THE PROFILING OF ROBBERY OFFENDERS

By

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Abstract

This thesis has investigated the offence of robbery. Specifically, the semi-systematic review analysed commercial armed robbery, grouping offenders in terms of an apparent scale of professionalism to amateurism. Within armed robbery, target hardening strategies appear to have reduced opportunities for professionals, with a corresponding increase in amateur armed robbers fuelled by drug habits. The empirical study found that levels of interaction used by an offender with a victim increased with offender age. Interaction was lower for a robbery committed in an external location and for offenders with previous convictions for offences against the person and property. The violence facet could not be labelled as a specific discriminatory predictor. The findings from the research and semi-systematic review distinguished between two types of robbery offender; a career professional and an amateur antisocial robber. A career professional is older and more experienced, more likely to offend in a commercial location, commit the crime in a planned and controlled manner, use high levels of interaction and lower levels of violence. An amateur antisocial robber is more likely to commit an offence outside, have previous convictions for offences against the person and property and/or be under the influence of an illegal substance. The offence is likely to be opportunistic and chaotic, characterised by high levels of violence and low levels of interaction. The Inventory of Offender Risk, Needs and Strengths (IORNS) psychometric measure was analysed. It has the potential to provide an assessment of a robbery offender's ongoing treatment and risk management. However, it requires further validation and reliability analysis before it is deemed appropriate in doing so. The case study highlighted the impact of cannabis misuse on a robbery offender's behaviour pattern and mental illness. Implications for offender treatment needs, future therapeutic intervention and risk management are discussed along with the need for further validation of the proposed model.

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CHAPTER 1: INTRODUCTION TO THE THESIS

1. Introduction to Thesis: Profiling Robbery Offenders

This thesis has been produced with the aim of investigating the criminal act of robbery, the varying motives behind the commissioning of an offence, the different ways in which an offence is committed and investigation of current treatment approaches and potential future risk management procedures. Within these broad aims, four specific pieces of work have been undertaken investigating various facets of the topic. These pieces will be briefly summarised within the introduction, incorporating the main aims and methods of each. An overview of robbery definitions, incidence and prevalence rates and the current literature relating to aggression and general violent offending, offender profiling and the implications for the profiling of a robbery offence will be analysed within this section. This information will be conceptualised within the stated aims for the thesis, leading into the first chapter which provides a semi-systematic review of commercial armed robbery.

1.1 Robbery Definition and Legislation

The definition of robbery upon which this thesis is based is taken from the Theft Act 1968 Section 8(1), which states: "A person is guilty of robbery if he steals, and immediately before or at the time of doing so, and in order to do so, he uses force on any person, or puts or seeks to put any person in fear of being then and there subjected to force." From this definition it is worth highlighting that the use of force and / or fear distinguishes a robbery offence from an act of burglary. Furthermore, burglary is classified as a property crime whereas robbery is classified as a violent crime (Crime in England and Wales, 2008/09).

Despite this distinction, a robbery offence covers a wide variety of different acts including bank robbery, mobile phone robbery and street robbery, regardless of the amount of money or

property stolen (Smith, 2003). Specific acts within this holistic robbery definition will be analysed within the thesis, with conclusions drawn accordingly. In terms of sub-classifications, robbery offences have also been broken down into specific domains by the Home Office since 1998, distinguishing robbery in terms of personal (dwelling) or business (commercial) targets.

Current legislation (Criminal Justice Act, 2003) states that the commission of a small commercial robbery offence which includes the threat of, or use of minimal force and removal of property, brings a sentence of between twelve months and three years. The length of sentence increases from between four to seven years in offences where a weapon is produced and used to threaten, and/or force is used which results in injury to the victim. A heftier sentence is passed for offenders who cause the victim serious physical injury by the use of significant force and/or use of a weapon (seven to twelve years). Those convicted of a series of armed robbery offences on banks or post offices are liable to receive sentences of up to eighteen years imprisonment. Therefore, sentences increase in length based on the perceived severity of the offence (weapons used, injuries caused) and the size of the establishment and therefore potential monetary gain from the target (bank versus local corner shop).

1.2 Overview of Incidence and Prevalence Crime Data

When reporting and analysing official crime data it is important to recognise both incidence and prevalence data. In terms of crime within England and Wales, incidence data is the number of incidents of a specific crime in a given time period (ordinarily one year). Prevalence data can be taken from a sample of the population who report being the victim of

a specific crime either during a given time period or during their lifetime. The annual Home Office Statistical Bulletin (Crime in England and Wales, 2008/09) reports both British Crime Survey prevalence statistics based on victim interview and police recorded crime incidence statistics governed by the National Crime Recording Standard (NCRS).

The British Crime Survey (BCS) interviews victims regarding their experiences and perceptions of crime. The main focus of the BCS is stated as providing robust trends for the crime types which it covers and does not aim to provide an absolute count of crime. Police recorded crime statistics governed by the NCRS are administrative data based on crimes which are reported to and recorded by the police in England and Wales. The police recording practice has been governed by the NCRS since its introduction to all police forces in April 2002. Since its introduction, the NCRS has ensured greater consistency of crime recording between police forces nationwide. It also allows for the incorporation of a victim focus whereby all crimes reported by the public are recorded unless credible evidence is produced to the contrary.

1.2.1 Accuracy and Utility of Robbery Incidence and Prevalence Data

Both forms of crime data collection (BCS and NCRS) have their pros and cons. In relation to overall violent crime rates, the BCS is reported to produce more reliable measures and thus more effective comparisons of yearly trends of specific offences (Crime in England and Wales, 2008/09). In comparison, it is acknowledged that trends in police recorded violent crime can be difficult to accurately interpret due to records being subject to changes in the levels of public reporting of crimes and specific local policing priorities affecting the levels of reported and recorded crime (Crime in England and Wales, 2008/09).

The BCS avoids issues such as changes in reporting styles, police recording strategies and localised policing activities. It also includes crimes which are not reported or recorded by the police with the reporting rate calculated by dividing the number of incidents recorded by the total number of incidents. This accounts for the higher number of offences reported per annum in comparison with those of the NCRS which relies on an average 40% reporting rate for all crimes (Crime in England and Wales, 2008/09). The BCS has also consistently collected data since 1981, as opposed to the recently introduced NCRS governed statistics (2002). To note, police recorded figures are available dating back to 1981 but are generally deemed inaccurate prior to the introduction of the NCRS in 2002. Hence, police recorded data prior to 2002 is not deemed suitable for inclusion here.

Moreover, when analysing the pros and cons of each dataset, it is important to acknowledge specific issues in relation to each offence analysed. As robbery is a rare crime (2% of total offences recorded by NCRS, Crime in England and Wales, 2008/09), the number of victims interviewed in the annual BCS is small (around 200 in any one year). Thus, subsequent BCS robbery prevalence estimates should be treated with caution.

Indeed, it is noted that the NCRS governed incidence data provides an accurate measure of trends for less common but more serious crimes, such as robbery (Smith, 2003). Despite reporting a 13% reduction in the number of robberies estimated by the BCS (2008/09) compared with the 2007/08 survey, this reduction was not statistically significant within the parameters set out in the BCS. On the other hand, police recorded crime figures show a significant fall of five per cent in 2008/09 compared with 2007/08. Therefore, because

robbery is such a relatively rare crime, incidence data may present a more accurate pattern of yearly trends within this specific offence type, as opposed to the small sample size and therefore potential variability in the validity and accuracy of the robbery prevalence data reported within the BCS. However, it is suggested that both incidence and prevalence robbery data have their utility in recognising and analysing recent trends in robbery offences committed in England and Wales. With this in mind, both sets of data will be presented.

1.2.2 Robbery Incidence Rates

The Home Office reported that total police recorded robberies in 2008/09 (80,104) were down 5% from 2007/08 (84,751) and are now at their lowest level (27% reduction) since the introduction of the NCRS regulatory standards in April 2002 which recorded 110,271 robbery offences in 2002/03. Although NCRS recorded robbery offences are at their lowest since the NCRS' inception, rates of 'detected crimes' (crimes cleared up by the police) remain problematically low. The average rate for detected crimes throughout England and Wales lies at 28% (Crime in England and Wales, 2008/09), whereas specific robbery offence detection rates were recorded at 20% in 2007/08 and 21% in 2008/09. This highlights the ongoing need to improve detection rates within robbery offending which should in turn further decrease the overall numbers of recorded robbery offences.

Within the stated need to improve robbery detection rates, it is prudent to highlight the offences in terms of geographical concentration. In England and Wales in 2008/09, 59% (62% in 2007/08) of all robbery offences recorded fell within three of the forty four police areas; Metropolitan London, Greater Manchester and the West Midlands, which represent 24% of the total population (Crime in England and Wales, 2008/09). These figures highlight

the disproportionate amount of offences recorded in these three police forces in comparison to their populations.

1.2.3 Robbery Prevalence Rates

The BCS provides an estimate of 272,000 robberies perpetrated during 2008/09. However, the survey interviews a 'low number' (200) of robbery victims which can lead to a fluctuation of estimates on a year to year basis (Crime in England and Wales, 2008/09). Thus, reported trends have to be interpreted with caution and despite a change in estimates from 315,000 (2007/08) to 272,000 (2008/09), this is not reported to represent a 'significant change' (Crime in England and Wales, 2008/09). To note, comparing results from 2002/03 (an estimated 303,000 crimes) to 2008/09 (272,000 crimes) represents a 9% reduction in the number of robbery offences committed. Whilst allowing for the fluctuation in estimates of the BCS data, such a figure (9% reduction) suggests a similar general trend to that represented by the NCRS incidence data (27 %) during the same time period.

The British Crime Survey (2008/09) reports that robbery offences make up a relatively small percentage of overall crime prevalence rates (ranging from 0.3% in 1981, 0.6% in 2006, to 0.5% in 2008/09). The BCS also highlights that the current average of all crimes reported to the police by the victim stands at 41%. This compares to a 40% reporting rate by victims of robbery offences. This suggests that there are no specific issues regarding victims reporting a robbery offence in comparison to other offences and therefore this is not an area of specific concern to be addressed within the thesis.

1.3 Overview of Robbery Data

To conclude, although a robbery offence is a relatively rare crime (2% of total offences recorded by Police in Crime in England and Wales, 2008/09), specific needs remain in improving detection rates and addressing the disproportionately high geographical concentration of offences within these three police forces.

2. Violent Offending

2.1 Theories of Aggression

In acknowledging that robbery is defined as a violent crime involving the use of force and / or fear during the commissioning of the offence it is important to review the theories relating to aggression and subsequent violent offending.

The act of aggression is consistently reported as a complex behaviour in which individual, cultural, social, developmental and environmental factors play their causal roles to a lesser or greater extent, dependent on the individual (Hollin & Bloxsom, 2007). Furthermore, the concept of habitual aggression, whereby an individual has engaged in aggression on more than one occasion, suggestive of an aggressive behavioural pattern, is important in categorising violent offenders (Huesmann, 1998; Ireland, 2009; Martens, 2000).

In looking specifically at developmental factors within the apparent causal constellation of violent offending, deficits in executive cognitive functioning, the ability to attend to information, reason, problem solve, plan and regulate oneself, are highlighted within an individual's capability to make appropriate decisions and subsequent actions (McMurran, 2007; White, Moffitt & Caspi, 1994). Furthermore, deficits in executive functioning have

also been associated with aggressive, impulsive violent crimes and antisocial personality disorder (Giancola, Martin & Tarter, 1996; Golden, Jackson, Peterson-Rhone & Gontkovsky, 1996; Ramadan & McMurran, 2005).

It is also imperative to recognise the role of cognition in individuals' ability to mediate a natural urge such as anger expression and as a mechanism by which aggressive tendencies are strengthened. Indeed, developmental factors appear to be intertwined with the role of cognitions in subsequently mediating or expressing anger (McMurran, 2007). Specifically, hostile attribution biases are reported to develop as a result of the characteristics of a child's developmental environment, whereby difficult childhoods (such as repeated chastisement from parents and teachers and unpopularity with peers) lead these individuals to view the world as an antagonistic and unfriendly place to live (Dodge, Price, Bachorowski & Newman, 1990; Matthys & Lochman, 2005). The conflict resolutions model highlights the impact of growing up in a violent environment, which suggests that individuals internalise hostile beliefs about the world and others and develop the requirement to use violence to dissipate any such hostility and dangerousness, protecting one's self and environment (Hughes & Hasbrouck, 1996; Lochman & Dodge, 1996).

Indeed, the role of 'schemas', psychological representations of an environment specific behaviour, are proposed whereby specific 'anger schemas' predispose an individual to express their anger when triggered by specific environmental cues (Novaco, 2007; Novaco & Welsh, 1989). Therefore, if an individual has grown up within a violent familial environment, they are more likely to have anger schemas which lead them to resort to dysfunctional and antisocial behaviours when confronted with such environmental triggers

(Hollin & Bloxsom, 2007). Furthermore, violence is seen as an effective means of obtaining goals including solving problems, promoting status and increasing self esteem (Collie, Vess & Murdoch, 2007).

The development of the expression of aggression over an individual's lifetime and any subsequent reinforcement of this expression can be examined in terms of the impact of the consequences of aggressive behaviour on individuals within information processing models (Huesmann, 1998). Information processing models are reported to capture the importance of cognition in regards to how an individual interprets and evaluates the consequences of their actions. This interpretation and evaluation is reported to then be judged as to how well it fits in with that individual's guide for social actions, 'scripts', which are influenced by previous learned consequences of events (Ireland, 2009).

In relation to habitual aggression it is acknowledged that all individuals have non-aggressive scripts within their cognitive repertoire but, crucially, habitually aggressive offenders have fewer non-aggressive scripts and thus when a particular non-aggressive script is blocked, their ensuing scripts are more likely to be aggressive (Ireland & Archer, 2002). Whilst signifying a specific treatment need itself in terms of providing habitual aggressors with a greater number of non-aggressive scripts, this also highlights the role which emotions play when selecting a specific script. Indeed, emotions have been reported to drive the selection of cognitions and beliefs which in turn influence the selection of aggressive scripts (Huesmann, 1998; Ireland & Murray, 2005). Thus, any physiological arousal, driven by situational or environmental cues, is likely to influence emotion, script selection and subsequent behaviour.

Situational and social factors also play a part in the expression of anger through violent behaviour. The regular consumption of alcohol during adulthood is reported to exacerbate the outward expression of antagonism and hostility held by individuals with hostile attributional biases felt towards both the world and others (Pihl & Hoaken, 2002). Indeed, associations between alcohol and / or drug use and violent behaviour are consistently reported (Hollin & Palmer, 2003; Roberts, Roberts & Leonard, 1999) along with links between substance use, dysfunctional anger and aggression (Parrott & Giancola, 2004). Some violent offenders also drink heavily prior to committing an offence either by means of sourcing courage or by way of excusing their subsequent behaviour (Zhang, Welte & Wieczorek, 2002). Therefore, substance abuse appears to exacerbate the expression of anger, often fuelled by negative developmental experiences and subsequent cognitions regarding one's self, the world and others.

In summarising the apparent root causes of aggression, it is clear that clinicians and academics must focus on the development of an individual's schemas and cognitive scripts created during developmental years and subsequently triggered in later life by an individual's environment (Hollin & Bloxsom; 2007; Novaco, 2007; Novaco & Welsh, 1989). Such developmental experiences appear to shape subsequent behaviour in adulthood. Research has shown that a childhood characterised by repeated chastisement from parents and teachers, unpopularity with peers and familial violence increases the propensity for an individual to engage in violent and indeed habitually aggressive acts during adulthood (Dodge et al., 1990; Matthys & Lochman, 2005). The perceived lack of social consequences, apparent benefits of

aggressive acts and lack of non-aggressive scripts influencing behaviour for such individuals are also highlighted (Collie et al., 2007; Ireland & Archer, 2002).

2.2 The Concept of Violence within General Offending

In highlighting the root causes of anger and subsequent violence it is important to apply these concepts to general offending patterns. Indeed, the use of violence and particularly gratuitous violence (violence above and beyond the level needed to control a victim) are utilised consistently when identifying offender types for investigative purposes (Goodwill & Alison, 2007; Kocsis, Cooksey & Irwin, 2002).

The concept of different types of aggressive behaviour and subsequent violence were first investigated by Fesbach (1964) who proposed that aggression is the basic ingredient in violent crime, be it expressive or instrumental. Expressive violence is a response to anger inducing conditions such as insults, physical attacks or personal failures. Within a criminal act, an offender using expressive violence has the goal of making the victim suffer (Fesbach, 1964). Indeed, this use of expressive violence may be provoked through emotional or interpersonal turmoil and / or confrontation. In this respect, expressive violence is an emotional act and involves gratuitous levels of violence over and above that required to successfully perpetrate an offence (Salfati & Bateman, 2005).

Instrumental violence relates to an offender attacking a victim in order to gain something from the offence (Fesbach, 1964). In terms of acquisitive offending, this reward could come in the form of money, whilst in relation to a sexual offence the instrumental reward comes in the act of having sex with the victim. In using instrumental violence, the offender is reported

to view the victim not as a person but as a vehicle through which a specific need can be gratified (Salfati & Bateman, 2005). Indeed, whilst instrumental violence within acquisitive offending relates to an offender's desire to obtain objects and monetary reward in relation to status, the offender may have no intention to harm the victim but may feel forced to harm the person to achieve their goal (Salfati, 2000). To surmise, within a violent offence, the victim is reported to be either a person onto whom aggression is expressively directed, or, as a target secondary to the offender's ulterior criminal motivations and actions (Fesbach, 1964; Megargee, 1966; Toch, 1969; Zillman, 1979).

Research has been undertaken to identify developmental differences between instrumental and expressive aggressors. Individuals engaging in expressive aggression are reported to have a history of living in a hostile social environment, including experiences of maltreatment, having controlling and punitive parents, being victims of physical abuse and having a history of general adjustment difficulties, both at home and at school (Dodge, Lochman, Harnish, Bates & Pettit, 1997; Vitaro & Brendgen, 2005). Proactive instrumental aggressors on the other hand are reported to have a history of being exposed to situations where the use of aggression has been reinforced. They are also likely to experience positive relations with their family, have less pressure and monitoring from their parents and are tolerated and accepted by their like minded peers (Poulin & Dishion, 2000; Vitaro & Brendgen, 2005).

In incorporating these proposed background differences in expressive and instrumental violent offenders, a long line of researchers have differentiated between instrumental acts of violence committed for a goal oriented purpose and reactive (expressive) aggression

committed out of hostility in response to some provocation or perceived threat (Barron, 1977; Buss, 1961; Cornell, Warren, Hawk, Stafford, Oram & Pine, 1996; Dodge 1991; Zillman, 1979). This initial work has been investigated further within the general offender profiling literature. Indeed, it is proposed that the distinction between the use of expressive or instrumental violence can be examined within specific crime types by investigating the particular subsets of actions which can be identified from crime scene behaviours (Fritzon, 2000; Salfati & Canter, 1999). Previous work has focused on prevalent crime scene behaviours before placing them into a thematic model for investigative purposes (Salfati & Dupont, 2006). This technique of investigating types of violence within offending behaviour was first used with homicide offenders (Salfati & Canter, 1999).

There is now a considerable amount of research within the profiling of homicide offenders which specifically focuses on the differing roles of instrumental and expressive violence within homicide offending (Salfati, 2000; Salfati & Canter, 1999; Salfati & Haratsis, 2001; Santilla, Canter, Elfgren & Hakkanen, 2001). Within this research it is consistently reported that instrumental homicides are driven by personal gain, with the offender utilising the victim as a non-personalised object in achieving a desire. Expressive homicides, which have consistently been found to be the most prevalent forms of homicide, are characterised by an offender's desire to harm the victim, seeing the victim as a person to interact with (Canter, 1994; Salfati & Bateman, 2005).

Indeed, as homicide is predominately an expressive violent offence, it is suggested that a homicide offender's main aim is therefore to harm the victim, rather than a desire for any instrumental personal gain from the offence, making it a highly interpersonal crime (Salfati &

Bateman, 2005). In acknowledging the victim-offender interaction within homicide crimes, events occurring during this interaction may determine how the crime is played out (Salfati, 2000; 2003). However, it is acknowledged that other factors such as situational, psychological and contextual factors may also alter an offender's behaviour within the offender to victim interaction in violent crime (Goodwill & Alison, 2007).

As highlighted, homicide offences have been investigated frequently in terms of distinctions between instrumental and expressive violence used, amongst offender subtypes from Britain, Finland, Greece and Canada with congruent results (Salfati & Dupont, 2006). The degree of understanding in the examination of the use of expressive or instrumental violent acts in homicide offences has developed to the stage whereby victim and offender characteristics are examined along with situational contexts in which they occur (Titterington, Vollum & Diamond, 2003).

The validity of the application of expressive versus instrumental violence within other forms of violent offending has also been explored. Within the sexual offending literature it is reported that offenders are quite likely to use both forms of violence in terms of whether violence was unprovoked, or in response to victim resistance (Woodhams, Gillett & Grant, 2007). Furthermore, stranger rapes have been classified between the use of overtly expressive violent rapes and less violent, instrumental rapes, perpetrated before or after the commission of a further offence such as theft (Canter, Bennell, Alison & Reddy, 2003).

Within street crime (street robbery and assault), the role of culture and value systems are reported to be a significant variable in whether offenders predominately engage in expressive

violence as part of 'pleasure pursuits', including drug use, gambling and fighting (Anderson, 1999; Bennett & Brookman, 2009; Jacobs & Wright, 1999). Offenders who perpetrate street crime characterised by instrumental violence are reported to do so after planning the costs and benefits of perpetrating such a crime (Bennett & Brookman, 2009).

Indeed, the main difference between assault and street robbery are reported to be the expressive use of violence in an assault and the instrumental use of violence in a street robbery (Bennett & Brookman, 2009). Furthermore, offenders engaging in street robbery were reported to use instrumental violence to ensure victim compliance at the start of an offence, or, to overcome any victim resistance during the commissioning of the offence. Indeed, a robbery offender's planning, evidenced through the knowledge of the target, the degree of the victim's role within the successful robbery of the target and the subsequent force used or implied through the presence of a weapon to gain victim's compliance, if required, are reported to play a crucial role within the successful commissioning of a robbery offence (Luckenbill, 1981).

The offence of burglary, whilst also an acquisitive offence, differs from robbery in that it does not involve any face to face interactions with the victim. Indeed, victim occupancy of a residential target is reported to be the main deterrent from an offender perpetrating a burglary on a planned target (Goodwill & Alison, 2006). Therefore, despite being an acquisitive crime, aggression is very rarely used during the commission of a burglary offence and, as such, is actively avoided. Of the few studies which have been undertaken investigating the crime of burglary, offenders are likely to continue to perpetrate burglaries following their first

offence, with experience and craft identified as key factors for successful perpetration (Bennett & Wright 1994; Cromwell, 1991).

Burglars predominately target residential settings, which are more readily available both in terms of sheer quantity and the availability of items, as opposed to commercial settings with their security systems and personnel (Bennett & Wright, 1994; Yokota & Canter, 2004). Therefore, in suggesting potential typologies and themes for robbery offenders, the little research which has been undertaken into burglary offences offers little insight due to the lack of face to face interaction and thus aggression utilised within the offence.

Moreover, whilst it is acknowledged that general offenders demonstrate a high degree of versatility over their criminal careers (Britt, 1994; Simon, 1997), certain offences are also reported to be highly specific (Trojan & Salfati, 2010). Indeed, researchers are starting to predict offender's use of expressive or instrumental violence within specific offence groups in relation to offender characteristics such as previous convictions (Trojan & Salfati, 2010). Therefore, the concept of offenders using instrumental violence to gain victim compliance or expressive violence during the commissioning of a robbery offence will be explored within the empirical study (Chapter 3).

2.3 Treatment Approaches for Violent Offenders

In analysing the dominant theories of aggression and subsequent violent offending (including robbery) it is important to apply such theory to effective therapeutic intervention packages. In doing so the difficulties in working with such a client group, including a robbery offender, must be acknowledged.

Violent offenders are reported to be a difficult and resistant group to treat due to the underlying schemas driving their personalities and subsequent behaviours (Serin & Preston, 2001b; Wormith & Olver, 2002). Moreover, these schemas are resistant to change throughout an individual's life (Anderson & Bushman, 2002). Within this, it is acknowledged that violent offenders also hold various other attitudes, beliefs and schemas which drive and maintain violent criminal behaviour (Collie, Vess & Murdoch, 2007). Furthermore, clear typologies regarding the causal relationships between cognition and violence are as yet unsubstantiated (Collie et al., 2007).

Despite the engagement issues prevalent within the violent offender subgroup a number of treatment packages have been developed. The core treatment issue with violent offenders is reported to be that of aggression management rather than the antisocial nature of behaviour, which is often a bi-product of this poor aggression management (Ireland 2007; Tremblay & Cote, 2005). Thus, it follows that effective treatment should involve multidimensional treatment packages, addressing both the act of violence and the underlying causes prevalent within each individual case (Hollin & Bloxsom, 2007). Treatment should also be individualised in relation to the risk, need and responsivity principles proposed whereby the intensity of treatment should be tailored to the risk of re-offence, individuals' specific criminogenic needs and the learning styles of each offender (Andrews & Bonta, 2003).

Indeed, it has been reported that the most effective way to reduce recidivism within violent offenders is to use multimodal approaches (Hollin, 1993; 1994). The specific multimodal approach postulates that interventions to alter complex violent behaviours must reflect this

complexity in the way in which multiple aspects of the individual's functioning are addressed (Hollin & Bloxsom, 2007). Complex and consequently more effective offending programmes have been developed for violent offenders (Bush, 1995; Polaschek, 2006) including the multimodal Aggression Replacement Training (ART) for use with adolescent offenders (Goldstein, Glick & Gibbs, 1998). The ART programme has a clear cognitive-behavioural theory basis and looks at three main areas; skill streaming, anger control and moral reasoning training. Since its inception the evidence base for the ART's effectiveness in reducing adolescent offender's aggressive behaviour has grown as indeed has its applicability to other client groups (Goldstein, 2004; Hornsveld, Nijman & DeRuiter, 2005).

Within multimodal approaches it is proposed that relapse prevention treatment should play a significant role alongside other offence specific treatment modules (Ireland, 2009). Relapse prevention, which places the emphasis on the enhancement and development of client's self management skills along with insight into one's triggers and subsequent behaviours, has been applied to a plethora of problematic behaviours including additive behaviour, mental illness and offending behaviour (Hewitt & Birchwood, 2002; Marlett & Donovan, 2005; Ward & Brown, 2004). Triggers and cues occurring prior to an initial lapse and subsequent relapses are identified with the aim of helping to develop strategies for managing these in the future with appropriate coping skills and behavioural rehearsal.

Previous relapse prevention models applied to substance misuse and sexual offending have been criticised on conceptual and empirical grounds (Ireland, 2009; Ward, 2000). Indeed, Ward (2000) has developed a more comprehensive relapse prevention model, the Self-Regulation Model of Relapse Process (SRM-RP) to be used with sex offenders. The SRM-

RP takes account of dynamic factors of risk, background factors, vulnerability, decision making, high risk situations and details of the offence itself. Three major problems relating to emotional regulation are also highlighted, namely disinhibition, the use of ineffective strategies to achieve goals and unhelpful offence supportive initial goals. The inclusion of these emotional regulation difficulties and the SRM-RP's similarities to the information processing model (Huesmann, 1998) has led to the argument for the model's inclusion within violent offenders' treatment programmes (Ireland, 2009).

Moreover, the need to establish the key cognitive features and subsequent behavioural and physiological responses within each offence type and subtypes when exploring and developing effective treatment packages is of paramount importance (Hollin, 1993; 1994; Hollin & Bloxsom, 2007; Ireland, 2009). Such understanding allows for the exploration of any differences between offenders and non-offenders who may present very similarly on the surface. Exploration should focus on what it is about offenders' differing cognitions which leads one individual to head down an offending pathway and the other not (Gilchrist, 2007).

2.4 Summary of Theories of Aggression and Violence as Applicable to Robbery

When attempting to identify different offender subgroups within a specialised offence such as robbery it is important to utilise literature from more researched offender groups to ground such proposals. As stated, robbery is defined as a violent offence and thus the literature highlighted in relation to aggression, violent offending and subsequent treatment needs is applicable. As highlighted, the development of individuals' schemas and cognitive scripts created during developmental years appears to shape subsequent behaviour in adulthood which is often triggered by an individual's environment (Hollin & Bloxsom; 2007; Novaco,

2007; Novaco & Welsh, 1989). Moreover, negative developmental experiences lead to the development of hostile attribution biases and negative scripts impacting on the type of violence used (expressive or instrumental) within the commission of a violent offence (Collie et al., 2007; Dodge et al., 1990; Dodge et al., 1997; Ireland & Archer, 2002; Matthys & Lochman, 2005; Vitaro & Brendgen, 2005).

Furthermore, when splitting violence into instrumental or expressive aggressive acts, it is proposed that underlying thoughts and cognitions of these two offender subgroups (instrumental and expressive) are likely to vary (Gilchrist, 2007). As highlighted, instrumental aggression is driven by specific goals whereas expressive aggressors are more emotionally driven as a result of reacting to perceived hostility and / or provocation (Cornell, Warren & Hawk, 1996).

In terms of these types of violence used within different offender types, expressive use of violence is reported in a physical assault with instrumental violence reported in a street robbery (Bennett & Brookman, 2009; Ireland, 2009). Within the sexual offending literature it is reported that offenders are quite likely to use both forms of violence in terms of whether violence was unprovoked, or in response to victim resistance (Woodhams, Gillett & Grant, 2007). Homicide offences are reported to be predominately expressive violent offences (Canter 1994; Salfati & Bateman, 2005). The degree of understanding in the examination of the use of expressive or instrumental violent acts in homicide offences has developed to the stage whereby victim and offender characteristics are examined along with situational contexts in which they occur (Titterington, Vollum & Diamond, 2003).

It is acknowledged that other factors such as situational, psychological and contextual factors may alter an offender's behaviour within the offender-victim interaction in violent crime (Goodwill & Alison, 2007). Homicide offences have been subject to a vast number of empirical studies and as such specific uses of expressive and instrumental violence can be reasonably predicted. Indeed, in understanding a specific offence type in its entirety a comprehensive theory driven approach is required. However, it is suggested that the holistic investigation and identification of such situational, psychological and contextual factors is beyond the thesis' remit due to the lack of previous empirical research investigating the offence of robbery.

This thesis aims to aid the first stage within this process for robbery offending in investigating crime scene behaviours prevalent within robbery offending (Chapter 3). If robbery offender types and subtypes within robbery can be distinguished through empirical research above and beyond that presented in the current thesis, for example in terms of expressive or instrumental aggression used, specific treatment packages could be developed on a needs-led, multimodal individualised approach, as suggested (Hollin, 1993; 1994; Hollin & Bloxsom, 2007). There are currently no specific robbery interventions available. Whilst investigating and proposing such a treatment model are beyond the realms of this thesis and indeed current research in the field of robbery, specific application of theory to interventions and potential future risk management procedures are explored and analysed (Chapters 4 & 5).

3. Offender Profiling: Critique of Current Approaches

Whilst considering the principles of aggression and violent offending it is also important within the aims of the thesis to critique offender profiling in relation to its applicability as an

academic process to identify specific behavioural characteristics of a specific offence such as robbery. The identification of specific behaviours thus provides a backdrop for subsequent analysis regarding the developmental, situational and contextual processes which may also be present within an offender's motives for committing an offence.

Offender profiling is consistently defined as the prediction of offender characteristics from crime scene information (Ault & Reese, 1980; Canter, 2000; Douglas, Burgess, Burgess & Ressler, 1992; Goodwill & Alison, 2007; Hazelwood & Burgess, 1987; Wilson, Lincoln & Kocsis, 1997). Indeed, offender profiling assumes that a level of consistency and distinctiveness exists in the behaviour used by an individual across a number of crimes and support has been consistently found for both of these assumptions (Canter & Kirby, 1995; Mokros & Alison, 2002; Woodhams & Toye, 2007). Furthermore, research investigating the concept of offender profiling now relies on an epistemological underpinning, whereby statistical data provides scientifically valid and reliable profiles for utilisation in investigative processes by local police forces (Ainsworth, 2001; Canter, 2000; Hakkanen, Puolakka & Santilla, 2004; Muller, 2000; Wilson et al., 1997).

The current mantra of offender profiling research represents a shift from the initial focus on personality traits to identify individual offenders, to looking at behavioural responses prevalent within the commission of an offence. Bem and Allen (1974, cited in Alison, Bennell, Mokros & Ormerod, 2002) were among the first to suggest that personality traits were subject to variability in behavioural responses, dependent upon the situation. This suggestion has subsequently been used by offender profilers to argue that personality traits are therefore not a useful method to use to identify individuals. Indeed, the effect of the

cognitive-affective personality system influencing behaviour as a response to a given situation has been evidenced, whereby behaviours are situation specific due to the psychological meaning of a given situation to an offender (Mischel & Shoda, 1995).

Whilst the use of empirical underpinnings within offender profiling research has developed, a lack of consistency in the use of such methods remains within the field (Dowden, Bennell & Bloomfield, 2007). Dowden et al., (2007) undertook a systematic review of offender profiling research between 1976 and 2007. Criticisms within the field included a lack of successful follow up studies and individualised crime specific studies, few testable and empirically driven theories and a lack of inferential statistics utilised to test even the most frequently used constructs, such as the 'organised versus disorganised' criminal used within FBI investigations (Dowden et al., 2007). Indeed, the findings of the review highlighted the difficulties researchers experience in obtaining reliable and accurate data which could subsequently be used for empirical analysis and thus the lack of repeat publications by researchers in the area. Moreover, the requirement to identify and test any theoretical underpinnings of offender profiling and how various assumptions may fit within specified parameters was again raised (Canter, 2000; Dowden et al., 2007; Hicks & Sales, 2006).

In recognising the lack of offence specific studies within the offender profiling literature it is acknowledged that those which do exist have focused primarily on rape and homicide cases. These studies have begun to investigate the function of specific behaviours which distinguish offences, rather than focusing on individual offenders and speculating on their different motivations behind an offence (Canter, 2000; Canter et al., 2003: Canter & Fritzon, 1998; Salfati & Bateman, 2005; Salfati & Canter, 1999). This thematic approach to investigating

volume crime has also previously been found to be reliable within the investigation of burglary offences (Yokota & Canter, 2004).

When considering this thematic approach, research focusing on the consistencies of repeat offending behaviour for case linkage purposes has suggested that the consistency in characteristics of repeat offending relies on a number of variables, including how situation-dependent the specific behaviours are (Grubin, Kelly & Brundson, 2001; Salfati, 2000; 2003; Woodhams & Toye, 2007). In relating this concept to homicide offenders, Salfati examined the victim-offender interaction and the impact of this on the nature of the subsequent offending behaviour. It was suggested that if a situation occurred whereby a victim resisted, greater than normal physical restraint may be administered in order to control the situation (Salfati & Bateman, 2005). Grubin et al., (2001) also investigated the offence of rape and reported greater behavioural consistency in the control and escape domains as opposed to the sex and style domains tested, the latter two of which were deemed to incorporate behaviours which were more sensitive to either the situation or victim behaviour. This concept could be applied to robbery offending, whereby a victim may verbally or physically resist a robbery, which could subsequently impact on levels of aggression used by an offender to successfully complete the robbery.

Inconsistencies in repeat offending patterns have also been posited within the notion of the learning process which occurs during and after the commission of each offence (Canter, 1994; Grubin et al., 2001). Offenders may learn new techniques in order to successfully perpetrate an offence without getting caught after each offence and / or from other criminals whilst incarcerated (Salfati & Bateman, 2005). An offender's mental state is also suggested

as a variable in the potential inconsistencies of behaviours within a series of crimes. The offender's mental state may differ in relation to the intake of drugs and / or alcohol before or during the commission of the offence. For instance, an offender's level of force used towards a victim may be predicted by the amount of alcohol consumed by the offender prior to an offence (Beauregard, Lussier & Proulx, 2005). This may make the offender less competent in executing the offence, leading to a greater likelihood of conviction. Therefore, it is suggested that the perfect prediction of case linkage based on behavioural consistency is not possible due to the mediating effects of the learning process, situation and / or victim behaviour (Bennell & Canter, 2002; Bennell & Jones, 2005; Grubin et al., 2001; Woodhams & Toye, 2007).

Furthermore, it has been suggested that profiling is only possible when offenders are consistent in their individual and therefore differentiable ways in which they commit a series of crimes and that these crime scene behaviours must relate to an individual's characteristics (Alison et al., 2002; Bennell & Canter, 2002; Cervone & Shoda, 1999; Goodwill & Alison, 2006; Taylor, Bennell & Snook, 2002). Thus, an offender's behavioural responses within an offence situation are suggested to relate to that offender's specific background characteristics. This has led to the 'homology assumption' (Mokros & Alison, 2002), which states that for offender profiling to be deemed valid, offenders committing offences in the same manner must share similar background characteristics.

Whilst there have been many different variations of classification systems and typologies proposed by offender profilers there have been very few specific scientific evaluations of the 'homology assumption' (Doan & Snook, 2008). Of those which have investigated its merits,

little evidence has been found for this assumption either from stranger rape analysis within behavioural themes (House 1997; Mokros & Alison, 2002) or serial commercial robberies (Woodhams & Toye, 2007). Indeed, only low to moderate support has been reported in two studies to date, both investigating arson (Canter & Fritzon, 1998; Hakkanen et al., 2004). Thus, empirical support for the 'homology assumption' is currently weak (Doan & Snook, 2008). This raises questions as to whether the offending themes tested actually exist generally within both the offence and / or specifically in relation to the current dataset and whether the behaviours encapsulated within these themes are situational specific or environmentally driven (Doan & Snook, 2008; Goodwill & Alison, 2007). Moreover, without sufficient support for the 'homology assumption' questions are raised regarding the utility and reliability of the use of typology and thematic based profiling practices (Doan & Snook, 2008).

Indeed, as highlighted, historically the profiling paradigm has followed a rather conscripted conception that offenders who behave broadly in the same way will have behaviours representative of a theme such as *aggressive* and will have broadly similar characteristics such as age, gender, military history that will likely reflect their *aggressive* nature (Canter, 1994; Klassen & O'Connor, 1994). However, little evidence thus far in the profiling literature suggests that the investigation of behavioural themes and other crime scene information will relate directly to a specific offender (Salfati & Bateman, 2005).

Part of the reason for this lack of persuasive results in a behavioural thematic approach appears to be its restrictive nature (Goodwill, Alison & Beech, 2009). For example, thematic representations of crime scene behaviours are usually composed of relatively few (four or

five) distinct and separate themes (Canter, et al., 2003) with some consisting of only two (Salfati, 2000; 2003). Although these somewhat limited thematic representations are not always intended to be utilised as typological or categorical representations of offenders, pragmatically minded researchers have investigated their utility in predicting offender characteristics (Canter, Alison, Alison & Wentink, 2004) with occasional and limited success (Goodwill et al., 2009). This is not entirely surprising as the categorisation of vast numbers of potential behaviours and interactions between victim, offender and situation are reduced to one of five, or at the extreme, one of two behavioural themes. This restriction and reduction of behavioural data is posited to be a major contributing factor to the overall lack of reliable inferential links between an offence and offender characteristics in the current profiling literature.

Indeed, it has been argued that the accuracy of the 'homology assumption' may be dependent on the extent to which behaviour at a crime scene is influenced by situational, psychological or interpersonal factors (Goodwill & Alison, 2007). These factors (situational, psychological or interpersonal) widely encapsulated within offender profiling, are said to have a multifaceted relationship with crime scene behaviours and can therefore cause variability in the accuracy of potential 'profilability' (Goodwill & Alison, 2007).

In investigating this concept, there appears to be a requirement for an increased knowledge pool regarding behavioural and contextual features within each specific offence type, including robbery. For example, one specific element of an offence such as levels of planning, evidenced through control within a robbery offence, could have a strong predictive validity to an offender's age (Goodwill & Alison, 2007). Moreover, it is suggested that a

shift is needed towards understanding the contribution which all individual behaviours have to a specific offence type within a behavioural continuum before generalising and further developing theory focusing on specific behavioural themes or clusters to dynamics of specific offence situations and contexts (Alison, Bennell, Mokros & Ormerod 2002; Bateman & Salfati, 2007; Goodwill & Alison, 2007; Woodhams & Toye, 2007).

Therefore, utilising a behavioural continuum approach would appear to reduce the problem of restriction and reduction of behavioural data prevalent within pervasively behavioural thematic approaches (Goodwill & Alison, 2007; Goodwill et al., 2009). Indeed, the use of a behavioural continuum as opposed to a behavioural thematic approach could potentially have a positive contribution to increasing the overall reliable inferential links which can be made between a specific offence and offender characteristics.

In relating the concept of a robbery offence to the general offending and profiling literature outlined, it is suggested that robbery is a complex interpersonal crime in which aspects within the context or psychological nature of the interaction with the victim may come into play, altering the outcome. This includes the use of instrumental and / or expressive violence (Fesbach, 1964). Indeed, specific behaviours present during the crime may be expressions of certain individuals' styles of behaviour (characteristics), some of which may subsequently be easier than others to identify through profiling.

This notion leads towards the, as yet unsubstantiated suggestion that different behaviours have different predictive validity within specific offences (Goodwill & Alison, 2007; Woodhams & Toye, 2007). Therefore, it is important to look at the crime of robbery

holistically taking into account all of the behaviours and the context (behavioural or situational) in which they occur (Goodwill & Alison, 2007) prior to placing behaviour variables within a thematic model (Canter, Alison, Alison & Wentink, 2004; Salfati, 2000). Thus, a behavioural continuum approach to the profiling of offenders will be followed within the empirical paper (Chapter 3).

4. Aims

To conclude, there is currently a dearth of research specifically aimed at investigating the profiling of robbery offenders. The aims within this thesis are stipulated broadly at gaining a greater understanding into robbery offender types through crime scene behaviours and the behavioural facets used within robbery offences and looking at a specific individual case in terms of treatment and potential future risk management procedures. It is proposed that this information is incorporated within an initial robbery profiling model. In order to achieve these aims, the thesis explores four main areas associated with robbery and the profiling of offenders along with the specific motivations of an individual offender and subsequent implications for future risk management.

5. Summary of Chapters

5.1 Semi-Systematic Review of Commercial Armed Robbery

Firstly, the semi-systematic review focused on the research in commercial armed robbery, an area that, hitherto, has attracted little attention. The aim was to search for typological themes within commercial armed robbery, demographics of offenders, the role of the use and / or presence of a firearm within a robbery offence and the presence of any cultural shifts in the

perpetration of an armed robbery offence from its inception during the 1960's to present day. The impact of offender motives on subsequent crime scene behaviours was also explored.

5.2 Research: Profiling a Robbery Offender from Behavioural Themes, Facets and Offender Characteristics

Secondly, the empirical paper focused on the profiling of 72 male robbery offenders housed within a UK prison. The offenders have an index offence of robbery and were profiled using behavioural themes, facets and offender demographics from multivariate analyses. This is one of the first empirical studies to initially profile the differing types of crime scene behaviour used by a robbery offender in relation to their offending histories.

5.3 Psychometric Critique: Inventory of Offender Risks, Needs and Strengths

This psychometric measure has been chosen for inclusion within the thesis and case study due to its ability to assess both static and dynamic risk along with protective strength factors in individual offenders. This individual approach is an area deemed as particularly important within the repeat offending nature of a robber. Thus, its inclusion in the thesis points towards a suggested framework of analysing the risk and treatment needs of an individual in seeking to break the repeat robbery offending cycle. Specifically, the Inventory of Offender Risks, Needs and Strengths (IORNS) was developed (Miller, 2006; Sam Houston State University) with the aim of filling a void in the assessment of risk and treatment needs for general, violent and sexual offenders. The IORNS measures static and dynamic risk and need and protective strength factors in terms of their relationship to recidivism, treatment need and management. It therefore reflects change in these variables over time in relation to treatment.

5.4 Case Study: Substance Misuse in a Robbery Offender

In order to shed further light on the impact of substance misuse on robbery offence styles and the changing nature of an individual's offending due to the impact of substance abuse and addiction on their mental state, a case study is included. The case study documents the assessment and intervention of a 21 year old male (AZ), diagnosed as suffering from paranoid schizophrenia and held under section 37/41 of the Mental Health Act (1983). AZ has an extensive forensic history of violence towards others and robbery offending within gangs for which he was originally detained in a Young Offenders Institute (YOI). A specific substance use assessment was undertaken after AZ was referred to the substance misuse team within the Forensic Medium Secure Unit (FMSU). The case study focuses on the role which cannabis specifically played within the robbery offender's mental illness and the subsequent drives and motives to commit acquisitive and violent crimes.

5.5 Discussion

Finally, the overall discussion will pool the findings from the above chapters together in synthesising the initial profile of a current robbery offender. This will lead to the development of an initial robbery profiling model. It is hoped that this model will fulfil the stated aims of increasing the understanding of the current robbery offender. Initial conclusions regarding the future risk management and treatment of robbery offenders will also be highlighted.

CHAPTER 2: DEGREES OF PROFESSIONALISM IN COMMERCIAL ARMED

ROBBERY: A SEMI-SYSTEMATIC REVIEW

1. Abstract

This chapter is a semi-systematic review of the research into commercial armed robbery – an area that, hitherto, has attracted relatively little attention. Websites, journals, books, contact with experts and electronic databases were utilised. Studies of commercial armed robbery which fulfilled the pre-defined inclusion criteria were included within the data synthesis. Literature was grouped in terms of an apparent scale of professionalism: professional career, semi professional and amateur. Target hardening strategies appear to have reduced opportunities for the professionals, with a corresponding increase in amateur armed robbers, often fuelled by drug habits. 'Amateurs' were typically under 30 years of age and were early school leavers with few employable skills. For these individuals, the financial gains of armed robbery offered a lifestyle and accessibility to drugs unobtainable through legitimate, non criminal means. In terms of group structure, professionals frequently offended in groups whilst amateurs frequently offended alone. This reinforced the notion that professionalism required clear role assignation, the capacity to work in a team and structured decision making, whilst isolated attacks were less planned, coherent and more opportunistic. Firearms were used in the vast majority of robberies, particularly by professionals, the presence of which afforded greater opportunities for control during the commissioning of the offence.

2. Introduction and Rationale

Chapter 1 considered profiling work regarding general robbery offending. In distinguishing between armed robbery of personal and commercial targets, however, the significantly different victim-offender interactions between the two targets was highlighted (Barker, Geraghty, Webb & Key, 1993; Burney, 1990). It was further identified that including both targets within the analysis of armed robbery can 'blur differences' between these two very different crimes (Banton, 1985; Matthews, 2002). Commercial armed robbery is also associated with greater potential gain and therefore risk in committing the offence successfully (Feeney, 1986). Therefore, this chapter will focus specifically on robbery offences committed to a commercial target, with the use of a weapon.

In terms of current attitudes to this specific crime, armed robbery is considered to be one of the 'most serious violent crimes' with offences accounting for between 1-2% of police recorded crime and armed robbery offenders accounting for roughly 10% of the UK prison population (Matthews, 2002). However, there is a relative dearth of psychological studies investigating the motives and processes specifically involved in armed robbery (as opposed to robbery in general), as well as crime prevention, investigation and judicial responses (Matthews, 2002; Porter & Alison, 2006).

Indeed, previous studies have focused on the analysis of variations in armed robbery crime scenes in relation to actions of offenders and their victims (Matthews, 1996; Porter, Alison & Smith, 2003). However, studies which aimed to formulate typologies of armed robbers from

descriptive data (Gabor, Baril, Cusson, Ellie, LeBlanc & Normandeau, 1987; Matthews, 1996; Walsh, 1986) rarely offered any psychological evaluation for the variations and / or functions of offending behaviour within an armed robbery.

In recognising this omission of armed robbery research specifically within the psychological academic field, it is prudent to highlight the changing nature of an armed robbery offence over the years. Armed robberies began as 'smash and grab' offences in the early 1900's. The introduction of the safe followed, leading to the 'safe cracking' period between the 1920's to 1960's, whereby oxyacetylene flames were used to cut through the safe's metal casing (Ostler, 1969; Walsh, 1986).

By the late 1960's, more robust safes with better locks led to the requirement for heavy cumbersome equipment to successfully open the safe. This triggered the introduction of a new wave of armed robbers, entering commercial premises during opening hours with a firearm from the late 1960's onwards, leading to a reported four-fold increase in the use of firearms in robbery offences from 1973 (300) to 1986 (1350), (Home Office Statistics, 1986; Matthews, 2002). Indeed, armed robbery has subsequently been included within the 'Prolific and Other Priority Offenders Strategy' (2004) due to the associated financial and human cost in becoming a victim of armed robbery.

2.1 Prevalence and Incidence Rates of Armed Robbery

Prevalence rates reveal that the use of a firearm within a violent offence has remained stable 'at or below 1%' between 1995/95 to 2008/09 (Crime in England and Wales, 2008/09). However, it is acknowledged that due to the small sample in the British Crime Survey, police recorded incidence statistics offer a more accurate picture of the specific crime of armed robbery (Smith, 2003).

Specific British firearms analysis from police recorded crime has recently been published (Homicides, Firearm Offences and Intimate Violence, 2007/08). From this, it was reported that in 2007/08, 23% of all firearm offences were robberies (4,014). This represents an increase of 1% (3,976) from incidence rates in 2006/07 and 3% (3,744) from figures in 2004/05. To note, this figure had previously peaked at 5,486 armed robbery offences in 2001/02. In terms of the percentage of robberies involving firearms, figures have remained consistent from 4.7% (1997/98), dropping slightly to 4.1% (2003/04) and back up to 4.7% from the most recent statistics (Homicides, Firearm Offences and Intimate Violence, 2007/08).

Since 1998, the Home Office has distinguished armed robbery in terms of personal (dwelling) and business (commercial) targets. These figures highlight that business (commercial) targets accounted for 11% (9,173) of total robbery offences recorded in 2007/08 and 12% (9,344) in 2008/09. This represents an increase in commercial armed robberies during 2007/08 to 2008/09, compared to 9% the previous three years (2004/05, 2005/06, 2006/07). In terms of specific commercial targets, the highest numbers of armed robberies were committed in shops (1,071

offences, 27% of total armed robbery offences). The least number were recorded in building

societies (14 offences or 0.3%), followed by garage and service station robberies (65 offences or

2%). The largest percentage falls in 2007/08 were reported in garages and service stations, down

40% from 2006/07, representing a three-fold reduction from ten years ago (1997/98).

In terms of geographical concentration, 56% of all firearm offences (excluding air weapons) in

2007/08 occurred in just three police force areas; Metropolitan, Greater Manchester and West

Midlands (Homicides, Firearm Offences and Intimate Violence, 2007/08). These three police

forces also had a higher rate of firearms offences per population, ranging from 37 to 45 offences

per 100,000 population in comparison to the national average of 18 per 100,000 in England and

Wales.

Thus, in summary, the numbers of recorded commercial armed robberies have increased over the

last two years (2007/08 and 2008/09) in comparison to the previous three years (2004/05,

2005/06, 2006/07). Within this, commercial armed robbery offences are predominately

committed in shops, and seldom in building societies. The percentage of armed robberies

encapsulated within overall firearm offences recorded has also increased.

2.2 Armed Robbery Literature

These statistics are important in beginning to analyse and suggest current trends for a

commercial armed robbery offence. As highlighted, previous focus on armed robbery has come

not within the psychological field, but predominately within the criminological academic field (Porter & Alison, 2006).

Previous work suggests that 'cost-benefit analysis' models describe the decision making processes involved in an armed robbery. This 'rational choice theory' is centred on the notion that individuals are bounded or limited by their rationality and as such have the ability to take into account all of the relevant factors present within a rational decision (Clarke, 1983; Matthews, 2002; Simon, 1955). Furthermore, within the theory it is identified that this rationality can be limited by drug or alcohol intoxication (Akers, 1990; Morrison & O'Donnell, 1994).

Discounted factors within this rational choice are highlighted, whereby offenders do also assess the reasons for not committing a crime (Harding 1993; Walsh, 1986). Indeed, in relation to specific armed robbers, individuals are reported to be rational agents operating subject to a cost-benefit calculus (Feeney & Weir, 1986). Specifically, an offender analyses the amount of cash sought and the potential cash haul from a designated commercial armed robbery target. The action of carrying out this robbery is said to be an expression of this rational decision making process (Matthews, 2002).

Criticisms exist of rational choice theory, specifically that the dichotomous nature of the reported decision making process minimises the complex process of motivation (Matthews, 2002; Walsh, 1986, Wright & Bennett, 1994). The theory is also said to obscure important questions of

techniques, procedures and thought processes prevalent within the build up to and commission of the crime (Hindess, 1988; Matthews, 2002) and it is not open to empirical verification (Opp, 1997). Indeed, armed robbery is reported to be replete with ambiguities and complexities (Matthews, 2002) and is stated to be a 'complex interpersonal crime' (Feeney, 1988). Individuals are said to be influenced by predisposing factors (Cornish & Clarke, 1986; Gabor, 1988; Harding, 1993; Wright & Rossi, 1986), reinforcing the importance of adolescence and subsequent criminal experiences (see Chapter 1).

In applying the cost-benefit analysis theory to other armed robbery literature, the vast majority of professional robbers are reported as being able to make accurate appraisals of the likely cash outcome of any given robbery (Morrison & O'Donnell, 1996). This suggests that robbers consider the trade off between effort expended, risk assessment of target and planning (costs), set against likely cash yield (benefit). Such behavioural economic modelling may be especially useful in describing the depth of processing and differences between degrees of professionalism in the offence, with greater (and more accurate) assessment made by more professional, planned offenders than amateur, opportunistic ones.

Indeed, armed robbers have been reported to be capable of 'reasonable predictions' of financial reward from an identified commercial target (Feeney & Weir, 1986; Morrison & O'Donnell, 1988). Furthermore, professional armed robbers appear to conduct a cognitive process, described as 'means-end thinking', leading to a cost-benefit analysis (Alison, 2005; Clarke, 1983; Matthews, 2002; Simon, 1955). Potential benefit is 'measured' through monetary reward

and costs 'calculated' according to effort expended in planning (in order to increase the success of the offence and minimise risk of detection and conviction). This means-end thinking is reported to be especially relevant at the professional end of the spectrum, with specific focus placed on the ability to anticipate consequences of particular actions and to systematically follow steps through the planning to execution of goals (Alison, 2005).

In regards to planning an offence, an element of rationality is reported to be involved within the decision making process of carrying a gun to an armed robbery (Gabor et al., 1987). Individuals with firearms are reported to be 'top of the range' in relation to their decision making and professionalism (Harding & Blake, 1989). Indeed, violence used by a successful, more professional armed robber often involves the taking and exercising of control within a robbery situation (Stanko, 2000). Alternatively, the use of gratuitous violence, over and above the level required to successfully commit an offence, has been linked to specific individual's internalised need to control and dominate within personal interactions (Bourgois, 1996; Messerschmidt, 1993). This trend could also be linked to the cost-benefit analysis of an armed robber, namely the consideration of a lesser sentence when not in possession of a firearm at the robbery scene.

Within offender profiling literature, researchers have previously advocated that behavioural details of an offence can reveal the offender's Modus Operandi (MO) (Goodwill & Alison, 2006). Within this, it is suggested that offenders will consistently commit offences using a similar MO (Green, Booth & Biderman, 1976; Grubin et al., 2001). A specific offender's MO

can be examined through analysing specific behaviours from one offence to another (Bennell & Canter, 2002).

In relation to the specific MO of an armed robbery, the crime has been reported to be committed by either one, or a combination of the following characteristics; the presentation or threat of a firearm; jumping over the counter and threatening staff; breaking into a premises when closed and waiting for staff to arrive; threatening and / or taking a customer hostage; recruiting a staff member for an 'inside job'. This proposed MO of an armed robber is suggested on the basis of a review of armed robbery practices from the 1960's to 2000 (Matthews, 2002).

Furthermore, offenders engaging in armed robbery with the use of a firearm have been separated regarding their MO in comparison to those using a knife to perpetrate a robbery (Woodhams & Toye, 2007). The presence of a firearm was categorised as part of the 'organised risk takers' who targeted larger organisations during the day time, wore disguises and often offended alone using an instructional manner to commit the offence which ultimately yielded cash rewards. Alternatively, the presence of a knife within 'bladed nocturnal planners' coincided with the offender using a more aggressive instructional manner, targeting smaller retail outlets during the evening. Thus, the use of either a knife or firearm within armed robbery offences was categorised as coinciding with different MO behaviours in relation to levels of planning, cash yielded and aggression used. However, it is noted that victim injury remained low in comparison to a third category 'violent opportunists' whereby a weapon was not present (Woodhams & Toye, 2007).

Indeed, based on a study interviewing 340 convicted armed robbers, Matthews (2002) argues that there has been a decline in the professional armed robber in recent years and in the professional robber's wake has come a 'new generation' of increasingly desperate and unpredictable offenders. These individuals tend to be younger, more opportunistic, more impulsive and more likely to be fuelled by drugs in the commission of the offence than their more professional counterparts (Matthews, 2002). Therefore, attempting to conceptualise the range of demographics prevalent across the spectrum of armed robbery offenders may provide further insight regarding the implication that age, experience, criminal background and capacity to plan and organise a team with specific roles may all feature in a cost-benefit analysis. Furthermore, one might anticipate that a direct relationship would exist between the amount of cash gained and the likelihood of greater expertise, use of a team and evidence of planning, all of which are reported to reflect greater evidence of deeper cost-benefit analysis processing (Matthews, 1996; 2002).

2.3 Target Hardening Strategies

To note, it is acknowledged that a plethora of research exists within the general offending literature in relation to target hardening strategies, what works, what does not and the complexities of implementing subsequent strategies. Target hardening strategies will be investigated in relation to armed robbery and will be examined from this perspective alone, whilst acknowledging that target hardening strategies within the general offending literature will

certainly have utility and applicability within this specific offence. However, this is beyond the remit of the current work.

Target hardening strategies in relation to robbery offences have broadly been defined as the introduction of established crime prevention tactics (Matthews, 1996; Smith, 2003). Indeed, it is reported that the number and variety of 'imponderables' creates confusion in armed robbers during the commission of an offence, therefore decreasing their level of control and subsequent likelihood of success (Walsh, 1986). A Home Office Working Group was previously set up (1986) to conduct one of the first ever reviews of Commercial Armed Robbery in the UK. The group was formed following the significant increase (figures doubled between 1983 and 1986) of armed robberies perpetrated against banks, building societies and 'cash in transit' (money from commercial outlets transported by official security companies).

The decrease in armed robberies committed against post offices during the same time period was attributed to the upgrading of security within such establishments, including security screens, audible alarms and increasing physical security. As a result of the review, the Home Office Working Group recommended the introduction of audible alarms, an open plan layout, staff training and a decrease in the amount of cash stored at local banks and building societies (Matthews, 2002).

Indeed, the target hardening strategies invoked by banks and building societies developed further during the 1990's with the introduction of toughened glass, fire proof locks, bars on cash desk

windows and fake note detectors (Wood, Wheelwright & Burrows, 1996). Previous crime

prevention studies have also advocated the specific training of employees in being able to react

appropriately to specific crimes (Clarke, 1997; Peace, 1994; Sutton, 1994). Indeed, a specific

bank with a reputation for being a 'sure bet' in the 1980's subsequently directed staff during the

1990's to fall to the floor (behind their fireproof glass) when an armed robber demanded money.

However, this unconventional and seemingly high risk policy (in terms of the potential danger to

employee's safety) was subsequently withdrawn and has been described as 'effective but short

lived' (Matthews, 2002).

In relation to target hardening strategies, one must also be aware of the 'displacement of crime';

the reduction of incidences of crime towards a particular target and an increase towards another

target within an offence type such as armed robbery (Repetto, 1976). Indeed, studies have

provided evidence of this displacement of offences to other targets within armed robbery,

specifically towards security vans and service stations following the increase in target hardening

strategies in banks and building societies during the 1980's (Borzycki, 2006; Grandjean, 1990;

Matthews, 2002).

Moreover, the 'rapid and interpersonal' nature of armed robbery has historically made it a

difficult crime to police effectively (Matthews, 2002). This has led to the development of

dedicated armed robbery detection units such as the Flying Squad operating in London. The

effectiveness of their work has been evidenced relatively recently when their proactive policing

and surveillance approach aided in the prevention of a planned armed robbery on London's

Dome (Hopkins & Braningen, 2000). However, a problem is reported to currently exist with regards to the ability to sift through the quantity of information available to the Flying Squad in being able to identify quality information to lead armed robbery intelligence and investigations (Matthews, 2002). Indeed, it is argued that such proactive policing strategies are effective, albeit locally and temporarily (Chatterton, 1987; Stockdale & Gresham, 1995). This promotes the notion of rather than adopting a 'one size fits all' model, specific effective strategies need to be adopted within the needs of each police force, offering a combination of reactive and proactive policing methods as deemed appropriate (Matthews, 2002).

To surmise, the current chapter's remit is to conduct the first semi-systematic review of the existent literature with a specific focus on offender's motives and the various methods and processes that underpin a commercial armed robbery. Indeed, the current relatively high incidence rates and the relative dearth of collated psychological intelligence means that commercial armed robbery is an 'outstanding area' in terms of psychological analysis of offender motivation (Matthews, 2002).

3. Aims

The aims of the review can now be summarised:

- To determine and investigate a scale of professionalism within the commissioning of a commercial armed robbery offence.

- To explore offender motives and the notion of a cost-benefit analysis decision making process undertaken by an armed robber.

- To produce an overview typology of the current commercial armed robber in terms of methods, processes and demographics.

4. Methodology

All of the papers reported in the data synthesis section of this semi-systematic review were subject to a specified inclusion criteria following a systematic search of the literature. Specifically, an initial scoping exercise of Internet websites, resource lists and electronic databases was undertaken to search for the presence of any current systematic reviews on robbery and/or armed robbery. No reviews, systematic or meta-analytical data were found, identifying a need for an assessment of the previous research on commercial armed robbery.

4.1 Sources of literature

The search of the literature involved utilising electronic databases. For all databases, the dates searched for were 1960 to present (2009). This extended the search to include the important social organisational work completed on armed robbery in the early 1960's. This work has been highlighted in the introduction and for which much of the subsequent armed robbery research is based on. Experts within the area of armed robbery were also contacted to suggest additional relevant academic papers and grey-literature.

4.2 Inclusion and Exclusion Criteria

The full text of each paper was evaluated using the PICO Protocol, as outlined:

Population: 18 years old and over. Male, convicted armed robber of at least one commercial target. Crime committed anywhere in the Western world.

Intervention: Analysis and suggestions of profiles, characteristics, motivations and/or calculability of armed robbers.

Comparator: No direct comparison, i.e. For the purpose of this review, no intervention or analysis on the motivation for armed robbery from specific work undertaken with an offender.

Outcomes: Aspects of generalised behaviour of convicted armed robbers, suggestibility of career armed robbers, typology of armed robbers.

Language: All studies were primarily written in English, avoiding cultural bias and translation errors/missed meanings through cultural and language differences.

Each paper included within the data synthesis section fulfilled the inclusion criteria outlined in the PICO. Utilising this method allowed for a 'semi-systematic' approach to be used within the review. This was important in terms of regulating the quality and utility of the papers included within the analysis. A comprehensive systematic review was not deemed necessary due to the dearth of psychological papers within the specified area (Porter & Alison, 2006). Therefore, the utility in providing a 'semi-systematic' review of the papers which had been produced within the wider psychological and criminological academic sphere was identified.

To define, the 'semi-systematic' review refers to a systematic search of the literature which was then assessed against pre-defined inclusion criteria. However, the subsequent methodological

quality of these studies was not tested further as would be the process within a traditional systematic review, hence the term 'semi-systematic'. This approach allowed the quality and utility of papers included to be regulated to a degree, without using a more stringent and discriminatory approach utilised within systematic reviews. The approach was deemed suitable within the narrow remit chosen of specifically researching commercial armed robbery offending. Within this, the limitations of not employing a full systematic quality control process are acknowledged in potentially including studies which would not meet quality control criteria within a full systematic review. However, in employing a systematic search of the literature specifically within commercial armed robbery and subsequent inclusion criteria, it is proposed that the method utilised has afforded a degree of quality control within the review.

Within this, it is recognised that a systematic method to the review would provide superior quality in regards to studies subsequently included. However, within this narrow research field, a systematic review approach would have yielded very few applicable studies. Therefore, the current approach was deemed most suitable, whilst the author is mindful to acknowledge its limitations in regards to the quality of studies included. As such, the subsequent findings should be interpreted with these methodological limitations in mind. The data synthesis should be regarded as a thematic review on the back of a systematic search of the literature and fulfilling subsequent specified inclusion criteria.

4.3 Included Studies

Details regarding keywords identified, Boolean search criteria and databases searched can be found in Appendix 1. The relevant studies fulfilling the inclusion data and subsequently included for analysis are highlighted in the following table:

Table 1: Characteristics of Included Studies

Title of study	Authors	Year published	Number of armed robbers	Type of Analysis
Bandits, Cowboys and Robin's Men: the Facets of Armed Robbery	Alison, L., Rockett, W., Deprez, S. & Watts, S.	(2000).	144 convicted armed robbers	Qualitative
Armed Robbery in Australia: 2004 Armed Robbery Monitoring Program Annual Report	Borzycki, M.	(2006).	1989 convictions	Qualitative
The social organisation of armed robbery	Einstadter, W.J.	(1969).	25 convicted armed robbers	Qualitative
The armed urban bank robber: a profile.	Haran, J.F. & Martin, J.M	(1984).	500 convicted bank robbers	Qualitative
Two Police responses.	Matthews, R.	(1996).	340 armed	Qualitative

			robbers	
The social structure of robbery.	McCluskey, K. & Wardle, S.	(2000).	17 convicted armed robbers	Qualitative
An analysis of the decision making practices of armed robbers	Morrison, S. & O'Donnell, I	(1996).	88 incarcerated armed robbers.	Qualitative

The methodology and main findings from each study are summarised (in alphabetical order) prior to their inclusion within the data synthesis section.

Alison et al (2000) identified variations in robbery behaviour as a function of a narrative role in relation to levels of impulsivity (impulsive – rational) and planning (proactive – reactive) involved, as evidenced within specific crime scene behaviours. The sample consisted of 144 convicted armed robbers. In relation to commercial settings, qualitative analysis defined three dominant roles reflecting the qualities of planned and non-impulsive professionalism (Robin's men), planned and impulsive terrorism (Bandits), and unplanned, impulsive aggression (Cowboys). The three dominant roles were successfully reproduced within Smallest Space Analysis (SSA). The behavioural structure of these three robber types are considered in relation to the degree of planning involved and the ability to remain calm and rational during the perpetration of the offence, in relation to the overall self image of a robber.

Borzycki (2006) presents an annual report which summarises information derived from the national armed robbery program. Specific analysis of commercial targets suggests that armed robberies in Australia span a continuum from highly opportunistic, to relatively planned. At one extreme are low-yield, unplanned and essentially opportunistic armed robberies, especially in terms of weapons used, as is the case in the majority of armed robberies committed in service stations. The other extreme appears to be those that result in high gains, employing more difficult to obtain weapons and involving some form of planning or reconnaissance by offenders, such as armed robberies occurring in banks and other financial settings.

Einstadter (1969) utilised interviews with 25 convicted armed bank robbers to analyse career robbery with reference to Sutherland's previously postulated model of systematic or professional criminal pockets, with little similarity found. The social organisation of career robbery was reported as representing a distinct criminal group, the content and characteristics of which represented the unique stance of robbery as a form of criminal behaviour.

Haran and Martin (1984) used detailed life history data and court and reported crime records to examine the criminal careers of 500 convicted bank robbers who appeared before the Brooklyn District Court between 1964 and 1976. There was a 67-percent rate of high school dropouts, and 69-percent rate of unemployed. Overall, 33 percent were heroin addicts. These individuals evidenced disorganisation both in their families of origin and in their current relationships. The majority (81 percent) had prior adult criminal records. Of the 500, less than 25 percent acted alone. Four distinctly different types of bank robbers could be identified in this sample. Heavy

career types with four or more convictions for acquisitive crime, including bank robbery, comprised 29 percent of this population. Casual types, with two or three property convictions accounted for 25 percent. Compulsive types, whose crime was related to drug or alcohol abuse, accounted for 24 percent. Amateurs with no or one prior conviction accounted for 22 percent.

Matthews (1996) interviewed 340 convicted armed robbers between 1992 and 1995 in twelve different UK prisons. The research was funded by the British Bankers and Building Societies associations who were concerned about the increases of armed robberies on commercial targets. The study concluded that the demise of the professional armed robber was apparent and that of armed robbery as a criminal career. The profile of armed robbers and the methods used were reported to be changing, making previously effective target hardening strategies somewhat ineffective. The new profile of an armed robber was reported to be characterised by a more violent, less planned and sophisticated attack. The increasing role of substance misuse as a motive for committing such a relatively amateurish offence was reported.

McCluskey and Wardle (2000) examined the possibility of determining the characteristics of an armed robbery team from their actions at the crime scene. The study examined seventeen armed robbery groups, interviewing one member from each group who had been convicted of armed robbery of a commercial target. Using specialist interview techniques and sociograms, each armed robbery team was examined in a number of areas such as communication, roles, planning, conflict, trust, leadership, recruitment, goals and norms. The research concluded that armed robbery groups share a number of similarities with legitimate groups and that they are goal

orientated, have structure and positions for each member, undertake planning and set rules for the commission of an offence. Membership of an armed robbery team was reported to influence the behaviour, beliefs and attitudes of members.

Morrison and O'Donnell (1996) analysed over 1,000 police reports and interviews with 88 incarcerated armed robbers. Offenders were found to make reasonably accurate predictions with regard to the financial benefits of a crime towards a commercial target. Their analyses of the potential costs involved in committing armed robbery were found to be neither irrational nor grounded in ignorance of the likely outcome. Furthermore, robbers appeared to tailor their modus operandi with a view to both maximising the potential financial rewards and reducing the likely risks involved in the crime. Target hardening and other situational crime prevention strategies were found to have uses beyond their primary prevention capabilities such as aiding in the subsequent detection of offenders.

5. Data Synthesis

The data synthesis section is organised under the three stated aims. Relevant information from each included study is highlighted and discussed as appropriate under each aim.

5.1 Aim 1: Scale of Professionalism

The initial classification of commercial armed robbers suggests a scale of professionalism to amateurism.

5.1.1 Professionals

A professional 'career' armed robber is said to think of himself as a legitimate businessman within an organisation, a job which he takes pride in and indeed a way of life (Alison, Rockett, Deprez & Watts, 2000; Einstadter, 1969; Matthews, 1996). The individual sees themselves as being part of the armed robbery 'profession' and will thus behave in accordance with an unwritten code of conduct of other 'professional' armed robbers (Matthews, 1996).

Professionals target organisations where the individuals present lose nothing personally, viewing the encounter as impersonal and they harbour contempt for amateurs who routinely attack victims within the commission of the robbery offence (Matthews, 1996). Indeed, within this de-personalisation of the commercial armed robbery offence, a professional is reported to embrace the risk of an offence within the rationality of the consequences, to an organisation, rather than to a specific person (Matthews, 1996).

Within inner city circles, 'professionals' work with other 'professionals' within often longstanding groups in which each robber has a predefined role (Alison et al., 2000; Einstadter, 1969). Armed robberies carried out by professionals have been categorised as 'planned operations' (Einstadter, 1969). Targets are meticulously searched in terms of security measures, escape plans and disguises required in order to minimise the need to deal with unplanned contingencies in the actual commissioning of the offence (Alison et al., 2001; Borzycki, 2006; Einstadter, 1969).

The considerable time spent planning the robbery results in the actual execution requiring little reactive effort, but rather rational thinking and proactive control (of people and the target), (Alison et al., 2000; Haran & Martin, 1984). A professional armed robbery setup consists of a surprise attack, the presence of a firearm and verbal instructions. Once victims are witness to the planned systematic methods of the robbers, they will readily cooperate and rarely provide any resistance (Alison et al, 2000). Due to the levels of meticulous planning, a professional robber provides evidence of self control even in unexpected circumstances in a routine robbery situation (Alison et al., 2000; Borzycki, 2006; Einstadter, 1969; Haran & Martin, 1984).

Early research reported that career robbers tended not to target banks, fearing that victims may believe they were amateurs and thus not cooperate as intended (Einstadter, 1969; Haran & Martin, 1984). More recently, professional armed robbers were found to prefer 'mid-range' establishments such as supermarkets, post offices and off-licences (Alison et al., 2000).

5.1.2 Semi-professionals

As the name suggests, semi-professionals are neither professional career robbers nor amateurs. They may be relatively competent in the commission of the offence but do not see their crimes as a way of life or indeed self identity.

The offences committed by semi-professionals involve an element of planning but not the level of emotional control and systematic processing of a professional armed robber (Alison et al, 2000; Einstadter, 1969; Haran & Martin, 1984; Matthews, 1996). Semi professionals appear to

be the most aggressive and impulsive armed robbers, highlighting the motives of these individuals as a means of quickly obtaining money, often for sustaining drug and alcohol addictions (Einstadter, 1969; Haran & Martin, 1984; Matthews, 1996).

This lack of planning for contingencies and situational variations could lead to the use of demeaning language, verbal threats and gratuitous violence during the robbery process (Haran & Martin, 1984). It is suggested that semi-professional type offenders were not only interested in the financial gain of the target but were also committing robbery for the psychological and physiological 'buzz' or adrenalin rush (Alison et al, 2000; Matthews, 1996). However, as a semi-professional armed robber's career continues, they appear to engage in better planning and self control and in some circumstances progress to 'professional' armed robbery (Borzycki, 2006).

To conclude, a semi-professional armed robber appears distinguishable from the professional in terms of a lack of detailed planning, coupled with thrill-seeking, chaotic and impulsive behaviour. This suggests that semi-professionals potentially pose a greater risk of harm to the public.

5.1.3 Amateurs

This is the least planned and least successful of all armed robberies, relying primarily on the element of surprise, an 'ambush', and high levels of violence (Einstadter, 1969; Matthews,

1996). No preplanning regarding exit strategies or financial reward (e.g. risk versus reward) were formulated, with the offender relying simply on a 'let's see what we can get' mindset.

Career armed robbers are reported to look down on ambush attacks as the lowest form of robbery and sought to disassociate themselves from this classification of the offence (Einstadter, 1969; Matthews, 1996). This reinforces the argument that the notion of 'identity as an armed robber' (Alison et al, 2000) is central to the psychological meaning which the offence provides for 'professional' robbers. It potentially provides evidence of an advance in the understanding of the psychological underpinnings of such offending behaviour rather than grouping armed robbers purely in terms of motives (Haran & Martin, 1984;).

The amateur group of armed robbery offenders have also been described as 'cowboys' that needlessly brandish weapons and gratuitously attack victims during the process of the robbery offence (Alison et al, 2000). Amateurs are said to be impulsive individuals, robbing for a 'quick fix' (drugs/alcohol), making no plans for escape or disguise and choosing their target through desperation (Borzycki, 2006; Einstadter, 1969; Haran & Martin, 1984; Matthews, 1996). The majority of amateurs appear to work independently and respond to victim resistance with physical and verbal violence, threatening to possess a weapon even in circumstances where they do not (Alison et al, 2000; Borzycki, 2006).

In comparing these findings to professional armed robbers, amateurs may base their attacks on the fear that professional armed robbery operations have previously brought to the robbery scene.

However, they lack the meticulous planning for all possible eventualities which make professional armed robbers so comparatively effective and successful.

5.2 Aim 2: Cost-benefit Analysis and Motives

5.2.1 Cost-benefit Analysis

The majority of armed robbers studied in Australia and the UK reported that police rarely discovered armed robberies which they had committed but stated a belief that they would have been shot if police had arrived at the robbery scene (Borzycki, 2006; Morrison & O'Donnell, 1996). However, this arrival was deemed so unlikely that it was not taken into account in their cost-benefit analysis as it was seen as an 'unlikely eventuality' (Einstadter, 1969; Morrison & O'Donnell, 1996).

Within this cost-benefit analysis, the majority of amateurs and semi professionals are reported to be fuelled to offend through the need for and/or whilst on drugs (Matthews, 1996; Morrison & O'Donnell, 1996). As a result, they are unaware of the potential gains (benefit) and the potential security measures (costs) to successfully commit the robbery (Matthews, 1996). Therefore, it may be deduced that non-professional armed robbers may evidence lower levels of rationality within their decision making process to commit an armed robbery offence as opposed to professionals.

5.2.2. Specific Motives of Armed Robbery: Money

Differences in the scale of professionalism, evidenced within the planning and commission of an armed robbery offence, appear to yield significantly different financial rewards. As such, it follows that offenders within this scale of professionalism will have differing motivations and requirements for their money obtained through armed robbery.

One motive for armed robbery is reported to be the need to obtain money and more specifically and increasingly apparent, 'money for drugs'. It is suggested that amateurs rob to buy essentials, pay off debts and/or to finance a drug habit (Borzycki, 2006; Einstadter, 1969; Haran & Martin, 1984; Matthews, 1996). Some semi-professionals similarly commit robberies to fuel drug habits, whilst also financing both legitimate and illegitimate business activities, 'refinancing' the money quickly (Matthews, 1996). Professionals utilise their greater financial rewards to support their lifestyle, unobtainable through legitimate means and similarly invest in other business ventures, such as drug dealing (Matthews, 1996).

5.2.2.1 Money for Drugs

Research from Australia indicates that approximately one-third of the armed robbers analysed cited 'money for drugs' as the main motive for committing armed robberies (Borzycki, 2006). Individuals with drug addictions turned to armed robbery to fund their addiction, leading to an increase in 'amateur' armed robbery, hallmarked by a lack of preplanning and 'professionalism' (Matthews, 1996).

A strong positive correlation between armed robbery and heroin use has also been suggested (Borzycki, 2006; Haran & Martin, 1984). A recent decline in heroin availability in Australia coincided with a sharp reduction in the number of armed robbery offences committed (Borzycki, 2006), supporting previous findings (Haran & Martin, 1984).

The taking of drugs is reported to both enhance and mediate the risk of an offender undertaking an armed robbery, dependent on levels of professionalism (Matthews, 1996). Links have been made between the physiological high experienced during the commission of an armed robbery offence and that experienced by regular drug users (Matthews, 1996). This increase in drug-fuelled robbery has also coincided with a reduction in career or 'professional' armed robbery (Matthews, 1996). In fact, professional armed robbers regard being sober and drug free as an integral part of the process of a committing a successful armed robbery (Alison et al, 2000).

5.3 Aim 3: Commissioning of an Offence: Methods, Processes and Demographics

Differences have also been identified in the crime scene behaviours of armed robbers within the apparent scale of professionalism.

5.3.1 The Use of Firearms

The presence of a firearm has been suggested as being a form of instructional 'language', allowing for effective crime scene management (Alison et al., 2000). Offenders with firearms are the least likely to cause harm to the victim due to the level of intimidation and fear that a firearm brings to a robbery situation, reducing the need for physical violence and yielding greater

cash reward (Borzycki, 2006; Haran & Martin, 1984). Firearms are seldom discharged and those carrying a real as opposed to replica firearm engage in superior and more thorough preparation and planning prior to a robbery (Matthews, 1996; Morrison & O'Donnell, 1996). This finding offers a link between the use of firearms and the meticulous planning of a professional armed robber (Alison et al., 2000; Borzycki, 2006; Einstadter, 1969).

Although the benefit of carrying a firearm to control the robbery scene when targeting banks is widely recognised, Borzycki (2006) reports that between 1998 and 2000, only 10% of commercial armed robberies targeting banks in Australia used firearms. This may highlight a shift from the meticulous planning of a professional towards the intimidation of robbery victims by large numbers of amateur offenders.

5.3.2 Group Armed Robbery

Previously, the social organisation of armed robbery has been highlighted, with a group robbery bringing together a number of seasoned armed robbers for a specific job (Einstadter, 1969; Haran & Martin, 1984; McCluskey & Wardle, 2000). Indeed, in terms of experience, the use of firearms within group armed robbery was reported in 84% of gangs of two and 80% of three or more offenders, whilst 73% of armed robbers acting alone did not use a firearm (Borzycki, 2006).

Professionals are reported to form a specific group for the job in hand and take into account existing conditions and resources available to them within the group, including, more recently, a

present or ex-employee as a source of inside information (Matthews, 1996; McCluskey & Wardle, 2000). Roles are said to exist within the group, based on experience, confidence and expertise (Einstadter, 1969; Haran & Martin, 1984). Therefore, the psychological profiling of armed robbery groups must be based on the individuals within these groups who bring their characteristics to the group in terms of planning, knowledge, execution and structure (McCluskey & Wardle, 2000). These individual characteristics ensure that each group differs in its planning and execution of an armed robbery and thus, from these personal characteristics, inferences can potentially be drawn regarding different criminal backgrounds.

5.3.3 Offender Type: Age Typologies and Demographics

The vast majority of armed robbers are reported to be less than 30 years old (Borzycki, 2006; Haran & Martin, 1984; Matthews, 1996). Armed robbers also tended to be uneducated early school leavers, with poor work histories (Matthews, 1996; Morrison & O'Donnell, 1996). Indeed, Morrison and O'Donnell (1996) report that only 6% of the convicted armed robbers in their study had stayed at school beyond 16 years of age. Poor educational background and employable skills are typically correlated with a host of external and contextual factors such as low socioeconomic status. Therefore, educational backgrounds may not necessarily have any bearing on an individual's ability to think, plan and act clearly and precisely.

However, this scholastic history is likely to have impacted on the employment opportunities of these individuals, with 69% and 80% of armed robbers interviewed by Haran and Martin (1984) and Morrison and O'Donnell (1996), listed as unemployed, respectively. Likewise, 75% of

armed robbers analysed by Borzycki (2006) possessed no employment skills, with very few having completed high school education.

5.3.4 Current Offending Patterns

The post mortems which a professional armed robber previously undertook after each offence during the 1960's have been highlighted (Einstadter, 1969). Each successful robbery was seen as a victory which could bind an armed robbery partnership together, furthering criminal careers. Indeed, each success was postulated to serve as motivation for the next and created an aura of self perceived 'invincibility' that was likely to eventually lead to conviction (Einstadter, 1969).

The repeat nature of armed robbery offending continued to be referenced during the 1980's. Haran and Martin (1984) reported that 75% of the armed robbers studied could be considered as serious repeat armed robbery offenders, with the suggestion that most were after the 'big job' before they retired (Einstadter, 1969; Haran & Martin, 1984). This 'big job' has been perceived as the ultimate armed robbery by a professional. If this was achieved, a career was said to have reached its conclusion.

Armed robbery offending has continued to provide the individual with the opportunity to climb up the social ladder through the financial rewards which it brings. Such financial reward for these individuals would not be deemed possible by fair means, due to the lack of educational and legitimate working background of the majority of armed robbers (Einstadter, 1969; Haran & Martin, 1984; Morrison & O'Donnell, 1996). However, within the UK it is reported that

professional armed robbers have begun to move their selection of targets and have increasingly turned to other forms of criminality, due to the increased police presence and intelligence in tackling commercial armed robbery (Matthews, 1996).

Studies in Australia (Borzycki, 2006) have shown that commercial armed robbery has markedly decreased since the turn of the millennium. Indeed, the number of armed robbery victims has reduced from 11,000 in 2001 to just 6,000 in 2005, representing a 40% decrease. This decrease suggests that the demise in traditional career armed robbers targeting banks may be explained by the increased security strategies being implemented by these establishments (Borzycki, 2006).

These high conviction rates provide evidence of the decreasing attractiveness of the proposition of commercial armed robbery to a professional criminal. In 1996, there was more than a 50% chance that an armed robber would be convicted of committing their crime in London (Matthews, 1996). Career armed robbers appear to have turned their focus to easier sources of income such as drug dealing – i.e. their 'cost-benefit calculations' now suggest the costs outweigh the benefits of targeting such commercial establishments.

6. Discussion

The main findings of this review from the data synthesis are discussed in relation to the wider armed robbery offending literature.

6.1 Armed Robbery Types

From the analysis, it appears that commercial armed robbers may be generally considered across a three-level scale of professionalism. This scale of professionalism and its relation to differing levels of; planning, choice of target, amount of cash sought and obtained and the use of weapons and/or disguises used within the offence, appear to be a useful starting point in the analysis of commercial armed robbery.

Firstly, professional and career armed robbers: This group engaged in thorough planning and preparation (Alison et al., 2000; Borzycki, 2006; Einstadter, 1969) with the apparent objective of minimising interference in the commission of the offence by inhibiting reactive contingencies (victim/bystander resists). Professionals lacked educational and employable skills but gained a sense of identity and pride through being a 'career' armed robber (Alison et al., 2000; Einstadter, 1969; Haran & Martin, 1984; Matthews, 1996).

Semi professionals were semi competent at undertaking a robbery offence but failed to demonstrate the same depth of planning and did not see the offences as a way of life or identity. They also lacked emotional self control in the robbery situation (Alison et al., 2000; Einstadter, 1969; Haran & Martin, 1984). This was more likely to emerge within the offence due to the relative lack of control over the social and crime context of their lives.

Amateurs were impulsive and opportunistic (Borzycki, 2006; Einstadter, 1969), often committing the offence to fuel alcohol and drug habits (Borzycki, 2006; Haran & Martin, 1984).

Amateurs based their attacks on instilling fear into the victim but lacked the planning and execution skills necessary to effectively control victims at the crime scene. This often led to a lack of control at the robbery scene and subsequent physical violence (Alison et al., 2000). Psychopharmacological effects are also suggested to play a role in this impulsive and often violent behaviour.

In terms of demographics, armed robbers have been found to be unemployed in about 80% of cases and almost all are early school leavers, without any other form of applied skill or specialist apprenticeship and thus, they possess fewer employable skills (Borzycki, 2006; Haran & Martin, 1984; Matthews, 1996; Morrison & O'Donnell, 1996). The vast majority of armed robbers are under 30 years old. Motives for offending included the cost-benefit analysis of each potential robbery scene by professional robbers. Professionals believed that the chances of getting caught at the crime scene were very slim but if they were caught, they expected to be shot by police. Drug and alcohol addictions have been found to be an increasingly common motive, particularly within those typed as amateur armed robbers. These robberies involved no preplanning, often driven by impulsive decisions of a need to gain money to get a drug 'fix' and were often performed alone by the individual seeking the 'fix'.

Group armed robbery was reviewed and it was found that groups of robbers were most prevalent among professional and semi professional armed robbers. Amateurs tended to work alone. Groups tended to be egalitarian with no formally designated group leader. However, unofficial leaders existed in each specific area based on their experience. Firearms, or the presence of

firearms, were present in around 80% of all group robberies investigated, but were very rarely fired. Career professional robbers almost always carried a real as opposed to replica firearm, as part of their enhanced preparation with the knowledge that the mere presence of a firearm would invariably be sufficient to control a robbery scene.

6.2 The Demise of the Career Commercial Armed Robber

The proposed demise of the career commercial armed robber can be summarised as a reduction in the old style career professionals and increase in amateurs who are more desperate, disorganised, volatile and impervious to crime prevention measures (Matthews, 1996). Indeed, target hardening techniques appear to have altered the cost benefit-analysis of an armed robbery, with arrest now a much greater possibility. The combination of improved security measures within potential armed robbery targets, increased police intelligence and a reduction in the potential cash reward for armed robbers appears to have led to a change in the make-up of a modern armed robber.

Specifically, it is suggested that these measures and their effects have decreased the appeal to a tight knit group of specialist and professional robbers. A separate group of lone amateur armed robbers appears to have come to the fore, the majority of which appear willing to attack a variety of commercial targets in the desperate need for money to fund a drug based lifestyle, with little evidence of planning or forethought within the commission of the offence.

Furthermore, commercial armed robbery appears to have become de-specialised and now exists within a diverse repertoire of amateurish offending. Professionals have displaced their efforts onto more lucrative areas of criminality such as drug dealing (Borzycki, 2006; Matthews, 2002; Willis, 2006). Ironically, this change in armed robber offender type has rendered the previously effective target hardening strategies identified as relatively ineffective with a reduction in detection rates due to the relative lack of utility of informants for crimes committed by these 'unusual suspects' (Gill, 2000). Indeed, an inverse relationship is reported between an offender's inexperience, spontaneity of offence and subsequent detection rates (Gagnon & LeBlanc, 1983).

This change in commercial armed robbery offender type has led to the notion that policing strategies need to be adapted to incorporate more reactive target hardening measures, gathering information from local communities. The utility of specialised armed robbery units such as the Flying Squad appear to be relatively useless in solving armed robberies committed by individuals outside of the 'criminal intelligence network' (Matthews, 2002).

6.3 Application of Findings to Wider Literature

In applying the findings of the current review to the wider albeit relatively sparse literature identified in the introduction, a number of conclusions may be drawn. The apparent scale of professionalism to amateurism prevalent within the review from the included studies appears to support previous literature regarding the levels of professionalism required to engage effectively in 'means-end thinking' within an effective cost-benefit analysis (Alison, 2005; Clarke, 1983; Matthews, 2002; Simon, 1955).

The presence of a firearm by way of instructional language for those grouped as 'professionals' within the current review implies a greater level of planning, decision making and subsequent control during the robbery scene, as previously suggested (Harding & Blake, 1989; Stanko, 2000). Furthermore, the proposed greater use of physical violence by those grouped as 'amateurs' from the current review appears congruent to previous findings (Woodhams & Toye, 2007). Woodhams and Toye (2007) suggested that those grouped as 'violent opportunists' evidenced less planning and more aggression in the commission of their offence, subsequently causing greater victim injury.

Therefore, it is suggested that 'amateurs' from the current review and 'violent opportunists' appear to be reasonably congruent in regards to their offending behaviours. Within this comparison it is acknowledged that whilst 'violent opportunists' did not possess a weapon, 'amateurs' within the current review did. However, they were less likely (in comparison to 'professionals') to effectively utilise the possession of a weapon to control the robbery scene, due to their impulsive and desperate attacks. Despite this, both 'amateurs' and 'violent opportunists' (Woodhams & Toye, 2007) appear to be similar in regards to their greater use of violence towards the victim in obtaining property from previously unspecified targets. Furthermore, it is noted that in looking at robbery offences holistically (with or without a weapon), Woodhams and Toye (2007) were able to distinguish between the differing behaviours associated with the presence of a firearm, or knife, or indeed no weapon. The direct replication

of such findings was beyond the current study's remit, although the utility of such distinction between weapons in relation to crime scene behaviours is noted.

6.4 Strengths and Limitations of Semi-systematic Review

As referenced within the methodology section, this piece of work must be interpreted as a thematic review following a systematic search of the literature and subsequently fulfilling specified inclusion criteria. Therefore, the review is not subject to the stringent quality control processes prevalent within systematic reviews and as such the quality of studies included is likely to be lower than those within a systematic review. The rationale behind not undertaking a full systematic review has been highlighted within the methodology. Despite this, it is acknowledged that the findings of the subsequent review must be interpreted with the suggested caution on the basis of the methodology highlighted. Indeed, initial themes from the review which are put forward, should be viewed as such and should not be reported beyond the realm of these initial findings, which are open to further validation or refutation.

Furthermore, in assessing the strengths and weaknesses of the review, it must be acknowledged that papers utilising qualitative data were included. Therefore, despite the predefined inclusion criteria being fulfilled, a number of potential biases within the qualitative data must be acknowledged. Specifically, a number of the papers included relied on some interviewing with convicted armed robbers. Therefore, the subsequent information from these interviews provides the perspectives of the individual offenders themselves, incorporating all the distortions which this may bring.

In drawing fairly heavily on the study by Matthews (1996) it is important to analyse the pros and cons of the foundations of such data. Matthews bases his claims from his 1996 study on findings from interviewing 340 convicted armed robbers from twelve different English prisons. Thus, by nature of collecting information from offender interviews the study is open to inaccuracies regarding offenders' levels of disclosure and alternative motives within this. Indeed, a realisation is reported that some of the accounts given, particularly in regards to offender motivation, were somewhat rationalised and sanitised (Matthews, 2002). This problem is likely to be prevalent within all of the qualitative studies included. Ideally, accounts of criminals would be utilised alongside materials drawn from victims.

Potential biases must also be acknowledged in terms of the purpose of each paper. For instance, research projects analysing the effectiveness of police strategies will have a natural bias towards effective police practice, in other words a specific agency for a specific purpose (Matthews, 2002). Indeed, Matthews (2002) was funded by the Home Office Police Research Group as a direct response to the growing concern at the number of robberies involving firearms and the relative lack of specific police strategies around the country to deal with such crimes. This particular study was therefore funded by a particular body and as such the study had a specific interest for a specific purpose. However, the relatively rare nature of this specific research into commercial armed robbery make its inclusion important in beginning to draw intelligence within this area, whilst being mindful to consider such limitations within subsequent interpretations.

7. Conclusions

This paper has provided a semi-systematic review of commercial armed robbery offences dating back to 1960 after it was concluded that the number of commercial armed robbery offences is currently rising. Within this present rise, the highest numbers of commercial firearm robberies were committed in shops, while the largest percentage falls in 2007/08 were in garages and service stations, which have seen a three-fold reduction from ten years ago (1997/98). Post office robberies have also fallen by a quarter, while bank robberies have increased by 62% (Homicides, Firearm Offences and Intimate Violence, 2007/08).

These statistics provide evidence to support suggested current trends for armed robbery offences, namely the demise of the career armed robber and the rise of the amateur. There is currently a high geographical concentration of these offences, suggesting potential repeat offending patterns. As suggested, the makeup of an armed robbery offender appears to be changing, shifting from a professional to an amateur culture and in turn leading to a shift in specific commercial targets. Offence patterns appear to evidence a move away from specific commercial targets such as garages, service stations and post offices, towards a re-focusing of attentions on banks and building societies, although the total number of these offences remains comparatively low.

8. Recommendations

The requirement for different strategies in tackling commercial armed robbery in different areas of the country has previously been raised (Matthews, 1996; 2002). Based on this review, it is

suggested that a balance may be needed between the use of informants, forensic and surveillance work and proactive or reactive policing in rural areas. This raises the question of providing a typology of armed robbery offenders for all police areas in the country where commercial armed robbery is prevalent, involving types and trends of armed robbery. Proven successful strategies could be potentially implemented from other parts of the country to a similar demographic in another policing area.

Implementing these strategies would enable a nationwide reactive and regionalised commercial armed robbery preventative model. However, it is acknowledged that this is the 'ideal' future situation and as such the author is mindful of the limitations raised within the current study and therefore does not propose that current findings should be used as evidence to inform such preventative models. The current study is merely an initial review of current commercial armed robbery practises, open to and requiring further review and validation.

It has also been identified that methods need to be developed in implementing ways to offer career armed robbers' alternative non-deviant options in life (Schwaner, 2000). Such individuals require help and intervention from Local Authorities in offering the opportunity to learn new work skills which enable them to earn a living from legitimate means upon release from prison. Within the redirection in obtaining daily means, the attachment and powerful self identification which professionals appear to have with armed robbery must also be broken. In addition, avenues such as offering drug and alcohol counselling to ease the addictions which often fuel the need to commit armed robbery must be implemented. These recommendations are suggested

alongside empirical research on any such implementations deemed necessary to assess the

ongoing effectiveness in the understanding and thus prevention of commercial armed robbery

offences.

CHAPTER 3: PROFILING ROBBERY OFFENDERS FROM BEHAVIOURAL THEMES, FACETS AND OFFENDER DEMOGRAPHICS

1. Abstract

Previously, Yapp and Goodwill (Masters Dissertation, 2008) analysed an existing typology of robbers (Smith, 2003) based on the approach used by the offender to commit the crime, namely; Blitz, Confrontation, Con and Snatch. Multidimensional Scaling (MDS) analysis indicated that 19 of the 23 variables were correctly attributed to the four robbery approach styles. This study explored the plausibility and reliability of two hypothesised behavioural facets; *interaction* (low to high) and *violence* (used to suggested). The two facets' applicability in predicting crime scene behaviours and possible offender characteristics were analysed. Levels of interaction were found to be higher for a robbery committed within a commercial location. The level of interaction used by an offender with a victim was found to increase with offender age, suggesting an older, more controlled, perhaps professional career criminal using greater levels of interaction. Levels of interaction were found to be lower for a robbery committed outside and for offenders with previous convictions for property offences and offences against the person. Overall, violence was found to be prominent within almost all robbery offences, albeit to non-significant levels and in this respect, the violence facet could not be labelled as a specific discriminatory predictor within different robbery approaches.

2. Introduction

2.1 Prevalence and Incidence of Robbery

For a detailed breakdown on the incidence and prevalence rates of robbery please refer to Chapter 1. In summation, total robbery offences and victimisation rates have decreased from 2002/03 to the present figures from 2008/09 (Crime in England and Wales, 2008/09). Thus, on the surface of these statistics, it may be suggested that the commissioning of a robbery offence is generally reducing in frequency. However, in terms of 'detected crimes' (crimes cleared up by the police), the average robbery offence detection rate is lower than the average for all crimes throughout England and Wales. The majority of offences also fall within three of the forty four police areas; Metropolitan London, Greater Manchester and the West Midlands.

The lower detection rate and high geographical concentration of robbery offences reiterate the government's call for the development of 'targeted expert advice' to decrease the opportunities for robbery offences to take place (Simmons, 2002; Smith, 2003). These suggested measures potentially include effective robbery profiling models which would centre on improving detection and conviction rates.

2.2 Overview of Previous Classifications and Profiling of Robbery Offenders

As highlighted within Chapter 1, a variety of approaches exist within offender profiling, which has been broadly defined as the prediction of offender characteristics from crime scene information (Ault & Reese, 1980; Canter, 2000; Douglas, Burgess, Burgess & Ressler, 1992; Goodwill & Alison, 2007; Hazelwood & Burgess, 1987; Wilson, Lincoln & Kocsis, 1997).

Indeed, the reader is referred back to Chapter 1 for an in depth analysis of offender profiling approaches.

Based on this critique of profiling approaches, it is argued that specific behaviours during a crime such as robbery may be expressions of the psychological nature of the offender and thus relate to aspects of the offender's normal life. For example, the production of a firearm (when not particularly needed) during a street robbery may indicate a flamboyant criminal lifestyle but perhaps not a criminal past – as the use of a firearm carries a much heftier sentence if caught (Criminal Justice Act, 2003). However, as with other interpersonal crimes, robbery is a complex crime in which aspects within the context or psychological nature of the interaction may come into play, altering the outcome (Grubin et al., 2001; Salfati & Bateman, 2005). Therefore, it is important to look at the crime holistically taking into account all of the individual behaviours and the context (behavioural or situational) in which they occur (Goodwill & Alison, 2007; Woodhams & Toye, 2007) before being placed within a thematic model (Canter et al., 2004; Salfati, 2000).

Therefore, as highlighted within Chapter 1, a behavioural continuum approach will be utilised within the current empirical study. Prior to this, it must be acknowledged that the initial classification of offences has previously been seen as an important step towards developing a framework from which to empirically investigate the various aspects of an offence such as robbery. Such classifications have previously led to a thematic model driven by the results of

these investigations. Even so, the classification of robbery offenders has been relatively limited within the profiling research field.

Of the research which has been undertaken, robbery has been investigated in regards to the applicability of case linkage techniques within serial commercial robberies (Woodhams & Toye, 2007). Within this study, a hierarchical cluster analysis produced three different robbery styles relating to singular offences; violent opportunists, organised risk takers and bladed nocturnal planners. 'Violent opportunists' were characterised by the use of impulsive violence to obtain any property available, with no weapon used. 'Organised risk takers' were characterised by an air of professionalism evidenced within the planning of an offence involving a specific target and the presence of a weapon, rarely harming the victim. 'Bladed nocturnal planners' were characterised as a mixture between the other two offender types, attacking at night, ordinarily at lower risk establishments but with some evidence of planning. Aggression was used by this offender type to threaten but seldom to harm the victim (Woodhams & Toye, 2007).

Offender characteristics, such as age and previous convictions were also tested against the three cluster solution but no statistical evidence of significant differences in offender characteristics between the three robbery types were found (Woodhams & Toye, 2007).   Despite this, behaviours suggestive of an element of control within a violent offence such as the presence of a weapon, offender's manner and language used, were reported to be characterised within an offender's general demeanour and style rather than being situation dependent (Grubin et al., 2001; Woodhams & Toye, 2007). In this respect, it is suggested that such behaviours may be

more prone to profiling in relation to the behavioural consistency approach than those which are more situation dependent, falling in line with research highlighted within the previous section (Goodwill & Alison, 2007; Woodhams & Toye, 2007).

Indeed, although robbery offenders have been somewhat ignored within the profiling literature prior to Woodhams & Toye (2007), offenders have previously been classified in terms of planners or opportunists (Alison, Rockett, Deprez & Watts, 2000; Walsh, 1986). A planned offence consists of targeting victims with large amounts of non-personal wealth, using terror (the presence of a weapon), rather than violence. It is suggested that a criminal who promotes professionalism and levels of planning will remain cool and calm when committing an offence (Alison et al., 2000).

The concept of planning as an intrinsic crime scene feature has been investigated in relation to offenders' intelligence (Gebhard, Gagnon, Pomeroy & Christensen, 1965) and the discrete behaviours which are suggestive of a level of planning and therefore intelligence, such as the presence of a weapon (Canter et al., 2003). Related findings from rape offences stipulate that levels of planning increased with offender age and that a lack of cognitive effort was evidenced within a lack of planning, which led to an increase in the likelihood of verbal interaction between offender and victim (Goodwill & Alison, 2007).

This interaction is suggested as undesirable within the commissioning of a rape offence, reducing the control at the crime scene and leaving the chance of emerging dynamic factors negatively

affecting the completion of the offence (Goodwill & Alison, 2007).   However, it is suggested

that levels of planning and thus control within a robbery offence may be suggestive of high

levels of cognitive ability, evidenced within greater levels of interaction in 'facing down' the

victim rather than using gratuitous violence (Alison 2005; Gebhard et al, 1965).

Opportunistic offences are said to be perpetrated from the backdrop of a desperate and chaotic

lifestyle due to alcohol and drug addictions (Feeney, 1986; Goodwill & Alison, 2006; Matthews,

1996; Walsh, 1986).   As a result, a reactive impulsive offence takes place after little or no

planning due to the individual reacting as and when a potential robbery situation presents itself.

Relating this to the notion that consistency exists between offender characteristics and therefore

behaviour within everyday life and the crime scene (Alison et al., 2002), a disorganised,

unplanned offence may suggest a lack of emotional control in an offender's everyday life.

Furthermore, the methods employed by a robbery offender in gaining the victim's compliance

within the successful completion of an offence have also been investigated (Luckenbill, 1981).

Luckenbill (1981) proposed that an offender must accomplish four tasks to successfully complete

a robbery. Firstly, an offender must establish a co-presence with the victim, moving into striking

range without the victim's awareness and therefore readiness to defend against the robbery.

Following this, the offender must gain the victim's compliance through the use of physical

coercion, transforming the robbery towards a common robbery frame in which the offender and /

or the victim will transfer the victim's goods, dependent on the expertise required to access them.

Following the successful completion of these three steps, the offender subsequently leaves the scene with their pre-determined robbery target (Luckenbill, 1981).

The conditions necessary for generating the victim's voluntary compliance were specifically explored (Luckenbill, 1981). This was reported to involve the offender effectively communicating the requirements of the robbery to the victim who must interpret the offender's actions within this communication as an indication of impending coercion. Indeed, for a successful robbery to take place, it is reported that the offender must demonstrate the capacity to punish yet portray judiciousness in the administration of this punishment.

This level of force used and / or threatened is reported to be dependent on whether the victim is required to achieve the goal, such as opening a safe. If so, the offender must bridge the gap between compliance and threat used, by making the victim's compliance the most attractive list of options to the victim within the robbery scene (Luckenbill, 1981). Therefore, the offender's planning, evidenced through the knowledge of the target, the degree of the victim's role within the successful robbery of the target and the subsequent force used or implied through the presence of a weapon, plays a crucial role within the offence. It is noted that this study explicitly explored the relationship between the victim and offender during the robbery scene. As such, it offers a rare insight into a relatively unexplored area of the robbery offence in regards to the offender gaining the victim's compliance, an area which has yet to be further validated, or indeed refuted.

In terms of more recent analysis, Smith (2003) suggested utilising an offender's approach to the victim as an initial framework for exploring statistical relationships between the demographics of robbery offenders. From this, Smith (2003) proposed four different robbery offence types; Con, Confrontation, Snatch and Blitz. Smith (2003) based this suggestion on previous work by Grubin, Kelly and Brundson (2001), in the classification of stranger rapists for investigative purposes. Although Smith's (2003) adoption of this framework was perhaps more speculative and theoretical than based on quantitative criterion, it was arguably a useful point to begin quantifiably deriving a classification of robbery offenders.

Indeed, one method of investigating Smith's (2003) classification of robbery involves the multivariate analysis of crime scene behaviours to draw out particular types of offenders based on these behaviours and relate those to specific characteristics of an offender. Yapp and Goodwill (Masters Dissertation, 2008) concluded that using Smith's (2003) classification of robbers by their approach to the victim was a viable starting point in profiling robbery offenders. This conclusion was made after Multidimensional Scaling (MDS) analysis indicated that 19 of the 23 crime scene behaviour variables which were predicted prior to analysis to belong to one of the four specific robbery approach styles (Con, Confrontation, Blitz and Snatch) were correctly attributed to these styles (please refer to the methodology section in this chapter for more details).

Yapp and Goodwill (Masters Dissertation, 2008) reported that on the basis of the four approach styles investigated, offences could be classified by locating the centre of gravity (e.g., average)

of each offence and classifying each of the 72 offences to a region (e.g. Snatch, Con, Blitz or Confrontation) in which this weighted centre of gravity x/y point was located. The classification of these offences indicated that the 72 offences were classified as; Blitz 24 (33.3%), Confrontation 22 (30.6%), Snatch 20 (27.8%), and Con 6 (8.3%), (Yapp & Goodwill, Masters Dissertation, 2008). These results were largely congruent to those reported by Smith (2003), with Confrontation robbery approach types (n= 636, 37%) accounting for the most robbery offences, followed by the Blitz approach (n= 430, 25%), Con approach (n= 379, 22%) and finally the Snatch approach (n= 241, 14%).

Therefore, Blitz and Confrontation remained more prevalent within both studies than Con and Snatch. Such congruence in the robbery approach theme classifications between the two studies seemingly provided the initial backdrop to further analysis towards profiling the offence of robbery.

2.3 Robbery Approach Styles, Interaction and Violence

After subsequent investigation it was hypothesised that the four robbery approach themes proposed by Smith (2003) and analysed further (Yapp & Goodwill, Masters Dissertation, 2008), differed in their levels of interaction and violence based on the specific crime scene behaviour variables captured within each approach theme. Such a hypothesis and its theoretical origins are explained below.

In terms of levels of violence used, Blitz and Confrontation offences appeared indicative of high levels of violence used, Con and Snatch appeared indicative of low levels of violence used. Specifically, a Blitz attack is typically more violent and incorporates low levels of interaction with the victim. Injuries to the victim and multiple acts of violence also appear characteristic of these offences. The Confrontation robber appears to use violence (used and/or threatened) to intimidate the victim into handing over their possessions. The threat of violence, the use of planning and the presence of a firearm were also most prevalent within Confrontation approaches (Smith 2003; Yapp & Goodwill, Masters Dissertation, 2008).

In terms of levels of interaction used, Con (e.g. confidence trick) approaches are characterised by victims that are either, distracted, duped or lulled into a false sense of security, through the initiation of idle conversation. This allows the offender time to assess a victim's suitability, before carrying out the robbery offence. As stated, Confrontation approaches appear to be characterised by the presence of violence (used and/or threatened) to intimidate the victim into handing over their possessions, thus suggesting high levels of interaction with the victim. Both Con and Confrontation robbery offenders spend longer undertaking their offences due to this greater level of initial verbal interaction (Smith 2003; Yapp & Goodwill, Masters Dissertation, 2008).

Finally, Snatch approaches typically involve low levels of violence (used or implied) and low levels of interaction, with the offender grabbing the exposed item from the victim without struggle and fleeing the crime scene with the property (Smith, 2003). These are

characteristically opportunistic offences carried out by offenders under the influence of alcohol and/or drugs, which moderates interaction as a variable in itself (Smith, 2003; Yapp & Goodwill, Masters Dissertation, 2008).

2.4 Behavioural Continuum Profiling Approach

In investigating these hypotheses, it is suggested that the notion of a behavioural continuum is promoted in the current empirical study, moving away from the set of four robbery approach themes previously suggested (Smith, 2003; Yapp & Goodwill, Masters Dissertation, 2008). Therefore, it is suggested that the robbery approach themes proposed are not concrete, but rather a continuum of behaviour, in that variables in between themes (e.g. between Blitz and Confrontation) are not strongly associated with either approach.

This lack of distinction between approach themes for such behaviour variables follows the suggestion of the greater utility in investigating continuums of behaviour as proposed in Chapter 1 (Alison, Bennell, Mokros & Ormerod 2002; Bateman & Salfati, 2007; Goodwill & Alison, 2007; Woodhams & Toye, 2007). Indeed, it is suggested that these continuums of behaviour may be best represented by behavioural facets of violence and interaction. In approaching the profiling of robbery offenders from this angle, the research falls in line with a more holistic behavioural continuum approach. As discussed in Chapter 1, this approach is used as opposed to a behavioural thematic classification previously used (Yapp & Goodwill, Masters Dissertation, 2008) which has been evidenced as having limitations in its utility in successfully profiling specific offenders within specific offences (Goodwill & Alison, 2007; Goodwill et al., 2009).

2.4.1 Facet Theory

Facet theory (Canter, Heritage & Wilson, 1991) can be used in the interpretation of

Multidimensional Scaling analysis (MDS) plots to identify facets or scales of behaviours that

define the themes or grouping of variables. The results of previous MDS analysis (Yapp &

Goodwill, Masters Dissertation, 2008) suggested the presence of two behavioural facets; levels

of interaction and violence within the robbery behaviour crime scene variables studied. The

MDS solution (Appendix 2*)* illustrated that the variable placements potentially corresponded to

the increase or decrease in the level of each facet as you travelled from one side of the plot to

another. Therefore, specific crime scene behaviour variables which were not strongly associated

with a particular approach due to their positioning within the MDS plot could potentially be

interpreted within the behavioural facets of violence and/or interaction.

2.4.2 Interaction with the Victim

The type of interaction used within a robbery offence can be defined by the initial point of

contact between offender and victim. This initial point of contact will either be physical or

verbal. The snatching of exposed possessions from a victim is proposed as the simplest form of

robbery (Smith, 2003) and the greater the complexity of the robbery, threatening, using violence,

confidence tricking the victim, will all require greater cognitive ability in the offender 'facing

down' the victim (Alison 2005; Gebhard et al., 1965)**.**

Therefore, analysing the initial contact style (e.g. Blitz versus Con) or the overall level of interaction between offender and victim can potentially reveal details about the offender's cognitive ability, experience and mental state. For example, offenders may use cognitive distortions in deeming violence to be necessary, while others who are unwilling to deem violence necessary may use other techniques such as verbal interaction to gain the victim's trust (Alison et al., 2001). This suggests that many of the offender's background characteristics, such as educational, emotional and experiential backgrounds, may be inferred from the style of approach and interaction used with the victim (Ault & Reese, 1980; Canter, 2000; Douglas et al., 1992; Goodwill & Alison, 2007; Hazelwood & Burgess, 1987; Wilson et al., 1997). As highlighted within the violent offending literature (Chapter 1), the analysis of offender background characteristics is a potentially important distinction for utilisation within investigative purposes.

2.4.3 Levels of Violence Used or Threatened

As highlighted within Chapter 1, the use of specific aspects of violence such as whether the aim is instrumental (necessity to commit a crime) or expressive (an expression of the offender's anger) are also useful in distinguishing between offenders (Canter et al., 2003; Salfati & Bateman, 2005). For example, instrumental violence may occur during a robbery committed for personal gain, such as funding an alcohol or drug habit (Borzycki, 2006). The presence of items to threaten and terrorise a victim (weapons such as firearms or knives) may be used instrumentally to enhance the offender's control of the victim and situation (Alison et al., 2001) decreasing the need for physical violence to gain control (Gabor, Baril, Cusson, Ellie, LeBlanc & Normandeau, 1987).

Alternatively, a knife or firearm can be used expressively in acts of multiple and gratuitous violence well beyond controlling the victim (Nussbaum, Collins, Cutler, Zimmerman, Farguson, & Jacques, 2002). Indeed, the use of either a knife or firearm has previously been used as part of a distinction between different types of robbery offender (Woodhams & Toye, 2007). Specifically, the presence of a firearm was associated with organisation, levels of planning and little victim injury. The presence of a knife was associated with offences characteristic of slightly lower levels of planning and subsequently greater levels of violence, although this rarely resulted in victim injury (Woodhams & Toye, 2007). Clearly then, attending to not only the elements of a crime, such as whether the offender had a knife, but also to how and why the knife was used, is imperative to any investigative classification.

2.4.4 Implications for the Profiling of a Robbery Offence

Previously, studies have attempted to distinguish between offenders by relating crime scene behavioural elements to robbery approach types (Smith 2003; Goodwill & Yapp, Masters Dissertation, 2008). Within the current study, distinctions in the level of violence and interaction used in the offence are hypothesised to be present and are to be analysed within a facet theory context (Canter, Heritage & Wilson, 1991). The two behavioural facets of interaction and violence will be based specifically in the context of the how (approach) and where (location) in which an offence was committed. The current research seeks to explore the potential distinctions between these facets in examining the potential why (motive) behind the offence, based on the

statistical analysis of the relationship between the hypothesised facets and offender background characteristics.

It is proposed that this analysis will add to intelligence on the behavioural details of a robbery offence which can subsequently reveal an offender's modus operandi (MO) (Goodwill & Alison, 2006) which is likely to be consistent over a number of offences (Green, Booth & Biderman, 1976; Grubin et al., 2001). An offender's MO can be examined through analysing specific behaviours present from one offence to another. However, it is acknowledged that a lack of clarity currently exists within the profiling literature as to what constitutes consistent robbery crime scene behaviours within an offender's MO (Bennell & Canter, 2002).

Furthermore, it is suggested that the levels of interaction and violence used in a robbery offence could potentially be suggestive of an offender's age and therefore levels of experience and craft, as supported within the burglary profiling literature (Bennett & Wright, 1984; Cromwell, 1991; Goodwill & Alison, 2006). This potential distinction based on the hypothesised behavioural facets of violence and interaction may suggest the beginnings of an initial robbery profiling model, with the behavioural variables coded within the robbery approach themes encompassed within these two facets accordingly. This approach would reduce the problem of restriction and reduction of behavioural data prevalent within pervasively behavioural thematic approaches (Goodwill & Alison, 2007; Goodwill et al., 2009). Indeed, the multifaceted approach in using behavioural facets is suggested as being a potential contributing factor to increasing the overall

reliable inferential links which can be made between a specific offence and offender

characteristics.

2.5 Aims and Objectives

Thus, the broad aim of the paper is to identify whether the two behavioural facets hypothesised

(violence and interaction) can be used in conjunction with offender background information to

accurately predict offending patterns and behaviours from the original four approach themes

identified (Smith, 2003; Yapp & Goodwill, Masters Dissertation, 2008). Analysis will therefore

focus on the two hypothesised behavioural facets. This approach will reduce the restrictive

nature of a pervasively behavioural thematic approach, whilst allowing for the inferences of

variables within the approaches identified along more of a behavioural continuum. The

completion of the analysis of an offender's motives inferred from background characteristics

may be incorporated within an initial robbery profiling model. The implications of the results in

relation to further research to work towards the ultimate goal of providing investigative support

in robbery offences will be discussed.

3. Methodology

3.1 Sample

The sample used in this study included all of the male robbery offenders (n=72) residing in a

specific UK Prison during the data collection period of January 2006 to February 2007. The data

was collected and coded onto the database by a member of the prison psychology team unknown

to the current researcher. Although the original researcher collected the data for a study of

robbery offenders, the pre-selected nature of the database has implications for the type of data collected and utilised within the current study. These implications will be commented upon in the discussion. Details of the offenders' robbery convictions were taken from the Offender Assessment System (OASys) database and provided situational and behavioural crime scene information and offender characteristics.

The mean age of the sample was 27.59 years, with a SD of 6.4 years. Of the 72 robbers, 54(75.0%) of the offenders in the sample were White, 4 (5.6%) Black, 1(1.4%) Asian, 1 (1.4%) mixed race. There were 12 participants for whom this information was not available. The sample was of predominantly British nationals 70 of 72 (97.2%) and born in the UK, 69 of 72 (95.8%), the other two being European citizens.

3.2 Procedure

Ethical approval to utilise the database for a study on robbery offenders had already been granted by the UK Prison in which the other researcher collated the original database. However, due to the current researcher utilising the database for a subsequent study, further ethical approval was also sought from the University of Birmingham and was granted accordingly.

Inclusion criteria for the sample required offenders to fulfil the criteria of; male, over the age of 21 years, convicted and sentenced with an index offence of robbery. Based on this, all offenders resident in the prison during the data collection period (January 2006 to February 2007), who fulfilled the criteria were included in the data. Thus, in essence, opportunity sampling was used.

Whilst acknowledging that this may have affected the number of potential offenders available for the study, due to issues of prison transfer and remand, it is unlikely that this opportunistic sampling strategy would have biased the sample.

Specific offender variables and offence information were recorded on the database from the electronic offender classification system, OASys. The database utilised was developed based on specific recommendations from the relevant literature review undertaken regarding applicability of results to offender profiling (Beauregard, Lussier & Proulx, 2005; Boon 1997; Mayzer, Grey & Maxwell, 2004; Strauch, Wirth, Taymoorian & Geserick, 2001).

A total of 116 variables were coded by the original collator of the database for all relevant offenders where possible. In instances of missing data, the code 999 was applied to the specific variable within the dataset. Of the 116 variables originally coded, data ranged from dichotomous (e.g. firearm present) to continuous (e.g. number of previous convictions). Specific behaviours which offenders engaged in during the robbery offence were coded using separate variables and groupings. The predominately dichotomous coding structure (yes/no) was of particular use when coding the various types and levels of violence involved during the commission of the robbery offence. For example, variables such as 'weapon threat' and 'weapon seen', along with 'verbal violence' and 'verbal threat' were coded. This enabled for further explanation of the differing levels of violence threatened and actually executed within the robbery offence.

3.3 Previous Analysis

For the purposes of clarity, the analysis undertaken within the previous study of the same dataset (Goodwill & Yapp, Masters Dissertation, 2008) will be reaffirmed for the reader prior to explanation of the specific analysis within the current study.

As reported, Smith (2003) previously suggested that robbery offenders could be classified into four themes (Con, Confrontation, Snatch, Blitz) based on the offender's approach to the victim (see Appendix 3 for specific definitions of each approach type). Utilising the reported sample of 72 robbery offenders, Yapp and Goodwill (Masters Dissertation, 2008), chose 28 crime scene behaviour variables encapsulated within the collected database to represent the act of robbery. Each of the 28 variables were coded dichotomously (0 = Absent, 1 = Present). Please refer to Appendix 4 for a description of the 28 crime scene behaviour variables included. Prior to analysis it was considered important to hypothesise, based on previous literature, which aspects of crime scene information would relate to each robbery style. Table 2 sets out the predicted membership of the 28 crime scene variables to each of the four robbery styles.

Table 2: Predicted Membership of Crime Scene Variables to Robbery Style.

Robbery Style	Crime Scene Variables	
	Specific	Non-Specific
Blitz	Any injuries Offender on substance Steals property - unidentifiable Multiple acts of violence Aggressive Victim resistance physical	Impulsivity Opportunistic Surprise
Snatch	Single act of violence Steals property - personal Follows Steals property - identifiable Victim resistance verbal	
Con	Amicable Con approach Lies in wait Extends time	Words before attack Planned
Confrontation	Weapon seen Weapon threat Knife Firearm Demands goods Demands money Verbal violence Verbal threats	

It was predicted that blitz offences would be characterised by the following variables; any injuries, surprise, steals property – unidentifiable, multiple acts of violence, aggressive and verbal violence. Snatch offences would be characterised by; single acts of violence, steals property – personal, steals property – identifiable, follows, victim resistance verbal and physical. The three variables indicative of impulsivity, opportunism and offender substance use during the commission of the robbery were hypothesised to fall within either blitz or snatch approaches. Con approach offences were predicted to be characterised by the following crime scene actions; amicable, con-approach, lies in wait and extends time with the victim. Confrontation style

robberies were predicted to be characterised by; weapon seen, weapon threat, knife, firearm, demands goods, demands money and verbal threats. The two variables of planning and words spoken by the offender before the attack were hypothesised to fall within either con or confrontation approaches.

Each of the 28 crime scene behaviour variables were then subjected to analysis. As with previous MDS profiling research (Canter et al 2003) Jaccards measure of association was used. Jaccards coefficient is a measure of association which does not take account of joint non-occurrences (Jaccard, 1908). Canter (2003) has argued that Jaccards is the most suitable measure of association to use when analysing police data due to the 'messy' nature of the data. Multidimensional Scaling (MDS) analysis represents associations between variables as a distance in an abstract space and works by first configuring a similarity matrix between the variables based on some measure of association (Schiffman, Reynolds & Young, 1981).

The similarity matrix in the study was then subjected to an ordinal transformation to produce a 2-dimensional scatter-plot of variable associations. The associations between variables are represented by the distances between them, the shorter the distance, the stronger the relationship between the two variables concerned. In other words, the closer they are in the plot the more often they co-occur in an offence together. From this 2-dimensional plot it was then possible to look at the grouping of variables into themes (e.g. Blitz, Confrontation, Con, Snatch) and any interactions between the themes, such as the presence of interaction and violence styles. Overall,

the crime scene information followed the predicted pattern with 19 of the 23 variables

predetermined to be specific to a style found within that style under MDS analysis.

3.4 Current Analysis

The results of the MDS analysis (Yapp & Goodwill, Maters Dissertation 2008) suggested the

apparent presence of two behavioural facets; levels of interaction and violence. These facets

were interpreted and developed from the specific crime scene behaviours analysed which had

also been encapsulated within the approach themes on the MDS solution (see Appendix 2 for the

two dimensional plot).

Specifically, each facet was created by taking the x/y coordinates for each variable in the two

dimensional space. For each offence the x/y coordinates of all the specific behaviour variables

present within each offence were inputted to calculate the average x/y coordinate for each of the

72 cases. The x coordinate was one facet (Interaction) and the y coordinate was the other facet

(Violence). Therefore, by calculating which x and y coordinate which an offence landed on

deciphered how much or little of each facet an offence possessed.

Facet theory was utilised following the evidence of the appropriateness of its use within previous

multidimensional research (Canter et al., 1991; 2003; Bennell, Alison, Stein, Alison & Canter,

2001). As stated, the MDS solution illustrated that the variable placements corresponded to the

increase or decrease in the level of each facet as you travel from one side of the plot to another.

3.4.1 Levels of Violence Facet

The behavioural facet of level of violence used or threatened was found from the crime scene behaviour variables, running along the plot's y-axis from low violence (where Snatch and Con offence domains were categorised) across the top of the plot to high violence (Blitz and Confrontation) domains across the bottom of the plot. In terms of actual physical violence, Snatch offences were found to contain elements with low levels (single acts of physical violence) and Blitz offences were found to contain elements of high levels (multiple acts of physical violence). The substantial threat of violence and verbally violent behaviour with the accompaniment of weapons was clearly evident in the Confrontation domain of the proposed high violence facet.

3.4.2 Levels of Interaction Used

The behavioural facet indicated an increasingly higher level of interaction with the victim across the x-axis from the left side (Snatch and Blitz) of the plot to the right side (Con and Confrontation). Behaviours indicative of amicableness and confidence tricks were found to be high interaction while the offender under the influence of a substance was found to be moderately interactive. Low interactive behaviours indicative of impulsive violent attacks were found to the left of the plot.

3.5 Current Treatment of Data and Analysis

Therefore, current analysis focused on the two behavioural facets of violence and interaction with the individual crime scene behaviours present for each offence encapsulated within these

facets. Indeed, analysis focused purely on these crime scene behaviours and not the approach

themes (Con, Blitz etc) which they had previously been grouped under. The facets were

analysed using binary logistic regression and were subject to subsequent Bonferroni adjustments

(as appropriate) against variables representing; offence location, offender background history

and demographics. The results of the logistic regression analyses were used to investigate

whether the violence and interaction behavioural facets could be used to accurately predict

offender characteristics tested.

4. Results

4.1 Frequency Analysis

4.1.1 Day of the Week

Initial descriptive statistics were undertaken to investigate the frequencies of the days of the

week on which a robbery offence was committed. This data was available for 51% of the 72

offences. The majority of offences were committed either at the start of the week (Monday and

Tuesday, 32.4%) or at the end of the working week (Thursday and Friday, 45.9%). A total of

5.4% of the offences were committed on a Wednesday or Saturday, with the remaining 10.8% of

offences being committed on a Sunday.

4.1.2 Time of Day

The specific time of day in which each offence was perpetrated was also analysed. This data was

available for 61% of the 72 offences and was split into four time categories. Within these

categories, 50% of the offences were committed at 'night time' (18.00-00.00), 28.6% in the

'afternoon' (12.00-18.00), 14.3% in the 'morning' (06.00-12.00) and the remaining 7.1% in the 'early hours' (00.00-06.00). This data represents a trend in which exactly half of the offences were committed at night time.

4.2 Reliability Analysis

The reliability of the four approach themes proposed (characterised by the specific crime scene behaviours encapsulated within each theme) was tested using Fleiss (1981) guidelines which suggest that a Cronbach's alpha of 0.6 or above represents a reliable data set.

The Blitz robbery approach theme produced a Cronbach's alpha of 0.615, with no discernable benefits in removing any of the variables encapsulated within the approach theme. The initial Snatch approach produced a Cronbach's alpha of 0.574. However, the reliability for the Snatch approach was improved further to 0.656 with the removal of the 'victim resistance verbal' variable which was not deemed suitable for inclusion within analysis due to the circular nature of this victim crime scene behaviour in relation to an offender's behaviour. This was subsequently removed for analysis. The Con approach produced a Cronbach's alpha of 0.370, which could be improved further to 0.426 with the removal of the 'extends time' variable. However, as the approach theme was still unreliable, this variable was removed and offences classified as Con were re-classified as 'other' for subsequent analysis. Finally, the Confrontation approach produced a Cronbach's alpha of 0.800, with no discernable benefits in removing any of the variables within the approach theme. Therefore, the results of three of the four approaches

provided statistical evidence in incorporating these three behavioural approach themes within a

behavioural continuum.

4.3 Analysing Interaction and Violence Facets

The findings (significant and non-significant) from the analysis of the interaction and violence

facets with offender age and previous offence variables will now be reported. The assumptions

of multicollinearity were tested for each logistic regression calculation reported. Within the

assumptions of multicollinearity it is suggested that variance inflation factor (VIF) values must

remain below 10 (Myers, 1990) and tolerance values must be above 0.1 (Menard, 1995) to rule

out any issues of collinearity within the regression calculations. All logistic regression

calculations passed the assumptions of VIF and tolerance and as such no issues of

multicollinearity are reported within the current dataset. Further logistic regression assumptions

were tested for. Analysis for outliers revealed that no cases were above or below the threshold

and thus further examination was not required (Pallant, 2007). The 'cases to variables' ratio

indicated no problems regarding the converging of data. As such, the assumptions of logistic

regression had been assessed and the dataset was suitable for subsequent analysis.

4.3.1 Location

The offence location information from the database was re-coded into three specific categories;

commercial setting (shop, post office, bank and betting shop), outside (street, park) or personal

(home and workplace). These three categories represented the outcome variable for each

separate equation and were analysed against the predictor variables of the violence and

interaction behavioural facets. Bonferroni corrections are subsequently reported in relation to the adjusted significance levels suggested within separate logistic regression calculations.

The multivariate model for 'outside' location was analysed against the two behavioural facets and found to be significant. The model accounted for 23% of the overall variance and led to an increase in the classification percentage of offenders from 52.9% (base rate), to 70.6%. The 'outside' location was found to be statistically significant in relation to the interaction facet (Exp (B) = 0.020, C.I. (-) 0.001, C.I. (+) 0.274, p = <0.05) but not the violence facet (Exp (B) = 4.415, C.I. (-) 0.073, C.I. (+) 268.031, p = N.S.). The results for the interaction facet remained significant following a Bonferroni correction (p = 0.05 / 3). Therefore, the more interaction, the less likely the offence is to occur in an outside location and vice versa, the less interaction, the more likely it is to occur in an outside location. The violence covariate was not significant but the results suggested a trend towards increased levels of violence used for outside locations.

The 'commercial' location variable was analysed against the two behavioural facets. The model accounted for 22% of the overall variance and an increase in the classification percentage from 69.1% (base rate), to 83.8%. A 'commercial' location was also found to be statistically significant in relation to the interaction facet (Exp (B) = 47.212, C.I. (-) 3.103, C.I. (+) 718.330, p = <0.05) but not the violence facet (Exp (B) = 0.176, C.I. (-) 0.002, C.I. (+) 13.764, p = N.S.). The results for the interaction facet remained significant following a Bonferroni correction (p = 0.05 / 3). These results evidenced a significant trend of higher levels of interaction within a

commercial robbery setting. Again, the violence facet was not significant but suggested a decrease in levels of violence within a commercial setting in comparison to an outside location.

The 'personal' location variable was analysed against the two behavioural facets. The model accounted for 0.7% of the overall variance with no increase in the classification percentage from 83.8% (base rate). Indeed, a 'personal' location was not found to be statistically significant in relation to the interaction facet (Exp (B) = 2.036, C.I. (-) 0.124, C.I. (+) 33.393, p = N.S.) or the violence facet (Exp (B) = 0.832, C.I. (-) 0.006, C.I. (+) 117.614, p = N.S.).

4.3.2 Previous Convictions

The database also captured information on certain previous convictions (PNC's). Each category chosen was analysed using logistic regression against the two behavioural facets of violence and interaction. The three categories chosen for analysis, previous convictions against the person, property and drugs, represented the outcome variable for each separate equation and were analysed against the predictor variables of the violence and interaction behavioural facets. Bonferroni corrections are subsequently reported in relation to the adjusted significance levels suggested within separate logistic regression calculations.

The 'previous property convictions' variable was found to be significant in relation to the interaction facet (Exp (B) = 0.018, C.I. (-) 0.001, C.I. (+) 0.262, p = <0.05) but not the violence facet (Exp (B) = 0.563, C.I. (-) 0.009, C.I. (+) 35.375, p = N.S.). The model accounted for 20% of the overall variance and an increase in the classification percentage from 66.7% (base rate), to

75.0%. The results for the interaction facet remained significant following a Bonferroni correction ($p = 0.05 / 3$). These results suggest that an offender with a previous conviction for a property offence is significantly less likely to use high levels of interaction whilst committing a robbery offence. Therefore, this offender is likely to engage in lower levels of interaction with the victim.

Previous convictions against the person were found to be significant in relation to the interaction facet (Exp (B) = 0.035, C.I. (-) 0.002, C.I. (+) 0.535, $p = <0.05$) but not the violence facet (Exp (B) = 3.563, C.I. (-) 0.040, C.I. (+) 319.901, $p = $ N.S.). The model accounted for 16% of the overall variance, with an increase in the classification percentage from 77.7% (base rate), to 79.2% using the two behavioural facets. The results for the interaction facet remained significant following a Bonferroni correction ($p = 0.05 / 3$). These results suggest that an offender with a previous conviction for violence against another person is likely to use low levels of interaction during the commission of a robbery offence.

An offender's previous convictions for drug offences was found to be significant in relation to the interaction facet (Exp (B) = 0.058, C.I. (-) 0.005, C.I. (+) 0.650, $p = <0.05$) but not the violence facet (Exp (B) = 0.269, C.I. (-) 0.006, C.I. (+) 13.013, $p = $ N.S.). The model accounted for 11% of the overall variance, with an increase in the classification percentage from 58.3% (base rate), to 62.5% using the two behavioural facets. However, the results for the interaction facet did not remain significant following a Bonferroni correction ($p = 0.05 / 3$).

4.3.3 Offender Age

A significant relationship was found between offender age at commission of index offence and levels of interaction used following a linear regression analysis. Specifically, levels of interaction were found to increase with an offender's age (B=7.34, F (2, 62) = 3.49, p<0.05; r = .27). This finding suggests a significant relationship between an offender's age and an increase in the levels of interaction used to commit a robbery offence. The violence facet was suggestive of a relationship between an offender's age increasing and subsequent levels of violence decreasing, but this was non-significant (B= -5.56, F (2, 62) = 3.49, p>0.05; r = -.12).

5. Discussion

The results are now synthesised and presented in relation to the behavioural facets and specific offender background characteristics analysed. The potential impact of the findings within these categories will be discussed in relation to the current profiling literature, leading towards suggestions for future robbery profiling. Future research will be discussed in regards to the ultimate goal of providing investigative support in robbery offences.

5.1 Behavioural Facets of Interaction and Violence

The specific findings from the regression analyses investigating the two behavioural facets will be explored. Levels of interaction were found to be higher for a robbery committed within a commercial location. An offence committed outside was found to yield low levels of interaction and high (albeit non-significant) levels of violence. High levels of interaction with the victim appears to support the initial profile of an older, more controlled, perhaps professional, career

criminal as proposed within the semi-systematic review into armed robbery. Offenders with previous convictions for offences against the person and property offences were likely to use lower levels of interaction.

5.2 Offender Background Characteristics

The analysis suggests a potential link between an offender's age and (by implication) experience and an increase in the levels of interaction used to commit a robbery offence. This tentative link is suggested based on the findings within the burglary profiling literature which supports a relationship between offender age, levels of experience and subsequent craft in committing the offence (Bennett & Wright, 1984; Cromwell, 1991; Goodwill & Alison, 2006). This finding from the current analysis links to and supports the notion from the semi-systematic review (Chapter 2) of an older and more experienced offender committing more controlled offences. Indeed, links between planning and subsequent control during the commission of an offence have been previously supported (Alison et al., 2000; Borzycki, 2006; Canter et al, 2003; Einstadter, 1969; Haran & Martin, 1984).

The violence facet was suggestive of a link between an offender's age increasing and subsequent levels of violence decreasing. Although this finding was non-significant, the evident trend supports previous findings within the profiling literature that particularly violent aggressive offences are more likely to be committed by younger offenders (Goodwill & Alison, 2007; Gebhard et al., 1965; Harry, Pierson & Kuznetsov, 1993).

Therefore, the analysis points towards evidence of a potential difference in backgrounds for robbery offenders using low or high levels of interaction within their offending. Higher levels of interaction suggest a more confident offender, with fewer previous convictions for offences against property and the person. This may be due to higher levels of cognitive ability and subsequently lower levels of violence used, better planning of the robbery offence evidenced within greater control during the robbery scene and therefore subsequently less likelihood of conviction. Lower levels of interaction increase the likelihood of the offender having convictions for previous property and personal offences and increase the likelihood of using lower levels of interaction during the commission of the offence.

5.3 Practical Implications of Findings

5.3.1 'Hot Spots'

As previously reported, 59% (62% in 2007/08) of all robbery offences recorded in England and Wales fell within three of the forty four police areas (24% of total population); Metropolitan London, Greater Manchester and the West Midlands. In terms of 'detected crimes' (crimes cleared up by the police), the average for all crimes throughout England and Wales lies at 28%, whereas robbery offence detection rate is reported at 20% in 2007/08 and 21% in 2008/09.

Further descriptive statistics specific to this dataset highlight that the majority of offences within this study were committed either at the start of the week (Monday and Tuesday, 32.4%) or at the end of the working week (Thursday and Friday, 45.9%). Only 5.4% of the offences were committed on a Wednesday or Saturday, with the remaining 10.8% of offences being committed

on a Sunday. These descriptive statistics suggest a potential trend which could be tentatively

linked to amateur armed robbers offending to obtain means for their 'fix' at the start of the week

and again later in the week prior to the weekend. The intervening periods (Wednesday, Saturday

and Sunday) may present a period of relative 'calm' and lack of criminal activity due to being

inebriated and/or the desire and motive for offending diminishing. Indeed, this descriptive data

can also be said to present a somewhat expected trend, replicating previous findings in terms of

exactly half of the offences being committed at night time (Smith, 2003).

5.4 Limitations & Proposed Future Research

The behavioural facets approach utilised requires further investigation and validation.

Specifically, the current dataset was not created by the researcher and as such does not have

sufficient information regarding an offender's background history in terms of; schooling, home

life, family background, and needs and motives for current offending patterns. The capturing

and analysis of such data would allow for a more comprehensive approach regarding an

offender's developmental and subsequent primary motives for committing robbery offences. In

being able to profile the developmental histories of robbery offenders, academics would be begin

to be able to infer and accurately predict links between childhood experiences (environmental

and situational) and current offending needs (motives) and patterns.

Similarly, it would be useful to be able to analyse the victim's role within the crime scene in

terms of their behaviour and compliance and the effects of offender behaviour on this

compliance. In analysing such interactions one would be able to draw further on previous

research (Luckenbill, 1981) in examining the offender-victim interaction and the impact of offender planning on successfully accomplishing the goal of gaining victim compliance during the robbery. Such analysis would provide a more holistic understanding regarding the specific interactions which take place during a robbery and the effect of these on offender crime scene behaviours as has been developed within the investigation of homicide offences.

The current dataset would also benefit from a follow up study in relation to capturing information for previous and / or subsequent robbery offences perpetrated by the same individual. This analysis could provide invaluable information regarding an offender's style and the impacts of experience and current circumstance on the way in which a specific robbery offence is perpetrated. If the above aims can be accomplished, a far greater understanding could be gained in terms of an offender's original motives for committing an initial robbery offence and the associated style, and the subsequent style and associated motives throughout an offender's career. This could lead to further investigations regarding the suggested notions of experience leading to higher levels of interaction with the victim, less expressive violence used and in turn, less likelihood of being convicted for a crime. In addition, any distinctions between a prolific amateur robber and a prolific professional robber could be examined in terms of background history, motive and crime scene behaviour.

6. Conclusions

In summation, levels of interaction were found to be higher for a robbery committed within a commercial location, with levels of interaction used by an offender with a victim increasing with

offender age. This points towards the suggestion of an older, more controlled, perhaps professional career criminal using greater levels of interaction. Levels of interaction were found to be lower for a robbery committed outside and for offenders with previous convictions for property offences and offences against the person. Therefore, the interaction behavioural facet was found to be a significant predictor towards profiling robbery offending.

The violence behavioural facet was found to be prominent within almost all robbery offences, albeit it to non-significant levels. In this respect, it is concluded that the violence behavioural facet is neither a clear cut variable nor a good predictor of offender characteristics on its own and that a theme of violence remains as one of many distinct types of behaviours throughout specific crimes (Canter et al., 2003). Therefore, one is currently unable to make the distinction as to whether an act of robbery is predominantly expressive or instrumental (Bartol, 1986; Fesbach, 1964).

The task remains to further investigate individual behaviours predictive of robbery offences which can then be fed back into a holistic behavioural continuum approach predominately used within this study and suggested within future investigations (Bateman & Salfati, 2007; Goodwill & Alison, 2007). Until such empirical research is undertaken, any proposed robbery profiling model will remain unsubstantiated and thus its practical applicability will remain unsupported. Due to this current impasse, the following two chapters offer a shift of focus in taking a more individual rather than general approach in analysing a specific robbery offender's motivations, offending patterns and prediction and management of future risk.

CHAPTER 4: CRITIQUE AND USE OF A PSYCHOMETRIC ASSESSMENT:

THE INVENTORY OF OFFENDER RISKS, NEEDS AND STRENGTHS (IORNS)

1. Abstract

The Inventory of Offender Risk Needs and Strengths (IORNS) provides the first psychometric measure to analyse an individual's protective factors, as well as static and dynamic risk within general, violent and sexual offender groups. Therefore, it has the potential to provide an assessment of a robbery offender's ongoing risk management and treatment. Initial validation studies indicate that the IORNS indexes, scales and subscales display good convergent validity with self report and interview measures of static and dynamic risk, antisocial behaviour, psychopathy, personality pathology, substance use and mood disorders within male offenders assessed pre-release. However, further validation with additional samples of specific offenders and analysis of the predictive power of the IORNS is required before it is deemed appropriate in accurately predicting recidivism within general, violent and sexual offender groups. It is proposed that such analysis can be extended to focus on the specific robbery offending group. At present, the IORNS is still deemed useful in aiding in the decision making process regarding offender treatment and supervision plans in relation to recidivism.

2. Rationale

The Inventory of Offender Risks Needs and Strengths (IORNS), (Miller, 2006) was chosen for this critique because it is the first psychometric measure which attempts to assess static and dynamic risk, along with protective factors. As such, it has the ability to relate these three variables in terms of their relationship to recidivism, treatment need and management. Such an approach could potentially provide assessment of the ongoing risk and treatment needs within repeat violent offending patterns, such as those prevalent within robbery offending. It has been noted that clinicians within Forensic Medium Secure Units have begun to use the IORNS within multidisciplinary risk assessment procedures. Therefore, it is important to begin to critique and analyse such use against the validation samples and data currently available. Furthermore, specific alternatives in investigating the risk of recidivism within robbery offending are analysed within section seven of this review.

3. Introduction

3.1 The Use of Psychometrics in Risk Assessment

Actuarial risk assessment measures such as the IORNS are increasingly used within the prediction of future risk and subsequently, sentencing criteria for individual offenders (Hart, Cooke & Michie, 2007; Maden & Tyrer, 2003; Tyrer, 2004). Actuarial risk assessments were originally developed on the back of profound criticisms regarding the lack of accuracy within clinical judgements of an individual's propensity to engage in future violent acts. However, such actuarial measures subsequently conceptualised violence in terms of probability and it is argued

that in doing so they continue to ignore other related factors such as the possible nature, severity, imminence or frequency of that violence (Hart, 2001; 2003).

Moreover, it is recognised that predicting an individual's risk of future violence is one of the most difficult of a clinician's wide ranging responsibilities (Grisso & Applebaum, 1992; Szmukler, 2001). Indeed, it is suggested that in predicting the probability of violence, an actuarial measure must utilise a sample congruent to the specific characteristics of the individual who is being assessed. If this is not achieved, differing margins of errors are likely to be prevalent within the prediction, substantially altering its accuracy and therefore validity (Hart et al., 2007). Furthermore, the need for large sample sizes of specific offender types within each actuarial risk assessment is highlighted (Hart et al., 2007). The larger the sample size, the more precise and accurate group estimates become.

A further issue prevalent within the criticisms of the use of actuarial risk assessments centre on the reporting of Area Under the Curve (AUC) and Receiver Operating Characteristics (ROC) values. ROC analysis plots the sensitivity versus specificity of data, producing a line of data points across a graph, creating a curve (Nunnally & Bernstein, 1994). An AUC value represents the probability that a randomly selected recidivist will have a higher score than a randomly selected non-recidivist on a given measure. A perfectly accurate test would yield an AUC hit rate of 1.0, i.e. no overlap between recidivists and non-recidivists (Craig & Beech, 2010). Presenting an AUC value has been widely referenced as the preferred indices of predictive accuracy and effect size in psychological and psychiatric services (Rice & Harris, 2005;

Mossman, 1994; Swets, Davies & Monahan, 2000). Thus, AUC scores are used to measure how well an actuarial risk tool distinguishes between recidivists and non-recidivists, in terms of either static and/or dynamic risk.

However, whilst AUC scores are frequently used within actuarial risk assessment, there are several limitations within the use of ROC analysis. ROC analysis can only be applied to binary outcomes such as whether an individual is likely to be a recidivist or a non-recidivist and as such, a practitioner is unable to use the AUC values to accurately predict anything further. This includes the severity and frequency of any re-offence, specific offender characteristics for recidivism or indeed variations and differences between reconviction, recidivism and re-offence (Craig & Beech, 2010; Harris & Rice, 2003). Therefore, the use of AUC scores in producing dichotomous decisions is open to criticism in being unable to calculate the effect of variations of risk factors within an individual offence and the effect of these on recidivism levels, potentially under-reporting or over-reporting dangerousness in individual cases (Craig & Beech, 2010; Harris & Rice, 2007).

In incorporating such research within the wider field investigating the use of actuarial risk assessment in clinical practice, it is acknowledged that such findings regarding the relative lack of validity in utilising actuarial assessments comes in stark contrast to the widespread acceptance of the prediction paradigm (for a review on the effectiveness with adult sex offenders see Craig & Beech, 2009). Indeed, in summarising the lack of agreement in the academic field regarding the practical use of actuarial risk assessments, it is suggested that they must be used as part of an

individualised case formulation approach. Such an approach ensures the appropriate use and application of information collected for each case (Cooke & Michie, 2009; Cooke, 2008; Logan & Johnstone, 2008). This individualised approach is thus put forward, supporting treatment approaches reviewed in Chapter 1 of the thesis and highlighting the application of the IORNS within the individualised case formulation used for the included case study (please refer to Chapter 5).

3.2 The IORNS

The Inventory of Offender Risks Needs and Strengths (IORNS), (Miller, 2006), is a 130-item (true or false) self-report measure assessing static risk, dynamic risk and need, and protective strength factors in terms of their relation to recidivism, treatment need and offender management. The measure was developed in the United States to fill the identified void of a comprehensive assessment of risk and subsequent treatment needs for general, violent and sexual offenders (Miller, 2006).

The IORNS aims to aid clinicians in the assessment, treatment and monitoring of offenders and can provide a platform to explore the relationships between recidivism and the three variables of protective strengths, dynamic and static risk within individual offenders. It can also reflect change in dynamic risk and protective strength variables over time in relation to treatment. The measure should be used in conjunction with clinical interview and as part of a comprehensive assessment package specific to each offender's needs (Miller, 2006). Any professional working

within mental health and/or correctional settings can administer and score the IORNS and does not need to have specific training in forensic or clinical psychology or psychiatry.

As part of test construction, initial item construct testing was undertaken utilising a sample of general, violent and sexual offenders (n=482). This led to the selection of 130 test items based on alpha coefficient contribution and factor analysis. Following this, the IORNS was standardised and validated with offenders (men aged 18-75 years and women aged 18-60 years). Offender samples included both incarcerated and probated general and sexual offenders based in the United States (n=923). A community adult and college normative sample was also collected (men and women aged 18-75 years).

The constructs within the IORNS were included following the identification of their applicability within the literature as being consistently related to recidivism. Specific static variables such as age at first offence, early conduct problems, previous violence and offence histories were included (Gendreau, Little & Goggin, 1996; Hanson & Bussiere, 1998; Hanson & Harris, 2000; Hanson & Thornton, 2000; Quinsey, Harris, Rice & Cormier, 1998). Specific dynamic factors were also included, as well as protective factors known to influence criminal, violent and sexual behaviour and/or prevent the cessation of criminal behaviour (Clayton, Leukefeld, Donohew, Bardo & Harrington, 1995; Hoge, Andrews & Leschield, 1996; Stouthamer-Loeber, Wei, Loeber & Masten, 2004).

As a result, the IORNS consists of four indexes, eight scales, 14 subscales, and two validity scales (impression management and inconsistent response style). The four indexes are comprised of; Static Risk Index (SRI), Dynamic Need Index (DNI), Protective Strength Index (PSI) and Overall Risk Index (ORI). The PSI is the summation of the Personal Resources and Environmental Resources scales. The final ORI score is calculated by adding the T scores from the SRI and DNI indexes and subtracting the PSI T score from this total. The higher the ORI score the greater the risk and therefore treatment need for that individual. Please refer to Table 3 (Chapter 5) for an example detailing the scoring and interpretation of the IORNS.

4. Aims of the IORNS

The main driving force behind the development of the IORNS is stated as the need to assess an individual's risk factors in identifying specific risk management and offender treatment plans. Overall, the aims for the use of the IORNS are said to be three fold (Miller, 2006):

1. To examine risk of further offences.
2. To identify specific risk needs in order to target successful treatment to prevent further violence and recidivism.
3. To identify factors in order to aid successful offender management.

Whilst acknowledging that risk increases exponentially as the number and variety of risk factors increase, protective factors (crime desistance) play a significant role in the fluctuation of risk levels. The support of family, education and training for employment, along with social and

community investment can decrease the influence and effect of risk factors, and thus reduce recidivism (Moore, 1998).

The concept of 'desistance' has previously been under researched, with the focus being on why offenders commit crime rather than why they do not recommit further offences after conviction. Indeed, it is suggested (Rogers, 2000) that risk assessments purely focusing on static and dynamic variables may produce biased over-predictive accounts of risk due to not accounting for the role which such protective strengths potentially play in decreasing risk. This is known as 'over prediction of dangerousness' (Miller, 2006; Rogers, 2000; Shedrick, 1999), an identified problem within risk assessment which the IORNS aims to address.

5 Aims of Critique

This critique aims to assess the IORNS psychometric measure against its stated aims and indeed other psychometric measures currently available. This analysis will include a critical evaluation of the results of the validation and predictive power studies to date. As the IORNS is a relatively new measure, it is anticipated that further validation will be required before the measure can be substantiated to be used in the accurate prediction of general, violent and/or sexual offenders. As such, its potential future applicability to the prediction of recidivism for individual robbery offenders and in managing and devising subsequent appropriate treatment plans will also be explored.

6. Potential Uses

The IORNS seeks to recognise and address the notion that the assessment of risk of recidivism can also be utilised in the planning, implementation and ongoing treatment of offenders (Harris & Rice, 1997; Heilbrun, Nezu, Keeney, Chung & Wasserman, 1997; Miller, 2006; Moran, Sweda, Fragala & Sasscer-Burgos, 2001). Thus, the potential uses of the IORNS can be looked at in terms of it being the first psychometric measure to attempt to tap into an individual's protective factors as well as static and dynamic risk. The potential for continued assessment of dynamic factors throughout treatment alongside the monitoring of identified protective factors allows a probation or prison officer to successfully control and prioritise specific characteristics within the management of an individual's risk. Offenders can be referred for specific interventions accordingly, thus managing public safety and also increasing an individual's chance of recovery, and concurrently reducing their risk of recidivism. Therefore, the IORNS potentially fills the gap in psychometric assessment in holistically assessing risk and developing subsequent risk management and treatment needs.

In addressing the issue of continually monitoring dynamic risk and the changing availability of protective factors, Miller (2006) highlights the concept of a fixed level of risk, whereby there is a dearth of studies evidencing the impact of variable dynamic risk on overall risk levels (Craig, Browne & Stringer, 2003). An offender enacting observable change in terms of levels of aggression, self esteem, drug use, etc, as a result of therapeutic input can dramatically decrease the risk of re-offending (Craig et al., 2003; Laub & Sampson, 2001). Presently, there is a lack of guidance and standards in assessing dynamic factors as opposed to static factors and therefore,

overall risk. The examination of overall risk and the level of change within risk must therefore acknowledge the impact of psychological treatment on dynamic variables, such as aggression or impulsivity, and the awareness of and subsequent availability of protective factors. The treatment of these dynamic variables and insight into protective factors could reduce the likelihood and risk of re-offending (Stouthamer-Loeber et al., 2004).

Indeed, the prominence of certain personality traits (such as impulsivity) can decrease following treatment, which can thus decrease problem behaviours and therefore recidivism. Recidivism has been found to be directly linked to the quality of treatment and individuals' compliance to this treatment, hence the need for accuracy when designing appropriate programmes (Rosenbaum, Gearan & Ondovic, 2002; Scalora & Garbin, 2003). Looking specifically at impulsivity as a component of antisocial and psychopathic personality, the IORNS recognises the difficulty in treating impulsivity. Moreover, it provides important information in relation to protective factors and dynamic risks which can be used to successfully manage and treat individuals with such characteristics.

In addition to no psychometric measure currently assessing dynamic and static risk as well as protective factors, the majority of current measures do not provide a comprehensive assessment of dynamic risk variables for varying types of recidivism. Several dynamic factors such as the self regulation of emotional problems and negative social influence (Andrews & Bonta, 1998; Hanson & Harris, 1998; Thornton, 2002), substance abuse (Gendreau et al., 1996) and irresponsible behaviours have been found to predict future crime amongst all types of offenders

(Tweed & Dutton, 1998; Walters, 1990). However, in terms of specific dynamic risk variables relating to specific offences, a lack of standards remain in directing practitioners in their analysis of these variables in comparison to static measures (Miller, Amenta & Conroy, 2005).

Thus, whether and to what degree these variables alter in relation to time and/or effective treatment is currently unknown and hence so is the impact of any changes on an offender's risk of recidivism. Furthermore, in relation to robbery offenders, there has been little or no research to evidence that dynamic change can occur through therapeutic input and therefore reduce the risk of re-offending. However, studies within the general offending literature do report significant change for a number of dynamic variables related to general recidivism, including positive treatment outcomes for aggression levels, self esteem, decision making, drug abuse and emotional regulation and attachment (Fowler, Ackerman, Speanburg, Bailey, Blagys & Conklin, 2004; Gossop, Marsden, Stewart & Treacy, 2002; Prendergast, Farabee, Cartier & Henkin, 2002). Therefore, it is suggested that if and when the IORNS is sufficiently validated and its predictive power has been substantiated, the IORNS could potentially measure change in specific dynamic variables which future research may evidence to increase the risk of recidivism within robbery offending.

7. Potential Alternatives

The potential alternatives to the IORNS in investigating the risk of recidivism within robbery offending will be analysed. Indeed, within this analysis it must be reaffirmed that the IORNS is

the first psychometric measure to attempt to tap into static and dynamic risk as well as protective strength factors.

Actuarial measures of risk such as the Violence Risk Appraisal Guide (VRAG; Quinsey, Harris, Rice & Cormier, 1998) and Static-99 (Hanson & Thornton, 1999) are limited in their holistic applicability as they are unable to assess potential change in risk. Measures of psychopathy such as the Hare Psychopathy Checklist (PCL-R; Hare, 1991) have consistently evidenced their effectiveness in predicting violent behaviour. However, these predictions are based on static risk and thus are ineffective when used to assess treatment effectiveness.

Other assessment tools do include dynamic risk variables, but assess few dynamic variables directly related to offender recidivism (HCR-20; Webster, Douglas, Eves & Hart, 1997) and (SVR-20; Boer, Hart, Kropp & Webster, 1997). As such, the most comprehensive measures of dynamic risk related to recidivism have been reported as the Sexual Offender Needs Assessment Rating scale (SONAR; Hanson & Harris, 2001), Level of Service Inventory Revised (LSI-R; Andrews & Bonta, 1995) and Self-Appraisal Questionnaire (SAQ; Loza, 1996). Of these measures, the LSI-R has sound psychometric properties throughout a variety of offender groups but does not specify potential treatment areas. The SAQ only includes a limited assessment of dynamic need and does not tap into protective strengths (Hanson & Harris, 2001; Miller, Young, Torres, McCoy & Kwartner, 2006; Simourd & Malcolm, 1998). The use of such measures which focus exclusively on risk factors and ignore the potentially mitigating effect of protective

factors can have implications on the over-prediction of dangerousness (Miller, 2006; Stouthamer-Loeber el al., 2004).

The LSI-R and SAQ do include a limited number of dynamic variables but these are unspecific to different offences and require training to administer in order to achieve inter-rater reliability, an issue which the self report IORNS measure avoids (Austin, Coleman, Peyton & Johnson, 2003; Miller, 2006). In addition, although the LSI-R highlights problems with emotional regulation, it does not specify subsequent areas of treatment. It is noted that the SONAR is used to assess stable and acute dynamic variables within the sex offender domain. However, this measure currently lacks validation beyond one study and because it is solely used for the sex offender population it has limited utility across offender groups in comparison to the wider potential of the IORNS.

8. Reliability

In assessing the potential utility of new psychometric measures such as the IORNS, the validity and reliability of the measure must be statistically analysed against the intended samples. A 'good' psychometric test needs to have ratio or interval data, be reliable, valid and have appropriate norms (Kline, 1993). Standardisation is said to be achieved if the measure's rules are clear, practical to apply, do not demand great skill in administering beyond adequate training and results are non-dependent on the administrator (Kline, 1993). It can be said that the IORNS has achieved standardisation.

When creating the IORNS, Miller (2006) used several offender samples, male and female, and a community adult sample in creating test norm profiles. Coefficient estimates for the IORNS show satisfactory internal consistency for the IORNS indexes and scales for the combined sample of male offenders. In comparison with the male sample, the Static Risk Index (SRI), Criminal Orientation (CRO) and Intra/Interpersonal Problems (IIP) scales demonstrated lower, yet still significant reliability estimates in female offenders, while the Environmental Resources (ENV) scale evidenced higher reliability. With regards to the community sample, all of the indexes and scales demonstrated an internal consistency above 0.6. The Favourable Impression Management scale (FIM) demonstrated adequate internal consistency across all samples. It is argued this is relevant within measures of response styles because the IORNS is a measure of criminality and thus the desire to maintain a positive impression during responding is recognised (Miller, 2006).

Test-retest stability has been evidenced using male and female undergraduates, re-tested twenty one days later. Overall risk index came out at .83, static risk at .81, dynamic risk at .83, and protective strength factors at .68. These results provide clear evidence of test-retest stability, although questions can be raised regarding the relatively short time period between re-testing and the protective strength factors which fall below the 0.7 widely expected within reliable psychometric measures (Kline, 1993). Further reliability studies across samples are thus required.

9. Validity

Test validation continues a long time after publication and indeed throughout a psychometric measure's life. A measure is said to be valid if the inferences that can be made from it are appropriate, meaningful and useful (Kline, 1993). The IORNS has two validity scales to assess for inconsistent responding and favourable impression management. Within self report measures, problems with respondents 'faking good' and response set bias exist (Kline, 1993; Miller, 2006). The two scales minimise the potential impact of individuals 'faking good' or exhibiting careless responding, increasing the validity and reliability of the self report measure. Furthermore, self report measures are advocated as being predictive of future criminal and violent behaviour (Loza & Green, 2003).

9.1 Construct Validity

The Personality Assessment Inventory (PAI; Morey, 1991), Psychopathic Personality Inventory-Revised (PPI-R; Lillenfield & Widows, 2005) and PCL-R (Hare, 1991), support the construct validity of the IORNS indexes and scales (DeClue, 2007). In terms of applicability to sex offenders, early findings from a sub-sample of 53 convicted sex offenders found the IORNS Overall Risk Index to be moderately correlated (r=.31) with the Static-99, but not with other indexes, scales or subscales such as the Dynamic Need Index and Protective Strength Index scales. Therefore, this finding potentially provides positive evidence in terms of the IORNS' specific utility to add incrementally to risk assessment cases already using an existing instrument such as Static-99.

9.2 Concurrent Validity

The LSI-R total risk score correlated significantly with that of the IORNS indexes of overall risk, static risk, dynamic risk and protective strengths. Significant relationships were also found between PAI and IORNS in terms of scales significantly related to offending and aggressive behaviours. The Levenson Self-Report Psychopathy scale (LSRP; Levenson, Kiehl & Fitzpatrick, 1995) is highly correlated with the IORNS, whilst the IORNS dynamic risk index was found to be significantly related to depression and anxiety within the State–Trait Anxiety Inventory (STAI; Spielberger, 1983). A negative relationship was reported between the IORNS protective strength index and anxiety, with levels of anxiety increasing as levels of available and perceived protective strengths decreased (Miller, 2006).

9.3 Predictive Validity

Recidivism data was examined for a sample of general offenders (*n*=162) who had entered an assessment and treatment centre approximately 60 to 90 days prior to their scheduled release to a half-way house setting. The data from this sample was examined 15 months post initial assessment. Recidivism was defined as any return to the assessment and evaluation prison program during the 15 months due to either a 'minor offence' (breaking a curfew, treatment non-compliance) or new criminal charges. Therefore, it is noted that the data collected did not allow for a differentiation to be made between minor offences and new criminal charges.

Offenders who were sent back twice or more (high rule violators) during this time period scored significantly higher on overall risk and dynamic needs and significantly lower on the protective

strengths index (Miller, 2006). Significant differences were also found with the proportion of high rule violators in relation to the IORNS scales of psychopathy, criminal orientation and drug/alcohol problems, and the subscales of manipulativeness, impulsivity and irresponsibility. Such results highlight the potential sensitivity and utility of IORNS scales and subscales in predicting specific future offending. DeClue (2007), recognises the convergent validity for indexes and scales within the IORNS but highlights the lack of current research examining the predictive validity of IORNS, specifically within the sex offender population.

Therefore, it can be said that the IORNS fulfils the stated aim of providing efficient measures of static and dynamic risk and need and protective strengths for assessment, treatment and monitoring of offenders. However, further validating research is required before specific guidelines on its use can be drawn up, particularly in relation to sex offenders (DeClue, 2007). The validity scores from Miller's study (2006) do indicate convergent validity with other self report and interview measures of static and dynamic risk, antisocial behaviour, psychopathy, personality pathology, substance use, depression and anxiety in male offenders assessed pre-release.

However, this study was normed within a predominately African American population (73%) for offenders at a half way house and thus these offenders had limited sexual and/or violent histories. Specifically, 22% (36) of the sample were violent offenders, and only 3 out of the 162 (2%) had been convicted of a sexual offence. The information from this study cannot be generalised as a justification for the IORNS' use within other offender populations at present. However, it is

expected that the results will generalise across race because the study did not evidence significant differences between African American (73%) and White (17%) offenders. Validity scores do show great promise for the utility of the test in regards to its stated aims. However, further research is needed in providing norms within these offender populations to assess the validity and reliability of using the IORNS as an effective measure for specific offender types, including robbery offenders.

10. Conclusions

Aside from the general limitations of risk assessment which all psychologists must be aware of during their clinical practice (Moore, 1998), it is prudent to highlight that the mechanism with which dynamic variables interact and affect static variables is currently unsubstantiated. At present, there is no direct evidence stating that a decrease in dynamic risk variables leads to a decrease in re-offending. There is also a lack of research examining the relationship between protective strengths, dynamic variables, and a decrease in recidivism (Miller, 2006).

The constructs used within the IORNS have been highlighted on the basis of psychological literature (Clayton et al. 1995; Gendreau et al., 1996; Hanson & Bussiere, 1998; Hanson & Harris, 2000; Hanson & Thornton, 2000; Hoge et al., 1996; Moore, 1998; Stouthamer-Loeber, et al., 2004; Quinsey et al., 1998). However, in terms of use within psychometrics, they are not yet sufficiently validated. Therefore, caution must be urged in interpreting psychometric assessments such as the IORNS which assess these constructs that are not yet validated across adequate samples.

The IORNS requires further theoretical and statistical reliability and validity sample studies to be undertaken across offender populations, including robbery offenders. The IORNS manual states that including static, dynamic and protective factors will provide accurate and dependable risk predictions, treatment and management needs. This has not been disproved by any studies undertaken thus far, but nor crucially has it been accurately proven in terms of the reliability and validity of such claims within the intended offender populations. As it currently stands, the variables within the IORNS do have strong value for their utility in risk management decisions, but more evidence is needed to provide the utility of its use as a risk prediction tool within a multidisciplinary case formulation approach (Cooke, 2008; Cooke & Michie, 2009; DeClue, 2007; Logan & Johnstone, 2008; Miller, 2006).

Indeed, DeClue (2007) highlights the need for the examination into the predictive power of the IORNS in order to substantiate the applicability of using the measure in the prediction of general, sexual and violent re-offending. In terms of its use within the sexual offender population, the IORNS has been designed to collate information required for a risk assessment of re-offending. However, there are currently no guidelines for an evaluator to follow in making sense of these scores and thus using them to accurately predict future risk. At present other sexual risk tools such as the SVR-20 offer more comprehensive, reliable and valid predictions of future sexual offending. The IORNS can currently be used within this population to add utility to decision making for treatment and supervision and can be used to aid the formulation of hypotheses regarding individual's problems, needs and progress within identified treatment. Until research

has been undertaken to address the lack of predictive validity within the sexual offending population, the IORNS should not form the basis of decision making (DeClue, 2007).

Indeed, within any future use, subsequent to the validations suggested above, it is argued that professionals must issue caution in using any actuarial risk assessments to predict an individual's risk of violent recidivism and as such should never be used as the only measure of future prediction (Cooke & Michie, 2009; Craig & Beech, 2010). Indeed, best practice guidelines support the use of structured professional judgement over actuarial methods (Cooke & Michie, 2009; Craig & Beech, 2010; Department of Health, 2007). Therefore, any future use of the IORNS within risk assessment is suggested within structured multidisciplinary clinical judgements utilising actuarial risk assessments in line with relevant literature for each case.

To conclude, future research is required in assessing the applicability of the IORNS to larger samples, offender ethnicities and offender behaviour subgroups such as robbery offenders. Important questions regarding the validity and predictive power of the IORNS in predicting recidivism within specific offender groups remain. The IORNS' mantra can be defined as assessing dynamic and static need alongside protective factors. Due to the early positive validity and reliability evidence it can be said that the IORNS holds great as yet, insufficiently tested promise for applicability of its future use in predicting risk, identifying treatment targets and aiding in the management of general, sexual and violent offenders.

Furthermore, in relation to the robbery offender subgroup, specific validation and predictive power studies are required to ensure the validity and reliability of its potential use for individuals within this specific offender population. Subsequent to this successful analysis taking place, it is suggested that the IORNS could provide an invaluable and as yet unavailable tool in assessing and monitoring the dynamic risk factors of robbery offenders. The protective factors identified within the tool could also be built upon within specialised risk management and treatment intervention packages. Thus, the potential utility of the IORNS within repeat violent offending behaviour such as robbery is suggested as being widespread, subject to the necessary validating tests being successfully undertaken.

CHAPTER 5: A COGNITIVE-BEHAVIOURAL INTEGRATED TREATMENT

(C-BIT) APPROACH ADDRESSING CANNABIS MISUSE IN A ROBBERY OFFENDER

WITH PARANOID SCHIZOPHRENIA

This chapter is not available in the digital version of this thesis.

CHAPTER 6: OVERALL DISCUSSION

Overall Discussion

This thesis aimed to gain a greater understanding into robbery offender types, the behavioural facets which may be present within a robbery offence and the affects of such findings on individuals in terms of future treatment and risk management. It was proposed that this information could be incorporated within an initial robbery profiling model, with the long term aim of working towards the ultimate goal of providing investigative support in robbery offences. The key findings from the thesis will be highlighted, leading to the development of the proposed initial model. Initial conclusions regarding the future risk management and treatment of robbery offenders will also be presented.

1. Key Findings in Relation to Current Profiling Literature

To summarise, findings from the semi-systematic review and research indicated a three scale level of professionalism within armed robbery and two behavioural facets (violence and interaction) within robbery offending as a whole.

In incorporating these findings, it is suggested that the notion of a behaviour continuum has been promoted in moving away from the set of four robbery themes previously suggested (Smith, 2003; Yapp & Goodwill, Masters Dissertation, 2008). Indeed, it is suggested that the robbery approach themes proposed were not concrete, but rather a continuum of behaviour, in that variables in between themes were not strongly associated with a specific theme. This lack of distinction between approach themes for such variables led to the suggestion of the greater utility

in using the behavioural facets (interaction and violence) that do represent this proposed continuum.

In approaching the profiling of robbery offenders from this angle, the research falls in line with a more holistic behavioural continuum approach, rather than a behavioural thematic classification which has been evidenced as having limitations in its utility in successfully profiling specific offenders (Goodwill & Alison, 2007; Goodwill et al., 2009). Within this suggested behavioural continuum, a robbery offender's Modus Operandi (MO) can be examined through analysing specific behaviours from one offence to another (Bennell & Canter, 2002; Goodwill & Alison, 2006; Green, Booth & Biderman, 1976; Grubin et al., 2001).

The empirical paper evidenced that levels of interaction used in a robbery offence may be suggestive of an offender's age and therefore levels of experience and craft, as supported within the burglary profiling literature (Bennett & Wright, 1984; Cromwell, 1991; Goodwill & Alison, 2006; Yokota & Canter, 2004). In addition, a number of trends have been observed and investigated within the case study in relation to demographic variables and offender background characteristics which may be incorporated within an initial robbery profiling model. This model will present the significant findings from the research and the themes from the semi-systematic review in aiming to address the component parts seemingly identified within the causal constellation of the precipitation and maintenance of a robbery offender's criminal lifestyle. Thus, in synthesising the findings from the thesis in relation to current profiling research, it is

suggested that two different types of robbery offender have begun to emerge; that of a 'career professional' robber versus an 'amateur antisocial' robber.

1.2 The 'Career Professional' Robber

The semi-systematic review revealed a scaled level of professionalism within commercial armed robbery ranging from amateurism-professionalism. The professional armed robber engaged in thorough planning and preparation (Alison et al., 2000; Borzycki, 2006; Einstadter, 1969) with the apparent objective of minimising interference in the commission of the offence by inhibiting reactive contingencies (victim / bystander resists). Although professionals lacked educational and employable skills (Haran & Martin, 1984), they engaged in a cognitive process, described as 'means-end thinking' (Alison, 2005) in conducting a mental 'cost-benefit' analysis. This display of mental agility in expending effort on a consequential thinking process seemingly highlighted a professional's ability to anticipate specific consequences of specific actions and to follow steps through from the planning to the execution of goals.

Specific degrees of professionalism were seemingly further identified within the research of robbery offenders through the use of behavioural facets. In relation to the previous literature outlined, individuals appeared to demonstrate cognitive abilities in displaying high levels of interaction with the victim, supporting the initial profile of a more controlled, professional career criminal. Indeed, offenders engaging in high levels of interaction at the crime scene were less likely to have previous convictions for property offences or offences against the person and thus less likely to have a significant violent criminal history. Therefore, offenders were more likely

to use high levels of interaction during the commissioning of the robbery offence if they did not have a history of offences against the person or property offences and/or associated offending histories.

The analysis points towards evidence of a difference in offending backgrounds for robbery offenders using low or high levels of interaction within their offending. Higher levels of interaction suggest an older, more confident offender, with fewer previous convictions for offences against property or the person. In relating these findings to previous literature it is suggested that such differences could potentially be due to higher levels of cognitive ability in being able to 'face down' the victim and therefore lower levels of gratuitous violence used (Alison 2005; Gebhard et al, 1965). The findings also appear to suggest evidence of better planning of the robbery offence (including the instructional use of a firearm) and subsequent control within the robbery scene (Alison et al., 2000; Borzycki, 2006; Canter et al, 2003; Einstadter, 1969; Feeney, 1986; Haran & Martin, 1984; Woodhams & Toye, 2007). Indeed, evidence of planning has been reported to represent greater levels of intelligence (Canter et al., 2003; Gebhard et al., 1965), as well as offender experience (Goodwill & Alison, 2007).

Furthermore, previous findings within the profiling literature and indeed as presented within the included case study evidence that particularly violent aggressive offences are more likely to be committed by younger offenders (Gebhard et al., 1965; Goodwill & Alison, 2007; Harry, Pierson & Kuznetsov, 1993). In terms of location, a professional 'career' type offender is more likely to

offend within an impersonal commercial target, found within the semi-systematic review (Schwaner, 2000) and the research (high levels of interaction/low levels of violence).

1.3 Amateur Antisocial Robber

As suggested, a second type of robbery offender appears to have emerged, a group of robbery individuals collated under the 'amateur antisocial' label. In comparison to the professional robber, this group of armed robbery offenders from the semi-systematic review have been found to be impulsive and opportunistic (Borzycki, 2006; Einstadter, 1969) and fuelled by alcohol and drug habits (Feeney, 1986; Goodwill & Alison, 2006; Haran & Martin, 1984; Mathews, 1996; Walsh, 1986). They subsequently appear to rob for a quick fix and/or whilst under the influence of an illegal substance, making no plans for escape or disguise, choosing their target through desperation (Borzycki, 2006). This group lack the planning and execution skills necessary to effectively control victims at the crime scene, leading to subsequent physical violence (Alison et al., 2001) and greater victim injury. This initial finding was further evidenced within the case study whereby the subject engaged in problematic daily cannabis use which exacerbated his paranoid thoughts, impacting on him engaging in more violent acquisitive offences and lower levels of daily interaction with others.

In further distinguishing the two groups specifically from the research analysis, amateurs were less likely to target commercial establishments, instead focusing on targets present within outside locations. Such offences have been found to yield low levels of interaction. Although the violence facet suggested that high levels of violence were used within this offender type, previously suggestive of an offender who is more likely to have problems with emotional

regulation (Alison et al., 2001; Haran & Martin, 1984), this finding was non-significant. As stipulated, the case study subject appears to fit into this amateur antisocial robbery subgroup and from the case formulation undertaken it was identified that he did have difficulties in emotional regulation when suffering distress which in turn had been exacerbated by his cannabis use.
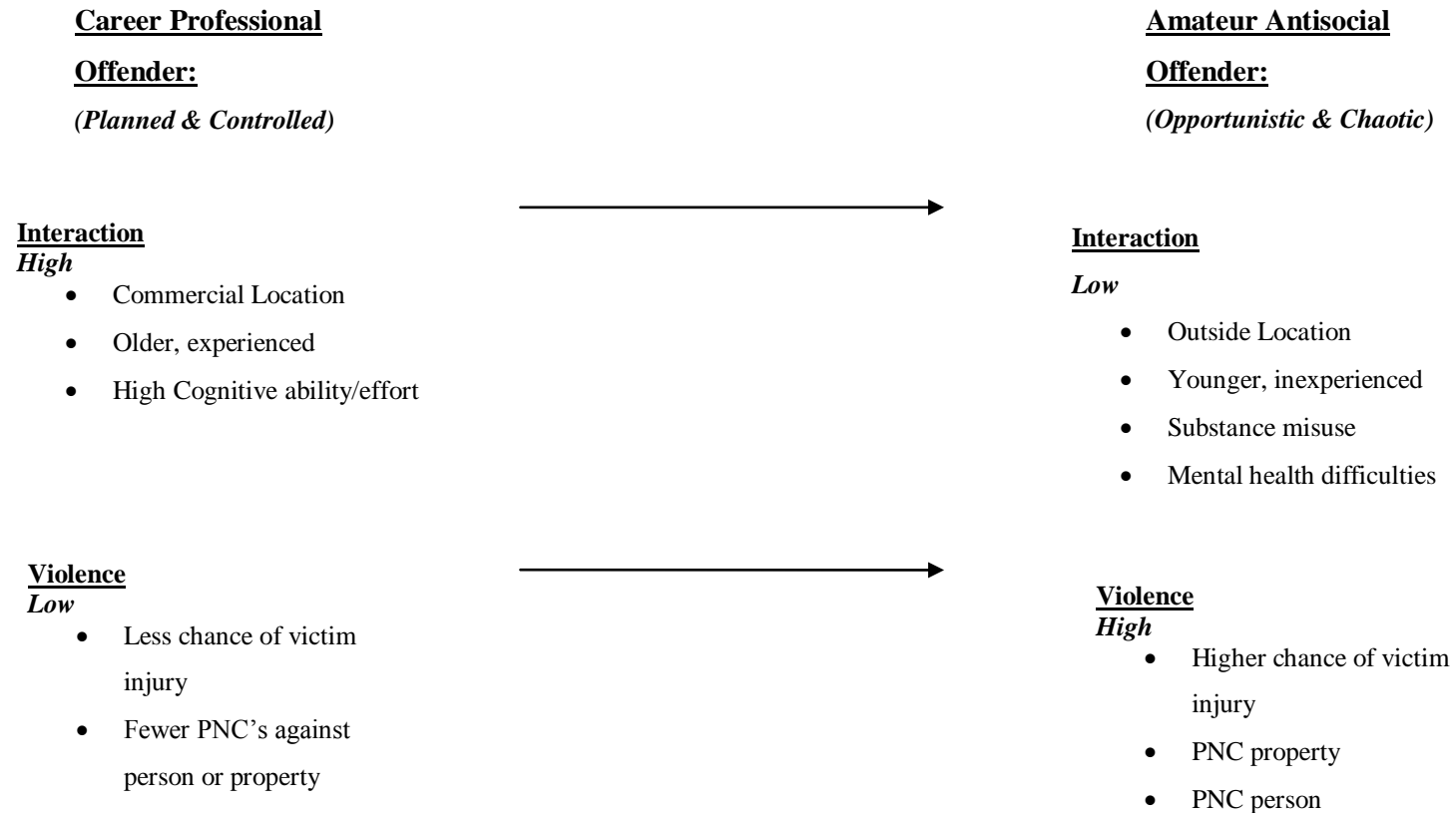
This individual case offers an example of the potential causal effects of substance misuse, mental illness and offending patterns of an individual robbery offender and its links to the overall offender groups proposed. Indeed, the presence of these factors and offending styles offers a potential explanation for the increased likelihood that an amateur robber will have convictions for specific previous offences (against the person and/or property) and increase the likelihood of using lower levels of interaction during the commission of the offence. This lower level of interaction used could potentially be due to an amateur antisocial robber's inebriated/drug desired state although this has not been specifically tested within the empirical study (Chapter 3). Indeed, no significant differences were found in relation to offender's previous convictions for illegal substances in comparison to levels of violence and / or interaction used during the commissioning of a robbery.

However, it has been evidenced that an increase in drug-fuelled robbery has coincided with a reduction in the career armed robber, with a third of armed robbers citing 'money for drugs' as the main motive for committing armed robberies (Borzycki, 2006; Feeney, 1986; Gill, 2000; Nugent, 1989). It is proposed that this may have led to an increase in the 'amateur antisocial' robber, specifically hallmarked within armed robbery by a lack of the meticulous planning for all

possible eventualities which make professional armed robbers so comparatively effective and successful.

To conclude, two differentiable types of robbery offender appear to have emerged from the findings of the research, semi-systematic review and case study. It is proposed that they can be distinguished within the semi-systematic review and from the behavioural facet of interaction in terms of their previous offending histories (convictions for personal and property offences), substance use, robbery location, victim injury, age, level of planning and control versus an opportunistic and/or chaotic offending style. With this in mind, an initial robbery offending model is suggested in Figure 3 in diagrammatically representing these findings. This proposed model is purely suggested as an initial untested model, open to validation from offender samples and subsequent revision.

Figure 3: Robbery Profiling Model

Career Professional

Offender:

(Planned & Controlled)

Amateur Antisocial

Offender:

(Opportunistic & Chaotic)

Interaction
High
- Commercial Location
- Older, experienced
- High Cognitive ability/effort

Interaction

Low

- Outside Location
- Younger, inexperienced
- Substance misuse
- Mental health difficulties

Violence
Low
- Less chance of victim

  injury
- Fewer PNC's against

  person or property

Violence
High
- Higher chance of victim

  injury
- PNC property
- PNC person

2. Applicability and Implications to Profiling Research

Profiling approaches were critiqued within Chapter 1 where it was acknowledged that the 'homology assumption' has little support (Doan & Snook, 2008; Woodhams & Toye, 2007). However, within this lack of support it has been argued that the accuracy of the 'homology assumption' may be dependent on the extent to which behaviour at a crime scene is influenced by situational, psychological or interpersonal factors (Goodwill & Alison, 2007). These factors are said to have a multifaceted relationship with crime scene behaviours and can therefore cause variability in the accuracy of potential 'profilability' (Goodwill & Alison, 2007).

Thus, in investigating this concept, there appeared to be a requirement for an increased knowledge pool regarding behavioural and contextual features within an offence such as robbery. Moreover, it was suggested that a shift was needed towards understanding the contribution which all individual behaviours have to a specific offence type within a behavioural continuum before generalising and further developing theory focusing on specific behavioural themes or clusters to dynamics of specific offence situations and contexts (Alison, Bennell, Mokros & Ormerod 2002; Bateman & Salfati, 2007; Goodwill & Alison, 2007; Woodhams & Toye, 2007).

Robbery offending has been investigated taking into account the crime scene behaviours captured and the context in which they occurred. Indeed, the research has underlined the complex interpersonal nature of a robbery crime in which aspects within the context or psychological nature of the interaction with the victim appear to play their part, potentially

altering the outcome. Specific behaviours during a robbery appear to be expressions of certain individual's styles of behaviour (characteristics), background, and offending motive. It is acknowledged that some of these characteristics and/or motives appear to be easier than others to identify through profiling. Indeed, the research appears to add some substantiation to the notion that different behaviours have different predictive validity within specific offences, such as robbery (Goodwill & Alison, 2007).

In relating the current findings to the 'homology assumption'(Mokros & Alison, 2002), it is acknowledged that the crime scene behaviours analysed may be influenced by situational, psychological or interpersonal factors which may therefore cause variability in the potential accuracy of the initial robbery profiling model suggested (Goodwill & Alison, 2007; Grubin, Kelly & Brundson, 2001; Salfati, 2000; 2003; Woodhams & Toye, 2007). Moreover, it is acknowledged that a requirement remains for an increased knowledge pool regarding specific behavioural and contextual features within robbery offending beyond those identified within this research (Goodwill & Alison, 2007).

Despite this, a small shift has been made towards understanding the contribution which individual behaviours have to a specific robbery offence (Bateman & Salfati, 2007; Canter, 2000; Canter et al., 2003: Canter & Fritzon, 1998; Goodwill & Alison, 2007; Salfati & Bateman, 2005; Salfati & Canter, 1999). However, further analysis of outstanding contextual, situational and psychological factors is required to further develop and substantiate theory focusing on specific behavioural facets or clusters to the dynamics of each specific robbery offence.

3. Applicability to Violent Offending Literature

In acknowledging the various factors (situational, background, psychological) involved in the commissioning of a criminal offence it is also important to establish the origin of behaviour. The root causes of aggression were reported in Chapter 1 and were highlighted regarding a need to focus on the development of an individual's schemas and cognitive scripts, created during developmental years and subsequently triggered in later life by an individual's environment (Hollin & Bloxsom; 2007; Novaco, 2007; Novaco & Welsh, 1989). Within this, negative developmental experiences are reported to lead to the development of hostile attribution biases impacting on the type of violence used (expressive or instrumental) within the commission of a violent offence (Collie et al., 2007; Dodge et al., 1990; Dodge et al., 1997; Ireland & Archer, 2002; Matthys & Lochman, 2005; Vitaro & Brendgen, 2005).

As stated, robbery is defined as a violent crime and as such aggression, be it instrumental or expressive, is prevalent within the commission of each offence. Individuals engaging in expressive violence are reported to have a history of living in a hostile social environment, including experiences of maltreatment, having controlling and punitive parents, being victims of physical abuse and having a history of adjustment difficulties, both at home and at school (Dodge, Lochman, Harnish, Bates & Pettit, 1997; Vitaro & Brendgen, 2005). Proactive instrumental aggressors on the other hand are reported to have a history of experiencing positive relations with their family, having less pressure and monitoring from their parents and being

tolerated and accepted by their like minded peers (Poulin & Dishion, 2000; Vitaro & Brendgen, 2005).

In applying such background theory to robbery offending initial findings incorporated within the suggested profiling model are based on the significant differences found between levels of interaction used, with no significant differences reported from the violence behavioural facet tested. From these findings a 'career professional robber' is reported to be more likely to be planned and controlled, using high levels of interaction whereas an 'amateur antisocial robber' is likely to be opportunistic and chaotic, characterised by low levels of interaction. In relating the initial proposed model back to the literature on general offending patterns it is acknowledged that there has been little advancement regarding significant findings in the understanding of the types of violence and the function of this violence used by robbery offenders.

In this respect, it is concluded that a theme of violence remains as one of many distinct types of behaviours throughout specific crimes (Canter et al., 2003). Therefore, one is currently unable to make the distinction as to whether an act of robbery is predominantly expressive or instrumental and indeed can therefore not hypothesise regarding robbery offender's background characteristics based on the type of violence used (Bartol, 1986; Dodge et al., 1997; Fesbach, 1964; Vitaro & Bredgen, 2005). This remains an area of outstanding need in relation to future research.

Furthermore, the current research is limited in aiding the understanding of robbery offenders' different schemas and cognitive scripts and the effect on whether they may be, for instance, a 'career professional' or 'amateur antisocial' robber. The investigation and identification of such psychological factors was stated as being beyond the thesis' remit due to the lack of previous empirical research regarding the offence of robbery (see Chapter 1). Indeed, the thesis aimed to aid the first stage within the process of promoting a comprehensive theory driven assessment of robbery by investigating crime scene behaviours prevalent within robbery offending. Whilst this has been achieved it is acknowledged that further research is required in eventually being able to test hypotheses regarding robbery offenders' cognitive scripts and schemas and the effect of these on their offending behaviour.

3.1 Treatment Implications

Despite a lack of research and therefore knowledge regarding different types of robbery offenders and their psychological functioning, the specific application of theory to interventions and potential future risk management procedures was explored and analysed within the thesis (Chapters 4 & 5).

The IORNS psychometric measure, which aims to assess dynamic and static need alongside protective factors, was investigated. Due to initially positive validity and reliability evidence, it is reported that the IORNS holds great as yet, insufficiently tested promise for applicability of its future use in predicting risk, identifying treatment targets and aiding in the management of general, sexual and violent (including robbery) offenders.

Indeed, it is acknowledged that violent offenders are a difficult and resistant group to treat due to their underlying schemas driving personalities and subsequent behaviours (Serin & Preston, 2001b; Wormith & Olver, 2002). As such, the core treatment issue with violent offenders is reported to be that of aggression management rather than the antisocial nature of behaviour, which is often a bi-product of this poor aggression management (Ireland 2007; Tremblay & Cote, 2005). It is argued that this core treatment aim is applicable to the violent nature of robbery offending. Thus, it follows that effective treatment should involve multidimensional treatment packages, addressing both the act of violence and the underlying causes prevalent within individual cases (Hollin & Bloxsom, 2007).

Offender subtypes are likely to exist within the offence of robbery, as seen with other offences such as homicide and sex offending (Canter et al., 2003; Salfati, 2000; Salfati & Canter, 1999; Titterington et al., 2003; Woodhams, Gillett & Grant, 2007). Specific treatment needs within these offender subtypes are also likely to exist. From the little which is currently known about robbery offending it is suggested that dynamic risk management is likely to be required along with specific anger intervention (such as ART) and cognitive behavioural therapy addressing an individual's underlying schemas driving and maintaining the use of violence (Collie et al., 2007; Goldstein, Glick & Gibbs, 1998).

Indeed, within the initial exploratory findings from this thesis it can be speculated that beyond these generic treatment needs identified an 'amateur antisocial robber' may also require specific

intervention around their substance misuse, lack of impulse control and greater propensity to engage in high levels of violence. A 'career professional robber' may require specific intervention regarding the attachment and powerful self identification which they appear to have with armed robbery in particular. Relapse prevention models have proved successful in addressing such treatment concerns as mental illness, addictive and offending behaviour and as such are proposed as potentially being an effective model for use with a robbery offender's treatment (Hewitt & Birchwood, 2002; Marlett & Donovan, 2005; Ward & Brown, 2004). Indeed, relapse plans could be developed for an offender's violence, substance use and repeat cycle of offending. Repeat robbery offenders may also require help in being offered alternative non-deviant options in life (Schwaner, 2000). Such intervention may include Local Authorities offering individuals the opportunity to learn new work skills enabling them to earn a living from legitimate means upon release from prison.

To conclude, as stated in Chapter 1, if robbery offender types and subtypes can be further distinguished and validated through empirical research above and beyond that presented in the current thesis, for example in terms of expressive or instrumental aggression used, specific treatment packages can be developed on a needs-led, multimodal individualised approach, as suggested (Hollin, 1993; 1994; Hollin & Bloxsom, 2007). Indeed, the need to establish the key cognitive features and subsequent behavioural and physiological responses within an offence type and subtypes when exploring and developing effective treatment packages is of paramount importance (Ireland, 2009). Such understanding allows for the exploration of any differences between offender and non-offenders who may present very similarly on the surface. Exploration

should focus on what it is about offenders' differing cognitions which leads one individual to head down an offending pathway and the other not (Gilchrist, 2007). There are currently no specific robbery interventions available and further research is required before such comprehensive offence specific models can be developed.

4. Limitations of Thesis

In acknowledging the benefits of the collated thesis, it is prudent to be mindful of the limitations inherent within all forms of research. Indeed, the reader is also referred back to each chapter for a more detailed account of the limitations within each specific piece of work. In relation to the IORNS, further studies are required to ensure the validity and reliability of its use within a variety of offender populations, including robbery offenders. The semi-systematic review was not subject to the stringent quality control processes prevalent within systematic reviews and as such the quality of studies included is likely to be lower than those within a systematic review. With this in mind, it is acknowledged that the findings of the subsequent review must be interpreted with the suggested caution on the basis of the methodology highlighted.

In relation to the empirical paper, the original dataset used was collected by another researcher and therefore was not specifically collated for the purpose of this study. Thus, it can be suggested that certain background characteristics such as family history of offending, substance misuse and/or mental health issues could have been collected by the current author. Previous research has also enabled a distinction to be made between different robbery offender's MO in relation to the use of different weapons, such as a firearm or knife (Woodhams & Toye, 2007)

and the role of victim behaviour within the commission of a robbery offence (Luckenbill, 1981). Such research would have enabled the further development of the initial robbery offending profiling model, supporting, refuting or adding to the component parts of the apparent causal constellation of the robbery offence. However, due to time restrictions, this was not possible. To note, restrictions were also placed on the age of offenders incorporated within the research sample (21 years and over) and the gender of offenders (male only). However, in respect of gender, statistics reveal that the vast majority (93%) of robbery offences are committed by male offenders (Crime in England and Wales, 2008/09).

5. Proposed Future Research

In direct comparison to the limitations of the research, it is suggested that future research could build on the current findings in specifically investigating robbery behaviour offending patterns in young offenders. This would provide evidence to further support and/or refute the initial findings.

Although an initial robbery profiling model has been created on the basis of multivariate analysis, further examples of validity and reliability are required through the analysis of subsequent data samples. The model also needs to be expanded to incorporate further situational, contextual and psychological factors which have not been captured within the current dataset, such as specific details which may be of pragmatic use in the investigation and prioritising of robbery suspects. This needs to include analysis on drug misuse habits as highlighted with cannabis misuse within the included case study. Specifically, the impacts of

substance misuse on robbery offending in terms of the driving motives behind the crime and affects on the planning and execution of the offence need to be investigated.

Furthermore, research distinguishing between different robbery offender's MO in relation to the use of different weapons, such as a firearm or knife and the role of victim behaviour within the commission of a robbery offence is required. Indeed, follow up studies of robbery offenders are also required to analyse the specific repeat offending nature of a robbery offender and the concept of offenders developing expertise within the design and implementation of an offence. The implications of any such findings need to be addressed in relation to the pragmatic investigation of robbery offences.

6. Conclusions and Recommendations

The analysis and exploration of robbery offending and its applicability to current profiling practices within this thesis has led to the development of an initial robbery profiling model. This model distinguishes between two types of robbery offender; a career professional robber and an amateur antisocial robber. A career professional robber is more likely to offend in a commercial location, be older and more experienced. They are likely to commit the crime in a planned and controlled manner, often with the presence or suggestion of a firearm, use high levels of interaction suggestive of greater cognitive ability and low levels of violence, rarely resulting in victim injury. An amateur antisocial robber is more likely to commit their offence outside, have previous convictions for offences against the person and property and be under the influence of an illegal substance. The offence is likely to be opportunistic and chaotic, characterised by high levels of violence and low levels of interaction.

The reliability and validity of this proposed initial model requires further testing across a range of samples in determining its validity in accurately predicting offender characteristics from crime scene behaviours. The expansion of the model to incorporate further situational, contextual (including substance misuse) and psychological concepts will increase its potential utility in addressing the issue of relatively low levels of robbery detection rates. If and when this has been achieved, specific preventative models could potentially be incorporated to address the need to reduce the disproportionately high robbery rates within the three geographical areas identified.

This may be further enhanced through the potential development of the use of the IORNS measure in monitoring dynamic risk of repeat robbery offenders, specifically within these geographical areas, providing intelligence in the development of management and intervention packages at an individualised level as required. However, to end with a word of caution, these future aims are currently a long way off and are dependent on the future research which has been identified being undertaken within a number of different robbery offending samples.

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APPENDICES

Appendix 1: Search terms and results

Search Terms

The keyword search of the literature used the following Boolean terms for each source:

Armed robbery

Commercial and armed robbery

Firearms and armed robbery

Profiling and armed robbery

Predictions and armed robbery

Convictions and armed robbery

Crime rates and armed robbery

Career and armed robbery

Sources of literature

The search of the literature involved utilising the following electronic databases with the indicated date span. For all databases, the dates searched for were 1960 to 2009. This extended the search to include the important social organisational work completed on armed robbery in the early 1960's. This work had been highlighted in the preliminary scoping and for which much of the subsequent armed robbery research is based on.

- Campbell collaboration (www.campbellcollaboration.org)
- The Cochrane Library (www.thecochranelibrary.com)
- PsychInfo (www.psycinfo.com)
- ERIC (http://www.eric.ed.gov/ERICWebPortal/Home.portal)
- http://www.googlescholar.com
- www.ncjrs.org
- www.science-direct.com
- www.sagepub.co.uk.

- www.doaj.org

- www.wos.mimas.ac.uk/

- www.medline.cos.com/

This preliminary sweeping search produced a total of 21,153 hits from the eleven electronic databases included.

Initial Electronic database search:

- Initial search index applied to all electronic databases;
    1. robbery
    2. offenders
    3. burglary
    4. dwelling
    5. residential
    6. commercial
    7. group robbery
    8. individual robbery
    9. armed robbery

Second Electronic database search:

- Second search syntax applied to all electronic databases:
    1. robbery
    2. offenders
    3. burglary
    4. dwelling
    5. residential
    6. commercial
    7. group robbery
    8. individual robbery
    9. street crime
    10. gang crime
    11. bank robbery
    12. violent robbery
    13. aggressive robbery
    14. armed robbery
    15. armed robbers
    16. firearms
    17. profiling

18. prediction
19. convictions
20. crime rates
21. investigation
22. career robbery
23. psychological interventions
24. priority$ing
25. 1 and 17
26. 2 and 7
27. 6 and 7
28. 6 and 14
29. 1 and 16
30. 14 and 16
31. 14 and 17
32. 14 and 18
33. 14 and 19
34. 14 and 20
35. 14 and 21
36. 14 and 22
37. 15 and 18
38. 15 and 17
39. 14 and 22

 Applied to:

http://www.eric.ed.gov/ERICWebPortal/Home.portal
http://www.googlescholar.com
www.thecochranelibrary.com
www.campbellcollaboration.org
www.ncjrs.org
www.science-direct.com
www.sagepub.co.uk
www.doaj.org
www.wos.mimas.ac.uk/
www.psycinfo.com/
www.medline.cos.com/
http://links.jstor.org

Third Electronic database search:

- Third search syntax:

    1. robbery

2. offenders
3. commercial
4. group robbery
5. individual robbery
6. bank robbery
7. violent robbery
8. aggressive robbery
9. armed robbery
10. armed robbers
11. firearms
12. profiling
13. prediction
14. convictions
15. crime rates
16. investigation
17. career robbery
18. psychological interventions
19. priority$ing
20. 3 and 9
21. 4 and 12
22. 9 and 11
23. 9 and 12
24. 9 and 13
25. 9 and 14
26. 9 and 15
27. 9 and 17
28. 10 and 17
29. 8 and 13
30. 9 and 16
31. 9 and 18
32. 10 and 19

Applied to:

http://www.eric.ed.gov/ERICWebPortal/Home.portal
http://www.googlescholar.com
www.ncjrs.org
www.science-direct.com
www.sagepub.co.uk
www.doaj.org
www.psycinfo.com/
http://links.jstor.org
http://www.ingentaconnect.com/content/bpsoc/lcp
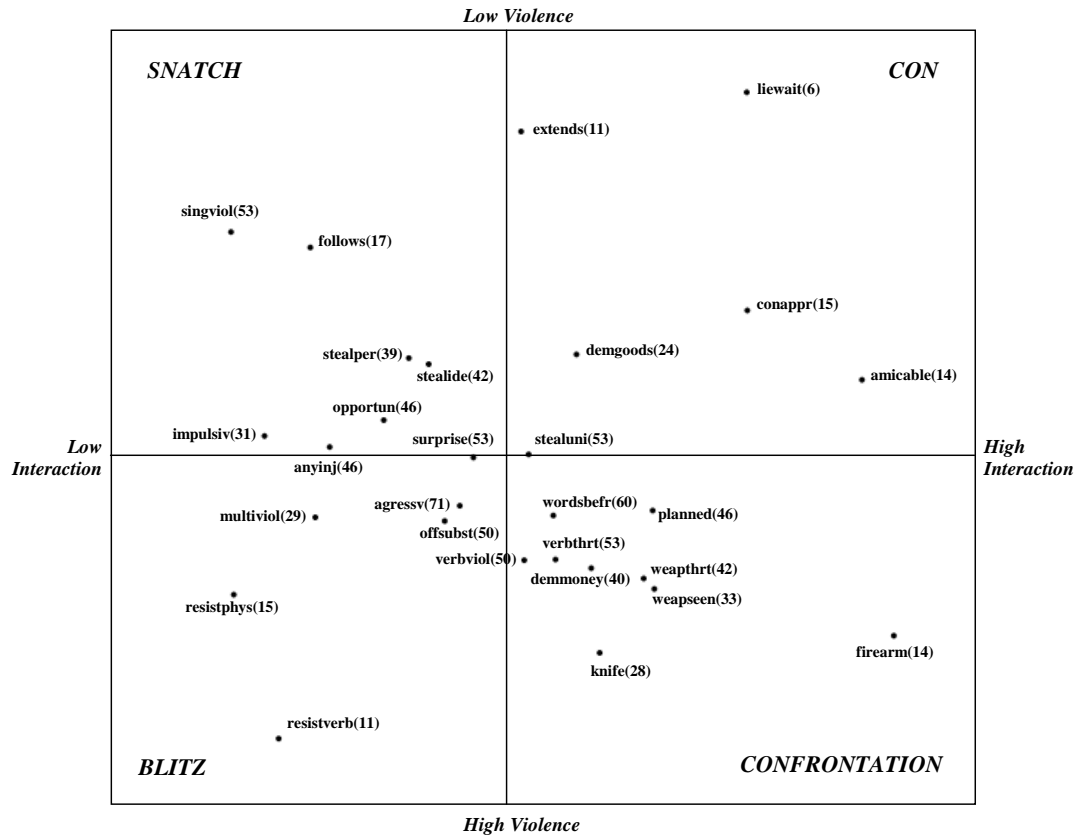
Experts and grey-literature

Experts within the area of armed robbery were contacted to suggest additional relevant academic papers and grey-literature. As a result, 20 journal articles focusing on armed robbery were additionally sourced.

The table illustrates the 3 syntax applied in the literature search and the number of hits produced from each. The second and third syntax searches include sources and articles recovered from discussion with armed robbery experts. A total of 53 published papers within the area of armed robbery and robbery with firearms were identified, excluding 68 duplicates. From this, 20 of the 53 publications were chosen and the full paper sought.

Summary of search hits from three detailed syntax searches

Syntax applied	Number of Electronic databases	Total number of hits	Hand searching	Contact with experts	Number of included papers
Initial syntax	11	21,153	0	0	-
Second syntax	13	13,904	2 (Journals)	2	-
Third syntax	9	121	2	2	53 (after removing duplicates)

Appendix 2: Multidimensional Scaling Robbery Plot

Low Violence

SNATCH	*CON*

- liewait(6)
- extends(11)
- singviol(53)
- follows(17)
- conappr(15)
- stealper(39)
- demgoods(24)
- stealide(42)
- amicable(14)
- opportun(46)
- impulsiv(31)
- surprise(53)
- stealuni(53)

Low Interaction — *High Interaction*

- anyinj(46)
- agressv(71)
- wordsbefr(60)
- planned(46)
- multiviol(29)
- offsubst(50)
- verbthrt(53)
- verbviol(50)
- weapthrt(42)
- demmoney(40)
- weapseen(33)
- resistphys(15)
- firearm(14)
- knife(28)
- resistverb(11)

BLITZ	*CONFRONTATION*

High Violence

Appendix 3: Classification of Robbery Offenders (Smith, 2003)

Based on 1721 cases, Smith (2003) suggested that robbery could be classified into four themes; Blitz, Snatch, Confrontation and Con.

Blitz robberies were characterised by overwhelming physical force to stun and control the victim before the property was removed.

Snatch robberies were indicative of robbers making a grab for property which the victim had on display, such as a mobile phone or handbag.

Confrontation robberies were characterised by victims who were simply confronted by the offender with a demand to hand over their property.

Con robberies were those in which the victim was initially distracted or lulled into a false sense of security before their property was taken.

Appendix 4: Crime Scene Behaviour Variables Code

Twenty eight crime scene behaviour variables were used for this study within the analysis of robbery offence behaviour. All of the variables are dichotomous with values of 1 (present) or 0 (absent) for each. A description of each variable is given below:

1. Surprise = The offender surprises the victim, approaching them from behind.

2. Offsub = The offender was using a substance whilst undertaking the offence.

3. Multviol = Multiple acts of violence are used by the offender within the offence.

4. Aggressv = The offender is aggressive in their approach within the robbery situation.

5. Vresistv = The victim verbally resists the offender's attempts of robbery.

6. Vresistp = The victim physically resists the offender's attempts of robbery.

7. Singviol = A single act of violence is used by the offender within the offence.

8. Anyinj = Whether the victim suffered any physical injury as a result of the offence.

9. Steadide = The offender steals identifiable items from the victim.

10. Stealper = The offender steals personal items from the victim.

11. Follows = The offender initially follows the victim before committing the offence.

12. Impulsiv = The offender acts on impulse to commit the offence, no prior planning.

13. Opportun = The offender acts on an opportunistic moment to commit the offence.

14. Extends = The offender extends the time used to commit the robbery offence.

15. Amicable = The offence takes place in an amicable manner with little force used.

16. Liewait = The offender lies in wait for a suitable victim to appear.

17. Conapp = The offender attempts to con the victim during initial approach.

18. Demgoods = The offender demands specific goods from the victim within the offence.

19. Stealuni = The offender steals unidentifiable objects within the offence.

20. Weapseen = A weapon seen by the victim during the offence.

21. Weapthrt = The use of a weapon is threatened by the offender.

22. Knife = Knife present and seen by victim within the offence.

23. Firearm = Firearm present and seen by victim within the offence.

24. Verbviol = Verbal violence used within the offence.

25. Verbthrt = Verbal threats made to the victim by the offender.

26. Wordsb4 = Words used before the offence.

27. Demmoney = Demanding money during the robbery offence.

28. Planned = Level of planning of attack suggested.

Appendix 5:

<h2 align="center">Reasons for Use Questionnaire</h2>

Name _____   Date _____

Instructions: A list of reasons people give for using substances is provided below. Using the scale below, indicate if each reason applies to you.

Y = Yes

S = Sometimes

N = No

<u>Reason for smoking cannabis</u>   <u>Rating (Y,N,S)</u>

1.   As a way to celebrate   _____

2.   To relax   _____

3.   Because you like the feeling   _____

4.   To forget your worries   _____

5.   Because it's exciting   _____

6.   Because it's what most of your friends do when you get together   _____

7.   Because you feel more self confident or sure of yourself   _____

8.   To be sociable   _____

9.   To get high   _____

10.   Because it helps when you feel depressed or nervous   _____

11.   Because it is customary on special occasions   _____

12.   Because it is fun   _____

13.   To cheer up when you're in a bad mood   _____

14.   Because it makes a social gathering more enjoyable   _____

15.   Because it makes you feel good   _____

Appendix 6: Cycle of Control

Managing Triggers

- Different friends
- Develop social network of none users
- Learn strategies to manage stress
- Take medication

Challenging drug related Beliefs

- Cannabis can be good in certain situations but not all the time
- It can mess you up
- Can make me anxious and paranoid
- Can increase likelihood of confrontation and aggression
- Doesn't make problems go away, makes problems worse e.g. with family
- Sometimes makes me less sociable
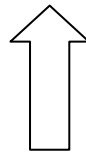- I sleep more, have alack of motivation and things don't get done

Control Thoughts

- "I don't need it"
- "I have managed with out it"
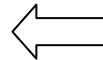- "If I do smoke my father will disown me"

Strategies to cope with Urges and cravings

- I no longer need it to feel relaxed and calm.
- I haven't had cravings for 7 or 8 months

Deny Permission: How do you talk yourself out of it?

- I will not smoke again because I want my family to respect me
- I do not want to come back to Reaside
- It is time for no more excuses

Alternative Actions

- Go to the gym
- See other friends
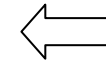- Start a career and earn some money

Resist Use

- I have no desire to smoke any more
- I realise that the negatives far outweigh the positives
- I have not smoked for a long time now
- Smoking de-motivates me and may cause me to be mentally ill