank you. At the top of the next 4 pages are feelings/scenarios, followed by a list of actions. Please tick the box that is appropriate for you. Following that are a series of statements relating to your personality, please tick as appropriate for each statement. Your responses are confidential and cannot be traced to you, so please answer *all* of the questions in each section truthfully.

Appendix 5: Consent form

Informed Consent for Participation in Research
International Centre for Investigative Psychology
University of Huddersfield
Project Title: ATTITUDES AND ACTIONS

Researchers: (Your First Name Here)

As part of our postgraduate studies at the University of Huddersfield we are conducting a study on attitudes and actions in various situations. We are speaking to a random selection of young people for this.

We would therefore be grateful it you could fill in some questionnaires for us. T

It should not take any more than 20 minutes

We only want your opinions. There are no right or wrong answers.

It is completely anonymous. Neither your name nor any other identifying details will be recorded in connection with your responses. Only general trends will be reported, not responses from individuals.

By answering these questions you have consented to be in the study. Participation is voluntary. You may decide not to participate in this study and if you begin participation you may still decide to stop and withdraw at any time. Your decision will be respected, but please be aware that if you chose to withdraw or omit information, we cannot use any of your answers for analysis.

Do you have any questions?

Please sign below if you would like to participate in this research. A copy of this form will be given to you to retain for future reference.

_____ Signature _____ Date

This project is being carried out under the supervision of Professor David Canter. If you have any comments or questions about the study please contact him at D.Canter@hud.ac.uk