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**A STUDY OF RAPE INVESTIGATION FILES INVOLVING
FEMALE SURVIVORS: A COMPARISON OF
ALLEGATIONS DEEMED FALSE AND GENUINE**

BENJAMIN MCKEE BAUGHMAN

*A thesis submitted to the University of Huddersfield in partial fulfilment
of the requirements for the degree of Doctor of Philosophy*

The University of Huddersfield

Submitted January 2016

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Abstract

Determining the veracity of a rape allegation in the absence of incontrovertible evidence is highly problematic and complicated by vagaries of surrounding issues. The purpose of the present study was to utilise a unique, multi-faceted approach with a representative US complete dataset ($n=351$) to identify the most prominent, distinguishing characteristics between genuine and false allegations.

There are reasons to suggest that false allegations will be distinguishable from genuine rapes. The reasons include psychological dynamics such as a false alлегers' (not a survivor of rape) reliance on rape myths for their fictitious account. In contrast, genuine reports of rape tend to encompass more specific behavioural details. 17% of the present population were objectively determined to be fabricated.

Published results have indicated genuine rapes having a higher quantity and quality of reported actions. Smallest Space Analysis (SSA) was used to identify and categorise co-occurring behaviours, finding thematic consistency in genuine rapes. In contrast, false allegations revealed an erratic structure indicative of the fabricated stories' reliance on rape myths. Thematic structures are consistent with published findings which lends support to the grouping procedure utilised for this thesis. Additionally, a mean number of 6.6 behaviours in false allegations compared to the 9.3 behaviours controlled by the offender in genuine cases were observed.

Partial Order Scalogram Analysis with base coordinates (POSAC) allows for using a combination of the most reliably distinguishing characteristics across cases. A developed model provided a unique method of exploring the qualitative and quantitative variations across cases. The eight most distinguishing behaviours were used to calculate a Behavioural Profile Score (BPS) for each incident and supported published results. As another potential means of assessing plausibility, analysis showed that genuine reports of rape contained greater detail as measured by the number of specific behaviours described.

Although this thesis has various limitations, the results of three very distinctly different procedures all indicate distinguishable characteristics between genuine and false allegations. Additionally, it demonstrates the significance of myths in shaping actions and provides indications to why so many cases are indeterminate.

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Introduction

The research literature on rape investigations has sought to address the important question of what characteristics are commonly present in genuine rapes and false allegations, and whether the two categories can be differentiated. Kelly, Lovett, and Regan (2005); Feldman-Summers and Palmer (1980); Myhill and Allen (2002); Canter and Heritage (1990); Hunt and Bull (2011); and Feist, Ashe, Lawrence, McPhee and Wilson (2007), along with many others, have contributed to this important discussion. The research has varied with regard to the extent of data available and the coding approaches used. Although the body of knowledge surrounding the characteristics most frequently reported in a rape allegation continues to grow, studies on efforts to distinguish genuine from false allegations remain sparse. No comprehensive study using an entire, representative set of US police investigation case files exists to date.

There are several reasons why the study of false allegations should be included as a subset of the overall research category of reported rapes. For example, it is widely believed within the Western law enforcement community that false allegations are common and easily made with little or no risk of unfavourable consequences.

Additionally, incorrect or unreliable assumptions about false complaints provide a poor basis upon which to develop appropriate public responses to rapes. Finally, false allegations raise the possibility of miscarriages of justice, divert attention and timely resources from genuine victims, and may help to create or facilitate a problematic culture of scepticism. In order to develop effective investigative techniques specific to rape cases, methods to judge the truthfulness of a statement should be identified (Parker & Brown, 2000).

Full access to a population of entire police rape case files was obtained for this study. A unique Behavioural Profile Score (BPS) approach was used to link existing knowledge to a quantitative and qualitative exploration of the present data. A conservative assessment method, designed to minimise the impact of police judgements and cognitive distortions, objectively determined that 17% of all reported rapes were fictitious.

The organisation of this thesis is as follows. Chapter 1 introduces background information on rape, the accounts of rape reported to police, and the challenges

involved in investigating rape allegations. Chapter 2 discusses the wide range of proportions of false allegations found in an array of studies which then leads into research more directly related to the present study before concluding with research questions as they pertain to this thesis. Chapter 3 describes the dataset, general methodology, case grouping process used for the present study. In Chapter 4, the present research uses Smallest Space Analysis, along with a theoretical framework designed to distinguish the various ways in which rapists view their victims psychologically, to look at narratives of rape and how false accounts differ from genuine ones. Chapter 5 uses common rape myths to explore descriptive statistics and to begin untangling the variables in the present study. In Chapter 6, chi-square and binary logistic regression statistical approaches are used to identify distinguishing characteristics of the genuine and false subgroupings. Then, in Chapter 7, an additional logistic regression model is utilised to identify a smaller group of eight variables with the strongest predictive power. The remaining eight more distinguishing variables are carried into Chapter 8 in which the quantitative and qualitative variations are explored in multi-dimensional space. In Chapter 9, we use *t*-tests to determine the most indicative range of Behavioural Profile Scores (BPSs) for the genuine and false subgroupings. In Chapter 10, the new proposed BPS method is applied to randomly selected cases from the dataset, including ones that had not been classified as either genuine or false. Finally, Chapter 11 summarises the study's conclusions and its contributions to existing research.

Chapter 1 - General Characteristics of Rape Allegations

Rape is considered among the most serious of crimes, with long-term psychological damage and repercussions that tend to fester well after the physical injuries heal. Victims of rape suffer enormous emotional and physical distress (Thornhill & Palmer, 2000). Authorities and survivors both seek methods to assist with the psychological recovery process and to deliver justice against those who commit these heinous crimes. Researchers have made great strides over the years towards identifying characteristics of rape that can contribute to these efforts.

The US Department of Justice (DOJ) Bureau of Justice Statistics reported an average annual total of 366,460 attempted or completed rapes or sexual assaults in the United States from 1992 to 2000 (Rennison, 2002). As of the DOJ's February 2010 report (Maston, 2010), an estimated 248,280 females were victims of such crimes in 2007. Paludi's (1999) studies have indicated that 8% to 15% of college-age women in the United States report having been raped. Warshaw (1988) estimated that one in three women will be raped or sexually assaulted in their lifetime. Turvey (2005) observed that the US has one of the highest rape rates among countries that report such statistics.

These figures are even more staggering when one considers that rape remains one of the most underreported crimes in the US. According to Turvey (2005), fewer than half of all rapes come to the attention of the police. It is believed that somewhere between 34% and 77% of all sexual assaults go unreported. On average, 36% of rapes, 34% of attempted rapes, and 26% of sexual assaults were reported to the authorities between the years 1992 and 2000 (Rennison, 2002, p. 1). Scholars in this area of research agree that rape is a severely underreported crime, but they must rely largely on survey methods in trying to estimate the actual frequency of reporting. Therefore, the estimates vary widely depending on data collection procedures.

Regardless of data collection procedures, sexual violence is any sexual act forced on someone against that person's will. These acts can be physical, verbal or even psychological in nature. In all acts of sexual violence, the victim either has not given or is unable to give consent (Basile, Smith, Breiding, & Mahendra, 2014). The

differentiation between consensual and non-consensual sexual acts is a pivotal component in determining if a reported event can be defined as a rape.

U. S. Definition of Rape

The legal definition of rape varies from country to country as to both the consensual aspects and legal elements required. Issues such as duress, coercion, age of the victim, mental disability, and whether the victim was sober all play a part in determining whether consent was given. However, all countries label the majority of incidents of forced copulation between a male and female as rape. Factors that vary between countries include whether a sexual assault on a male is considered rape, what constitutes force, whether a husband can be charged with raping his wife, and how consent is determined.

The US Federal Bureau of Investigation (FBI) Uniform Crime Reporting (UCR) guidelines dictate the criteria utilised by most US police departments to classify reported rapes. By these standards, forcible, non-consensual vaginal intercourse by a male's penis must occur for a sexual assault to be labelled as a rape (DOJ, 2004). Whilst the forced sodomy of a male has been labelled as a sexual assault in the past, it was not legally viewed as a rape in the US until 2012 (Freedman, 2013, p.1). This fact is significant when comparing US rape studies with those in countries, such as the UK, that may categorise forced sodomy as a rape both before and after the year 2012.

One of the primary elements surrounding rape investigations, after establishing whether intercourse occurred, is determining consent. An investigator needs to establish if the alleged had given consent in order to determine whether the copulation was consensual, forced or coerced. An alleged who was unconscious or incapacitated in some way during copulation may or may not have had moments of consciousness. The investigator must assess the complainant's level of awareness, as well as whether that person had the mental capability to engage in consensual intercourse at the time.

Sometimes a contributing factor related to consent is the fact that young and intoxicated women are more likely to be targets of rape (Lalumiere, Harris, Quinsy & Rice, 2005). Age is a leading risk factor for sexual victimisation, as women age 16 to 24 were more likely to say they had been sexually victimised in the last year than older women (Myhill & Allen, 2002). According to a report released by the White House

Council on Women and Girls (2014), nearly half of female victims experienced their rape before age 18.

The victim's age may be an important factor in the determination of consent. In most of the US, the age of consent is 16 years. For example, an 18-year-old male who has sexual intercourse with a 15-year-old female will be charged with statutory rape, even if the act would have been considered consensual if committed by adults. This is also true if the male and female had a consensual sexual relationship before the male turned 18. In other words, if a boy and girl in a sexual relationship are 17 and 15 years old, respectively, once the boy reaches age 18 (while the girl is still 15) and continues to have sexual intercourse with her, he could be successfully prosecuted for statutory rape.

Theories of Why Some Men Rape

Although theories of why some men may rape vary and remains an active area of discovery; the following discussion highlights some of the more prominent theories and should not be viewed as an attempt to excuse the horrific acts committed by sex offenders on others. Due to space limitations, a brief review of some of the theories is presented here to help illustrate another challenging facet facing researchers in this area of human behaviour. A more comprehensive overview of these theories can be found in literature such as Gannon, Collie, Ward & Thakker's (2008) journal article and Bering's (2013) book on sexual deviant behaviour.

McKibbin, Shackelford, Goetz & Starratt (2008) argued that at least one-third of men admit they would commit rape under specific conditions and that many men report coercive fantasies. Most rape incidents occur between acquaintances, with the majority of perpetrators and victims being age 16 to 25. In fact, 55% of women in one sample of college students reported having already been the victim of at least one sexual assault during their young lives (Bernat, Calhoun & Stolp, 1998). Tactics employed by offenders vary. Sexual perpetrators have been known to use mild verbal imposition, psychological pressure, verbal manipulation, menacing verbal threats of physical force, actual physical force, mutilation and deadly violence (Bernat et al., 1998).

Sexual desire and aggression is triggered by androgen testosterone in both men and women. On average, males have ten to one hundred times more testosterone than

females and it is considered to be a primary trigger needed in the brain to ignite sexual desire. However, testosterone is not the only neurochemical that affects sexual interest and response in women. Female brains produce progesterone which counteracts testosterone levels partially curbing sexual desire in the second half of their menstrual cycle. As a result of this fact, some male offenders are provided with injections of progesterone to decrease sexual drives (Brizendine, 2007, pp.125-127).

Ellis (1982) argued that rape is partially motivated by the drive to possess and control others. This argument encompasses the evolutionary understanding that natural selection favours strong, aggressive sex drives. Exposing the brain to androgenic hormones prenatally tends to strengthen the sex drive and enhances the preference for possessing and controlling multiple sex partners while reducing the sensitivity to aversive consequences of one's actions and lowering one's empathy towards the suffering of others. Therefore, Ellis postulated that some men can be "neurohormonally" predisposed toward sexually assaulting others.

Evolutionary psychology does not justify rape, but it does try to understand the origins of this crime. Forced copulation is known to occur in the animal kingdom among amphibians, reptiles and primates. Evidence exists that males of many of these species have evolved strategies to sexually coerce and rape female counterparts. Evolutionary psychologists have theorized that similar adaptations have evolved over time in humans (McKibbin et al., 2008). As a result of natural selection, as seen from a Darwinist perspective, the average sex drive of males is stronger than that of females. The predominant theory as to why males are more likely to receive genetic predispositions to a higher sex drive than females has to do with the amount of time and resources that females must spend carrying a child for nine months. In addition, ovulation is delayed about another fifteen months in cases in which woman breastfeed thereby reducing the likelihood of conception. However, males have the ability to continue to pass their genes on during this estimated two-year period. It is further theorised that males genetically wired with higher sex drives would be more promiscuous and have an increased chance of procreating more than males with lower sex drives, thereby increasing the statistical frequency of this predisposition over time (Bering, 2013). In contrast, women are more likely to refrain from copulating until those who are courting them demonstrate a willingness to assist in caring for their offspring (Ellis, 1982).

Social-Cognitive theories of rape look more at memory, cognitive processing, and cognitive products. Within this theoretical framework, offense supportive belief content and how this is structured in an offenders' memory is explored. Additionally, the mechanisms that an offender uses to process their interactions with others is sought to be understood. Then how these interactions contribute to their end stage thought processes are researched. This three part theoretical framework, referred to as offense supportive schemata, seeks to explain an offenders' supportive belief system and how these are structured within their memory. Specifically, researchers using this theoretical approach are looking into a rapist's offense supportive schemata that may be invoked and feed an offender's perception of a female's beliefs, desires, and future intentions. Findings within this theoretical framework are currently restricted primarily to incarcerated sex offenders and men within university samples (Gannon et al., 2008). The limitations of such restricted sample sets raise questions as to representativeness of these findings as they relate to the general population.

Despite objections by feminists (e.g. Filipovic, 2013; Brownmiller, 1975), researchers have found physiological and/or sexual arousal to be a possible contributing factor in some rape cases. Both research studies and some sex offender programs have provided evidence that some males are sexually aroused by visual and auditory exposure to or depictions of forced intercourse (Bering, 2013). For example, a rehabilitation program in Coalingas, California for sex offenders requires offenders to pass a battery of tests, including a plethysmograph, as they are shown a variety of implicit socially unacceptable images before they can be released back into mainstream society (Theroux, 2009). Acceptance of the sexual arousal model of aggression is based on the finding that some sexual aggressors exhibit equal or greater genital arousal when experiencing rape stimuli rather than consenting sex stimuli (Hall, 2013).

Bernat et al. (1998) studied sexually aggressive college men who reported using arguments, pressure, verbally coercive behaviour and threatened physical force and compared them to college men who were not sexually aggressive. When listening to recorded simulations of consensual sexual intercourse and acquaintance rape, the sexually aggressive group showed significantly greater physiological arousal in the rape scenario. They also showed increased tumescence at the point of introduction of force. The sexually aggressive group maintained their levels of sexual arousal from verbal

threats all the way through forced intercourse. Sexually aggressive behaviour is more likely to occur when cues of force and non-consent fail to inhibit the male's sexual response. Therefore, the inhibition model of sexual aggression is most applicable to acquaintance rapists and sexually aggressive men who fail to restrain their sexual behaviour in response to cues of non-consent from their partners (Bernat et al., 1998). Although this research provides interesting results meriting further research; it was limited by sample size, restricted to primarily college aged white males, and lacked societal consequences had the decisions been made in naturalistic sexual contexts rather than a laboratory setting.

The integrated theory draws from evolutionary/biological, developmental, socio-cultural, and situational factors within an offender. It is purposed that male hormonal activity, around the period of adolescence, creates an influx of aggressive impulses which the male will need to learn socially acceptable methods to inhibit these elements associated with sexual drives (Gannon et al., 2008). Supportive of the influx of both aggressive and sexual impulses during adolescence, as it relates to the biological and developmental aspects of this theory, is outlined in Brizendine's (2007) book. The author points out that between the ages of nine and fifteen a boy's testosterone level increases twenty-five-fold. On average, this means a teenage male has three times the sex drive of similar aged females (Brizendine, 2007, p.126). Researchers testing the integrated theory have found attachment and intimacy deficits, self-esteem, and coping style variations within sex offenders (Gannon et al., 2008). Research supportive of multi-faceted explanations involving neuropsychological aspects, such as the integrated theory, seem to currently have the most empirical evidence. Complicating an already complex area of psychology are determining possible reasons why a survivor may or may not report the predators' actions to the police.

Reasons Given for Reporting or Not Reporting a Rape

Although the theories of why some men may rape vary, a reoccurring concern within the literature has to do with the proportion of rapes that come to the attention of the police along with possible reasons for reporting or not reporting a sexual assault. Survivors of rape may report being sexually assaulted for several reasons. A report by the Support Network for Battered Women (SNBW) found that the leading reason for reporting acts of

violence such as rape was to prevent further violent acts by the suspect (SNBW, 2003). Other reasons include seeking social support, qualifying for medical care, and obtaining mental health assistance. Victims who have suffered a physical injury are more likely to report the offence to the police than those who are not injured (Du Mont, Miller & Myhr, 2003). Also, those raped by a stranger are much more inclined to report the assault than are victims of acquaintance rape (Campbell, Wasco, Ahrens, Sefl & Barnes, 2001).

Common reasons for not reporting a rape to the police include lack of trust in the authorities or having a background that causes victims to believe that their claim will not be perceived as credible. Winkel and Vrij (1993) reported fears among many victims that the police would treat them in a negative and suspicious way. Rennison (2002) found that 23% of completed rapes were not reported for what was described as a “personal matter”, 16.3% went unreported for fear of reprisal, and 5.8% were unreported due to perceptions of police bias. Similar underlying concerns of victims have been echoed in more recent reports, such as a 2007 joint report by Her Majesty’s Crown Prosecution Service Inspectorate and Her Majesty’s Inspectorate of Constabulary (HMCPSP/HMIC, 2007).

A victim with a history of negative experiences with the police anticipates secondary victimisation, in which, as Ullman and Filipas (2001) described it, the police respond in an unhelpful way or blame the victim for the crime. Increased levels of depression and posttraumatic stress disorder (PTSD) can be seen in victims who experience these types of negative interactions with police (Ullman & Filipas, 2001). Vikerman and Margolin (2009, p.444) estimate a third of sexual assault victims suffer from PTSD. Whether or not the PTSD experienced by a survivor is enhanced or agitated further by secondary victimisation; this anxiety disorder is treated by a multitude of approaches with cognitive behavioural interventions seeming to be the most effective treatment (Vickerman and Margolin, 2009).

The nature of the victim–offender relationship also impacts the decision whether to report an incident. Approximately 77% of rapes were not reported when the offender was a current or former husband or boyfriend. In 61% of cases where the offender was a friend or acquaintance and 54% of cases where the suspect was a stranger, the victim did not report the crime (Rennison, 2002, p. 3). Although the estimates of reporting frequency vary, it is believed that a large majority of victims are assaulted by someone

they know and that a significantly higher proportion of stranger rapes come to the attention of the police than acquaintance rapes. Most research tends to work solely with stranger rape datasets (e.g. Canter, Bennell, Alison & Reddy, 2003a; Hunt & Bull, 2011). As such, the majority of published findings are based on incidents involving strangers (Stanko & Williams, 2009).

Overall, an estimated 30% of reported rapes are committed by strangers; however college women report that a stranger was the perpetrator in fewer than 10% of all incidents. Unfortunately, the stark contrast does not end there; it is believed that fewer than 5% of college women victims report a rape to the police, regardless of the circumstances or the extent of their prior relationship with the offender. 40% of college rape survivors gave fear of reprisal as a reason for not reporting the rape. Other reasons included feelings of fear, embarrassment and shame, social isolation from the assailant's friends, concern that the police would not believe them, the emotional trauma of the legal process, and a concern that their family would find out. Moreover, some victims blame themselves for the incident because they were drinking, using drugs or alone with the assailant; this self-blaming is yet another reason not to report the rape to authorities (Fisher, Cullen & Turner, 2000).

An organisation called RAINN (Rape, Abuse and Incest National Network) has raised the question of whether more victims are coming forward due to police reforms and increased public awareness. RAINN carried out survey-based research to determine if reporting practices were improving among victims. Based on these surveys, it appears that the proportion of rape reporting increased from 2000 to 2005 but to what extent was not disclosed within their findings (RAINN, 2006).

Why a Woman May Make a False Allegation

The high prevalence estimates [of false rape allegations] raise questions regarding motivations for false allegations, a topic that remains the most underdeveloped area of false report inquiry - O'Neal, Spohn, Tellis & White, 2014, p. 325.

Several researchers have provided possible motives for making a false allegation. MacDonald and Michaud (1995, pp. 87-98) offered four main reasons: alibi, revenge, attention seeking or financial motives. O'Neal et al. (2014) largely confirmed MacDonald and Michaud's interpretation, placing motivations for filing a false report into five overlapping categories: avoiding trouble/providing an alibi, anger or revenge,

attention seeking, mental illness, and guilt/remorse. The people responsible for false allegations tend to be trying to solve problems in a socially unacceptable manner. Females placed in a compromising situation may use a rape alibi as a means to solve a perceived or real personal crisis (O'Neal et al., 2014).

As a typical example of using a rape allegation as an alibi, MacDonald and Michaud (1995) described a situation in which a woman arrives home very late from work. In situations in which additional work assignments or other explanations as to why she is arriving home at an extreme hour may not appease her husband, she may feel compelled to come up with a more elaborate explanation. When questioned by her husband as to her late arrival, she may seek to address his suspicions by claiming that she was kidnapped and raped. Next, the husband typically gets authorities involved. The police arrive and question the woman further on what happened. She provides a story about the allegation but states that she does not want to pursue the case. Other situations that may create a perceived need for an alibi or excuse include pregnancy, venereal disease, loss of money or property, curfew violations, child neglect, running away from home or being caught in the act of having intercourse with someone other than a current partner.

Kanin (1994) found that more than half of the accusers in his study gave reasons of fabricating their assault in order to provide an explanation for a compromising situation they found themselves in. Gross (2009, p. 68) stated, based on Kanin's findings, that "the most frequent context and motive for the fabricated rape was consensual sex with an acquaintance that led to some sort of problem for the accuser." Feelings of shame or guilt, which could be related to issues such as contracting a sexually transmitted disease or becoming pregnant, could motivate a desire to project blame (Gross, 2009).

Kanin (1994) and Gross (2009) pointed out that the accuser's goal in alibi-related cases is not to cause harm to the accused but rather to get out of one's own difficult situation. A suspect was identified in about half of the cases involving an alibi (Kanin, 1994). Gross (2009, p. 68) explained, "As with most lies, the false rape accusation allowed the accuser to deny responsibility by creating an alternate reality into which to escape." O'Neal et al. (2014) also viewed providing an alibi as a coping mechanism as the accuser seeks to alleviate social and personal distress.

Karin (1994) found revenge to be the second most frequent reason for lying about being a victim of rape, as 27% of non-student and 44% of student accusers described having been wronged, rejected or betrayed by the alleged suspect. Not surprisingly, in cases in which the alleged was seeking revenge or retribution, the suspect was always identified (Kanin, 1994). In contrast, in cases where the accuser seeks attention or sympathy, an alleged suspect is rarely named. The motivation of attention seeking, when it appears in cases of false allegations, is often associated with Munchausen syndrome or borderline personality disorder (Gross, 2009).

In cases of seeking financial gain, the accuser typically identified a wealthy suspect as the perpetrator. Since the motivation was financial in nature, the accuser typically pushed for a settlement rather than pursuing a criminal investigation (Gross, 2009). Another way of seeking financial gain is to pursue a lawsuit against the establishment where the purported victim claims to have been assaulted (e.g. Adelson, 2015; NewOne Staff, 2015).

These varying motivations influence what type of statement the accuser provides to authorities. For example, if a married woman whose husband is serving overseas and could not have been present at the time of conception becomes pregnant, then she may use a dramatic story of rape to explain her pregnancy to her deployed husband. If she has waited to confirm her pregnancy, she will need to address her delay in reporting, often by saying that she was too scared to report until recently. The woman's goal may be to maintain marital harmony by blaming the pregnancy on a stranger who supposedly raped her in a parking lot or a wooded area a month earlier (MacDonald and Michaud, 1995, pp. 87-98). Similarly, if the woman has contracted a venereal disease, she may make a false report of rape, rationalising that no feelings will be hurt in this way and that no one will get in trouble (including herself) since there is no real suspect. Claiming to have been attacked in a secluded location reduces the risk that the claim could be refuted by video surveillance evidence.

Finding the Balance in Seeking Justice

“I screamed and yelled and begged for people to help.” This quotation comes from the case of an apparent victim, Wanetta Gibson, who was reportedly raped in a high-school stairwell by a 17-year-old football star and dragged across campus during the day. However, the person who made this statement when trying to maintain his innocence—and the real victim in the case—was Brian Banks, falsely accused and convicted of raping Ms Gibson. Despite the accuser’s inconsistent description of the crime location and the lack of DNA evidence, Mr Banks was advised to take a plea bargain rather than a possible sentence of 41 years to life. Banks agreed to plead guilty after his lawyer told him the jury would likely be biased and see “a big black teenager and you’re automatically going to be assumed guilty” (NewOne Staff, 2015, p. 1).

Mr Banks spent five years in prison and another five years on parole as a registered sex offender before the accuser recanted her story, stating, “All that money they gave us, I mean me, I don’t want to have to pay that back.” Ms Gibson said she had fabricated the story in order to get money through a lawsuit against the school district in which the alleged incident occurred. She was awarded \$1.5 million and did not change her story until after she had received the money. Ms Gibson was never charged with filing a false allegation, but on 27 January 2015, three years after recanting, she was ordered to pay the school system the \$1.5 million back in addition to \$1.1 million in fees (Adelson, 2015; NewOne Staff, 2015; Okafor, 2012).

The goal of sending all truly guilty rapists to prison and exonerating all those falsely accused of this crime is very hard to achieve. One study identified 28 cases in which suspects served an average of seven years in prison for rapes they did not commit prior to being exonerated by DNA evidence (Connors et al., 1996). In 2000, the Innocence Commission reported that 156 men serving time for sexual crimes had been released for crimes they did not commit. The men had served an average of 12 years of jail time. The development of DNA testing has made it easier to establish the innocence of persons originally found guilty. It is unknown what portion of these cases involved a false allegation as opposed to the conviction of the wrong person (Innocence Commission, 2000).

Gross (2009) argued that those who promulgate false allegations face few consequences and may never fully admit to themselves, their family, or their friends that

they lied. In most cases, their purpose in making the allegation is served. In the US, persons can be charged with filing a false police report (a misdemeanour), but such action is very rarely taken, because the police do not want to discourage actual rape victims from reporting what is already a heavily underreported crime (Gross, 2009).

Determining if legal elements are met can be challenging for the investigator, particularly with regard to determining if consent was given and a lack of DNA or other “conclusive” evidence. Sex offences are the only crimes in the US that do not require corroborating evidence for a conviction. As a result of the lack of witnesses, little or no physical evidence and frequent delays in reporting, cases may come down to the credibility of the accused versus that of the accuser. Complicating matters further, “rape shield laws” in the US, which are in place to keep the accuser’s sexual history from being used against her, also prevent the judge and jury from knowing about any prior false allegations of rape made by the accuser (Gross, 2009, p. 70).

In their decision-making processes, “Jurors combine facts and themes from pre-existing knowledge structures with new information to construct their own stories of the case” (Wiener, Richmond, Seib, Rauch & Hankney, 2002, p. 120). In other words, cognitive distortions based on experience, lack or limited training, and stereotypes will creep into a rape trial through information possessed by all those involved throughout the case. One frequent victim-blaming form of rape myth is “she wanted it”, or the belief that women secretly desire to be raped and that physical force is sexually arousing (Sleath & Bull, 2012, p. 659).

Myths that excuse men as the perpetrator (“he didn’t mean to”) imply that they are not in control of their sex drive and sometimes get “carried away.” In about 66% of rapes, the perpetrator is known to the victim (i.e. acquaintance rape). One subgroup of acquaintance rapes is known as date rapes. These cases may involve a combination of coercion, the threat of force, alcohol, or use of powerful date rape drugs, such as Rohypnol (“roofies”), Gamma-hydroxybutyric acid (“liquid ecstasy”), Ketamine (“Special K”) or Ambien to cause the victim to submit. According to some research, perpetrator-related myths do not seem to play a part in officers’ decision making (Sleath & Bull, 2012, p. 659). However, very little research has been conducted on suspect-specific myths and no research related to this topic could be located on how a jury, judge or court may interact with these sets of rape myths. In sum, rapes are investigated and

tried by people from a broad cross-section of society who hold widely varying views on what constitutes a plausible victim statement. This variance of views is likely to affect the outcome of a reported rape in different ways throughout the entire legal process.

How are false allegations distinguished from other reported rapes? No one factor or characteristic can be conclusive in this regard. However, the last few decades have seen some strides towards identifying the presence of one or more factors that may help to indicate whether a rape report is genuine (Gross, 2009). Rumney (2006) and Hunt and Bull (2011) have suggested that false allegations have identifiable qualities that differ from those of genuine allegations.

Criminal investigations are conducted to determine if a violation of a criminal law has occurred, collect evidence, identify the perpetrator(s) and bring them to justice. A successful investigation legally obtains all physical evidence, effectively interviews those involved, develops and follows leads, and accurately and completely documents the entire process (Bennett & Hess, 2007).

Many potential pitfalls can obstruct an investigation's attempt to determine the truth (Rossmo, 2009). Fundamental problems in determining whether a rape allegation is genuine or false occur throughout the investigative process (McGure, Mason, & O'Kane, 2000). Police perceptions, officer bias, a culture of scepticism, training, experience, cognitive bias, interviewing techniques, false memories, ability to detect deception, and determining if consent was given are all factors that can impact an investigation's capacity to establish the truth.

Perceptions of Law Enforcement Officers

Some researchers believe that a police officer may experience bias in responding to a rape allegation, based on their own belief system (Edward & MacLeod, 1999; Du Mont, Miller & Myhr, 2003). Officers may allow their own personal morals and/or beliefs to override the law to some extent (Campbell & Johnson, 1997). Loftus (2008) postulated that these personal biases may result in part from the nature of police departments as predominately white, heterosexist, male organisations. Kopperlaar, Lange, and Van de Velde (1997) found that detectives who held stereotypical belief systems about rape tended to assign more responsibility or blame to rape victims. Page (2008) found, however, that the majority of police disagreed with rape myths.

A UK study by Sleath and Bull (2012) found that 34% of female officers and 40% of male officers agreed with the statement that “many so-called rape victims are actually women who had sex and ‘changed their minds’ afterwards” (p. 659). They reported that, overall, most officers did not agree with rape myths, consistent with Page’s (2008) research. However, those myths that remain prevalent may reflect negatively on the victim. This tendency is problematic because it affects an officer’s ability to remain objective in determining an alleged victim’s credibility. Officers in Sleath and Bull’s study demonstrated a significant relationship between belief in a just world and blaming the victim. This finding helped to show that an officer’s acceptance of rape myths was correlated with victim blaming (Sleath & Bull, 2012). Sleath and Bull referred to Kelly’s (2010, p.1345) work on the police “culture of skepticism” in arguing that such a correlation was not surprising.

Television, movies and other sources of influence all tend to display the police culture as one of scepticism. Vrij (2008, p. 1325) highlighted several studies that have demonstrated that officers sometimes believe that a suspect is guilty even before interviewing them; in one of these studies, 73% of officers displayed this behaviour. Kelly (2010, p. 1345) suggested that this “culture of skepticism” carries over into disbelief of rape allegations as well as into many other areas of the criminal justice system. Jordan (2004) pointed out that police often make subjective judgements and decisions based on the victim’s characteristics and culpability rather than on a more objective systematic approach.

Police culture tends to emphasise suspicion and disbelief, as can be illustrated by their accuracy in detecting truth and lies compared to the general public. One research study found that the general population was somewhat better at detecting truths than the police (by 63% to 56%) but the police were better at detecting lies (by 56% to 48%) (Vrij, 2008). Vrij (2008, p. 1331) describes this greater tendency to believe lies among the general population as “truth bias”.

Training on how to respond to reports of rape varies throughout the US. Although the research on this subject is sparse, Lonsway, Welch and Fitzgerald (2001) determined that training did not impact an officer’s acceptance or rejection of rape myths. They showed concern over this finding, since police play a key role in determining what type of initial response a rape victim receives. Sleath and Bull (2012)

also found evidence that receiving specialist training does not significantly affect the amount of rape myth acceptance and victim blaming. However, experience may have an impact; Page (2007) determined that officers who had investigated 21 or more rape investigations accepted rape myths at a lower rate than officers with experience of five rape investigations or fewer.

Sleath and Bull (2012) found no relationship between how long a police officer had served in a specialist role and any tendency to blame the victim or alleged perpetrator. They suggested further research to identify whether exposure to certain types of cases (e.g. acquaintance vs. stranger assailants, violent vs. nonviolent) affects a police officer's belief system (p. 661). In fact, Roach (2013) points out that even though human decision making is an area well researched, its application to policing and investigations has not been well established.

Police Decision Making

“Much more research has been dedicated to the decision making of those who break the law than those whose job is to uphold it (Roach, 2013, p.139).” This statement resonates within a review of police decision making theories and related pitfalls discussed in this section. Due to space limitations a brief review will highlight some of the more challenging facets currently facing those involved in this area of psychology. A more comprehensive overview of these issues can be found in works by: Gladwell (2005); Kahneman and Klein (2009); Rossmo (2009); Fahsing and Ask (2013); Roach and Pease (2014);

Belief systems, past experiences and formal education feed into the investigative narratives that authorities develop to make sense of what is being reported along with determining what happened before, during and after the crime. One sole piece of information or evidence is useless unless it assists in the development of an understandable and credible story; rather, evidence collected throughout the investigation helps to build the investigative narrative. Cognitive bias and confirmation bias can have a negative impact on an investigation team, which may become overly invested in their narrative and not use new information objectively to move towards establishing the truth (Rossmo, 2009).

According to Lea, Lavers & Shaw (2003), some officers have a set of preconceived notions such as believing that women often “cry rape” to seek attention. Rossmo (2009) highlighted some of the cognitive limitations that investigators may encounter involving perception, memory and decision making. He discussed how human experiences and expectations influence perceptions in a subjective manner through the dynamic referred to as cognitive bias. Roach (2013) highlights the fact that even though little focus on how police actually make decisions in the field has been given, biases which can contribute to investigative failure has been an area not as neglected (e.g. Rossmo, 2009).

Cognitive bias can interfere with objectively performing an investigation. Campbell et al. (2001) and Du Mont et al. (2003) have proposed that even victims themselves tend to report a higher proportion of myth-congruent rapes to the police such as that the victim suffered an injury from the attack. Both researchers postulated that, overall, victims of rape are less likely to report the incident if the events and behaviours during the rape are not consistent with their own myth-based perceptions of what occurs during a rape. A consequence of this tendency is that police may encounter an apparently skewed sample of rape reports that support their already stereotypical perceptions (Campbell et al., 2001; Du Mont et al., 2003). These dynamics feed further into the confirmation of rape myths.

Confirmation bias involves making a determination prior to having all the facts in hand and then searching for facts to support this preconceived notion. Vrij (2008, p. 1325) illustrated confirmation bias through research on American officers’ common response when asked if they are concerned about the appropriateness of persuasive interrogation methods: “No, because I do not interrogate innocent people.” This example of confirmation bias is when one is more likely to search for or notice evidence which confirms their theory rather than searching for contradicting facts (Stelfox and Pease, 2005).

An officer who falls into these patterns of psychological bias could use cognitive bias to prematurely assign blame in a rape. Then the officer would likely look for evidence that supports the preconceived theory while discounting evidence that conflicts with that decision, rather than seeking all the pertinent facts (Stelfox & Pease, 2005). An additional related obstacle in investigative decision making is known as

“group think”. This is the reluctance to think critically and challenge the dominant theory or crime narrative held by the investigative team. To avoid or at least minimise this psychological bias, police must stay vigilant in seeking the truth rather than seeking evidence that supports their intuitions or gut instincts. Additionally, Rossmo (2009) advised questioning the dominant crime narrative by separating facts from suspicions rigorously along with training officers in ways to overcome these forms of cognitive bias.

One of the questions posed by Kahneman and Klein in their exploration of decision making was; “What are the activities in which skilled intuitive judgement develops with experience (2009, p.515)?” To answer this, they explored and contrasted the heuristics and biases (HB) perspective highlighted above in the discussion on cognitive bias along with naturalistic decision making (NDM). NDM’s central goal is to demystify intuition by identifying the cues that experts use to make quick decisions under complex conditions. Although they found support in both the realms of HB and NDM (e.g. Rossmo, 2009; Gladwell, 2005) they highlight some conditions in which intuitions of professionals can be trusted. These include developing effective intuition based rapid cognition related decisions which are almost as good or equal to deliberated executive decisions made over time with more information (Gladwell, 2005). Kahneman and Klein (2009, p.524) point to the importance of cultivating rapid decision making in ‘high-validity’ environments in order for a higher success rate. High-validity is described as task environments where stable relationships between objectively identifiable cues and subsequent events are both present. For example, firefighting is practiced in environments of fairly high validity in which base line cues and patterns can be established (Kahneman & Klein, 2009).

As previously discussed a rape investigation process involves interviews and the collection of any possible physical evidence along with trying to determine consent. However, in many rape cases there are no outside witnesses, no videos to review and no corroborating evidence in the initial stages of the investigative process. Being able to detect deception becomes a paramount aspect of the investigation in cases where the intercourse may have actually been consensual or other false allegations.

Interviewing and Detecting Deception

Although there are several approaches to detecting deception through verbal cues, one common approach requires being knowledgeable of the facts when questioning a person to see if the content is consistent with the known facts. In this approach, the interviewer watches for inconsistencies in order to identify possible lies (Vrij, 2008). Similarly, if the interviewer is privy to a previous statement made by the subject, he or she will pay close attention to what is spoken and will check for consistency between the statements (Vrij, 2008). Another approach that has been researched is to ask a person to give an account of events in reverse order. Vrij, Mann, Fisher, Leal, Milne & Bull (2008) found that increasing the cognitive load through methods such as this one assisted in lie detection, without producing a response bias.

Distinctive statements also tend to cause interviewers to focus more intently on the content of a statement. For example, if an interviewer finds a story implausible, he or she will tend to be more suspicious of it. In contrast, if the interviewer believes the narrative to be against the self-interest of the storyteller, then the statement will be more plausible (Vrij, 2008).

Statement Validity Assessment (SVA) is a verbal lie detection method developed in Sweden and Germany through the use of verbal analysis tools such as Criteria-Based Content Analysis (CBCA). SVA was initially developed to evaluate statements made by children who had witnessed or experienced sexual abuse. Several European countries use this tool as evidence in criminal court in such cases, and some are considering its expansion to adult cases (Vrij, 2008).

CBCA has found several indicators of genuine statements, such as logical structure, unstructured production and quantity of detail. Logical structure means that the statements are coherent and consistent. Unstructured production refers to information that is not provided in a chronological time sequence. In terms of quantity of detail, a high amount of quantity is more convincing. These verbal aspects would add up to a higher CBCA score, which is more typical of genuine statements than of false ones (Vrij, 2008, p. 1327).

In addition to cognitive factors, CBCA also explores motivational factors. For example, it is believed that a person telling a lie will typically be more conscious of trying to construct a statement that will seem credible and will therefore omit things that they

believe could undermine their desired image of sincerity. Therefore, somewhat ironically, a truthful statement is seen as more likely to contain information inconsistent with stereotypes of truthfulness. The CBCA contains five such motivational reasons or 'contrary-to-truthfulness-stereotype' based on verbal cues which are: 'spontaneous corrections' without being prompted, 'admitting lack of memory' such as saying some parts of their statement may not be entirely accurate, 'raising doubts about one's own testimony,' 'self-deprecation' like mentioning something that puts themselves in an unfavourable light, and 'pardoning the perpetrator' or failing to place any blame on themselves (Vrij, 2008, pp. 1327-1328).

Reality Monitoring (RM) is another method of assessing verbal content for truthfulness. This tool is primarily based on memory theory, which argues that memories of experienced events differ in quality from imagined events. It is suggested that some false allegations could be the result of recovered memory therapy, such as in cases of false allegations of child sexual abuse (Gross, 2009, p. 68). Information surrounding perceptual, contextual, spatial and temporal details will all play a part in the recounting of an event that one has experienced.

Vrij's (2008) overview of the use of CBCA uncovered an interesting pattern according to which some criteria were more indicative of truthfulness than others. For example, quantity of details, contextual embedding and reproduction of conversation appeared to be effective criteria (Vrij, 2008, p. 1328). In 22 of 29 samples in a study using both the CBCA and RM assessment tools, truthful statements included significantly more verbal details than deceptive statements. No study has found truthful statements to have fewer details than false statements, whereas Vrij (2008) and DePaulo, Lindsay, Malone, Muhlenbruck, Charlton & Cooper (2003) found that deceptive statements are significantly less detailed than truthful accounts.

Whereas interviewers rely heavily on verbal cues when they have some facts in hand already, they tend to pay more attention to non-verbal behaviours when they don't have facts prior to the interview (Vrij, 2008). In one relevant study, British police officers viewed parts of police interviews of rape, arson and murder suspects. 78% of the officers said they used primarily non-verbal cues to detect whether the suspect had told the truth or a lie, instead of relying on the verbal content of the statement (Mann, Vrij, &

Bull, 2004). This particularly high reliance on nonverbal cues raises questions as to what verbal cues may be missed due to such an approach.

Avoiding punishment is the most frequent reason people tell serious lies, regardless of their age, whether it be to avoid the speeding ticket or being grounded. In serious lies there is a threat of significant damage if the lie is discovered: loss of freedom, money, job, relationship, or even life itself. It is only in such serious lies, in which the liar would be punished if detected, that lies are detectable from demeanour—facial expression, body movements, gaze, voice, or words. The threat imposes an emotional load, generating involuntary changes that can betray the lie. The lies of everyday life where it doesn't matter if they are detected—no punishment or rewards—those lies are easily told flawlessly - Ekman (2009)

Ekman and O'Sullivan (2006) noted the differences between involuntary cues of deception when real consequences are involved from those in mock or simulated situations in which there are no lasting consequences for the fibber. Approaches to detecting deception through non-verbal behaviours range from reading body language to looking for facial micro expressions (O'Sullivan & Ekman, 2004). Body language includes observable aspects such as eye contact, facial expressions, movements and posture.

Inconsistency between verbal speech and non-verbal actions is also typically seen as a sign of deception (Vrij, 2008). For example, if an alleged victim says that she is upset about being raped but does not act in a manner consistent with how one would expect an emotionally upset person to act, then an observer may suspect deception. It could be that the person is in shock or not showing her distress externally, but the lack of overt behaviours consistent with the officer's expectations may be perceived as a cue of deception.

Although most police officers may pay more attention to non-verbal than verbal behaviours in seeking to detect deception, Vrij (2008) argued that research has shown use of verbal cues to be a more effective method. One reason why police focus on non-verbal cues is the belief that people have less control of their body movements than of what they say. However, the tendency not to use the most effective means to identify deception could result in a higher frequency of inaccurate assessments (Vrij, 2008).

People attempting deception are thought to avoid eye contact and to fidget more frequently. However, contradictory relationships have been found within this subset of body language. According to a meta-analysis of 45 different studies, liars maintained less eye contact than truth tellers in five studies and more eye contact in six studies; no

difference between the groups were found in the other 34 samples (Vrij, 2008). DePaulo et al. (2003) found 32 studies in which eye contact was unrelated to the truthfulness of the statements being made. Similarly inconsistent results have been found with regard to fidgeting: six out of 49 studies indicated more fidgeting among liars than among truth tellers and five showed the opposite (Vrij, 2008).

Among the various behavioural cues, voice pitch has received the most consistent support as reliable. DePaulo et al. (2003) reviewed 32 studies on the relationship between a person's voice pitch and the truthfulness of the statement. In this meta-analysis, liars had a higher-pitched voice in 12 of the 32 studies; the other 20 did not find a significant difference in voice pitch between the deceptive participants and the control group. Similarly, in eight of 14 studies reviewed by Vrij (2008), subjects had a higher-pitched voice when lying, relative to truth tellers.

Ekman and O'Sullivan (2006) have also demonstrated the importance of paying attention to both verbal and non-verbal cues. Ramsland (2012) points out that Ekman's body of research stresses that there is no single signal of deception and urged trying to determine the individual's emotional base (i.e. normal behaviour). Once one has established a person's behavioural constants as reference points, then one can look for deviations. Clusters of deviating behaviour could be indicative of deception (Ramsland, 2012).

CBCA has been shown to achieve 70.81% accuracy in detecting truths and 71.12% accuracy in detecting lies (Vrij, 2008). In contrast, 28 groups mainly composed of police officers (with little to no training in CBCA or RM), when asked to detect deception in videotaped fragments, had only a 55.91% rate of success (Vrij, 2008). This gap in success rate is likely somewhat related to the lack of training in CBCA but use of video fragments would likely make determining a persons' emotional base problematic, as well.

Officers using video recordings of suspects accused of murder, rape and arson were most successful overall in detecting deception when they were able to both watch and listen to the recordings. Officers taking note of story cues, such as the suspect providing conflicting statements, were more successful in identifying lies than officers who mentioned more visual cues such as eye contact and body movements (Mann et al., 2004).

In line with these findings, Roach (2010, p. 212) pointed to a body of research indicating that humans tend to be “cognitive misers”. This means that people tend to utilise heuristic approaches rather than exhausting all possible cognitive computations in both decision making and developing fictitious statements. This tendency to pull from past experiences and supplying minimal information that the subject perceives as the most important items to supply supports the research finding that genuine statements tend to have more detail than made-up events (e.g. Roach, 2010; Vrij, 2008; DePaulo et al., 2003).

Chapter Summary

The study of rape is complex. Finding characteristics typical of genuine or false allegations is a considerable challenge riddled with many questions. Theories of why some men may rape and why survivors may or may not come forward vary. Decision related issues such as cognitive bias can impact an investigation along with victims of rape. As discussed, survivors are less likely to report the incident if the events and behaviours during the rape are not consistent with their own myth-based perceptions of what occurs during a rape. A consequence of this tendency is that police may encounter an apparently skewed sample of rape reports that support their already stereotypical perceptions. These dynamics feed further into the confirmation of rape myths which will be explored further in future chapters. However, researchers have made vast contributions in these areas of psychology and their findings offer ideas that merit further exploration and development.

Non-verbal approaches, by themselves, have received little empirical support in detecting deception. However, some strong research suggests that attending to verbal cues and/or a combination of both verbal and non-verbal indicators may be more effective. More generally, research has demonstrated both the power and the limitations of these methods in determining the most reliable approach to identifying deception.

A portion of reported rapes are false and as a result sometimes innocent males have served time for a crime they did not commit (Connors, Lundregan, Miller & McEwen, 1996). Motives related to why a woman may resort to making a false allegation were discussed and will be revisited in future chapters. It has been found not

only that fewer details are reported in false allegations as discussed in this chapter, but that false alлегers tend to lack understanding of what it means to be a victim of rape. Thus, cues to whether a report is genuine or false may appear not only in what individuals choose to report, but in the very structure of the reported crime, as well as the total amount of behaviours reported (e.g. Alison & Stein, 2001; Canter et al., 2003a; Canter & Heritage, 1998; Marshall & Alison, 2001). The next chapter will delve further into these issues.

Chapter 2 - The Proportion of False Rape Allegations and Conditions in Which Genuine Rapes Occur

Although it can be hypothesised that a large proportion of reported rapes are false, others claim that almost all reported rapes are genuine. Various methods have been used in attempts to estimate the frequency of false allegations, with reports ranging from 1.5% to 90% in prevalence (Rumney, 2006). The sources of these estimates are displayed in Table 2.1.

Table 2.1 – Overview of Studies on False Allegation Proportions (Rumney, 2006)

Source: Rumney (2006)	False Reporting Rate: Number (%)
Theilade and Thompson (1986)	1 out of 56 (1.5%)
New York Rape Squad (1974)	N/A (2%)
Hursch and Selkin (1974)	10 out of 545 (2%)
Kelly et al. (2005)	67 out of 2643 (3%)
Geis (1978)	N/A (3 - 31%)
Smith (1989)	17 out of 447 (3.8%)
U.S. Department of Justice (1997)	N/A (8%)
Clark and Lewis (1977)	12 out of 116 (10.3%)
Harris and Grace (1999)	53/483 (10.9%)
Lea et al. (2003)	42/379 (11%)
HMCPSI/HMIC (2002)	164/1379 (11.8%)
McCahill et al. (1979)	218/1198 (18.2%)
Philadelphia police study (1968)	74/370 (20%)
Chambers and Millar (1983)	44/196 (22.4%)
Grace et al. (1992)	80/335 (24%)
Jordan (2004)	68/164 (41%)
Kanin (1994)	45/109 (41%)
Gregory and Lees (1996)	49/109 (45%)
Maclean (1979)	16/34 (47%)
Stewart (1981)	16/18 (89%)

One of the lower estimates of false allegations is that of the New York Rape Squad, which purportedly found 2% of reported rapes to be false. This "finding" was referenced by "remarks of Lawrence H. Cooke, Appellate Division Justice, before the Association of the Bar of the City of New York" on 16 January 1974 (Brownmiller, 1975). No information is available on the sample used or methodology. Although this may well be an instance in which perceptions, not actual data, guided the estimate of the percentage of false reports, it has been cited in several later works as a valid scientific study.

Using a U.K. sample, Kelly et al. (2005) aimed to increase their understanding of attrition of cases prior to being adjudicated along with a desire to determine the proportion of false allegations. They evaluated a combination of the St Mary's Sexual Assault Referral Centre database and prospective case tracking of reported rape/sexual assault cases of men and women (n=2,643 cases) across six different sites over a 17-27 month period. The researchers utilised summaries of cases selected and compiled by the police with a sub-sample survey of 228 survivors. Employing a multi-methodological strategy they explored both quantitative and qualitative aspects of each case. Kelly and associates (2005) determined that 3% of rape allegations were probably false and another 22% were possibly false. As part of their results they pointed to the inconsistencies within the sample of how police classified 'no crimes' cases. This issue forced them to reduce their sample to 2,244 cases to help mitigate missing data. Their range of estimates of false allegations was also related to several inconsistent definition issues such as appearing under differing headings or classifications schemes.

In 1997, based on classification schemes, the US Department of Justice stated that 8% of reported rapes are false. This figure was based on information from agencies that use the Uniform Crime Reporting (UCR) classification of "unfounded". The FBI found an "unfounded" rate of 8% to 20% from the years 1966 to 1994 for rapes, as compared with 2% to 4% for reported murders and robberies (Rumney, 2006). Similar classification issues identified in the UK by Kelly et al. (2005) have also been noted with the UCR system used in the US, as well (Lisak, Gardinier, Nicksa & Cote, 2010)

The UK Home Office study by Harris and Grace (1999) sought to determine where cases dropped out prior to adjudication. Using attrition based methodology; the

researchers relied on classification labels of a 483 sample of UK Metropolitan Police reports. Harris and Grace (1999) indicated that 10.9% of allegations in their sample were false and that another 25% could be false. They found the variation in an estimate of false allegations could not be reliably overcome with the sample and limited access they had of what had been reported (Harris and Grace, 1999).

Lea et al. (2003) postulated that the rate of attrition for rape cases is higher than that of other crimes. They conducted research on 379 rape allegations drawn from southwest England. The data included all cases of rape or attempted rape of a female or male over age 16 from 1996 to 2000. They found that rape cases had the lowest conviction rate among all types of serious crime, as only 5% (19 of the 379 cases) resulted in a conviction for rape. Lea et al. (2003) stated that they were able to determine 11% of the rape allegations they studied were false. However, they argued that some reported rapes labelled as "no-crime" in Britain had been misclassified by the police in several cases. Working with only a summary of each case and responses to a survey by some officers, they indicated an estimated rate of false allegations between 10% and 20% (Lea et al., 2003). The accuser admitted to making a false allegation or later recanted an original statement to say that the "rape" was in fact consensual in half of the 20% of cases that the officers classified as false rapes.

With regard to the high attrition rate of rape cases, Lea et al. (2003) cited an attrition-based study by Harris and Grace (1999), who found that 57% of the rapes reported to the UK police in their sample were not even "crimed" (in the UK, this word means that an officer determined the incident should be recorded as an offence) and that only 9% of the reports eventually resulted in a conviction. These low numbers are further compounded by the fact that only an estimated one-third of rapes are brought to the attention of the police.

Lea et al. (2003) obtained additional details on the cases that they investigated because they had access to officers, not only to the Central Intelligence System (CIS) database. They stated, "Officers were able to provide a more comprehensive picture of each case than would have been achieved through accessing the database, which provides minimal information that has not always been updated" (Lea et al., 2003, p. 588). However, Lea et al. still did not have direct access to police files; instead, they relied on questionnaires sent to the chief investigating officer in each case. This was

likely a limiting factor as it added an additional filter between the reporting parties and the researcher and likely reduced the amount of information available. Moreover, questionnaires were returned on only 379 of 471 cases over the five-year period studied, meaning that 20% of cases were lost and that the findings may have been less fully representative.

In 38% of the cases studied, officers suspected that the victim had been intimidated (primarily in cases of acquaintance rape) to the point of retracting her statement or refusing to assist with the case. In these circumstances the retraction or refusal to assist appeared to be due to the fear of further violence from the suspect. In some cases, the victim had been reunited with the accused and wanted to spare him the ordeal of going to court (Lea et al., 2003, p. 593).

One of the few published studies seeking to determine what proportion of reported rapes were fictitious that the researcher had access to the investigating officers and didn't rely purely on the classification of a case was by Kanin (1994). Kanin relied on the case summaries and was given access to ask follow up questions to clarify any concerns. 45 of 109 rape reports (41%) were determined to be false over a nine-year period (1978 to 1987) in a small Midwestern US town. The extent of Kanin's findings along with its limitations will be explored in greater detail throughout this thesis

The highest estimate of false rape allegations cited in Table 2.1 was 89%, according to Stewart (1981). This study was conducted by a police surgeon who examined 18 allegations of rape. The researcher states 14 of the complainants admitted to making a false complaint. Little information related to the methodology used by Stewart is provided. In addition to the sample being very small, Stewart's 1981 findings should also be viewed with caution as it is one of the older studies (Rumney, 2006).

In a relatively recent study, Lisak et al. (2010) determined that 5.9% of their sample were false allegations of rape. All 136 sexual assaults reported to a major northeastern university in the USA over a ten-year period were analysed, and only eight of these were coded as false. This sample was based on "case summaries" compiled by a "senior investigator" (p.1329). A team of four researchers coded the cases and met with investigators, asking questions to obtain the information required to accurately assign a code to each case. They expressed concerns about the use of the "unfounded" category in the UCR classification process and concluded that, despite the

existence of UCR and International Association of Chiefs of Police (2005a; 2005b) guidelines, misclassification of cases within the US law enforcement profession is common place (Lisak et al., 2010, pp. 1320-1321).

Reasons for variations in the estimates of false allegations of rape also depend on the approaches used and the lack of a standardised, universal definition of what constitutes a false rape claim (Rumney, 2006). Sample sizes, ecological validity, and statistical methods also vary among studies. A standardised definition and approach are critical in accurately identifying and comparing purported rapes in the future.

Although Kanin (1994) found that 41% were false rapes, Lisak et al. (2010) questioned the definition used to determine this result. They pointed out that Kanin had provided limited information about the methods used to evaluate the police department's system for classifying cases and did not appear to employ a definition of a false report. Rather, it appears that a rape allegation was classified as a false report if the complainant 'admitted' they are false (Lisak et al., 2010, p. 1324). Thus, Kanin recorded a case as a false allegation when he was notified by the police department that a case had been determined to be false.

According to Kanin, the police department always made a "serious offer" to give a polygraph test to the alleged. This procedure of asking a reported victim to take a polygraph is now widely viewed as an intimidation tactic in the US. In fact, this procedure is so frowned upon that the 2005 reauthorisation of the Violence Against Women Act (VAWA) stipulated that any state in which agencies use the polygraph on sexual assault victims jeopardises its eligibility for certain grants. A number of states have since passed laws prohibiting the use of the polygraph to determine whether charges should be filed in a sexual case. In addition, the results of a polygraph are not admissible in US courts (VAWA, 2005).

Lisak et al. (2010) improved on previous researchers' assessment process by not depend solely on polygraph results or police classifications. Rather a team of researchers reviewed case summaries deemed false by the police and used the documented facts to determine if the case could objectively be "determined, on the basis of evidence collected, to be a false allegation" (p. 1327).

The data available to researchers have not only varied in nature but have contained diverse methods of deciding if an allegation is false. For example, Kanin's

(1994) reliance on police decisions compared to Lisak et al. (2010) multi-faceted approach contrasts in the methodology utilised for distinguishing false allegations. In addition, both studies had representativeness and/or access limitations. These restrictions have also contributed to impeding the development of a standardised definition of a false rape allegation.

The processes used by the various authorities in distinguishing genuine from false rapes are built on different sets of beliefs. Previous studies have had to rely on these police processes to various extents, depending on the amount of objective oversight that could be put in place. Since most past research has utilised samples supplied by law enforcement authorities, it is crucial to explore the process that police officers use to determine if a particular allegation is fictitious. It is unclear how effective these processes have been (Jordan, 2004).

Sample size is a concern with regard to representativeness of the larger population within which the sample is situated. For example, a random sample of reported rapes at a university may be representative of the incidents at that school, but it will likely lack ecological validity relative to the overall population in the town or city around the university. This issue of ecological validity is particularly important in the context of US data since there are thousands of police jurisdictions that often overlap each other. For instance, if a college student is raped on campus, the crime is typically reported to and investigated by the university police. However, city, county, state and federal police may also have jurisdiction over the case. Moreover, the university police would not have jurisdiction over cases that occur off campus even if it involves one of their students. As a result, the cases investigated by university police would generally involve college-age women and would thus not represent a balanced cross-section of the broader society.

Feminists and police tend to have opposing beliefs regarding the proportion of false allegations. Feminists tend to believe that there are very few false allegations; police tend to believe that about half the rape cases brought to their attention are fabricated. Judges, attorneys and medical examiners tend to have more moderate views of the frequency of false allegations (Jordan, 2004; MacDonald & Michaud, 1995).

These varying views related to frequency and limitations is further conversed by Gross (2009). The article discusses research conducted by Dr. McDowell on 1,218

rapes that were reported to occur on US Air Force bases between 1980 and 1984. Similar to Kanin (1994), McDowell's methods included the use of a polygraph to determine genuineness in some instances. The accuser admitted to fabricating the rape in 27% of the 546 cases in which a polygraph was utilised. McDowell's approximately 38% ($n = 460$) of his sample were determined false either by the 'overwhelming preponderance of the evidence' or based on a conviction (Gross, 2009, p.67). It is unclear, however, how intertwined McDowell's checklist was with rape myths and beliefs of how to identify a false allegation during the time period the research was conducted. Whilst this research was ground breaking for its time, more has been discovered in relation to rape myths over the last thirty years lending credence to revisiting the validity of McDowell's list. McDowell (1985, as cited in Gross, 2009, p. 69) provided the following list of evidences believed to assist indicating a false allegation:

- Physical injuries of false accusers usually are limited to superficial cuts, scratches, and abrasions. Scratches often appear in a hatching or crosshatching pattern, due to repeated attempts to make the scratches visible. Scratches that resemble letters or words sometimes are found on false accusers, typically on their abdomens, but are not found on actual victims.
- False accusers frequently claim that they offered vigorous and continuing physical resistance but suffered no serious reprisals. Most actual rape victims do not offer vigorous resistance, and those who do often suffer extremely brutal reprisals.
- A false accusation typically solves some perceived problem for the "victim." It may explain a pregnancy or venereal disease, or it may exact revenge. In contrast, actual rapes seldom appear to solve a problem. They usually create serious problems.
- False accusers usually do not make their allegations initially to authorities. Typically they make them to friends or relatives who in turn inform the authorities.
- False victims, more often than actual ones, claim to have been attacked by multiple assailants who fit an unsavoury stereotype.
- False accusers typically claim to have been victims of simple penile insertions, or blitz rapes, without collateral sexual activity.
- False accusers tend to be vague on the details, but when a false victim does provide details she tends to do so with a relish that actual victims seldom have.
- False accusers, far more frequently than actual victims, cannot say exactly where the rape occurred.
- In false accusation cases, far more frequently than in actual cases, the purported crime scene and the physical evidence are found to be inconsistent with the allegation.
- False accusers, more often than actual victims, claim to have received phone calls from their "rapists" before or after the crime.
- False accusers, more often than actual victims, have personal problems, including difficulty in interpersonal relationships and a history of lying and exaggeration.

Differentiating Characteristics

Kanin (1994) built upon McDowell's (1985) research of attempting to identify differentiating characteristics of false allegations. Kanin (1994) had access to all reported rapes as well as the ability to ask questions of investigators. His sample was complete and therefore likely representative, although only of small towns in the Midwest area of the US. However, by using only case summaries rather than entire files, he had to rely on police judgments without having a process in place to mitigate the subjective nature of those judgements. An additional limitation was the fact that the police department always made a "serious offer" to give the alleged a polygraph test—a procedure that is now widely viewed in the US as an intimidation tactic. It is believed the use of the polygraph has elicited false confessions; in some of Kanin's cases, it could have caused genuine victims of rape to recant their stories.

In contrast to Kanin's overly simplistic determination of a false allegation, Kelly (2010) used a multi-methodological approach. Kelly's (2010) approach determined 216 of 2,643 UK cases (8%) to be false, rather than the initial range of 3% to 22% of possibly false allegations proposed by Kelly et al. (2005). In terms of the attributes and characteristics of these complainants, cases involving 16- to 25-year-olds accounted for a higher proportion of cases designated false. Those with a disability were almost twice as likely to be in the false allegation group as the non-disabled. Nineteen of the disabled complainants had recorded mental health issues and/or learning difficulties. Only two of the 66 women involved in prostitution who reported rape were in the false allegation group. A greater degree of acquaintance between victim and perpetrator decreased the likelihood of cases being designated false. Also, cases were more likely to be designated as false where previous fictitious rape allegations had been reported (Kelly, 2010).

Parker and Brown (2000) used a sample of 43 verbatim victim statements gathered through cognitive interviewing. They found that Statement Validity Analysis (SVA) and Criteria-Based Content Analysis (CBCA) could be used in combination to distinguish between behaviours typically reported in genuine or false allegations. Upon analysis, they concluded that their proposed validity checklist correctly identified all true and false cases within their sample. As a result of these findings, Parker and Brown suggest the use of this Statement Validity Score Sheet (SVASS) which assists in the

consistent and standardized interpretation of each SVA criterion (2000, p259). By using the SVASS each reality criteria is graded as either present or absent which can assist in identifying characteristics more or less indicative of a genuine or false allegation of rape (Parker & Brown, 2000).

Some attributes and characteristics may help to differentiate false from genuine rapes and emerging results on aspects of sexual behaviour described in false allegations have begun to take shape. Parker and Brown (2000, p. 237) stated, "Consistent with previous research on false allegations of rape, a wider range of sexual acts was found in genuine reports and certain characteristics were common to false reports." Much of the earlier research into false allegations has provided insight into this topic, but efforts to ascertain answers to this important research question have suffered from definitional issues along with a lack of representativeness (Hunt & Bull, 2011; Rumney, 2006).

Police Perspectives of Differing Attributes

Rumney (2006) postulates a similar argument as Parker and Brown's (2000) belief that officers tend to overestimate their ability to detect deception. Rumney (2006, p. 142) noted that "some officers have fixed views and expectations about how genuine rape victims should react to their victimization. ... Qualitative research also suggests that some officers continue to exhibit an unjustified scepticism of rape complainants, while others interpret such things as lack of evidence or complaint withdrawal as 'proof' of a false allegation." These issues regarding an officer's personal judgements have been explored by other researchers, as discussed in the previous chapter.

Hazelwood and Burgess (1993, p. 9) described four factors that police consider when they become involved in a rape investigation: the quality and consistency of the information, the victim's behaviour at the time of the attack, the relationship between the victim and offender, and most importantly, "nothing makes them [the police] more enthusiastic about a case than to find out the assailant has other charges against him or has a prison record." This description suggests that the presence of a criminal record influences the course of an investigation. This may be an example of cognitive bias or the assumption that a person's behaviours remain relatively consistent over time.

General consistency is described as groupings of behaviour in accordance with a specific set of criteria that remain relatively consistent over a period of time. In accordance with various behavioural themes, these consistency models can range in different types of contexts such as among typologies (Hazelwood, 1983), clusters of actions (Grubin, Kelly & Ayis, 1997) and thematic criminal behaviours of offenders (Canter & Heritage, 1990; Canter, 1994). These researchers work from the presumption that people are relatively consistent in most aspects of their lives – a presumption relied on by many systems in society, from extending credit to criminal profiling.

Although Wagenaar (1995) argued that knowledge of a suspect's prior criminal history will influence a person's perception of an offender's probable guilt, this notion has been challenged by Canter, Grieve, Nicol, and Benneworth (2003b), who contended that Wagenaar's model lacks systematic empirical evidence. Canter et al. stated that further research was needed to determine if the plausibility of a victim's statement is affected by awareness of the suspect's criminal history.

Canter and Baughman (2006) carried out such an empirical test by studying a sample of students at the University of Liverpool using eight vague rape scenarios. These scenarios had four independent variables: the gender of the subject completing the survey, the location that the alleged victim was leaving at the time of attack, the victim's age and the suspect's criminal history. Ratings on a 7-point Likert scale were utilised in a between-subject analysis of variance (ANOVA) to measure effects on four dependent variables: the plausibility of the story, the victim's level of responsibility, the long-term psychological damage on the victim and whether the attack was perceived to be motivated by sex. The independent variables were randomly manipulated in each of the scenarios and presented to 210 participants (149 females and 61 males; mean age = 20) from the University of Liverpool. ANOVA revealed a highly significant relationship between the perceived truthfulness of the victim's statement and the suspect's criminal history, strongly supporting the hypothesis that prior criminality affects perceptions. In general, respondents perceived the victims leaving a pub as more responsible for being sexually attacked than subjects leaving a charity shop, except in cases involving an older victim. Male respondents were more likely to attribute responsibility to the victim,

and they perceived rape as less psychologically damaging to women over time than did the female respondents.

Canter and Baughman (2007) studied hostage cases over a ten-year period to see if a person's past criminal history was an indicator of future behaviour. In these cases the negotiators were not privy to the subject's criminal history as they focused solely on gaining rapport with the hostage taker in order to move through the negotiation process and effect behavioural change. The negotiator was isolated from the rest of the police in most cases so as to focus fully on the negotiation process, with the goal of having the person surrender peacefully. It was found that incidents involving subjects with a violent criminal history took twice as long to resolve as those whose histories included no violent acts. Since the negotiators were not in a position to know the subject's past criminal history and thus could not be impacted by criminal bias in these circumstances, this study calls into question the notion that criminal bias persuades officers to act in a certain manner without additional input. However, an alternative consideration may be that some intrinsic factors distinguish those with previous violent tendencies from those without a prior violent history, thereby helping to justify perceptual bias to some extent.

Although the Canter and Baughman (2007) study highlights broad intrinsic factors related to consistency, Roach and Pease (2014) provides a possible cognitive distortion related to criminal history. Their research of 42 UK police staff of varying rank and experience highlights an area of concern in which the participants displayed overconfidence in the homogeneity of criminal behaviour. These officers also held diverse assumptions about the progression of a criminals' career. Roach and Pease (2014) acknowledge the need for more research but point out if police believe that serious offenders commit only serious crimes than self-selection policing will occur. An implication of self-selection policing would be rape investigator squads only focusing their efforts on sex crimes thereby missing opportunities to catch their suspects who are committing minor infractions of the law too.

As other humans dealing with massive doses of daily stimuli in society, officers investigating rapes are susceptible to the similar psychological biases, heuristics, and fallacies (e.g. Khaneman, Slovic & Teversky, 1982). No matter how well educated or highly trained one may be in complex issues such as rape investigations, the human

brain will attempt to take shortcuts to process the large amounts of stimuli (Page, 2007; Roach, 2010), possibly resulting in the misclassification of a rape or in exhibiting distrust towards a genuine victim of rape.

A survey of police officers in two states in the south-eastern US sought to assess officers' acceptance of rape myths based on their level of education and years of police experience (Page, 2007). Officers in this study indicated that rape was a very serious crime, yet they tended to be suspicious of rape statements, especially those coming from individuals who did not fit their perception of an ideal genuine victim. Although Page (2007, p. 30) did not attempt to determine the actual proportion of false allegations, she stated that the officers placed the number of false reports of rape much higher than the "the known percentage of false rapes (4%)." One of the major findings of this study was that officers with any level of college education were less supportive of rape myths (Page, 2007). It may be that officers without a formal education draw more heavily on their limited rape case experiences and are more susceptible to rape myths.

Characteristics Perceived to be Common in Rapes

The most dominant stereotype of rape is that of an unknown man, often Black, jumping out of an alley and assaulting a White, middle-aged, middle class, conservatively dressed woman. The woman has not consumed alcohol or engaged in any other 'suspect' behaviors. She resists him by kicking, grabbing, scratching, and screaming, but her attempts to get away fail. He rapes her (Ullman, 2010, p. 15).

What perceived characteristics are common in people's beliefs about rape incidents? Typically, the perception entails a male stranger attacking a young female in a secluded, dark area. Burrows (2013, p. 6) completed a more comprehensive compilation of commonly held rape myths, listing "narratives based on myths about rape" along with findings that challenge these myths. Burrows list is explored further in Chapter 5 of this thesis and can be found in Table 5.1.

Officers develop a belief system of how a false rape may look based partly on their education and experience (Jordan, 2004). Jordan (2004) described factors or "clusters" of information that can affect one's perception of a statement. For example, "if the victim was drunk, had delayed reporting the incident and had also engaged in previous consensual sex with the accused, such a combination of factors would impact very negatively on police perceptions of her credibility" (Jordan, 2004, p. 18).

Moreover, any indication or evidence of concealment such as the alleged intentionally

omitting pertinent information in a case would increase the investigator's questions about the validity of the entire case being reported. Examining police perceptions of complainants and their beliefs of the genuineness of an allegation, Jordan (2004) identified a number of key factors used by police to determine if a case is likely false:

- Victim was intoxicated or on drugs at the time of the offence
- Complainant delayed reporting the incident
- Complainant had previously had consensual sex with the accused
- Complainant had previously reported a rape or abuse
- History of psychiatric problems
- Victim perceived to be immoral
- Intellectually impaired complainant
- Victim had previously made a false rape complaint

Feldman-Summers and Palmer (1980) also examined the relationship between perceptions of complainants and beliefs about the genuineness of an allegation. Social services and criminal justice personnel identified the following characteristics of what they perceived to be credible rape complaints:

- Victim has physical injuries
- Rape reported within 48 hours
- Consistent in the account of the rape
- Willing to take a lie detector test
- Does not engage in premarital or extramarital relations
- Seen by others as having been raped.

Both these studies give useful insight on how officers may determine if a reported rape case is false or genuine. Frameworks used by researchers should be explored to further understand how closely the beliefs held by police relate to what has been empirically determined to differentiate genuine from false allegations. This exploration may help identify the victim attributes, suspect characteristics, and behavioural aspects most associated with false allegations of rape.

This information could help to address Rumney's concerns about lack of understanding of authorities' decision-making process when evaluating rape allegations. Rumney stated, "Ultimately, it would appear that the only way researchers could determine whether scepticism in individual cases was well founded would be to

accompany police officers from the start of an investigation into an alleged rape to its conclusion. This would provide invaluable information on how officers come to particular decisions and crucially, allow an evaluation of the quality of the decision-making process” (Rumney, 2006, pp. 155-156).

Having an unbiased researcher accompany the police through a large sample of rape investigations is problematic, however. Protecting the researcher’s safety, not to mention his or her objectivity, would be a challenge. Confidentiality would be a huge concern in dealing with such sensitive materials, victims, suspects and police practices. However, Rumney’s suggestion illustrates uncertainty as to how the large amount of data collected by police is turned into perceived facts and conclusions along with concerns of which details are included in a summary provided to researchers.

There are methodological differences between authorities and researchers as to how rape allegations are deemed false. The nature of the samples used and the approaches taken in interpreting patterns of occurrence have been inextricably tied up with assumptions about how investigations are handled, to whom the victim first reported an assault, and what aspects need to be present or absent for an allegation to be declared false.

To date, there is no published report in which a researcher had full access to an entire, representative set of US police investigative files of rape allegations. Kanin (1994) came the closest to having unfiltered information, as he was given case summaries of all reported rapes from a small Midwestern US town, along with access to the investigators in order to follow up on any specific details. Without complete access to the files covering an entire population, researchers have had to rely on assumptions that police had classified cases properly, or that they were receiving adequate case summaries or access to a sufficiently representative sample of cases.

Representativeness is necessary for reliable results when utilising samples of data for studies. Samples screened and selected by the police and provided to researchers may not deliver the necessary, proper sampling to accomplish this goal. However, a systematic, random selection process could enable more representative results.

A significantly flawed component present in most research within this area of study is the lack of access to all confidential aspects of documented police

investigations (Lisak et al., 2010). Accurate determination of the proportion of false rapes is unlikely without access to most of the details contained within confidential police files for a complete sample of cases. Results are negatively impacted when access to these details is restricted, thereby forcing researchers to rely on police classifications of investigation results.

Specifically problematic is researchers' dependence on UCR classifications to determine whether a case is genuine or false. For example, some researchers have relied on the classification of a case as "unfounded" as an indication that the indication was baseless. However, "baseless" cases may also include those in which a victim reports an incident that, while truthfully recounted, does not meet, in the eyes of the investigators, the legal definition of a rape (FBI, 2004). Therefore, a "baseless" case classified in UCR as "unfounded" does not always constitute a false allegation.

Another example of a finding that might be ruled "unfounded" by UCR standards but is not necessarily a false allegation could involve a victim who reports that she was raped while intoxicated but cannot recall all the details during the initial reporting stage of the incident. The victim may truthfully state that she cannot clearly recall whether penetration occurred, though she believes that it did. In such circumstances, investigators would likely classify the case as "unfounded" since the element of forced or attempted penetration is not verifiable.

Lisak et al. (2010, 1322) stated, "Most of the sources report data, ranging from 1.5% to 90%, which cannot be relied upon because they are based on unscrutinised police classifications." This conclusion can be justified by both the UCR classification issues illustrated above and the unavailability of classified data to researchers.

The Role of the Victim for the Offender

Beyond the necessary elements for an assault to be labelled a rape, it is necessary to understand what happens during these attacks, along with the frequency of these events, in order to identify specific actions that characterise different offending styles (Canter & Youngs, 2009). Having this fundamental knowledge of what commonly occurs in the course of a rape is also essential in assessing the validity of a particular allegation. Once a general thematic narrative structure of how offenders interact with

victims of genuine rapes can be identified, then this could be compared to the thematic structure of false allegations.

Canter and Heritage (1990) examined modes of perpetrator interaction with rape victims, breaking down their findings into five “regions” of interaction: varying degrees of attempts at intimacy with the victim, sexual behaviours, overt aggression, impersonal interactions and criminal behaviours. Canter (1994) discussed types of violations in terms of the role that the victim plays for the offender’s psyche. The behaviours reported to have occurred during a rape vary, Canter contended, depending on the role assigned to the victim by the offender. From his analysis of behaviours in stranger rapes, Canter identified three such general roles: victim as person, victim as object, and victim as vehicle.

Canter et al. (2003a) built on this identification of three roles by developing four thematic narratives that the offender may assign to a rape victim: hostility, control, theft, and involvement. The hostility narrative is similar to Canter’s (1994) role of victim as vehicle, in that it demonstrates physical aggression and violence as well as additional attempts to humiliate and demean the victim beyond the act of rape itself. The control narrative is similar to “victim as object” in that the offender illustrates behaviours that are used to demobilise and control the victim as an inanimate object, showing no empathy for the victim’s reactions. The theft narrative also related to the theme of victim as object, with the additional component of stealing items of value from the victim. The involvement narrative resembles the theme of victim as person, containing actions of pseudo-intimacy that emphasise social contact in addition to the rape, such as forced kissing or cunnilingus.

Hunt and Bull (2011) studied the frequency of reported behaviours and other aspects of 240 cases of both genuine and false rapes. In addition to demographic aspects, they examined how the victim was approached and what happened during the incident. For example, they found that theft was present in 37% of the genuine cases but only 9% of the false cases. Other such behavioural observations have been reported within the literature, as well.

Behavioural Aspects

Research into behavioural aspects of allegations that may indicate whether an allegation is genuine or not should also be considered. Much of the research related to this facet of the characteristics of rape has inherent weaknesses, largely due to limited access to data, which causes researchers to utilise a different range of variables from police decision makers. The similarities and differences between how police and behavioural researchers examine rape allegations are nonetheless instructive in considering whether it may be possible to identify an objective basis for determining the truthfulness of an allegation.

Rumney (2006, p. 142) stated that one reason for the difficulty in distinguishing true from false allegations is the inability to "discern with any degree of certainty the actual rate of false allegations." Methodological issues adopted by most research studies are untested and potentially unreliable. Rumney pointed to studies by Maclean (1979) and Stewart (1981) as examples of the use of questionable criteria. For instance, Maclean classified reports as "false" if the victim did not appear "dishevelled". Stewart considered a case unproven in one circumstance because "it was totally impossible to have removed her extremely tight undergarments from her extremely large body against her will" (Rumney, 2006, p. 134).

Since Rumney (2006) raised these concerns about weak methodology in assessing the truthfulness of a rape allegation, other, more objective methods that take into account both overall aspects of and the behaviours described within a report have been proposed (e.g. Feist et al., 2007; Hunt & Bull, 2011; Marshall & Alison, 2006). Ecological validity concerns are present in some past findings with regard to the specific behavioural information available. This issue has recently been addressed by Hunt and Bull's (2011) research, using a UK sample cases gathered from a national database. Using data that are representative of the overall population marks an important step forward.

Several studies have found it productive to examine the quantity of behavioural aspects reported in a rape in distinguishing between genuine and false allegations (Feist et al., 2007; Kanin, 1994; McDowell & Hibler, 1993; Parker & Brown, 2000). For example, Feist et al. (2007) found about three times the amount of sexual acts reported in genuine cases as in false rape allegations, supporting earlier findings by Marshall and

Alison (2006). Marshall and Alison used structural behavioural analysis as a means of discriminating between genuine and simulated accounts of rape. They found that genuine statements tended to include a larger total number of behaviours than simulated statements. A closer look found that more pseudo-intimate behaviours were reported within these genuine statements than in the fabricated statements. Also, the researchers found that some violent behaviours were more frequently reported in the simulated statements. They postulated that false claimants, not fully appreciating the phenomenological experience of rape, overemphasise the significance of violent and demeaning behaviour whilst underplaying the significance of pseudo-intimate behaviours.

Similarly, McDowell and Hibler (1993) asserted that a false alleged may provide a simplified description of the alleged assault. They found that a few of the genuine complainants in their sample described the insertion of foreign objects into the vagina or anus, whereas half as many cases within their sample reported either of these behaviours in the false allegation group as compared to the genuine cases. The authors speculated that false allegeders could be attempting to minimise the humiliation associated with rape by providing a simplified, less sexually implicit description of the alleged assault.

Generally, research has indicated that genuine rape allegations contain more reported behaviours than false allegations. Anal and oral intercourse have been recorded as present in more genuine cases than in false allegations in several studies (Kanin, 1994; McDowell & Hibler, 1993; Parker & Brown, 2000). Hunt and Bull (2011) pointed out that previous research typically has limited the examination of sexual acts to vaginal, anal, and oral sex. In their study of a large, representative UK sample, Hunt and Bull (2011, p. 689) identified additional behaviours frequently described, such as “kissing/cuddling/fondling”, “digital penetration” and “the victim masturbating the offender”.

Hunt and Bull (2011) also found looking at descriptions of precautions taken by the suspect as a useful way to differentiate genuine from false allegations. Precautions such as binding, gagging or blindfolding were noted twice as often in genuine as in false cases. Similarly, the presence of a weapon was reported 3.8 times more frequently in genuine allegations than in those later determined to be false. As for theft from the

victim, Hunt and Bull (2011) found this factor to be present in genuine cases 6.2 times more frequently than in false allegations, making this another aspect that should be explored further. Such behavioural details are likely to be overlooked by a false alleged fabricating a rape narrative.

McDowell and Hibler (1993) reported that false allegeders were more likely to report physical resistance than genuine victims. In contrast, Hunt and Bull (2011) found physical resistance alleged about equally in both genuine and false reports. They found it more useful to use verbal resistance, which McDowell and Hibler did not assess, as a strong behavioural measuring marker. Hunt and Bull (2011) found that verbal resistance were 50 times more likely to appear in a genuine report than in a false one. They also observed that offenders were reported as having spoken to the victim significantly more often in genuine cases, whereas false claims of rape tended to contain little or no offender speech. This finding supports Marshal and Alison's (2006) argument that a false allegeder of rape would not fully appreciate the phenomenological experience of rape.

Another differential marker used has been whether the victim sustains an injury (Hunt & Bull, 2011; Maclean, 1979). In 53% of US cases, the victim of rape is injured in some way (Rennison, 2002). Maclean (1979) concluded that false complainants presented fewer injuries than genuine victims. Hunt and Bull agreed, finding that 24% of false allegeders and 45% of genuine victims reported an injury. Nevertheless, neither study addressed the possibility that the injuries observed could be unrelated to the alleged assault.

Parker and Brown examined the influence of mental health backgrounds on false reports of rape. They found that 69% of false allegeders had a psychiatric history with 70% of these allegeders either being institutionalised or coming from unstable backgrounds. In contrast, only 13% of the genuine victims had a psychiatric history and 25% had been institutionalised or were from an unstable background (Parker & Brown, 2000). In other words, this research indicates a pattern of mental instability as a distinguishing characteristic and more common to be present in false allegeders.

Chapter Summary

Researchers and law enforcement authorities have varied widely in their estimates of the proportion of false rape allegations. The reasons for this variation include differences in how an allegation is determined to be false. Other factors contributing to this variability include a lack of standard conceptualisation of the problem, variability in the quality of investigations, and disparate crime classifications used for recording rapes (Parker & Brown, 2000). The process of labelling cases is limited by the data and extent of detail available. These limitations of past research challenge us to seek ways to improve the methodology used to distinguish genuine from false accusations.

Officers' personal judgements are subject to cognitive distortions and attitudinal influences. These seem to impact both the investigation process and the ultimate classification of a rape case. Authorities have a set of perceptions regarding what a genuine or false rape should consist of. Formal education appears to reduce an officer's susceptibility to rape myths.

Rape myths and investigative experience play a part in the classification of reported rapes. Previous research on these issues has obtained useful results. However, the lack of consensus on how to identify a false allegation suggests the need for further research into methods of identifying genuine and false allegations without relying solely on police classifications.

False alлегers may rely on cognitive distortions and attitudinal influences of their own in concocting fictitious reports of rape. As with officers, these beliefs would affect the narrative they generate to attempt to make the rape description plausible in their mind and ultimately to their hearers.

Direct access to victim statements has highlighted the use of sexual behavioural aspects in differentiating between false and genuine cases. Evidence on reported sexual aspects indicative of a false or genuine case has begun to emerge. For example, a fuller description of precautions taken by the suspect would be more indicative of a genuine than of a false rape (Hunt & Bull, 2011).

A larger total number of sexual behaviours have been found in genuine rape descriptions than in false rape allegations. This could be because false alлегers attempt to minimise the humiliation associated with a rape, or because they do not fully appreciate the phenomenological experience of a rape (Marshall & Allison, 2006).

In general, false allegations appear to have different tendencies from genuine rape reports. Some attributes and characteristics seem to be more prevalent within one of these groups than in the other. Therefore, constructing certain behavioural profiles that include a combination of these distinguishing characteristics may be a productive approach to differentiating false from truthful allegations. Combining multiple features usually indicative of a genuine rape complaint may make it possible to develop a systematic method of determining the plausibility of a particular report, as well as behaviour profiles typically associated with both genuine and false allegations.

Research Questions

There are fundamental problems in assessing the veracity of a rape allegation and as a consequence determining what proportion are false. This crucial issue is complicated by vagaries of various legal systems, the nature of investigative processes, how rape is defined and the always-thorny issue of determining whether consent was given for a sexual act. Not surprisingly therefore researchers have offered a very wide range of estimates of the frequency of false allegations. Ideologically driven accounts (e.g. those of feminists) give low figures; police perceptions tend to support much higher estimates. Even more objective accounts give a remarkably wide range of values, reasons for which were discussed in the literature review. One conclusion from this review was that researchers are working with highly flawed data due to definitional differences, varying levels of access to the data, and the extent to which cognitive distortions affect the initial investigation and assessment of allegations.

There are many estimates of the number of false allegations; so the question is raised of whether using clear criteria in addition to a representative sample could lead to a valid estimate. This thesis aims to determine the proportion of allegations that can be objectively determined to be fabricated in a population of rape allegations. The literature has reported a wide range of conclusions to this question caused by many different criteria and data sets. One way of contributing to this discussion is to work with a total population of allegations and to explore carefully the conditions that give rise to a clear definition of a false or genuine rape.

Previous research has looked at common attributes and characteristics of rape accounts. More recent studies from the UK have explored these aspects using rich

sources of datasets (e.g. Kelly et al., 2005; Hunt & Bull, 2011). However, US studies have been both sparse and impacted by the above mentioned limitations such as restricted access and non-representative samples (e.g. Kanin, 1994; Lisak et al., 2010). Nevertheless, some studies have mitigated these disruptive issues to some extent, finding it possible to identify features that can be utilised in distinguishing between genuine and false accusations (e.g. Parker and Brown, 2000; Hunt and Bull, 2011). The purpose of the present study is to use a multi-faceted approach with a representative US dataset to identify the most prominent distinguishing characteristics between genuine and false allegations.

Having established that there are indeed, at least from the police point of view, a substantial number of false allegations, the question arises as to what would make these cases different from genuine ones. This inquiry leads to another aim of the present study which seeks to identify behavioural differences in both the quantity and quality of detail in incidents reported to the police. Previous research supports the idea that false allegations tend to have less details and specific actions (e.g. Hunt & Bull, 2011). Additionally, actions reported in false allegations tend to be more indicative of rape myths and contain less coherent thematic narratives than those seen in genuine cases (e.g. Parker & Brown, 2000; Marshal & Alison, 2006). This aim leads us to question what analytical tools are more supportive of exploring these ideas of differing levels of detail found within police reports.

SSA is one of these analytical tools which allows for the central hypothesis that false allegations will be different from genuine ones to be tested. Although the structures of both subgroups would be similar if thematic narratives could not be supported, the belief that false allegations are based on rape myths and will have a less clear structure can be tested with this statistical approach. Published research is supportive of this hypothesis. Canter and associates (2003a) provide a theoretical framework illustrating the narrative role a survivor unwillingly plays for the offender in a genuine rape. Whilst the false allegations portion of the hypothesis also has some support, it has only been explored with limited, possibly biased and simulated samples of false allegations (e.g. Marshall & Alison). A resulting aim of the present research is to test the hypothesis that genuine rapes will have interpretable thematic narratives in

contrast to a structure indicative of rape myths and other heuristic beliefs in false allegations.

Another analytical device, known as POSAC, allows for the research question of whether it is possible to identify a combination of behaviours that will reliably distinguish false from genuine allegations. Or more technically, build a model that will provide a unique method of exploring the qualitative and quantitative variations within the cases. Hunt and Bull (2011) utilised logistic regression to identify distinguishing variables. Other studies indicate a larger sum of behaviours described in genuine versus false allegations (e.g. Fiest et al., 2007). POSAC is capable of using both variations, allowing for exploring Jordan's (2004) suggestion of using multiple variables in combination. The present study aims to build on Jordan's argument in a systematic approach through the development of a predictive model that takes an amalgamation of distinguishing characteristics reported in a rape.

The purpose, aims, and objectives of the present research is to contribute to theoretical, practical and methodological issues related to reported rapes. The criteria for objectively classifying and determining the proportion of false rape allegations, the process of identifying behavioural characteristics primarily controlled by the offender, and the selection of variables used in the POSAC model are three very distinctly different procedures. The primary objectives of the present studies is to shed additional light on the public debate about rape allegations, demonstrate the significance of myths in shaping actions, and indicate the reason why so many cases are indeterminate.

Chapter 3 – The Process of Assigning Cases to Subgroups

The primary aim of this chapter is to provide the methodology used to review the cases identified by the police as likely genuine or false and objectively placing them into subgroups through a systematic process. This grouping procedure was necessary for the multiple analysis approaches used throughout this thesis. It also provides a unique approach to addressing veracity concerns while enabling comparisons with previously published research. This chapter will begin by reviewing issues surrounding prior methodological approaches. Then we will describe how, building on this prior work, the present research established a refined process of identifying cases that can be confidently identified as either genuine or false

The data available to researchers have varied in nature and have contained diverse methods of deciding whether an allegation is genuine or false. Assumptions used to determine the genuineness of a report may have confused the issue further. These factors have contributed to impeding the development of a standardised profile of usual factors present in a false allegation. As a result, a universal profile has yet to be established, although flawed methodology and misclassifications of cases by the police have been identified by researchers as important issues to overcome (Rumney, 2006).

Additionally, since most researchers have not had complete access to confidential police records (Jordan, 2004; Lisak et al., 2010); they have had to rely on police classifications to determine if a case is genuine or false. Rumney (2006) stressed the problems resulting from this additional layer of separation between the researcher and the limited amount of reported incidents provided for review.

Kanin (1994) did not state clearly how he scrutinised the department's methods of classifying a case but it is clear he was only provided case summaries. He appears to have counted cases as false when the department indicated that the alleged recanted her story, and he treated all other cases as genuine. This approach assumes that all cases in which a female recants her statement were fabricated, whereas in some cases of domestic violence the victim simply does not want to be part of the investigation process or prefers not to cause trouble for the acquaintance who committed the rape. Presuming that all cases in which the alleged did not recant are genuine is an even bigger assumption.

Lisak et al. (2010, p. 1323) pointed out that Kanin (1994) relied on the complainant's admission to determine when an allegation was false, rather than using a systematic method of analysing police reports. Lisak et al. (2010) underscores not only that biases and stereotypes are prevalent within the US law enforcement profession, but also that most research has had to rely on the validity of the UCR classifications listed by investigators. Lisak et al. (2010, p. 1319) argued that only a "fraction" of existing research has relied on credible investigation reports. They concluded that the flawed US classification system, the decentralised dynamics of investigations, and political paradigms within the US necessitate that researchers must have direct access to the original data in order to effectively determine the genuineness of a reported rape.

Lisak et al. (2010) sought to understand how reported rapes were determined to be false in nature, concluding that decision was not and could not be reached by relying on any one factor. In line with the guidelines of the FBI (2004) and IACP (2005a; 2005b), they stressed the importance of a multi-layered approach to determining a case's genuineness. Specifically, Lisak et al. indicated that issues such as delayed reporting, inconsistent statements, lack of cooperation by the victim, insufficient evidence to proceed in a case (especially in non-stranger cases) and extreme intoxication at the time of the alleged rape cannot by themselves determine the genuineness of a case. Lisak et al.'s found that in order to "classify a case a false allegation, a thorough investigation must yield evidence that a crime did not occur" as originally reported by the alleged (2010, p. 1319). Reinforcing the fact that no single factor could always be considered as of utmost important, they continued, "That conclusion would have been based not on a single interview, or on intuitions about the credibility of the victim, but on a 'preponderance' of evidence gathered over the course of a thorough investigation" (p. 1328).

There were still some weaknesses in these studies such as; Kanin's (1994) reliance on police determination of a case's genuineness, Parker and Brown's (2000) use of a very small sample, and Lisak et al.'s restricted access to their dataset. Hunt and Bull (2011) sought to address these identified weaknesses by gaining access to a UK police database, known as ViCLAS, in which reported aspects of each stranger rape case had been stored. Information is collected and entered into ViCLAS by the Serious Crime Analysis Section SCAS personnel, who are specially trained to enter all details of

the offence from the victim statement and/or an interview with the police who investigated the crime.

Hunt and Bull (2011) also took a more objective approach to classifying cases: those that resulted in a conviction were treated as genuine, and those in which the accuser recanted or was charged with filing a false report were treated as false. Of course, this meant that many cases fell into neither category. Moreover, the possibilities of an unjust conviction or a forced recanting cannot be fully eliminated, and the standards for filing a charge of false reporting may be less stringent in some police departments than the standards for a rape conviction in court. Also, by studying only stranger rapes, Hunt and Bull (2011) may have skewed their sample; convictions tend to occur mainly in cases involving young women who were attacked by a stranger and physically injured, which are a small percentage of all incidents reported to the police (Lea et al., 2003).

The Banks case discussed in the previous chapter underscores the inability to assume that a conviction eliminates the possibility of a false allegation; it also displays the problem of using a conviction or plea bargain within the US justice system as a sole determinant for grouping a case as genuine. Although the frequency with which false allegations have led to convictions is unknown, other studies have shown that Mr Banks is far from the only victim of the subjective aspects within the US criminal justice system (Conners et al., 1996; Innocence Commission, 2000). Clearly, identifying a reported case as a genuine or false with a 100% success rate is currently impossible. However, given the limitations of prior studies, further research on indications of genuine or false rape allegations could be extremely valuable.

Methodology

In the present study, a comprehensive multi-stage process similar to that of Lisak et al. (2010), was used to minimise misclassifications. An abundance of research has underscored not only the need to scrutinise the UCR classification system, but also the crucial importance of gaining direct access to confidential rape files so as to effectively unravel what characteristics are more indicative of a genuine or false allegation (Lisak et al., 2010). In this study, building on the base of knowledge established by published research, cases deemed genuine or false by the police were placed into more

representative subgroups based on documented facts rather than solely relying on police judgements or restricted facts presented during a US judicial decision of guilt. For example, a US jury would be presented only with aspects of a case that the defence, prosecution and judge have either deemed admissible or were unsuccessful in suppressing prior to making its determination.

Archived US police rape investigation files have been difficult to obtain for research purposes, due to the sensitive nature of the cases and a multitude of other reasons (Lisak et al., 2010). To address this problem, I was able to demonstrate to a US police agency the need to gain full access to every documented aspect of each rape within a population of police files in order to carry out effective research. The police department involved stipulated that all information must be held in strict confidence which eliminated the ability to share the cases with a researcher for inter-rater reliability purposes due to the US law enforcement classified status of the documents. The agency expressed concern over the security of the classified data but was encouraged enough by the potential value of an exploratory study of these investigative files in distinguishing characteristics of cases deemed genuine from those deemed false to outweigh their trepidation. Hoping that the results would assist with future rape investigations, the department granted full access to its complete case files to this researcher.

This chapter describes the origin of the raw data, subject matter details, and the objective steps taken to create subsets in order to study the characteristics of rape allegations. All reported rape cases within one American city over a three-year period were utilised for the present research. Every documented facet of each incident that occurred or allegedly occurred was considered in the course of categorising the cases into different subsets based on objective information.

Ethical Approval

In 2006, I asked the Chief of Police to approve releasing classified police files for the purpose of this research. After discussing the need to protect the identity of both the victims and the department, the Chief gave me full access to every classified document related to each rape investigation.

I met with the city's legal advisor to ensure compliance with local, state and federal laws pertaining to data supplied for research. The legal advisor determined that the importance of this study met the needed legal criteria. A research proposal was carefully constructed to comply with ethical standards for the requested dataset and submitted to the University of Liverpool for review.

In 2007, the university approved the proposal. Data collection began in 2008 after all oversight requirements were met. No human subjects were interviewed or contacted. Each file was assigned a new case number to comply with the requirements of working with classified documents and to assist in protecting those involved. All the documents collected for analysis were kept on password-protected hardware and software.

Description of Data

The data were collected from the East Reekin Police Department (a fictitious name) in the southeast region of the USA. Although, in order to protect confidentiality, the characteristics of the city itself will not be presented, an understanding of the general cultural context is important to assist in exploring some of the cognitive distortions commonly held by officers in the south-eastern US (see Page, 2007, 2008).

Officers in this city must attend a six-month police academy or basic law enforcement training that includes rape investigations. After successful completion of this course, they then undergo five months of field training, which includes responding to reported rapes, prior to entering service.

After approximately a year of training, an officer achieves independent sworn status. These officers are often the first person of authority whom an alleged of rape encounters. In addition to the initial training, officers typically receive a few hours of annual training on how to effectively investigate sex offenses, unless they are selected to focus specifically on sexual crime investigations, in which case they receive more comprehensive training and experience in working with survivors of sex offenses.

East Reekin has several investigators specially trained and assigned to work with victims of sex crimes. These detectives are called to assist by the initial responding officer if available during the initial stages of the investigative process. These special victim detectives re-interview the parties involved and compare notes with the initial

responding officer to identify all aspects of evidential value and address any detected discrepancies.

Once the detectives have interviewed the victim, the suspect, and potential witnesses, they pull together any additional evidence. All items collected by crime scene technicians and medical examiners are reviewed before the investigator determines whether a suspect will be formally charged.

The final documented stage available within the case files is the judicial stage. In most cases, the detective decides whether to charge a suspect with rape and pursue the case through court proceedings. In some cases, the detective may approach a magistrate (sometimes referred to as a judge) or an assistant district attorney (ADA) to gain judicial input prior to determining if charging a suspect is appropriate.

East Reekin meets the standard of a major American city, as it has more than 300,000 people residing within its city limits based on the 2010 US Census. All classified documents from 2005-2007 related to each reported rape or attempted rape were collected. This population of data included 351 reported cases of both acquaintance and stranger rape. The case files ranged from 13 to 185 pages in length. Criminal histories and judicial processes of each case were also provided where applicable and are not included in this page count.

The files included in the data were required to meet the UCR definition of a rape or attempted rape. The FBI's criteria for a rape, as defined by the UCR during the time period of the initial collection of the data for investigative purposes (from 2005 to 2007), are encapsulated in this present study.

From 2005 to 2007, the UCR defined rape as "the carnal knowledge of a female forcibly and against her will." Therefore, for the purpose of this thesis, no male can be the victim of a rape. "Carnal knowledge" is defined as a man having a sexual bodily connection with a woman's vagina, i.e. sexual intercourse. "Against her will" includes instances in which the victim is incapable of giving consent because of temporary or permanent mental or physical incapacity or because of her minor status (US DOJ, 2004).

The present data consist of paraphrased statements from all parties involved, forensic evidence, medical reports and all other recorded dimensions of the investigative process. All other aspects recorded in any part of the investigation, such

as criminal histories, were also collected and explored. These case files include the initial statements provided to the responding officer and subsequent statements given to the detective.

The reports typically provide a detailed account of each interview, but the case files did not record the interviews verbatim. As a result of the use of paraphrasing, statement analysis techniques such as CBCA or other verbal-oriented approaches to determining the plausibility of a case could not be applied to the present data (e.g. Hunt & Bull, 2011; Roach, 2010; Vrij, 2008).

The data explored for the present study had been collected for evidential purposes and stored directly on a Unix-based records management system (RMS). Therefore, the incidents were electronically recorded in a free text format by all entities involved in the case as the investigation unfolded. All data were downloaded and translated into a Windows-based platform for this research.

The free text entry practice used by East Reekin does not impose a strict standardised format, presenting a challenge to an effort to identify common variables for study. However, the relatively open-ended documentation process seems to serve the department's primary objective of archiving the investigation for evidential reasons. From a researcher's perspective, this narrative style of documentation provided more robust information than a "fill in the blank" or "check the box" approach would have offered. In addition, it revealed perceptions and observations of the authorities involved. As a result, a content analysis approach was utilised to identify the characteristics documented. This approach resulted in coding variables, primarily in a dichotomous manner, in SPSS. All cases were recoded—a vast but essential undertaking in order to protect the anonymity of those involved while retaining as much transparency as possible for this research.

A breakdown of how each case was classified by the police, based on the UCR standards, appears in Table 3.1.

Table 3.1 - How Cases Were Classified by Police

	Frequency	Percent
CBA	73	20.8
Except	62	17.7
Unfounded	89	25.4
Inactive	126	35.9
Pending	1	.3

In the table, “CBA” ($n = 73$) stands for Cleared by Arrest, but the arrest may not necessarily have led to a conviction. This category includes both genuine rapes in which a suspect was formally charged and false rapes in which the alleged was charged with filing a false police report. In some instances, it appears the case may have been misclassified since there is no documentation that indicates a suspect being formally charged.

“Except” stands for exceptionally cleared cases ($n = 62$). By UCR standards, these are cases in which the alleged suspect has been identified but the ADA refuses to pursue the case or some other element has kept the detectives from charging the suspect(s) with the rape. In general, these are cases in which a suspect was believed to be the offender but the police lacked enough evidence to formally charge the suspect. In addition, eight cases in which the police stated that the report was false were classified as exceptionally cleared.

“Unfounded” ($n = 89$), based on UCR classification standards, means that a rape was determined not to have occurred, the sexual assault did not include completed or attempted vaginal penetration, the alleged (due to incapacitation or substance consumption) initially believed that she had been raped but later recalled actual events that did not support a charge of rape, or the alleged rape did not occur in the officer’s jurisdiction. Past studies have erroneously counted all cases classified as “unfounded” as purely false allegations (Rumney, 2006). Overall, officers assessed 92 rape reports as false; 73 of those 92 cases were classified as “unfounded.” The other 19 cases deemed false by detectives within their investigative notes of the police files were classified for UCR standard purposes as one cleared by arrest (case 41, in which the false alleged was charged), eight exceptionally cleared, and ten inactive.

Inactive cases ($n = 126$) are cases in which the police have run out of leads to follow up on. According to UCR standards, they should classify the case as inactive until further evidence can be obtained or the victim cooperates. Like the other classifications, this one is also prone to human error and misclassification. For example, in ten of these cases the police determined that the incident did not occur and that the alleged had made a false allegation; these should have been “unfounded” cases by UCR standards.

“Pending” cases ($n = 1$) will be given one of the other classifications based on the outcome of the investigation. In a pending case, police may be actively investigating leads or are unable to locate, physically arrest and charge the suspect. However, in the one “pending” case in this dataset, the suspect had already been located, arrested and charged. This misclassified police report shows once again the inherent dangers of relying on the police classification system to describe cases accurately.

Content Analysis

Content analysis was utilised in the process of identifying variables as present or not recorded throughout the data. An exploratory method was used to develop a coding dictionary for this content analysis (Weber, 1990). This approach provided a methodology best suited to work with the archived data, recorded by authorities in a free text format. An inter-rater agreement was not possible due to the stipulations made by the department in order to release the classified files for research purposes. As a result, additional cogent efforts have been made to address the restriction placed on this researcher. For example, clearly defined systematic subgrouping processes are illustrated with multiple case examples. Adding additional credence to the methodology of recording facts of each investigation are demonstrated in upcoming chapters through the use of several different statistical approaches along with linking the present findings to published studies.

The entire coding dictionary (Appendix I) for the present study, along with a comprehensive table of all variables and frequencies (Appendix II) can be found at the end of this thesis. The development of the coding dictionary incorporated information from several previous works on stranger rape cases (Canter & Heritage, 1990; Canter, 1994; Canter, 1990; Canter et al., 2003a; Jordan, 2004). The coding dictionary contains

121 explored variables, each with its own specific criteria. Most variables were coded in a dichotomised manner as reported or not reported. Some variables were broken down into multiple categories for additional exploration, such as age groups and types of weapons used. Many of these variables will receive additional attention throughout this thesis as the characteristics of rape allegations are explored.

Jordan (2004) described factors or "clusters" of information that were seen as influencing perceptions of the alleged's statement (Jordan, 2004). Similar perception-based decisions were observed in the content analysis of the present data. In an attempt to reduce and minimise the effects of cognitive bias and attitudinal distortions by this researcher, the cases in the present study were placed in three subgroups—genuine, false, or unclassified—by using an objective, multi-stage approach to the documented facts. Cases with multiple offenders were not excluded, as past research has indicated that false allegeders report this variable more often than in genuine victims (Feist et al., 2007; Hunt & Bull, 2011). A comprehensive description of each subgroup follows.

Genuine Subgroup Assignment Process

Cases grouped as genuine in this study are those in which detectives and those most knowledgeable of the reported events clearly documented their conclusion that the case was genuine. Given that charges were not filed in all such cases, it was essential for the researcher to be able to review the details of the investigation and determine if the officers felt that a "reasonable person" (this term comes from the US legal framework) would believe that a rape did occur as reported.

The first step in this process of assigning cases to the genuine subset was to review all 73 CBA cases, looking for clearly documented circumstantial evidence that would make the rape claim plausible beyond a reasonable doubt. For the second step, I applied the US justice system's standard of proof to the totality of circumstances documented in the reports. Although the cases coded genuine involved a suspect being charged, this additional step ensured that no single variable decided whether a case was assigned to one of the subsets. This process resulted in 59 cases being placed in the genuine subgroup. One of the 14 CBA cases that did not make the genuine subgroup was an incident which the allegeder was charged with filing a false

report. Although the other 13 CBA cases not included in this subgroup were likely genuine (all involved a subject being arrested), the reports lacked a preponderance of documented evidence to determine the case as genuine beyond a reasonable doubt.

Although not part of the grouping process, the other cases classified as exceptionally cleared, inactive and unfounded (for UCR purposes) were reviewed to see if the classification of CBA was susceptible to some of the published misclassification issues noted with the unfounded classification in relation to false allegations. After a thorough review, it was determined that no cases other than the 59 from the UCR CBA classification group could be considered genuine beyond a reasonable doubt.

False Allegation Subgroup Assignment Process

The first step in objectively assigning a case to the false allegation subgroup was that the investigation must clearly indicate that the initial statement of forced or attempted forced intercourse was determined to be inaccurate. In addition, the detective assigned to the case must have clearly stated that the reported rape or attempted rape did not occur. This standard was reached in 92 (26%) of the 351 cases. Next, the present research reviewed the objective information cited by the detective in these 92 cases, again using the “beyond a reasonable doubt” standard of proof (which one could describe as a 95% standard of confidence, not 100% certainty). Only where a preponderance of the documented facts indicated beyond a reasonable doubt that the original statement was not true was a case assigned to the false allegation subset. This means that the victim’s recanting of her initial statement did *not* automatically make the case qualify as a false allegation for the purposes of this study. This step was taken to reduce the possible impact of confirmation bias (i.e. police believing that a woman’s claim was false and pressuring her into recanting). Seven of the 72 cases in which the victim recanted her statement and stated that her allegation was false did not meet the required standard of preponderance of documented facts and were not placed in the false subgroup. Again, the importance of using a multidimensional approach to grouping cases, rather than relying on any single variable (even whether the victim later retracted her story), has been emphasised by Lisak et al. (2010) and Rumney (2006). As a result of this multi-stage objective grouping process, out of the 92 cases reported

as false allegations by the detective working the case, only 60 (17% of the total sample) met the criteria for inclusion in the false allegation subgroup.

Examples of Cases Deemed False by Police but Failing to Meet the Criteria for the False Subgroup

Case 226 was reported as false by the lead detective yet did not meet this study's criteria for the false allegation subgroup. Based on the documentation, it is unclear if the victim was in fact fearful of being beaten by her boyfriend and whether she had consented to intercourse. It is also unclear if she was physically intimidated prior to the alleged rape. Later in the investigation, the detective was unable to locate the alleged to re-interview her and clarify these points. As a result of the lack of a preponderance of documented evidence to declare this case false beyond a reasonable doubt, it was left unclassified.

Case 238 is another instance in which the detective believed that the report was false but where I have left the case unclassified. In my judgement, it remains unclear whether the alleged was in fact raped. It appears that, since the alleged did not disclose selling herself for sex in other incidents of copulation during the night in question, the detective focused on the incompleteness of her statement and may have discounted other statements made by the alleged, including her allegation of rape. It is also unclear why the victim would call the emergency number to inquire about a rape crisis hotline and not disclose this to the detective if she had not been raped. Used condoms were collected from the scene. Without a suspect to interview and given the presence of an uncooperative victim, it could not be determined if these condoms were remnants of consensual or non-consensual sex. The detective was unable to locate the alleged to re-interview her to clarify these points. Again a preponderance of evidence was not documented to decisively determine the report to be false, and so I have placed it in the unclassified group.

Unclassified Subgroup Assignment Process

This strict approach to categorising cases as genuine or false left a large amount of cases in a third, unclassified subgroup. These cases lacked a preponderance of documented legal evidence to be placed into one of the two other subgroups. This

group includes cases that the police considered false ($n = 32$); cases labelled as cleared by arrest ($n = 13$); cases where the suspect stated that the alleged rape was consensual ($n = 76$); cases with injuries that corresponded with the victim’s statement ($n = 43$); suspects known to have a criminal record ($n = 33$); victims who said their case was false ($n = 30$), and cases in which the prosecutor declined to pursue the case ($n = 56$).

Results of the Grouping Process

Table 3.2 summarises the frequency and percentage of cases in each subgroup. Grouping only the cases that were unquestionably genuine or false allowed for better comparisons of these subgroups in order to explore the distinguishing characteristics of each category.

Table 3.2 - Cases Grouped as Genuine, Unclassified, or False

	Frequency	Percent
Genuine	59	16.8
Unclassified	232	66.1
False	60	17.1

The number of genuine and false cases are almost precisely equal. Rumney (2006), who noted the wide range among reports of the percentage of cases deemed false, also reported a similarly wide variation in definitions, erroneous use of police classifications, and differing levels of access to data. The methodology of the present research found that 17% ($n = 60$) of the reported rapes were likely false, whereas 26% ($n = 92$) cases had been deemed false by the police.

The fact that 66% of the sample remains unclassified indicates how cautious my identification process was. Many of the cases were placed into the unclassified group due to a lack of documented articulation of the preponderance of evidence needed to group a case as either genuine or false. This caution was motivated by a desire to identify overt, consistent behavioural aspects within the genuine and false subgroups. The process of placing only extremely clear-cut cases into these subgroups makes stronger comparisons between them possible.

Chapter Summary

The issues explored in this chapter include the varied definitions of false allegations, police misclassifications, and restricted access to reported rapes (Hunt & Bull, 2011; Rumney, 2006). Most researchers have lacked access to all confidential aspects documented by police (Jordan, 2004; Lisak et al., 2010). Additionally, anecdotal evidence such as that the police believe half or more of reported rapes to be false (see Jordan, 2004) is challenged by the present data, in which only 26% of the cases were believed to be false by the investigating officers.

Although statement analysis and verbal aspects of cases have been shown to be effective ways to detect deception (see Hunt & Bull, 2011; Vrij, 2008; Parker & Brown 2000), this was not a viable option for the present study due to the paraphrased rather than verbatim nature of the documented interviews. Specific questions surrounding access to data, alternative methods to combat misclassifications and ways to increase accuracy and reliability in identifying false allegations were discussed in this chapter. Gaining access to all documented data of reported rapes from a US police agency within a population of files contributed significantly to the usefulness of the present research. As a result of lessons learned from prior studies, objective definitions of genuine and false cases and a comprehensive multi-stage evaluation process were established, with the goal of placing cases into the most reliably representative subgroups possible. This process resulted in 17% of the cases being placed in the genuine subgroup and 17% in the false subgroup. The latter figure lends credence to Lea et al.'s (2003) finding that the rate of false allegations is between 10% and 20% of reported cases.

The selection process developed and outlined in this chapter provides the classification of cases to be used in throughout the remainder of this thesis. This chapter provides a method to carefully grouping cases without depending on police classifications. Additionally, it presents the first known categorisation of an entire set of police files, thereby offering a comprehensive, representative pool of data without requiring the researcher to have been an active participant in the investigations as suggested by Rumney (2006). This contribution will help the present study to build on previous research such as that of Canter et al. (2003a), Burrows (2013), MacDonald and Michaud (1995), Kanin (1994), Feldman-Summers and Palmer (1980) and Hunt

and Bull (2011) in uncovering characteristics that can be used to distinguish genuine from false allegations.

Chapter 4 - Thematic Structures of Genuine and False Rapes

Canter et al.'s (2003a) thematic exploration of suspect behaviours during rape remains one of the leading pieces of research utilising the multidimensional scaling (MDS) technique known as Smallest Space Analysis (SSA). Through use of the SSA model, which represents associations between variables as distance in an abstract space, a more comprehensive exploration of the characteristics of rapes could be achieved.

Marshall and Alison (2006) found a larger total number of behaviours in genuine cases than in fictitious statements. Feist et al. (2007) found that genuine cases of rape had about three times the amount of sexual acts reported in them. Is it possible that the higher the sum score of the most predictive behaviours, the more likely the reported rape is genuine?

From among the array of possible motivations for falsely reporting a rape, one may be able to infer reasons for inventing a particular fictitious account from what the woman reports to the police. Reasons for creating a false allegation have included needing an alibi, to gain attention, or to address another need (MacDonald and Michaud, 1995; O'Neal et al., 2014).

Could there be interpretable behavioural structures within genuine rapes as to the reported actions of the suspect? Based on work by Canter et al. (2003a) that supported earlier findings by Canter and Heritage (1990), an emerging hypothesis suggested that genuine rape reports may have a similar structure. Would the same thematic scheme appear in culturally different datasets? Similarly, Marshall and Alison (2006) found differing suspects' behavioural structures between genuine and simulated rape allegations; would those differences appear in other samples too?

This chapter will explore the behavioural thematic structures of the genuine and false subgroups within the present research. Forty-three behavioural variables were utilised in the exploration of these structures. Suspect behaviours as reported by the victim are explored by applying the SSA procedure to the dataset.

The first step in this process considered the genuine subgroup of the present data compared to previous research. Canter et al.'s (2003a) methodology was chosen as a way to identify thematic characteristics in terms of regions rather than the more

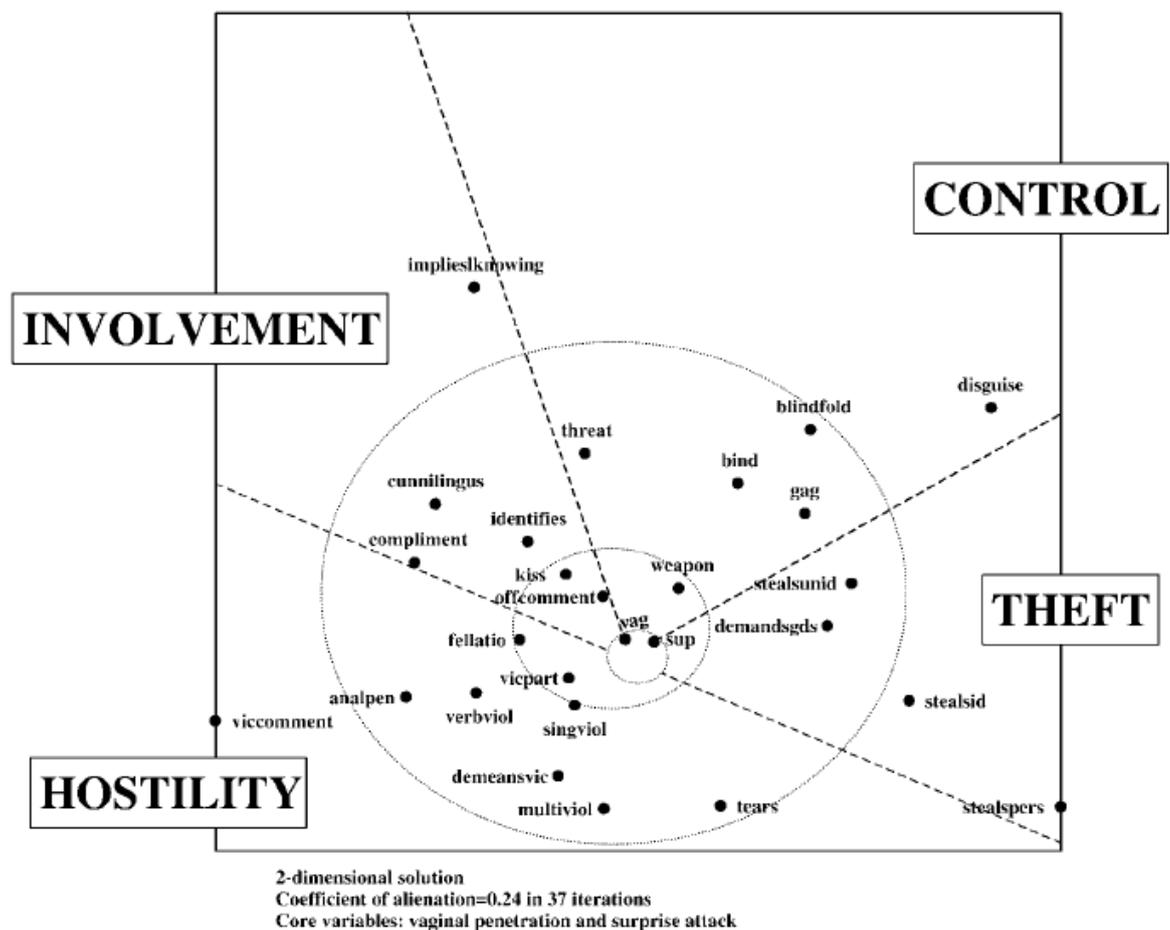
rigid, restrictive dimensions of other approaches. To further assist in linking the present findings to existing knowledge, the present research used the same thematic areas as did Canter et al. (2003a) and Canter (1994).

Next, the same methodology was applied to the false allegations subgroup. Although no previous study compared an SSA of strictly false allegations with the same set of behavioural thematic descriptors, it was believed that comparing the two outputs would assist in examining the characteristics of rape allegations and in determining whether identified rape myths could be located within the SSA of a set of false allegations.

Comparison to Prior Research Using Smallest Space Analysis

As noted in Chapter 2, Canter (1994), using SSA, identified three general roles that the victim plays for the offender's psyche during a rape: victim as person, victim as object, and victim as vehicle. I theorised that the present sample of genuine rapes would produce relatively the same results using the SSA model as past research has yielded (Canter & Heritage, 1990; Canter, 1994; Canter et al., 2003a). Canter and Heritage (1990) examined the feasibility of creating behaviourally based classification systems of rape and were among the first researchers to utilise SSA with a sample of rape reports for this purpose. Canter et al. (2003a) identified four regions of offender narratives, as depicted in Figure 4.1.

Figure 4.1 - SSA conducted by Canter et al. (2003a), consisting of 27 crime scene actions over 112 rapes



The four thematic regions in Canter et al.'s (2003a) study were hostility, control, theft, and involvement. This methodology was chosen as a way to systemically identify thematic characteristics in terms of regions controlled primarily by the offender.

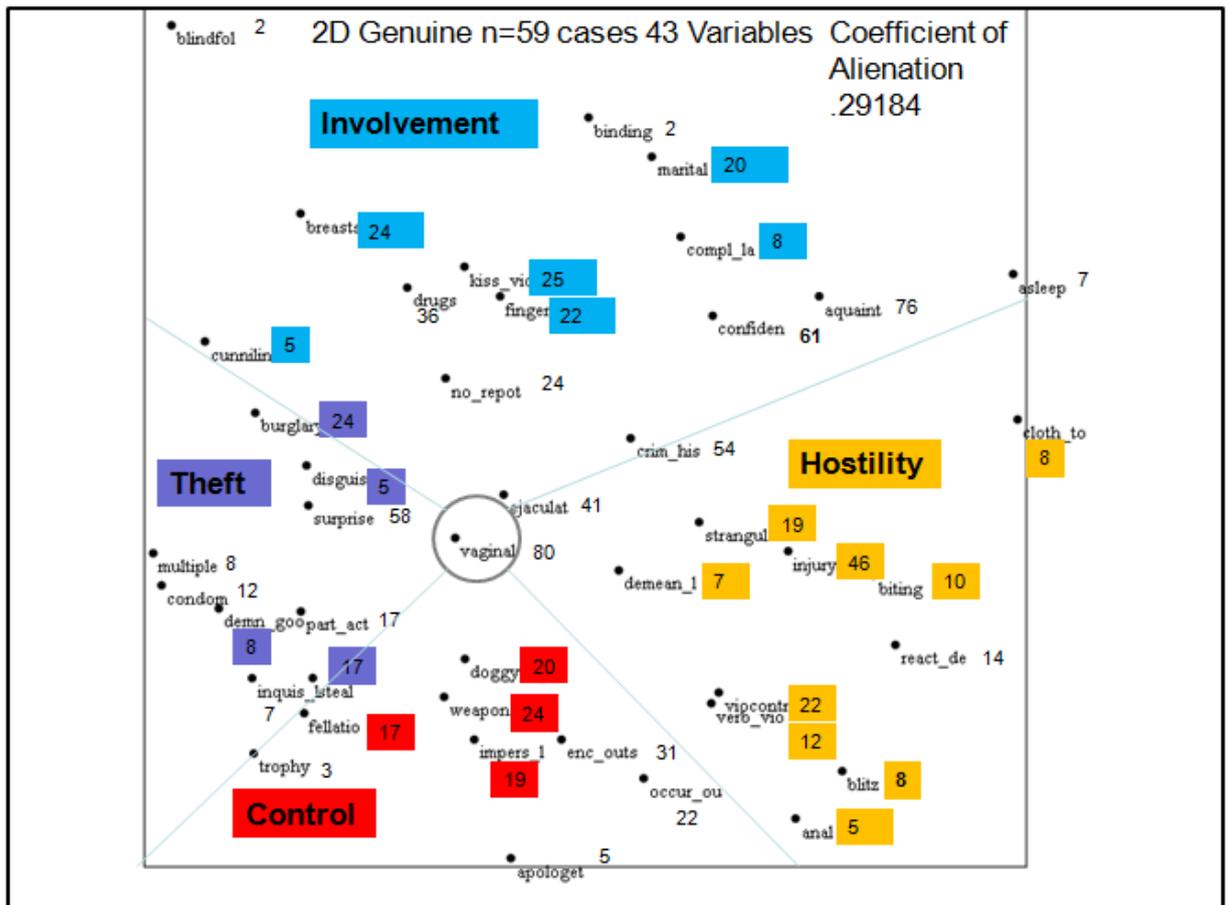
Analysis of Variables Controlled Primarily by the Offender

In order to test the hypothesis that US data would be similar to those from other cultural settings, an SSA was carried out on an association matrix of Jaccard's coefficients using SSA-I (Lingoes, 1973). Jaccard's coefficient is a measure of association that does not take into account joint non-occurrences (Jaccard, 1908). As argued and demonstrated by several peer-reviewed research articles, this statistical method is most appropriate as a measure of association in situations where there is a strong possibility that some variables were not recorded when they were in fact present (Bennell, Alison, Stein, Alison, & Canter, 2001; Canter et al., 2003a; Canter, Hughes, & Kirby, 1998).

The polarising themes or clustering of co-occurring variables, which provide insight as to the role that the victim unwillingly plays for the suspect's psyche, were explored as this step was of primary interest in reviewing the characteristics of rape. This process also helps to identify and give shape to the behavioural aspects that would typically occur together in a genuine rape. Specifically explored were the subsets of conceptually related modes of interpersonal interaction undergirding the reported sex offences, as displayed in Figure 4.2. The results shown in Figure 4.2 can be compared to those in Figure 4.1 so as to observe similarities between the two sets of present findings.

The SSA shown in Figure 4.2 supports earlier findings by Canter et al. (2003a), even with 16 additional variables (to make a total of 43 variables). Suspect-related variables added to the model used by Canter et al. included the type of approach utilised, whether the suspect used drugs, whether the suspect had a criminal record, whether the suspect was in a relationship with a female other than the victim, whether the victim knew the suspect, where the offender approached and attacked the victim, and whether multiple suspects were involved. Even with the inclusion of these additional variables and despite important cultural differences between the samples (such as access to guns) and the use of both stranger and acquaintance rapes in the present research, the SSA thematic areas are supportive of past research (specifically Canter et al., 2003a).

Figure 4.2 - SSA of 43 Offender Behaviours Recorded in 59 Genuine Rapes



2-dimensional solution

Coefficient of Alienation = .29 in 20 interactions

Core Variable: Vaginal Penetration

The two-dimensional SSA solution (Figure 4.2) has a Guttman-Lingoes coefficient of alienation of .29 in 20 iterations, indicating a reasonable degree of fit between the SSA plot and the original association matrix. In the SSA figures, each point is a variable describing a behaviour by the suspect, or a variable over which the offender would have had control. The closer any two points are to one another, the more likely it is that the actions they represent co-occur across offences.

Figure 4.2 presents an SSA of 43 variables primarily controlled by the offender in the 59 genuine rapes considered in the present study. Variables are briefly labelled on the SSA and can be decoded in Table 4.1. The labels are brief summaries of each content analysis category. The values next to each variable in Figure 4.2 indicate (in

terms of percentage) how frequently they were reported among the 59 cases. The thematic regions of involvement, hostility, theft and control, depicted in Figure 4.2, are explained in greater detail below as it relates to the present study but also covered in Chapter 2.

Table 4.1 provides the order of frequency of each 43 variables along with the sum of occurrences. A brief description is given for each label, describing what the variable entails; fuller descriptions can be found in Appendix I. The core variable of vaginal penetration is included in all thematic regions.

Table 4.1 - The 43 Variables used in the Genuine SSA in Order of Frequency

43 variables used in SSA of genuine cases (<i>n</i> = 59)	Percentage	Sum
1. vaginal - vaginal penetration	80%	47
2. acquaint - relationship – acquaintance	76%	45
3. confidence - suspect uses a ploy to make initial contact with the victim	61%	36
4. surprise - surprise attack	58%	34
5. crim_history - has a criminal record	54%	32
6. injury - victim injured	46%	27
7. ejaculate - suspect ejaculates	41%	24
8. drugs - suspect used some sort of drugs	36%	21
9. occur_outside - crime occurred outside	31%	18
10. kiss_vic - suspect forces kisses on the victim	25%	15
11. no_report – suspect makes threats in an attempt to keep the victim from reporting the rape	24%	14
12. breasts - suspect fondles the victim's breasts	24%	14
13. burglary - incident was part of a burglary	24%	14
14. weapon - weapon present	24%	14
15. finger - suspect digitally penetrated the victim	22%	13
16. enc_outside - victim encountered outside	22%	13
17. viocontrol – force beyond just physically controlling the victim	22%	13
18. marital - suspect married or in a relationship other than with the victim	20%	12

19. doggy - has sex with the victim from behind	20%	12
20. impers_lang – suspect uses language that is impersonal or instructive	19%	11
21. strangulation - puts his hands around the victim's neck	19%	11
22. steal – stealing	17%	10
23. part_acts - victim participation acts	17%	10
24. fellatio - fellatio	17%	10
25. react_deter – offender changes behaviour due to the victim's reactions	14%	8
26. verb_vio – offender threatens to kill or maim the victim	12%	7
27. condom – suspect wore a condom	12%	7
28. biting - suspect bites victim?	10%	6
29. compl_lang – complimentary language	8%	5
30. demn_goods - demands goods	8%	5
31. cloth_torn - victim's clothing cut/torn	8%	5
32. blitz – sudden and immediate excessive use of violence that incapacitates the victim	8%	5
33. multiple - more than one suspect	8%	5
34. inquis_lang - language (2) inquisitive	7%	4
35. demean_lang - language (4) demeaning/insulting	7%	4
36. asleep - victim reports being asleep	7%	4
37. cunnilingus – cunnilingus	5%	3
38. disguise – disguise	5%	3
39. apologetic – apologetic	5%	3
40. anal - anal penetration	5%	3
41. trophy - suspect keeps expressive items	3%	2
42. blindfold - anything used to cover victim's eyes	2%	1
43. binding - binding, including handcuffs	2%	1

Hostility

Hostility has been described throughout the literature on rape as a general theme that manifests itself in different ways. Canter and Heritage (1990) interpreted a region in

their SSA as "reflecting an overtly aggressive offence style". Behaviours similar to this description are described in *Criminal Shadows* (Canter, 1994) as falling within the theme of "victim as vehicle". Examples of these behaviours given in Canter et al. (2003a) include verbal violence, insulting or demeaning language, tearing the victim's clothing and gratuitous violence.

In Figure 4.2, the hostility theme is highlighted in yellow. As in Canter et al. (2003a), the theme of hostility is utilised here because it demonstrates both physical aggression and violence. Attempts to humiliate and demean the victim beyond the core act of raping her also appear in this general region.

Control

Canter et al. (2003a, pp. 161-162) explained the theme of control as one in which the victim is viewed as "an inanimate object that must be trussed and coerced, whom the offender will neither attempt to demean nor cajole. The offender has no empathy for the victim's reactions and experiences no remorse for his crime." This description is similar to Canter's (1994) theme of victim as object. Canter appears to have selected the term "control" in his subsequent research to emphasise that these behaviours are used to demobilise the victim.

As shown in Figure 4.2, use of a weapon to control or demobilise the victim is central to this theme. Canter et al. (2003a) placed the variables of "blindfold" and "binding" under this theme. However, these variables occurred in only one case in the present dataset, and they fell under the involvement theme within the present SSA. It is unclear why this occurred, but with only one occurrence in 59 cases, the placement of these variables becomes less predictable.

The variables coloured in red in Figure 4.2 also support the theme of control, or of victim as object. "Doggy style" (rear vaginal intercourse in which the victim's face is not seen), forced fellatio and impersonal language, along with the use of a weapon, feed into these expressions of power.

Theft

Additional behaviours that have at times been considered part of the control or "victim as object" theme involve stealing items from the victim. Following the thematic

approach developed by Canter et al. (2003a), a theft theme was identified in the present SSA. Canter argued that variables that entail some sort of future instrumental goal in addition to the immediate gratification of the rape can be interpreted as representing a theft style.

The present study supports this argument, as ways in which the crime presents an opportunity to achieve an additional instrumental goal can be observed in Figure 4.2. The variables highlighted in purple (“burglary”, “disguise”, “demands goods” and “steals valuable items”) are all indicators that theft is connected with rape for some offenders.

Involvement

Behaviours emphasising social contact in addition to committing a rape can be seen in a cluster of offenders. Offenders displaying these types of pseudo-intimate behaviours reflect some attempt to treat the victim as a reactive person rather than purely a sexual conquest or a person under his control. Verbal interactions such as complimentary language, along with more pseudo-intimate actions such as forced kissing, forced cunnilingus and forced fingering, are similar to those found in Canter's (1994) "victim as person" theme and Canter et al.'s (2003a) "involvement" thematic area.

Table 4.2 depicts the primary polarising thematic regions and percentage of frequency within the 59 genuine rapes. Although the thematic structure is not a hard and rigid division into four distinct categories, as may appear to be the case from Table 4.2, the table does assist in deciphering the co-occurring variables that give structure and meaning to the thematic regions displayed in Figure 4.2. Although all 43 variables are displayed in the figure, only the most representative thematic variables for each region are identified within the table to assist in illustrating the core conceptual thematic framework.

Table 4.2 - Thematic Regions and Percentage of Frequency of Suggestive Variables within the Genuine Rapes SSA

Involvement	Hostility	Control	Theft
Confidence approach 61%	Observable injury 46%	Encountered outside 31%	Surprise attack 58%
Kisses victim 25%	Additional violence used to control victim 22%	Weapon 24%	Burglary 24%
Touches victim's breasts 24%	Strangulation 19%	Doggy style 20%	Steals items of value 17%
Fingers victim 22%	Verbally violent toward victim 12%	Impersonal language 19%	Demands goods 8%
Suspect known to be in another relationship 20%	Biting 10%	Fellatio 17%	Disguise 5%
Complimentary language 8%	Blitz attack 8%		
Cunnilingus 5%	Demeaning language 7%		

The involvement region includes variables that one would expect to see in an offender who is fulfilling some underlying need for a pseudo-intimate relationship. Behaviours such as kissing the victim and touching her breasts fall within this region. As expected, the confidence approach also fell within this region and is more consistent with a pseudo-intimate relationship rather than a blitz or surprise attack method of engaging the victim prior to the rape.

Three approaches identified by these variables, known as confidence, surprise and blitz, differ mainly in their manner of expression but also serve a secondary instrumental purpose. A confidence approach refers to the use of a ploy or subterfuge to make initial contact with the victim, such as asking a question or telling a story to gain

a small amount of trust from the victim. An immediate attack using sufficient violence to physically control the victim is the defining aspect of a surprise attack but actions are not excessive as in a blitz attack. A sudden and immediate use of excessive violence utilised to incapacitate the victim is known as a blitz attack. This last approach differs from the surprise attack as it focuses on extreme, gratuitous violence in the initial assault that leaves the victim incapable of any reaction.

The hostility region includes variables that are violent and expressive in nature. For example, the victim having visible injuries (as occurred in nearly half of the genuine cases) is a variable expected to fall into this thematic area. The suspect's use of violence to control the victim is reported in one-fourth of the cases. Other overt gratuitous aggressive acts such as strangulation, verbal violence, and biting, along with blitz attacks (rarely reported within the data) fell within this region as well.

The control region includes slightly less overt signs of aggression, such as using a weapon as a method of control as opposed to outward, gratuitous forms of violence as seen in the hostility region. Other variables appearing within this region of control were "doggy style" and fellatio, which are less indicative of a desire for a pseudo-intimate relationship than the variables found in the involvement region. The control region is an area in which violence typically is not used beyond what is needed to complete the rape.

The theft region includes stealing items of value from the victim. Surprise attacks along with burglary can be seen within this area of the SSA. More infrequent events such as demanding goods and wearing a disguise also fall in this region.

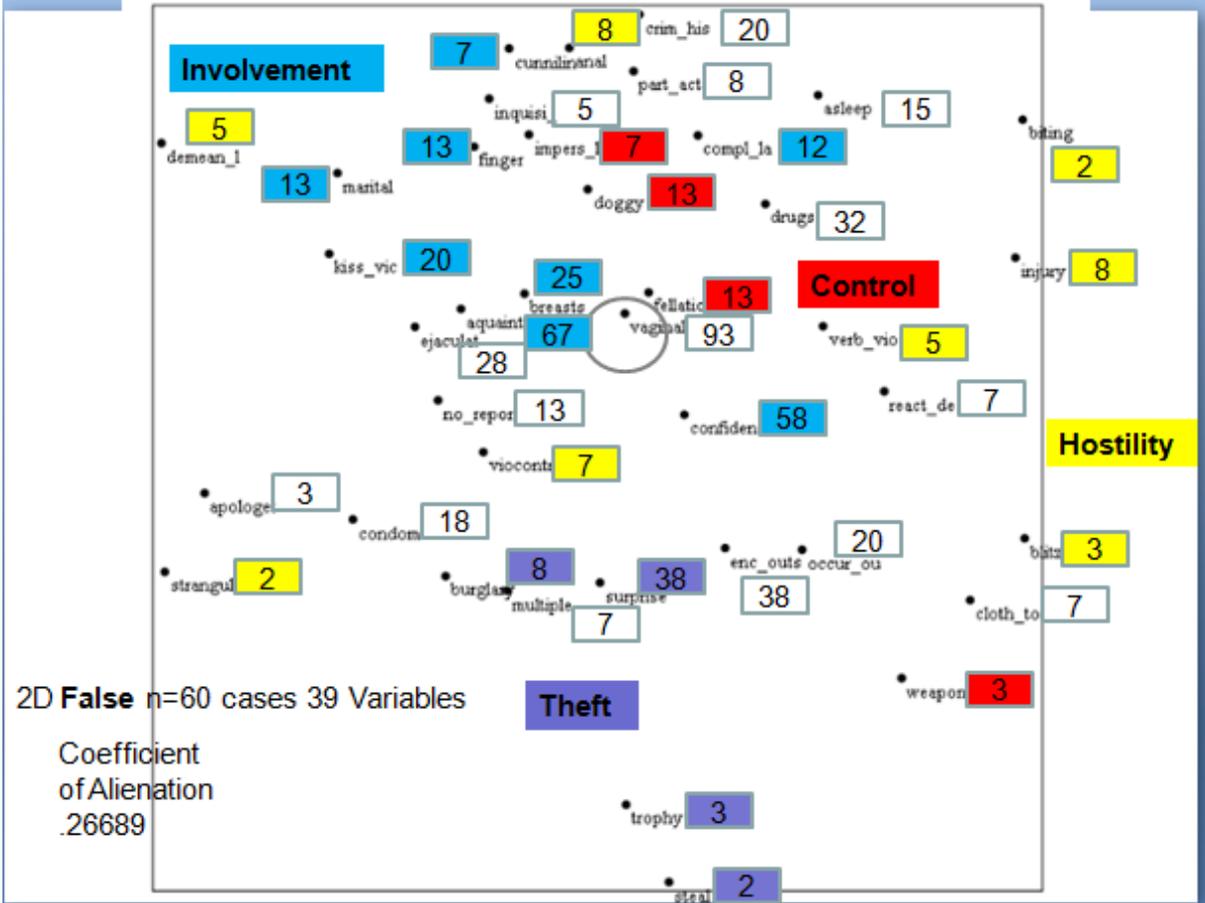
SSA of False Allegations

The ultimate goal of this research is to determine if we can identify distinguishing characteristics of genuine and false rape allegations. Therefore, our main interest here was to see if the behavioural structures of genuine and false allegations differ, as Marshall and Alison (2006) did by comparing genuine reports to simulated accounts of rapes written by students.

All 60 cases from the false allegation subgroup were analysed in an SSA in order to determine the offender narrative characteristics assigned to fictitious offenders. The same variables and thematic regions were used as with the genuine allegation

subgroup. A depiction of the variables, highlighted in their corresponding colours, can be found in Figure 4.3.

Figure 4.3 –SSA of 39 Offender Behaviours Recorded in 60 False Rapes



The two-dimensional SSA solution for the false allegation subgroup (Figure 4.3) has a Guttman-Lingoes coefficient of alienation of .27 in 32 iterations, indicating a reasonable degree of fit between the SSA plot and the original association matrix. Each point in Figure 4.3 is a variable describing an offender’s behaviour or a variable over which the offender would have had control had the rape actually occurred. The closer any two points are to one another in geometric space, the more likely it is that the alleged actions they represent co-occur across false allegations.

SSA Comparison of False Rapes to Genuine Rapes

Comparing Figures 4.2 and 4.3 with previous research, one sees that the genuine rapes form a structure similar to those in previous works, whereas the structure of the false

rapes appears erratic in nature. Variables that form thematic regions in the genuine rapes are colour-coded in the same way for the false rape SSA to make it easier to compare the two results.

Of particular interest, the frequency of past reported criminal behaviour is much higher for genuine cases (54%) than in false allegations (20%). This variable is also located close to violent behaviours in the SSA for genuine cases, whereas in the false allegation SSA, criminal history does not fall near violent behaviours.

Case Examples Showing Motivations for False Allegations

Chapters 2 and 3 provided an array of possible explanations of why a woman may report a false allegation of rape. Common reasons for falsely accusing an innocent man of rape have included needing an alibi or to address some other real or perceived need (O'Neal et al., 2014). To assist the process of ascertaining why certain variables are more commonly reported in false allegations, the present research will present some case examples in which the victim recanted her original statement and indicated why she had reported a false rape.

Case 287 (alibi motivation). The alleged father came home early and discovered his daughter having sex with the alleged suspect in her bedroom. When caught in the middle of intercourse, the suspect stopped and fled the scene. The alleged father told her father that he had interrupted a rape, so he called the police. When the police arrived, the father stated to both the police and daughter that if the sex had been consensual, then his daughter would be in big trouble. In the initial report, the victim stated that the suspect pushed her on the bed and used force to have non-consensual sex with her.

After an extensive investigation, the alleged father recanted her story. She admitted that she was eight months pregnant with the alleged suspect's child, that she had been arguing with the suspect about money just prior to having consensual sex with him, and that she had told her father she was raped as a tactic to deflect her father's anger.

Case 318 (alibi motivation). Initially, the alleged victim claimed that she was unconscious and being raped when her boyfriend kicked in the bedroom door and found her having intercourse with the alleged suspect. However, she later recanted her story

and stated that she made the false allegation to cover up her infidelity as she did not know what else to do.

In this case, the victim and suspect had been drinking and flirting at a party before ending up in bed together. While they were having intercourse, the alleged's boyfriend kicked in the bedroom door to find what he thought was a man raping his girlfriend. The suspect fled the scene and the alleged's boyfriend called the police, stating that he had witnessed his girlfriend being raped. The alleged was adamant to both her boyfriend and the initial responding officer that the suspect forced her to have sex with him. The responding officer noted that the alleged was continuously vomiting and crying uncontrollably while stretched across the bed.

The alleged was transported to the hospital for medical attention. While the victim was at the hospital, the suspect was located, detained, and questioned. He admitted to having sex with the victim but said it was consensual. When re-interviewed, the woman admitted that the allegation was false.

Case 15: medical care motivation. After a lengthy investigation, the alleged in this case recanted her statement of rape, saying that she went to the hospital claiming to have been raped in order to get free medical care. She added that she did not think the hospital would call the police or that anyone would get in trouble.

The alleged drove herself to the hospital to get treatment as a precaution and learned that she had contracted an STD. She said she had been raped, at which point the hospital staff contacted the police. When the police arrived on scene, the victim initially stated that she had gone to a bar the night before and that she woke up with the suspect next to her at her residence. She said that she believed she had been raped since she felt sore in her genitals.

While speaking with the victim at the hospital, the detective noted that the victim sat in the fetal position in a chair and looked down as she spoke. The victim at first said that she knew the suspect only by his first name. Later on in the interview, she stated that the suspect had stayed at her house the night before the rape and that she knew more about him than what she was willing to say.

As the interview progressed, the victim indicated that this was the third time she had been raped (by three different persons) but the first one she had decided to report. According to her explanation, in the first unreported incident she was 13 when a black

male grabbed her as she was walking home, dragged her into the woods and raped her. The second unreported rape was by her boyfriend's best friend. As the interview progressed, the victim became increasingly uncooperative, stopped answering questions and refused a rape kit. (A rape kit, for the purposes of this research, is a medical procedure performed by a doctor or nurse, typically within 72 hours of the alleged attack. The goal of rape kits is to collect forensic evidence and/or look for vaginal trauma that may help to indicate a forcible rape.)

A specialised rape detective attempted to contact the alleged several times over the phone, but the victim would not provide any information about the two friends with whom she had gone drinking with, the suspect or anything else. Later in the investigation, she consented to a face-to-face interview, during which she explained that she had just been trying to get free medical care for her STD when she claimed to have been raped.

Of course, not all false allegeders recant a false statement of rape, let alone explain their rationale for concocting a story. Thus the preceding examples offer valuable insights. A quick decision to make a false rape allegation in order to solve a pressing personal problem usually means that the woman has limited time to concoct a narrative of the fictitious event. In such a situation, one can expect the allegeder to grab details from rape myths or from what they perceive as commonly occurring in a rape.

Figure 4.3, the SSA of the false allegations, displays an erratic collection of co-occurring variables, indicating the less cohesive mixture of suspect behaviours reported in false allegations. The theft region is relatively intact in this SSA, because very few false allegeders choose to include this component in their stories. In the present sample of false cases, only one allegeder reported stealing. In this incident (case 329), the allegeder chose to state that she had been both robbed and raped. Officers were able to account for her being on campus the entire day and located video footage of the victim in the school cafeteria during the time period when the allegeder claimed to have been abducted and raped. A detailed investigation documented a preponderance of facts indicating that this was a false allegation.

The allegeder in this case had been diagnosed with PTSD after being sexually assaulted as a child by her stepfather. Subsequently she was also diagnosed as having bipolar disorder and paranoid schizophrenia. As a result, she was living in a group

home and attending a class for young adults with special needs. Prior to this false allegation, the alleged had previously reported being raped and having belongings stolen at a previous group home where she did not want to live any longer.

In the present allegation, the woman claimed to have been taken from school during her lunch break by a Hispanic male who offered her candy if she went with him. He allegedly raped her in his car and took multiple things including her underwear. But, in addition to finding the aforementioned video footage, detectives also confirmed with her teacher that she had attended her special needs class, making it extremely improbable that she had been abducted and raped at an unknown location away from the school during her lunch hour or during one of the 10-minute bathroom breaks throughout the day.

In contrast to the theft region, the involvement and control regions of the SSA for false allegations are mixed and closer in space to each other, rather than opposite to each other as with the genuine cases. This means not only that these variables co-occur in false allegations more often than in genuine cases but also, more importantly, that false allegeders do not effectively construct a decisive role that an offender psychologically assigns to a victim of genuine rape. This finding supports Marshall and Alison's (2006) argument that a false allegeder would not typically have an understanding of what occurs during a rape.

A possible explanation for the combination of these two regions in false allegations is due to the co-occurrence of the control variables of doggy style and fellatio and the involvement variables of kissing and touching of the breasts in allegeders' previous consensual sexual experiences. In the control narrative of genuine rapes, the aspects of a weapon being present and impersonal language in combination with fellatio and doggy style genuinely co-occur. However, these combinations of co-occurring variables do not carry over into the less descriptive, invented narratives in which the suspect's psyche does not play a role (since there is no suspect). In support of this possible theory, the involvement narrative, which is most closely related to consensual sexual experiences that the victim would have had, is the most intact region of the four. This theory is also consistent with Roach's (2010) finding that people pull from past experiences in developing a lie.

Hostility appears to be the most erratic-looking theme, as its variables co-occur with all the other themes, but the hostility variables are reported much less often in false allegations than in genuine cases. One possible reason for this pattern may be that false alлегers do not usually have any injury or marks consistent with being strangled or other signs of gratuitous violence, and that therefore such claims would be difficult to explain without any physical evidence.

Hostile actions allegedly committed by a fictitious suspect, in the rare instances where they do appear, are mixed in with characteristics indicative of other narratives. For example, in case 214 the alлегer's statement contained variables indicative of hostility (used additional violence necessary to control the victim and made verbal threats), control (used a bottle as a weapon), and theft (burglary).

In Case 214, the alлегer stated that her ex-boyfriend burglarised her home, used a blitz approach, grabbed her by the hair and dragged her to the kitchen. He then grabbed a bottle, held it over her head and stated, "Have sex with me or I'll bash your head in." At this point she kicked him in the groin and was able to run out of the house to call her current boyfriend for help. When the boyfriend was interviewed, he said that his girlfriend (the alлегer) was highly upset that he was going out with the guys that night and not staying home with her. She called him later in the night and gave him the same false report, saying her ex-boyfriend just broke in and tried to rape her.

The ex-boyfriend was located and interviewed. He had been eating at a restaurant in another city at the time when the alлегer stated he was trying to rape her. The detectives were able to corroborate this through both video footage and a receipt from the restaurant.

When the alлегer was confronted with this information, she recanted her statement, explaining that she wanted to make her boyfriend think twice before ignoring her again. She signed a confession of filing a false report of rape stating that she had made everything up to make her boyfriend jealous and bring him back home to her. This is one of the few cases in the present dataset in which the alлегer was given a subpoena to go to court and tell the judge what she had done. However, she was not formally charged and there were no records indicating what occurred in court.

Table 4.3 outlines the proportion of characteristics that would generally be controlled mainly by the offender in a rape, with the frequency with which they were

reported in false allegations. To aid the comparison, the variables are listed in the order in which they occurred in the genuine cases (from most frequent to least frequent).

Table 4.3 - The 39 Variables Used in the False SSA in the Same Order as the Genuine SSA Frequencies

43 variables used in SSA in False Rapes (n=60)	Percentage	Sum
1. vaginal - vaginal penetration	93%	56
2. acquaint - relationship - acquaintance	67%	40
3. confidence – suspect uses a ploy to make initial contact with the victim	58%	35
4. surprise - surprise attack	38%	23
5. crim_history - has a criminal record	20%	12
6. injury - victim injured	8%	5
7. ejaculate - suspect ejaculates	28%	17
8. drugs - suspect used some sort of drugs	32%	19
9. occur_outside - crime occurred outside	28%	12
10. kiss_vic - suspect forces kisses on the victim	28%	12
11. no_report – suspect makes threats in an attempt to keep the victim from reporting the rape.	13%	8
12. breasts - suspect fondles the victim's breasts	25%	15
13. burglary - incident was part of a burglary	8%	5
14. weapon - weapon present	3%	2
15. finger - suspect digitally penetrated the victim	13%	8
16. enc_outside - victim encountered outside	38%	23
17. viocontrol – force beyond just physically controlling the victim.	7%	4
18. marital - suspect married or in a relationship other than with the victim	13%	8
19. doggy - has sex with the victim from behind	13%	8
20. impers_lang – suspect uses language that is impersonal or instructive	7%	4
21. strangulation - puts his hands around the victim's neck	2%	1
22. steal - stealing	2%	1

23. part_acts - victim participation acts	8%	5
24. fellatio - fellatio	13%	8
25. react_deter – offender changes behavior due to the victim’s reactions	7%	4
26. verb_vio – offender threatens to kill or maim the victim	5%	3
27. condom – suspect wore a condom	18%	11
28. biting - suspect bites victim?	2%	1
29. compl_lang – complimentary language	12%	7
30. demn_goods - demands goods	n/a	0
31. cloth_torn - victim’s clothing cut/torn	7%	4
32. blitz - sudden and immediate excessive use of violence that incapacitates the victim	3%	2
33. multiple - more than one suspect	7%	4
34. inquis_lang - language inquisitive	5%	3
35. demean_lang - language demeaning/insulting	5%	3
36. asleep - victim reports being asleep	15%	9
37. cunnilingus - cunnilingus	7%	4
38. disguise - disguise	n/a	0
39. apologetic - apologetic	3%	2
40. anal - anal penetration	8%	5
41. trophy - suspect keeps expressive items	3%	2
42. blindfold - anything used to cover victim's eyes	n/a	0
43. binding - binding, including handcuffs	n/a	0

As noted similarly by Marshall and Alison (2006) and Feist et al. (2007), a lack of details can be observed within the false allegation group. Four variables present in genuine rapes were not reported in any false allegations: demanding goods, disguise worn, blindfold used and binding. Blindfold and binding were reported in only one genuine case, demanding goods in only five genuine cases and disguises in only three genuine cases.

Also in line with Marshall and Alison (2006) and Feist et al. (2007), the total number of reported behaviours was much higher for the genuine group. This dataset

showed 551 behavioural actions controlled by the suspect in 59 genuine cases, compared to 395 invented behaviours in 60 false allegations. This equates to an average of 9.3 actions in genuine cases and only 6.6 actions in false allegations.

Table 4.4 outlines contrasting frequencies between these two subgroups. For example, in the involvement region, it shows that suspects reportedly digitally penetrated the victim in 22% of genuine cases and 13% of the false allegation cases. A stark difference was observed within the hostility region, as almost half the rape victims had an observable injury as opposed to only 8% of false allegers.

Table 4.4 - Thematic Regions and Percentage of Frequency of Suggestive Variables Comparing Genuine and False Cases

Involvement	Hostility	Control	Theft
Confidence approach 61% vs. False 58%	Observable injury 46% vs. False 8%	Encountered outside 31% vs. False 28%	Surprise attack 58% vs. False 38%
Kisses victim 25% vs. False 25%	Additional violence used to control victim 22% vs. False 7%	Weapon 24% vs. False 3%	Burglary 24% vs. False 8%
Touches victim's breasts 24% vs. False 25%	Strangulation 19% vs. False 2%	Doggy style 20% vs. False 13%	Steal items of value 17% vs. False 2%
Fingers victim 22% vs. False 13%	Verbally violent toward victim 12% vs. False 5%	Impersonal language 19% vs. False 7%	Demand goods 8% vs. False 0%
Suspect known to be in another relationship 20% vs. False 13%	Biting 10% vs. False 2%	Fellatio 17% vs. False 13%	Disguise 5% vs. False 0%
Complimentary language 8% vs. False 12%	Demeaning language 7% vs. False 5%		
Cunnilingus 5% vs. False 7%			

Chapter Summary

An interpretable behavioural structure within an SSA output similar to that in Canter et al. (2003a) was found in the present research with the genuine cases. This finding suggests that the unavailability of verbatim statements from victims did not substantially impact the overall observable thematic structure of the genuine rape cases.

The SSA model explored in this chapter mirrors past research (Canter & Heritage, 1990; Canter, 1994; Canter et al., 2003a), lending additional clarity to what variables tend to co-occur in genuine rapes by incorporating the behavioural structure of the offences in a framework of offender narrative themes. In addition, this finding is aligned with other published work on genuine cases of rape, lending support to the process of grouping genuine cases into categories used in this thesis.

Indications throughout the thesis have argued that offender behaviours are empirically distinct from one another. McDowell and Hibler (1993) contended that subjects falsely claiming rapes tend not to understand what being a rape victim would really be like. Therefore, a person falsely reporting a rape would have to pull from past experiences and/or rape myths. This may also assist in explaining the irregular behavioural structure of the false allegations. The next chapter will delve deeper into the discussion surrounding rape myths.

The SSA of the false cases was used to test the hypothesis that the structure of false allegations would not relate to the interpretable thematic structure of the genuine cases' SSA. It is logical that the two SSAs should be different, since false alлегers have to pull from past experiences and perceptions in order to develop a statement that they believe to be plausible. Part of their perceived knowledge may be consistent with rape myths, past sexual assaults that they may have experienced or ones they have heard about. The behavioural structure of a false rape allegation may even be parallel to the content of common rape myths.

Women may have various motivations for falsely reporting a rape. Inferring the reason for a false report in a particular case can be difficult even when proven methods such as cognitive interviewing and statement analysis (e.g. CBCA) are used. In short, the lack of detail and the quantity variations of reported actions found in the present study support previous findings (e.g. Feist et al., 2007; Marshall and Alison, 2006). The overall findings within this chapter consider the pattern of co-occurrences across 43

reported behaviours that are primarily controlled by the suspect. The mean number of reported behaviours was 9.3 in general cases and only 6.6 in false reports, consistent with expectations and in line with previous research. The visual depiction in the SSA of the behaviours reported in false allegations produced an erratic structure indicative of invented stories pulled from past experiences and rape myths. The implications of this finding and the underlying psychological processes related to the development of false allegations were briefly considered in this chapter and will be further explored in the next chapter.

Chapter 5 – Exploring Rape Myths

This chapter will explore several of the 121 variables extrapolated through content analysis from the present sample as they relate to rape myths. The frequency of specific variables and behaviours will be explored as they relate to existing research covered in the first two chapters. A complete breakdown of all descriptive statistics can be found in Appendix II

How does the frequency of particular variables within reported rapes determined to be either genuine or false compare to the content of rape myths? Determining a baseline of the proportions will enable an understanding of what is commonly reported in a rape. A comprehensive comparison of the characteristics of reported rapes and rape myths could then be used to help in dispelling rape myths or other mistaken beliefs.

Table 5.1 compiles information from Burrows (2013) (columns 1 and 2) and present findings from this study (column 3). Burrows (2013) identified narratives based on myths about rape and then presented alternative narratives based on available research. I have chosen Burrows’ work as a starting point because of this contrast between myths and actual research. The third column in the table below presents this study’s findings as they align with Burrows’ research.

Table 5.1 – Linking Present Findings to Burrows' (2013) Rape Myth Research

Column 1 - Burrows	Column 2 – Burrows	Column 3 – This study
Narratives based on myths about rape	Alternative narratives based on available research	Present findings related to those of Burrows
Rape occurs between strangers in dark alleys	The majority of rapes (66%) are committed by persons known to the victim. Victims are often raped in their homes.	68% (<i>n</i> = 241) of the 351 reported rapes were committed by an acquaintance. 76% (<i>n</i> = 59) of the genuine rapes involved acquaintances. The rape occurred outside in 20% (<i>n</i> = 70) of all the reported cases. 12 incidents occurring outside

		<p>were reported in each of the genuine and false subgroupings. 27% ($n = 97$) of all reported cases occurred in the victim's home.</p> <p>47% ($n = 28$) of genuine vs. 28% ($n = 17$) false cases occurred in the victim's home.</p> <p>8% ($n = 29$) of all reported cases involved a burglary.</p> <p>However, 24% ($n = 14$) of the genuine cases involved a burglary to gain access to the victim. In contrast, 8% ($n = 5$) of false allegeders stated that the suspect gained access through a burglary.</p> <p>In each subgrouping of genuine and false cases ($n = 12$) the allegeder stated she was raped in a park or wooded area hidden from public view.</p> <p>In 15% ($n = 9$) of the false cases, the allegeder claimed to have been raped on a street, alleyway or parking lot; this claim was made in no genuine cases.</p>
<p>People provoke rape by the way they dress or act</p>	<p>Dressing attractively and flirting can be an invitation for attention, admiration, or consensual sex. It is not an invitation for rape.</p>	<p>This was not a measurable property within the historical documents.</p>
<p>People who drink alcohol or use drugs are asking to</p>	<p>Being vulnerable does not imply consent.</p>	<p>In 39% of all cases ($n = 136$), the victim reported using impairing</p>

<p>be raped</p>	<p>If a person is unable to give consent because they are drunk, drugged or unconscious, it is rape.</p>	<p>drugs prior to the rape. 12% ($n = 7$) of the genuine subgroup involved an impaired victim, compared to 35% ($n = 21$) of allegeders in the false subgroup. The victim reported being unconscious for part or all of the rape in 17% ($n = 60$) of all cases. 8% ($n = 5$) of the genuine cases involved this aspect compared to 15% ($n = 9$) of the false allegations.</p>
<p>Rape is a crime of passion</p>	<p>Forcing someone to have sex against their will is about power, control, and violence – not sexual desire, romance, or passion. Many rapes are premeditated and planned. Many rapists fail to get an erection or ejaculate.</p>	<p>The victim was asked to participate in the rape in only 7% ($n = 24$) of all cases. This aspect was reported in 17% ($n = 10$) of the genuine cases and 8% ($n = 5$) of the false cases. In 32% ($n = 111$) of all cases, the suspect reportedly ejaculated. 41% ($n = 24$) of genuine rapes reported this aspect compared to 28% ($n = 17$) of false allegations.</p>
<p>If she didn't scream, fight or get injured, it wasn't rape</p>	<p>Victims in rape situations are often legitimately afraid of being killed or seriously injured and so co-operate with the rapist to save their lives. The victim's perception of threat influences their behaviour, often leading</p>	<p>The victim fighting back to the extent of deterring or changing the suspect's behaviour was reported in only 9% ($n = 32$) of all cases. 14% ($n = 8$) of genuine cases reported this variable compared to 7% ($n = 4$) of the false cases. Violence used to control the victim</p>

	<p>them to freeze or go limp.</p> <p>Rapists use many manipulative techniques to intimidate and coerce their victims.</p> <p>Non-consensual intercourse doesn't always leave visible signs on the body or the genitals.</p>	<p>was reported in 10% ($n = 36$) of all cases.</p> <p>This type of control was reported in 22% ($n = 13$) of the genuine cases and 7% ($n = 4$) of the false allegations.</p> <p>21% ($n = 73$) of victims in all reported cases had observable injuries that corresponded with their statement.</p> <p>46% ($n = 27$) of the genuine subgroup had these types of injuries, which do not necessarily mean they attempted to fight back. For example, if the suspect used strangulation to scare the victim into compliance and left a mark, this was counted.</p> <p>In contrast, in 5% ($n = 3$) of the false allegations, the alleged had an injury that supported the statement.</p> <p>Strangulation was reported in 11% ($n = 38$) of all cases.</p> <p>19% ($n = 11$) of the genuine cases reported strangulation.</p> <p>However, this aspect was reported in only one of the false allegations.</p> <p>Some sort of weapon being present during the assault was reported in 12% ($n = 42$) of all cases.</p>
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		However, 24% ($n = 14$) of genuine rapes reported a weapon being present, in contrast to only two of the false cases.
You can tell if she's "really" been raped by how she acts	Reactions to rape are highly varied and individual. Many women experience a form of shock after a rape that leaves them emotionally numb or flat – and apparently calm.	This was not a measurable variable within the context of working with historical documents; however, officers did note in a few of their reports when a victim was acting contrary to how they would have expected a victim to act.
Women claim rape when they regret having sex or want revenge	Data from 2,643 cases suggest that the level of false reporting is somewhere between 8% (a case recorded as a false allegation by the police) and 0.2% (cases where an individual is arrested for a false allegation) (Kelly, Lovett & Regan, 2005).	The first stage of the present study found that the officers' investigation determined the incident to be fabricated in 26% ($n = 96$) of all cases. The second stage of the present study took these 96 cases and, by applying the standard of a preponderance of documented facts, determined that the alleged's original statement was untrue beyond a reasonable doubt in 17% ($n = 60$) of all cases. These findings are in line with McCahill et al. (1979), who found 18.2% false allegations; a Philadelphia police study (1968), 20% false; Chambers and Millar (1983), 22.4% false; and Grace et al. (1992), 24% false.
Male rape is an offence that takes place between	Rape is not about sexual desire; consequently men	Male rape was not explored in the current research since this type of

gay men	who rape other men are often heterosexual. Their victims are often heterosexual too.	assault was not labelled as rape under UCR standards.
Prostitutes cannot be raped	Prostitutes have the same rights with regard to consent as anyone else: the transactions they negotiate with clients are for consensual activities, not rape.	5% ($n = 19$) of the reported victims in this study were currently or stated that they had been prostitutes. One of the genuine rapes and three of the false allegations involved a woman with a high-risk profession such as prostitution.
If the victim didn't complain immediately, it wasn't rape	The vast majority (estimated at 90%) of victims never report the rape to the police. Trauma, feelings of shame, confusion or fear of consequences can all delay reporting to the police.	73% of all reported cases came to the attention of the police within 72 hours of the alleged rape. Although this did not appear to be a determining factor in the current study, it should be noted that officers did ask victims in certain cases why the crime was not reported within 72 hours. This variable was not a differentiating factor in determining the grouping of cases into subgroups for this study.

Discussion of Frequency of Features Related to Rape Myths

First, contrary to the “rape occurs between strangers in dark alleys” myth, people known to the victim committed the majority of rapes. Moreover, there were no cases in the genuine set where a victim was raped in a street, alleyway or parking lot. Second, the statement that “victims are often raped in their homes” was also supported. Half of

genuine rapes occurred in the victim's home within the present dataset. These findings generally support Burrows' (2013) alternative narrative related to this rape myth.

The data appeared to confirm, in part, both the myth that rape is a crime of passion and the alternative narrative that many rapists fail to get an erection or ejaculate. The offender reportedly ejaculated in one-third of all cases and 41% of the genuine rapes.

"If she didn't fight, scream or become injured, it wasn't rape" was shown to be a myth, as victims fought back to the extent of deterring or changing the offender's behaviour in only 9% of all cases. The alternative narrative (Burrows, 2013) that rapists use many manipulative techniques to intimidate and coerce their victims was supported. For example, offenders used excessive violence to control their victim in 10% of all reported cases, strangulation in 11% of all cases, and a weapon in 12% of all cases to subdue their victims.

Women crying "rape" when they regret having sex or want revenge has been discussed in previous chapters; as we have noted, although most researchers have had to rely on police classification systems, it is clear that these instances represent a small minority of cases. In the present dataset, police concluded that 26% of the allegations investigated were false.

McDowell (1985) stated that physical injuries of false accusers are usually limited to superficial cuts, scratches and abrasions. As displayed in Table 5.1, 21% ($n = 73$) of all victims had observable injuries that corresponded with their statement; 46% ($n = 27$) of the genuine cases had such injuries, which do not necessarily mean that the victim attempted to fight back. As discussed in the previous chapter, when offenders' behaviour fits the thematic region of hostility, gratuitous violence is often used on the victim. Another example of being injured without fighting back occurs when the suspect uses strangulation to scare the victim into compliance and leaves a mark. In contrast, only 5% ($n = 3$) of the false accusers had an injury that supported their statement.

McDowell (1985) also stated that false accusers frequently claim that they offered vigorous and continuing physical resistance but suffered no serious reprisals. The present study found victim that fighting back, to the extent of deterring or changing the suspect's behaviour, was reported in only 9% ($n = 32$) of all cases. This variable

appeared in eight genuine cases and only four false cases examined in the present study.

McDowell (1985) stated that false accusers typically make the allegations to a third party (e.g. a friend or relative) who in turn informs the authorities. The present study found about half of all the cases (52%; $n = 183$) that came to the police's attention were reported by a third party; a higher proportion, 65% ($n = 39$), of false cases were initially reported by a third party, supporting McDowell's statement that the false alleged usually does not report directly to the police. However, even among genuine cases, a third party initially reported the rape to the police 46% ($n = 27$) of the time. An obligated third party such as a hospital reported 23% ($n = 82$) of all cases. Of these, nine met this study's criteria for genuine cases whereas almost twice as many ($n = 16$) were later determined to be false.

The present study does not support the claim of multiple assailants being a differentiating variable and indicative of a false allegation as proposed by McDowell. Of the 32 cases in this dataset involving multiple assailants, five were classified as unquestionably genuine and four were later deemed false. The present study was unable to address McDowell's claim that false victims, more often than actual ones, claim to have been attacked by multiple assailants who fit an unsavoury stereotype, due to the subjective nature of such a label. Nor could the present study address McDowell's claim that when a false victim provides details, she tends to do so with a relish that genuine victims lack, due to the subjective nature of this variable.

McDowell's statement that false accusers frequently claim to have been victims of simple penile insertions, or blitz rapes, without collateral sexual activity were also not supported. A higher percentage of vaginal penetration was reported in the false cases (93%) than in the genuine cases (80%), but blitz attacks were more prevalent in genuine rapes ($n = 5$) than in false allegations ($n = 2$). Even a surprise attack was found more often in genuine reports ($n = 34$) than in false allegations ($n = 23$); a chi-square test found that this was a statistically significant difference. However, as far as collateral sexual activity is concerned, we have noted that the genuine rapes contained an average of more than 9 reported behaviours, compared with only 6.5 actions per false allegation.

Another theory put forth by McDowell but not supported by the present data was that false accusers, far more frequently than actual victims, cannot say exactly where the rape occurred. There were no cases within the current dataset in which a victim or alleged could not give at least a general indication of where she was assaulted. However, the variable of whether the victim could describe an exact crime location was not coded in the content analysis process, because of concerns that this factor could not be definitively ascertained from the lack of verbatim statements and the open-ended text recorded in the case files.

McDowell's statement that the purported crime scene and physical evidence are found to be inconsistent with false allegations far more frequently than with actual cases was supported in the present study. DNA was collected from the victim or from the crime scene in 47 (13%) of all cases, including 51% of genuine cases and only two (3%) of false allegations. In fact, the suspect was forensically linked to the crime scene in 7 of the 351 cases and all 7 were considered genuine. As already noted, injuries corresponding with the victim's statement were also present far more often in genuine than in false cases.

McDowell stated false accusers, more often than actual victims, have personal problems, including difficulty in interpersonal relationships and a history of lying and exaggeration. Among the total set of 351 reported victims, 61% were cooperative throughout the investigation, including 97% ($n = 57$) of the genuine victims but only 72% ($n = 43$) of the false alleged. The alleged gave inconsistent accounts of the incident in 35% of all cases, 75% of false allegations, and only 8% of genuine rapes. With regard to interpersonal relationships, 30% of false alleged were in a relationship with someone other than the suspect; this figure was not significantly different from the 25% of genuine victims who were in a similar situation.

Jordan's Distinguishing Factors of What Officers Expect in False Reports

Officers develop a belief system of how a false rape report may look, based on their education and experience (Jordan, 2004). Examining police perceptions of complainants and their beliefs of the genuineness of an allegation, Jordan (2004) identified a number of key discriminators used by police to determine if a case is more

likely false. I will now review the present study's findings with regard to these factors. See Table 5.1 for statistical details.

- **Victim was intoxicated or on drugs at the time of the offence:** A higher proportion of false allegers were found to be using an impairing substance.
- **Complainant delayed reporting the incident:** This variable appears more prevalent in false allegations.
- **Complainant had previously had consensual sex with the accused:** The present study found that the victim had previously had consensual sex with the accused in more genuine ($n = 18$) than false ($n = 8$) cases. The chi-square test found this to be a significant difference. This notion challenges common police perceptions. It represents an important finding that should be disseminated so that police can minimise the effects of cognitive bias in a rape investigation.
- **Complainant had previously reported a rape or abuse:** 17% of the false allegers had reported being raped or sexually assaulted prior to the rape. In contrast, no genuine cases had this variable present, and only 7% of unclassified cases contained this variable.
- **History of psychiatric problems:** In 53 of the 351 cases (15%), the victim was described as having some psychiatric illness; 26% of false allegers were noted as having a mental illness prior to the report, compared to 8% of genuine victims.
- **Victim perceived to be immoral:** not measurable within present data.
- **Intellectually impaired complainants:** not measurable within present data.
- **Victim had previously made a false rape complaint:** Although the presence of this aspect was mentioned in several false allegation cases checking the multiple police databases for the presence of this variable determined that this is not a standardised element recorded in all cases.
- Any indication or evidence of concealment in a case would increase the investigator's questions about the validity of the entire case being reported: This variable was not directly investigated.

Factors Highlighted by Feldman-Summers and Palmer

Authorities' perceptions of complainants and their beliefs about the genuineness of an allegation were also measured by Feldman-Summers and Palmer (1980). Social service and criminal justice personnel identified the following characteristics of what they perceived to be credible rape complaints. Each one is compared to the present study's findings below.

- **Victim has physical injuries:** Physical injuries that correspond with the victim's statement were found in a much higher proportion of genuine than false cases.
- **Rape reported within 48 hours:** A 72-hour definition was applied in the present study. The genuine case subgroup had a higher proportion of reports within 72 hours.
- **Consistent in the account of the rape:** This appears to be one of the more significant differentiating variables within the present study and will be discussed in detail in upcoming chapters. Seventy-five percent of false cases provided inconsistent accounts of the reported rape compared to only 8% of the genuine cases. Overall, inconsistent accounts were found in 35% of cases.
- **Willingness to take a lie detector test:** This was not a recordable variable as this investigative tool is very rarely used in the jurisdiction where the data were collected. As noted previously, lie detector tests are not admissible in US court proceedings and are seen as an intimidation tactic that would likely cause additional emotional distress to a survivor of rape.
- **Does not engage in premarital or extramarital relations:** This variable was not recorded since this element was not documented as a factor within the present sample.
- **Seen by others as having been raped:** Again, this variable was not recorded since this element was not documented as a factor within the present sample.

Chapter Summary

Officers characterised 26% of all reported rapes in the present dataset as false allegations. To minimise the possible effects of cognitive bias and rape myths and obtain a solid sample of false allegations, this study applied a stricter grouping process, as described in Chapter 3. As a result of this process, 17% of the reported rapes were

grouped as false and 17% were treated as genuine. The remaining cases were placed in an unclassified group.

Exploring the recorded frequencies of the variables in all cases provides a baseline indicating what events are commonly reported or relatively rare. This is a necessary building block in developing a framework to differentiate systematically between genuine and false rape allegations.

This chapter examined the frequency of occurrence of certain variables related to rape myths. Several notably higher proportions of reported variables were observed within genuine cases. For example, burglary to gain access to the victim was present in 24% of genuine cases, compared to 8% of false incidents and 4% of unclassified reports. Weapons were present in 24% of genuine cases but only 3% of false allegations.

The frequencies reported in this chapter contribute to our understanding of rape and help to dispel some rape myths. The following chapters will build on these findings and will outline a framework to be used in identifying the variables that are the most significant predictors of whether an allegation is more likely to be genuine or false.

Chapter 6 – Variables That Differ Significantly between False and Genuine Rape Reports

The research literature contains various efforts to identify variables indicative of genuine or false rape reports. What variables have been found to statistically distinguish most effectively between the two groups? Hunt and Bull (2011) used a chi-square and backwards stepwise logistic regression model to identify differentiating aspects between genuine and false stranger rape allegations. They found significant differences with regard to 44 of the 62 variables. Hunt and Bull used only variables found to be significant at $p < .001$ and those with odds ratios of greater than 3 or less than .33 to limit the variables that they fed into the backwards stepwise logistic regression model. The final model contained five predictor variables: theft, verbal resistance, verbal theme – safe departure, fewer than ten offender utterances, and victim reported to police.

One strength of Hunt and Bull's (2011) approach was the use of a predictive statistical analysis model in which the use of chi-squares assisted in differentiating the statistically significant variables. However, the use of a cut-off point with regard to significance level and odds ratio restricted the number of possible predictive variables. Nevertheless, Hunt and Bull's approach, which included using only stranger rapes, inspired a similar effort in this study to determine what variables would display the most significant differences between genuine and false allegations. Therefore, I sought to conduct a similar analysis, but while overcoming the use of a cut-off point based on significance level and odds ratio. I was concerned that the use of cut-off points could especially restrict the results when using a convoluted, robust set of data that contained both acquaintance and stranger rapes.

To test the hypothesis that similar variables would differentiate genuine and false allegations in a broader dataset than that of Hunt and Bull (2011), I used chi-square tests to identify the variables with the largest differences. Then these variables were run through binary logistic regression models independently to identify the statistically most predictive variables.

Up to this point, our discussion of rape myths, offender psychology and behavioural narrative themes has contributed towards identifying how genuine and false allegations might differ. It is hypothesised that, once the strongest differentiating

variables between the genuine and false subgroups are identified, then the unclassified cases can be more effectively explored. The possibility that the cases within the unclassified subgrouping could be described in terms of their own range of plausibility is explored in Chapter 10. In the present chapter a distinctive approach, building on Hunt and Bull's (2011) ground-breaking work, is applied to aid in determining which variables are statistically most indicative of false or genuine rape reports, respectively.

For ease of expression, in this chapter the term "rape" will refer to both completed and attempted reported genuine rapes and false allegations (the independent variable). Also, the term "the grouping of the case" will refer to the dependent variable of whether the case was determined to be genuine or false.

Summaries of cases will be reviewed to demonstrate the role that a given variable played in the reported rape and to provide a more complete discussion of the characteristics reported to the police. In most rape reports there will be multiple, interacting variables such as burglary, alcohol, drugs, stranger, outside, etc. Case examples utilised within each category are meant to illustrate the significance of that particular variable relative to all variables present.

Method

Step 1 – The first step in the analysis of the genuine and false subgroups was to test for significant chi-square results on each variable. The results of the chi-square analysis for each variable are listed with the descriptive statistics in Appendix II

Step 2 – Each variable found to show statistical differentiation between the genuine and false subgroups in the chi-square test was run independently using a binary logistic regression model, so as to identify the variables with the most significant differentiating effects.

Step 3 – The third step was to identify variables more likely and less likely to be associated with a false allegation.

Results of Step 1

Table 6.1 depicts each step of the methodology described in this chapter. The column titled "Step 1 – chi-square" indicates the 39 variables that were statistically significant based on the results of the chi-square analysis. These were then independently run in

a binary logistic regression, which resulted in the 23 variables shown in the “Step 2 – Logistic Regression” column. The final column indicates whether each factor is more or less likely to be associated with a false allegation.

Table 6.1 - Depiction of Methods Used and Results of Distinguishing Variables

	Step 1 – Chi-square	Step 2 – Logistic Regression	Step 3 – More or Less Likely a False Allegation
1	Victim used drugs	Victim used drugs	More
2	Victim consumed alcohol	Victim consumed alcohol	More
3	Burglary	Burglary	Less
4	Surprise attack	Surprise attack	Less
5	Weapon present	Weapon present	Less
6	Victim raped in a Vehicle	Victim raped in a Vehicle	More
7	Victim strangled	Victim strangled	Less
8	Violence control	Violence control	Less
9	Labelled attempted rape	Labelled attempted rape	More
10	Witness listed in report	Witness listed in report	Less
11	Victim rape kit collected	Victim rape kit collected	Less
12	DNA collected from scene	DNA collected from scene	Less
13	Suspect DNA rape kit	Suspect DNA rape kit	Less
14	Victim sustains injuries	Victim sustains injuries	Less
15	Suspect had criminal record	Suspect had criminal record	Less
16	Stealing	Stealing	Less
17	Victim retains evidence	Victim retains evidence	Less
18	Reported by victim	Reported by victim	Less
19	Reported third party	Reported third party	More
20	Previously had consensual sex with suspect	Previously had consensual sex with suspect	Less
21	Mental health problems	Mental health problems	More
22	Victim cooperative	Victim cooperative	Less

23	Different statements	Different statements	More
24	Where suspect first encountered victim		
25	Type of weapon used		
26	Where the crime occurred		
27	Language impersonal		
28	Suspect bites victim		
29	Police indicate report is false		
30	Suspect forensically linked to the crime scene		
31	Suspect shows signs of forensic awareness		
32	Demands goods		
33	Victim charged with filing a false police report		
34	Disposition of the case		
35	CBA/Except or Inactive/Pending or Unfounded		
36	DA refuses to take case		
37	Offender confesses to rape		
38	Victim reported rape and/or sexual assault in past		
39	Victim says reported incident is false		

Comparing Present Results to Hunt and Bull (2011)

The use of the binary logistic regression model identified 23 variables that were independently statistically significant in differentiating genuine and false rapes. Of these 23 characteristics, seven were found to be more predictive and 16 were less predictive of false allegations. Table 6.2 compares the findings for some of these variables with those of Hunt and Bull (2011).

Table 6.2 - Comparison of Frequencies and Chi-squares from Hunt and Bull (2011) with the Present Findings

Variable	False% Hunt & Bull (<i>n</i> =80)	False % Present Study (<i>n</i> =60)	Gen % Hunt & Bull (<i>n</i> =160)	Gen % Present Study (<i>n</i> =59)	Calc. Value Hunt & Bull	Level of Sig. Hunt & Bull	Calc. Value Present Study	Level of Sig. Present Study
Victim used drugs	50	35	63.8	11.9	4.17	.041*	8.85	.003**
Theft/ stealing	8.8	1.7	36.9	16.9	21.16	<.001***	8.28	.004**
Surprise approach	60	38.3	40.6	57.6	8.04	.005**	.035	.035*
Victim injured	23.8	5	45	45.8	10.23	.001**	4.46	<.001***
Violence displayed / Violence (1) control	32.5	6.7	46.3	22	4.15	.042*	5.74	.017*
Weapon involved	16.3	3.3	43.1	23.7	17.13	<.001***	10.63	.001**
Victim reported	70	35	25.6	59.3	43.61	<.001***	7.06	.008*
Third party reported	23.8	65	68	45.8	17.26	<.001***	4.46	.035*

Victim Used Drugs

In the present study, drugs were in the victim's system in 39% ($n = 137$) of all reported rapes. Cognitive functions such as memory and judgment are influenced by drugs such as alcohol (e.g. Bernat et al., 1998). Officers documented the victim's use of alcohol just prior to the sexual assault in one-third of all reported cases. This high frequency of alcohol use was not surprising, in view of the common link between date rape and alcohol use. Alcohol not only makes a victim more vulnerable but has also been found to disrupt memory of the event (Sapolsky, 2005).

Both the present study and Hunt and Bull (2011) found this to be a significantly differing variable between genuine and false rapes. Interestingly this finding is in opposing directions of significance. One potential reason for the differences in the two findings could be the fact that Hunt and Bull (2011) utilised solely stranger rapes and had twice as many false allegations compared to genuine cases. Conversely, in the present study, stranger rapes accounted for only 24% of the genuine cases and 33% of false allegations with an almost even proportion of cases to compare against each subgrouping. As indicated in the literature review, a survivor of a rape involving a stranger is more likely to report the offence. In contrast, survivors of acquaintance rapes are less likely to report the crime due to things like an increased level of self-blaming (generally speaking) which tends to be even more prevalent in cases of drug use than they would if a stranger had assaulted them. For example, the alleged Bill Cosby incidents involved over 2 dozen acquaintances and drugs but few survivors came forward until recently (decades after the events and as others stepped forward).

Theft/Stealing

The suspect was reported to have stolen from the victim in 8.5% ($n = 30$) of the present cases: 16% of the genuine cases ($n = 10$), 8% of the unclassified cases ($n = 19$), and just one false case. Hunt and Bull (2011) found theft to be in 37% of the genuine cases and only 9% of the false cases. Refer to Table 6.2 to compare the overall supportive findings.

Surprise Approach

A surprise attack, described as an immediate attack on the victim (whether preceded by a confidence approach or not), was found in 42% ($n = 146$) of all cases. In this variable, violence is used to physically control the victim but is not excessive as in a blitz style of attack. Both the present research and Hunt and Bull (2011) found this variable to be a significant differentiator between genuine and false rapes.

In contrast to Hunt and Bull (2011) the present finding is in an opposing direction of significance. Again, one of the more likely reasons for the differences in the two contrasting findings is Hunt and Bull's (2011) use of strictly stranger cases versus the present researches inclusion of acquaintance rapes accounting for 76% of the genuine incidents and 67% of the false allegations. Although this could be a case in which reporting practices between the UK police and US police differ; it is logical to deduce the use of a surprise attack to gain access and control to a typically trusting counterpart (up until the beginning of the assault) would be less prevalent in acquaintance cases as the present study seems to indicate. However, as with the opposing findings with the victim used drugs variable more research is needed to unpack these issues further.

Victim Injured

The victim was reported to have a visible injury corresponding with her statement in 21% ($n = 75$) of all cases in the present data. With regard to this variable, prior research has had mixed findings. Conventional wisdom is that overt observable evidence would lend credence to a victim's statement. Injuries corresponding with the victim's statement were present in 46% ($n = 27$) of the genuine cases. Hunt and Bull (2011) had very similar results with 45% of their dataset sharing this finding even though they appeared to look only for claims of injury rather than checking to see whether the observed injury matched the statement provided. Apparently due to a difference in definitional nuances, Hunt and Bull found injuries related to the victim's statement in 24% of false allegations, as opposed to just 5% in the present data. Interestingly, despite this difference, the variable was still found to differentiate statistically between genuine and false cases in both datasets.

Violence Displayed

In the present dataset, 10% ($n = 36$) of all cases reported violence deployed as a mechanism to enhance control over the victim. This included 22% ($n = 13$) of genuine cases, 8% ($n = 19$) of unclassified cases, and 7% ($n = 4$) of false cases. As in the present study, Hunt and Bull (2011) found a significant difference with regard to the violence displayed between the genuine and false allegation groups.

Weapon Involved

As explored in the literature review, many authorities tend to expect that some sort of force will be present in genuine reports of rape. Therefore, in cases in which no explicit use of physical force is alleged and the victim has no visible injuries, the question arises of whether the victim was indeed forced or coerced into having intercourse. A weapon was documented in 12% ($n = 42$) of all cases in the present study, 24% ($n = 14$) of genuine cases, and just 3% ($n = 2$) of false cases. Both Hunt and Bull (2011) and the present study found this to be a differentiating variable. Hunt and Bull found a weapon reported in 16% of false allegations and 43% of genuine cases. It was hypothesised that cultural factors would have an impact on these figures, and that the dataset from the UK would show a lower proportion of guns used as a weapon than one from the US due to the greater accessibility of guns in the US. Unexpectedly, use of a weapon was more frequently reported in Hunt and Bull's genuine cases. Hunt and Bull did not provide a breakdown of the weapons used; however, the present dataset shows an interesting diversity of weapons used. The genuine cases included four reports of a handgun, five of a knife or cutting instrument, two blunt objects, and three other types of weapons; the false allegations included one report of a handgun and one of a knife. This finding also supports the theory that genuine rapes will contain both more specific behaviours reported and greater detail.

Victim Report

Both the present study and Hunt and Bull (2011) found a statistical difference between genuine and false allegations through chi-square tests on the variable of who reported the rape; however, the differences were in opposite directions. In the present dataset,

the victim reported the rape in 34% ($n = 118$) of all cases, 59% ($n = 35$) of the genuine cases and only 35% ($n = 21$) of the false cases. Hunt and Bull, conversely, found a higher percentage of victim reports in the false cases. It is unclear whether this discrepancy may be due to a cultural difference or police reporting practices.

Reported by a Third Party

As this variable is closely related to the variable of whether the victim made the initial report, it is not surprising that both Hunt and Bull (2011) and the present study found this to be a differentiating variable through chi-square methods. Third parties reported the crime more often in Hunt and Bull’s genuine cases, but less often in East Reekin’s genuine cases.

Based on existing research on reasons why a woman may report a false allegation, as explored in the literature review, it has been theorised that someone other than the victim may report the alleged rape most frequently in alibi-related cases. Along these lines, a subgroup of “reported by a third party” in the present study is the “reported by a hospital or another agency” variable. This variable was included to explore relationships of statement plausibility to notifications coming from an entity legally required to report a rape allegation that comes to its attention. Interestingly, one-fourth of all reports in the present dataset came to the police’s attention due to the legal responsibility of a third party. One possible explanation for this pattern may be that females desiring governmental assistance may report either a genuine or a fictitious rape to gain access to financial resources.

Results of Step 2

Allegations of Attempted Rape

Table 6.3 shows the result of the regression analysis of cases in the present dataset in which the alleged rape was attempted but not completed.

Table 6.3 – Regression on Cases Labelled Attempted Rape

Logistic Regression Result	B (SE)	Exp (B)
Labelled attempted rape	1.274* (0.610)	3.574
Constant	-1.099 (0.577)	3.33

Note: $R^2 = .041$ (Cox & Snell); $.054$ (Nagelkerke). Model $\chi^2(1) = 4.97$, $p < 0.05$; $*p < .05$;

In this analysis, the regression model is significant ($p < 0.05$). Cases where the victim reported an attempted rape were more likely to be classified as false allegations.

Why would a female more likely report a false allegation as an attempted and not as a completed rape? One logical explanation is that the alleged would not have to explain the lack of physical evidence such as vaginal trauma, male DNA, foreign pubic hairs, or injuries. Eliminating these aspects would seem to reduce the chances that the allegation could be proved false; it also minimises the number of aspects within the allegation needing to be cognitively developed. This theory is supported by Roach (2010), who showed that people are cognitive misers even when attempting to deceive the police, and by Marshall and Alison's (2006) finding that false allegeders tend to report fewer details of a rape or attempted rape.

Case 21 illustrates the typical dynamics of an allegation of attempted rape. In this case, the boyfriend discovered the victim and suspect during intercourse, leading to the woman's need for an alibi. The boyfriend reported the rape against the alleged's desire not to involve the authorities; the event occurred outside, in a secluded park area; the suspect was (supposedly) a stranger; the alleged provided multiple, inconsistent statements; no DNA was collected and the victim refused to provide a rape kit; the suspect was cooperative and the victim was not cooperative; the alleged stated that the suspect did not penetrate her, whereas the suspect stated that he did penetrate her after paying for sex; the alleged provided minimal details and behaviours; and the victim alleged that she had consensual intercourse with her boyfriend after the alleged rape, whereas the boyfriend insisted that they had not had sex for a few days.

At the same time, this case contained two variables that, according to the logistic regression shown in Table 6.1, are more associated with genuine cases: the suspect had a criminal record and there was a surprise attack. These factors remind us of the complexities of determining whether a case is genuine or false, and of the need for a multi-dimensional model rather than relying on any single variable.

In contrast, statistically significant variables present in case 21 and associated with false allegations include the following: the case was labelled as an attempted rape, a third party reported the incident to the police, and the alleged provided conflicting statements.

Victim Reporting

Table 6.4 shows the result of the regression analysis of cases in the present dataset in which the victim made the report personally.

Table 6.4 – Regression on Cases Where the Report Was Made by the Victim

Logistic Regression Result	B (SE)	Exp (B)
Reported by the victim	-996** (.379)	.369
Constant	.486 (0.259)	1.625

Note: R2 = .058 (Cox & Snell); .078 (Nagelkerke). Model χ^2 (1) = 7.135, $p < 0.01$; ** $p < .01$

In this analysis, the regression model is significant ($p < 0.05$). The existence of a relationship between the victim reporting the rape (independent variable) and the grouping of the case (dependent variable) was supported. Cases where the victim was the person to report the rape to the police were less likely to be false. Hunt and Bull (2011) also found this as a distinguishing variable between genuine and false allegations but in an opposite direction.

Case 7 is an example of a genuine case reported by the victim. Variables suggesting a genuine case included the following: the victim reported this case to the police, she was not the first victim to report an alleged rape to the police involving this suspect, she was cooperative throughout the investigation, the suspect had used alcohol and drugs, the victim had an injury which corresponded with her statement, the suspect was known (the victim’s friend’s cousin), the assault occurred in a friend’s home, the suspect used a surprise attack approach and strangled and threatened the victim, and the suspect had a criminal history that included allegedly raping the victim’s older sister. In short, an extensive collection of factors indicated a genuine rape in this instance.

At the same time, the victim, a juvenile, gave several different accounts of the rape—a feature more common in false accounts. This variable was likely present due to the victim’s age, her personal relationship with the suspect and fear of retribution. Again, we see why using a multi-dimensional definition to distinguish cases into subgroups is necessary.

Cases Reported by a Third Party

Table 6.5 shows the result of the regression analysis of cases in the present dataset in which the alleged rape was reported by a third party.

Table 6.5 – Regression on Cases Reported by a Third Party

Logistic Regression Result	B (SE)	Exp (B)
Reported by a third party	.789* (.376)	2.201
Constant	-.421 (0.281)	.656

Note: R2 = .037 (Cox & Snell); .049 (Nagelkerke). Model χ^2 (1) = 4.485, $p < 0.05$; * $p < .05$

In this analysis, the regression model is significant ($p < 0.05$). Cases in which a third party reports the rape are more likely to be false allegations.

Case 140 is an example of a false allegation reported by a third party, who took the victim to the hospital and then contacted the authorities. The victim met a stranger (the suspect) and other friends outside her apartment and invited all of them in, and they all consumed alcohol. The victim stated that she “screamed” for her friends in the next room; however, the two witnesses in the house at the time of the alleged assault could not corroborate this allegation. They stated that the victim’s behaviour with the suspect was consensual, and that in fact at one point the alleged followed the suspect out to the living room and then went back to the bedroom following the suspect, saying she was “going in for round two”. During “round two” one of the alleged’s friends heard the victim moaning, so she peeked into the bedroom and observed the victim having what appeared to be consensual sexual intercourse and changing positions with the suspect.

Other variables present in this case can be indicative of genuine reports according to previous findings: blood was present where the alleged assault occurred; the victim had “minor injuries to her left forearm, upper right back and right knee”; witnesses were listed as present; the alleged was cooperative; she had no known mental health problems and did not give conflicting statements; and a rape kit was done. However, the blood found where the alleged assault occurred was later determined to be the result of the victim’s menstrual cycle as there was no vaginal trauma.

Victim Used Drugs

Table 6.6 shows the result of the regression analysis of cases in the present dataset in which the alleged victim had used drugs.

Table 6.6 – Regression on Cases in Which the Victim Used Drugs

Logistic Regression Result	B (SE)	Exp (B)
Victim used some sort of drugs	1.386** (.485)	4.000
Constant	-.288 (0.212)	.750

Note: R2 = .074 (Cox & Snell); .099 (Nagelkerke). Model χ^2 (1) = 9.181, $p < 0.01$; ** $p < .01$

In this analysis, the regression model is significant ($p < 0.05$). Cases in which a victim used drugs prior to the rape were more likely to be classified as false. Hunt and Bull (2011) also identified this variable as a differentiating characteristic but in the opposite direction.

Case 44 is an example of a false allegation in which the victim used drugs. Video footage from both the bar and hotel contradicted some of the alleged's statements. Moreover, a female friend of the alleged stated that she was in the same hotel room and watched the alleged have consensual sex with a black male. She stated that the alleged and the man "worked out a deal in which [the alleged] would have sex with Mike in exchange for cocaine". The friend went on to say that Mike and the alleged were starting to have sex when the alleged "said something to Mike about his sexual performance, got mad at him and stopped having sex with him". At that point, the alleged "asked [Mike] for cocaine and he told her he didn't have any more and they began to argue with each other". The alleged is then described as leaving the hotel room angry about not getting her way, wearing a shirt with no panties.

The victim was described as being under the influence of drugs (a toxicology report came back positive for amphetamines, cocaine and marijuana) and alcohol at the time of reporting the incident. After giving eight different, conflicting statements to the police, she become uncooperative with the officers and later in the investigation she could not be located for further follow-up interviews.

Two variables more likely to be associated with genuine than with false cases were present in this case: a rape kit was administered and a witness was listed in the

report. However, in this instance the witness contributed to the ultimate determination that the allegation was false.

Victim’s Consumption of Alcohol

Table 6.7 shows the result of the regression analysis of cases in the present dataset in which the alleged victim had consumed alcohol.

Table 6.7 – Regression on Cases in Which the Victim Consumed Alcohol

Logistic Regression Result	B (SE)	Exp (B)
Victim consumed alcohol	.1.022* (.454)	2.778
Constant	-.223 (0.212)	.800

Note: R2 = .044 (Cox & Snell); .059 (Nagelkerke). Model χ^2 (1) = 5.384, $p < 0.05$; * $p < .05$

In this analysis, the regression model is significant ($p < 0.05$). Cases reported that the victim consumed alcohol prior to the alleged assault were more likely to be classified as false. In 20 of the 60 false cases, the alleged had consumed alcohol.

Although this variable is statistically more likely to be associated with false allegations, this fact does not necessarily mean that the alleged is intentionally presenting a false accusation. Alcohol consumption elicits “victim blaming”, both by the victim themselves and by others. Not only are women more vulnerable to sexual assaults when under the influence of alcohol, but their memories are impacted by the impairing substance. “Alcohol in sufficient amounts dramatically disrupts LTP [long-term potentiation]” (Sapolsky, 2005, p. 18); that is, large doses of alcohol interfere with the brain’s ability to properly recall events that occur while one is intoxicated. This could account for some conflicting statements from both victims and suspects in cases involving alcohol. It is important for investigators to be aware of this fact, since the presence of conflicting statements is generally viewed as a sign of deception.

Case 107 is an example of a false case in which the victim had consumed alcohol. Various features of the case are indicative of a false allegation. Witnesses stated that the alleged drank heavily while sitting on a black male’s lap (the suspect was not the alleged’s boyfriend) and flirting heavily with him throughout the night. They were observed leaving for her apartment with a bottle of brandy (later found in the alleged’s living room), although the alleged initially stated she returned alone to her apartment and

did not bring any alcohol with her. The victim’s statement changed several times throughout the investigative process and even became very detailed, with the exception of a 15-minute window when the sexual encounter occurred. In addition, the witness’s accounts of the evening’s events were significantly different from those of the victim. The alleged suspect was located and provided a detailed account of the evening consistent with that of the witnesses, including a description of consensual sex with the alleged.

This case came to the attention of the police via the alleged’s boyfriend, who stated that, upon pulling into the parking lot, he saw two black or Hispanic males leaving the apartment that he shared with the alleged. When he went into their bedroom, he found his girlfriend lying in bed wearing only a shirt and he saw a used condom on the floor next to their bed. When he confronted her with the evidence, she said she had come home alone after watching a basketball game, couldn’t remember if she locked the door, and had been sleeping until the boyfriend arrived. As for the condom, she said she must have been raped by an unknown man while asleep. The boyfriend called the police and reported this story. One of the investigators suggested that this false allegation was motivated by the need to provide an alibi and avoid an unwanted confrontation with the boyfriend.

Burglary Used to Gain Access to the Victim

Table 6.8 shows the result of the regression analysis of cases in the present dataset in which the alleged suspect committed burglary to access the victim.

Table 6.8 – Regression on Cases in Which Burglary Was Involved

Logistic Regression Result	B (SE)	Exp (B)
Burglary used to gain access to the victim	-.1.230* (.558)	.292
Constant	.201 (0.201)	1.222

Note: R2 = .045 (Cox & Snell); .059 (Nagelkerke). Model χ^2 (1) = 5.432, $p < 0.05$; * $p < .05$

In this analysis, the regression model is significant ($p < 0.05$). Cases in which a victim was allegedly attacked as part of a burglary were less likely to be classified as false. Contrary to the common rape myth that most victims are raped outside by a

stranger (Burrows, 2013), burglary as part of a narrative would be more likely indicative of a genuine rape statement.

Case 82, which involved a burglary, had several features that suggested genuineness. Two suspects rang the victim’s doorbell and then forced their way into the victim’s home. The suspects stole the victim’s cell phone, a bottle of alcohol, a toy BB gun and a video camera. A witness assisted in identifying suspects, one of whom agreed to a plea bargain and incriminated the other suspect with a statement that corresponded with the victim’s account of the events.

No variables likely to be associated with false allegations, according to the logistic regression table, were present in this case. However, it is worth noting that neither suspect had a prior criminal record.

Surprise Attacks

Table 6.9 shows the result of the regression analysis of cases in the present dataset in which the alleged was the victim of a surprise attack.

Table 6.9 – Regression on Cases of Surprise Attack

Logistic Regression Result	B (SE)	Exp (B)
Surprise attack	-.783* (.374)	.457
Constant	.392 (0.259)	1.480

Note: R2 = .037 (Cox & Snell); .049 (Nagelkerke). Model χ^2 (1) = 4.465, $p < 0.05$; * $p < .05$

In this analysis, the regression model is significant ($p < 0.05$). Cases in which a victim was attacked by the suspect using a surprise approach were less likely to be classified as false but the opposite was found by Hunt and Bull (2011).

Case 37 is an example of a genuine allegation involving a surprise attack. The victim awoke to find a suspect in her house. He had climbed through an open window to gain access to the victim. Physical evidence left at the scene supported the victim’s statement. The victim gave a very detailed account of the events and identified a suspect based on how he sounded and smelled, along with the texture of his short-sleeve shirt when he was located nearby. The suspect had condoms on his person that were the same type left at the crime scene.

Also in line with CBCA and other research discussed in this thesis, the victim provided details more indicative of a genuine rape statement: “I keep the windows open because my cats like to sit in the windows”; “He tried to stick his tongue in my mouth, but I kept my mouth shut”; “I felt his shirt. It was very soft. It wasn’t quite as soft as silk”; “I was touching either his shoulder or his upper chest. While he was on top of me, he pushed my shorts to the side. I could feel his penis on my thigh. It was very soft. Luckily he wasn’t able to get it up. I think that’s why he gave up”; “The guy smelled very strongly of alcohol. He had on bad-smelling cologne. He was kind of polite and discreet. He didn’t use any profanity or threatening words.”

Numerous variables in this case indicate that it was unlikely to be a false allegation: the burglary and surprise attack, the victim personally reporting the crime, the listing of a witness in the report, the suspect’s prior criminal record and the victim’s cooperativeness throughout the investigation.

Despite the considerable evidence and the victim’s positive identification, the suspect was not convicted of either second-degree rape or burglary in court. Nevertheless, there is little doubt that an attempted rape (most likely by this suspect) occurred.

Weapon Present

Table 6.10 shows the result of the regression analysis of cases in the present dataset in which a weapon was present.

Table 6.10 – Regression of Cases in Which a Weapon Was Present

Logistic Regression Result	B (SE)	Exp (B)
Weapon present	-2.200** (.782)	.111
Constant	.254 (0.199)	1.289

Note: R2 = .094 (Cox & Snell); .125 (Nagelkerke). Model χ^2 (1) = 11.761, $p < 0.01$; ** $p < .01$

In this analysis, the regression model is significant ($p < 0.05$). Cases in which a victim reported the presence of a weapon were less likely to be classified as false.

Case 51 is an example of a genuine case with a weapon present. The victim had a domestic protective order against the suspect, but the suspect broke into the victim's house wielding a bat. He threatened to kill her and her children, and he then sexually

assaulted and strangled her. This case was cleared by arrest; as a court found him guilty of assault on a female (a lesser charge than rape) a year later. It is unclear why the suspect was not convicted of rape, but he received a sentence of 150 months in prison.

Victim Raped in a Vehicle

Table 6.11 shows the result of the regression analysis of cases in the present dataset in which the alleged victim was raped in a vehicle.

Table 6.11 – Regression of Cases in Which the Victim Was Raped in a Vehicle

Logistic Regression Result	B (SE)	Exp (B)
Victim raped in a vehicle	1.615* (.805)	5.029
Constant	-.111 (0.193)	.895

Note: R2 = .042 (Cox & Snell); .056 (Nagelkerke). Model $\chi^2(1) = 5.143, p < 0.05$; * $p < .05$

In this analysis, the regression model is significant ($p < 0.05$). Cases in which a victim reported being raped in a vehicle were more likely to be classified as false.

Case 97 is an example of a false allegation of this type. The victim (age 16) had met the suspect a few months prior to the alleged assault and they had talked several times. The suspect, age 27, phoned the victim and she snuck out of her house to meet him. She got into the back seat of the car with him and they began kissing. At one point, according to her account, she told him to stop but he slapped her and then had intercourse with her. The suspect left flowers for her the next day with a card saying he was sorry and he wasn't like that. The victim waited about two weeks before confiding in the school counsellor that she had been raped. The school counsellor called the police. Her statement had several inconsistencies and she could not initially produce the card or flowers that the suspect had allegedly left her. However, she later produced the alleged card for the police.

Two months later, the alleged went to the same school counsellor and stated that the suspect had just left another note in her locker. The school resource officer was called to speak with the victim and found drug paraphernalia in her book bag. The paper containing this new note was written on the same type of paper as the previous note. When questioned about the coincidence, the victim broke down and stated that

she had written the note. She could not articulate why she had made up the story, other than to say that she really wanted to have a boyfriend. Because the case had been going on for months, the East Reekin Police Department requested that charges be filed against the alleged, but the ADA declined to prosecute her.

The variables associated with false allegations that were present in this case included a third-party report, inconsistent statements, and the rape occurring in a vehicle. There were no variables generally associated with genuine cases.

Victim Strangled

Table 6.12 shows the result of the regression analysis of cases in the present dataset in which the victim claimed to have been strangled.

Table 6.12 – Regression of Cases in Which the Victim Was Strangled

Logistic Regression Result	B (SE)	Exp (B)
Victim strangled	-2.604* (1.062)	.074
Constant	.206 (0.288)	1.229

Note: R2 = .087 (Cox & Snell); .116 (Nagelkerke). Model χ^2 (1) = 10.876, $p < 0.01$; * $p < .05$

In this analysis, the regression model is significant ($p < 0.05$). Cases in which a victim reported being strangled were less likely to be classified as false.

Case 314 provides an example. The victim reported that a man whom she used to date came to visit, supposedly because she did not feel well. He strangled and raped her while there. At first the victim was reluctant to name the suspect. However, at a later time, after he returned to her home again, she identified him. The suspect was charged with breaking and entering, kidnapping, rape and strangulation. The suspect also had a prior history of similar behaviour with an ex-wife.

The suspect pleaded guilty and was sentenced to 36 to 53 months under the kidnapping charge, with the rape charge as part of the superseding process. The suspect had previous traffic violations and domestic violence. He had also been found guilty of sexual battery months prior to this rape and had been sentenced to community service for that charge.

Violence Used to Control the Victim

Table 6.13 shows the result of the regression analysis of cases in the present dataset in which violence was used to control the victim.

Table 6.13 – Regression of Cases in Which Violence Was Used to Control the Victim

Logistic Regression Result	B (SE)	Exp (B)
Violence used to control the victim	-1.375* (.605)	.253
Constant	.197 (0.199)	1.217

Note: R2 = .049 (Cox & Snell); .065 (Nagelkerke). Model χ^2 (1) = 5.990, $p < 0.05$; * $p < .05$

In this analysis, the regression model is significant ($p < 0.05$). Cases in which the victim reported that the suspect used excessive violence to control her were less likely to be classified as false.

In case 218, a genuine report, the victim was walking when she noticed the suspect following her. She confronted the suspect, who denied that he was following her. After a brief argument on whether he was following her, he pulled her into a vacant apartment, after which he beat her, continually threatened to kill her and raped her. The suspect was located and charged with this rape, along with a previous rape in which his DNA had been collected. The suspect was convicted of second-degree rape and sentenced to 135 to 171 months in prison.

Witness Listed in the Report

Table 6.14 shows the result of the regression analysis of cases in the present dataset in which a witness was listed in the report.

Table 6.14 – Regression of Cases in Which a Witness Was Listed in the Report

Logistic Regression Result	B (SE)	Exp (B)
Witness listed in the report	-1.497*** (.403)	.224
Constant	.610* (0.248)	1.840

Note: R2 = .118 (Cox & Snell); .157 (Nagelkerke). Model χ^2 (1) = 14.890, $p < 0.001$; * $p < .05$;

*** $p < .001$

In this analysis, the regression model is significant ($p < 0.001$). Cases in which a witness was listed in the police report were much less likely to be classified as false.

In case 63, the suspect and victim were living together at the time of the incident. The suspect wanted to have sex with the victim and attempted to do so even after she said no. He held her down and bit her back while she struggled to get away from him. Two other men overheard the struggle, came into the room, witnessed what was happening and pushed the suspect off the victim.

The suspect fled before the officers arrived, but they were able to locate and arrest him. He was charged with attempted second-degree rape but pleaded guilty to a lesser charge of assault on a female and was sentenced to 60 days of community service.

Victim Rape Kit Collected

Table 6.15 shows the result of the regression analysis of cases in the present dataset in which a rape kit was collected.

Table 6.15 – Regression of Cases in Which a Victim Rape Kit Was Collected

Logistic Regression Result	B (SE)	Exp (B)
Victim rape kit collected	-.801* (0.378)	.449
Constant	.470 (2.719)	1.600

Note: R2 = .038 (Cox & Snell); .051 (Nagelkerke). Model χ^2 (1) = 4.600, $p < 0.05$; * $p < .05$

In this analysis, the regression model is significant ($p < 0.05$). Cases in which a victim has a rape kit done were less likely to be classified as false.

In case 285, the victim met the suspect at a local club. At the end of the night, he jumped into the victim's car outside of the club and demanded a ride home. When she found out that he wanted to go to another city, she pulled over at a fast-food restaurant and told him to get out. He ripped her keyless remote from her key ring and got out. She followed him into the parking lot of a closed store, trying to get her key back. Then the suspect grabbed the victim and dragged her behind the business, where he choked and raped her.

After the attack, the suspect took the victim's cell phone, but the victim was able to contact police, who located and arrested the suspect. The victim's ankle was fractured during the attack. The victim had a rape kit done while at the hospital. The

suspect was charged with first-degree rape and pleaded guilty to second-degree rape as part of a plea bargain. He was sentenced to 70 to 93 active months in prison.

DNA Recovered from the Scene or Victim

Table 6.16 shows the result of the regression analysis of cases in the present dataset in which DNA was recovered from the scene or victim.

Table 6.16 – Regression of Cases in Which DNA Was Recovered

Logistic Regression Result	B (SE)	Exp (B)
DNA collected	-2.847*** (.768)	.058
Constant	.450* (0.210)	1.568

Note: R2 = .184 (Cox & Snell); .245 (Nagelkerke). Model χ^2 (1) = 24.175, $p < 0.001$; * $p < .05$; *** $p < .001$

In this analysis, the regression model is significant ($p < 0.001$). Cases in which DNA was collected from the victim or crime scenes were less likely to be classified as false.

Case 263 falls into this category. The victim's estranged husband broke into her home and attempted to rape her. She fought him off to the extent that the suspect was unable to penetrate her. However, he was still able to masturbate on top of the victim and ejaculated on her clothing, resulting in DNA being available for collection as part of the investigation. The suspect was charged with sexual battery and attempted second-degree rape. Both charges were dismissed without leave (i.e. without the prosecution having the right to refile). A week after the first incident, the suspect had a warrant taken out for his arrest for domestic criminal trespass. This charge was also dismissed without leave two years later.

Not only is this a good example of a genuine case identified through DNA, but it is also one that would not be included in an attrition-type study or one that included only cases resulting in conviction, since this case was dismissed without leave.

Rape Kit on Suspect to Collect DNA

Table 6.17 shows the result of the regression analysis of cases in the present dataset in which DNA was recovered from the scene or victim.

Table 6.17 – Regression of Cases in Which a Rape Kit Was Used to Collect the Suspect’s DNA

Logistic Regression Result	B (SE)	Exp (B)
Rape kit on suspect	-1.564*** (0.462)	.209
Constant	.425 (0.221)	1.529

Note: R2 = .103 (Cox & Snell); .138 (Nagelkerke). Model χ^2 (1) = 12.980, $p < 0.001$; *** $p < .001$

In this analysis, the regression model is significant ($p < 0.01$). Cases in which a suspect's DNA was collected directly from his person were less likely to be classified as false.

In case 135, the victim reported that she was walking down the street near a school when a man grabbed her from behind and took her behind some apartments. He made her face the bushes, then told her to bend over and shut up as he had vaginal intercourse with her from behind.

When he let her go, she said, she went to a local hospital and had a rape kit done. The report noted that the victim had a history of using crack.

A suspect was identified, interviewed and swabbed for DNA; however, he was not charged with the crime at that time. A year later, the buccal swabs taken from the suspect matched the DNA collected from the victim's rape kit. He was charged with second-degree rape and first-degree kidnapping, but agreed to plead guilty to a lesser crime of assault on a female and was sentenced to only 150 days in jail.

This is another case that would not be labelled genuine under some other research approaches, because the suspect pleaded guilty to a lesser charge and was not convicted of rape. This case, when taken in combination with several others discussed so far, also demonstrates some subjective features surrounding the U.S. criminal justice system and highlights the need for an approach to grouping genuine cases that does not require a rape conviction.

Victim Sustained Injuries Corresponding with Statement

Table 6.18 shows the result of the regression analysis of cases in the present dataset in which the victim sustained injuries corresponding with her statement.

Table 6.18 – Regression of Cases in Which Victim’s Injuries Corresponded with Her Statement

Logistic Regression Result	B (SE)	Exp (B)
Victim sustains injuries corresponding with statement	-2.228*** (0.535)	.108
Constant	.542* (0.222)	1.719

Note: R2 = .174 (Cox & Snell); .232 (Nagelkerke). Model χ^2 (1) = 22.769, $p < 0.001$; * $p < .05$; *** $p < .001$

In this analysis, the regression model is significant ($p < 0.001$). Cases in which a victim had observable physical injuries corresponding with her statement about the alleged rape were less likely to be classified as false.

Case 333 provides an example of genuine injury – between husband and wife. The victim reported that her husband hit her across the face, raped and bit her while drunk. The victim was noted to be calm and appeared primarily concerned with teaching the suspect a lesson in the documented investigation. Injuries such as a bruised face, cut lip and bite mark on the victim were consistent with the statement she provided. The suspect stated that the sex was consensual but could not explain the injuries to his wife. He was arrested, but the case was later dropped and the suspect was not convicted of any charges.

Suspect with Criminal Record

Table 6.19 shows the result of the regression analysis of cases in the present dataset in which the suspect already had a criminal record at the time of the investigation.

Table 6.19 – Regression of Cases Where Suspect Was Known to Have a Criminal Record at Time of Investigation

Logistic Regression Result	B (SE)	Exp (B)
Suspect has criminal record	-1.556*** (0.415)	.211
Constant	.575* (0.241)	1.778

Note: R2 = .121 (Cox & Snell); .162 (Nagelkerke). Model χ^2 (1) = 15.384, $p < 0.001$; * $p < .05$; *** $p < .001$

In this analysis, the regression model is significant ($p < 0.001$). Cases in which the suspect was known to have a criminal history were less likely to involve false allegations.

In case 310, the suspect's prior criminal record included assault, traffic violations, resisting a public officer, trespassing, drug charges, possession of stolen goods, assault on a female, breaking and entering, giving false information to an officer, consuming alcohol in public, and driving while under the influence (DWI).

In case 310, three homeless people, two males and one female, were sleeping in the same area. The female woke up and witnessed one of the males, her friend, being stabbed by the other male. After stabbing her friend, the suspect kidnapped and raped the female multiple times over several days until she was able to escape.

The suspect was charged with assault with a deadly weapon with the intent to kill or inflict serious injury upon the rape victim's friend. The alleged rape of the victim was included in the prosecution of the case as a lesser charge. The suspect pleaded not guilty but was found guilty by a jury and was sentenced to 116 to 149 months in prison.

Stealing

Table 6.20 shows the result of the regression analysis of cases in the present dataset in which stealing from the victim was involved.

Table 6.20 – Regression of Cases Involving Stealing

Logistic Regression Result	B (SE)	Exp (B)
Stealing	-2.488* (1.066)	.083
Constant	.186 (0.193)	1.204

Note: $R^2 = .076$ (Cox & Snell); $.102$ (Nagelkerke). Model $\chi^2(1) = 9.466$, $p < 0.01$; * $p < .05$

In this analysis, the regression model is significant ($p < 0.05$). Cases in which a victim reported that the suspect stole something of monetary value in addition to committing or attempting rape were less likely to be classified as false.

In case 319, three juvenile suspects broke into the victim's home, stole \$150 from the victim and also attempted to rape her. A witness observed the attempted rape and interrupted it. None of the suspects were convicted in this case, despite the presence of this witness. Because all the suspects were juveniles (which means that

their records are sealed) when charged with the rape, it is unknown what criminal charges they faced or what punishment they received.

Victim Makes Attempts to Retain Evidence

Table 6.21 shows the result of the regression analysis of cases in the present dataset in which the victim attempted to retain evidence related to the crime.

Table 6.21 – Regression of Cases Where Victim Made Attempts to Retain Evidence

Logistic Regression Result	B (SE)	Exp (B)
Victim makes attempts to retain evidence	-1.066** (0.380)	.344
Constant	.547* (0.268)	1.727

Note: R2 = .066 (Cox & Snell); .088 (Nagelkerke). Model χ^2 (1) = 8.166, $p < 0.01$; * $p < .05$; ** $p < .01$

In this analysis, the regression model is significant ($p < 0.01$). Cases in which a victim attempted to preserve items that could be collected as evidence were less likely to be classified as false.

In case 2, the victim stated that her ex-boyfriend approached her as she was leaving her house. He forced her into his vehicle and drove her to a nearby park. The suspect took the victim's pants and underwear off prior to removing his own clothing. Then he grabbed her arms and pushed her down onto her back. He raped her as he held her arms down. She told the suspect to stop multiple times but he would not listen. After having forced intercourse, the suspect masturbated and wiped off his sperm with a T-shirt that was lying in the back seat.

The victim reported the assault a short time afterwards. She informed the responding officer that she had not changed her clothes or taken a shower yet for evidential reasons.

When located, the suspect gave a different account of the events and stated that the sex was consensual. He was charged with second-degree rape and was believed to be involved in a separate case of breaking and entering. The suspect pleaded guilty to a lesser charge of assault on a female and was sentenced to 75 days of community service and two years of probation.

Previous Consensual Sex with Suspect

Table 6.22 shows the result of the regression analysis of cases in the present dataset in which the victim had previously had consensual sex with the suspect.

Table 6.22 – Regression of Cases in Which Victim Previously Had Consensual Sex with Suspect

Logistic Regression Result	B (SE)	Exp (B)
Previously had consensual sex	-1.049* (0.473)	.350
Constant	.238 (0.209)	1.268

Note: R2 = .043 (Cox & Snell); .057 (Nagelkerke). Model χ^2 (1) = 5.243, $p < 0.05$; * $p < .05$

In this analysis, the regression model is significant ($p < 0.05$). Cases in which a victim reported a past consensual sexual relationship with the suspect were less likely to be classified as false.

In case 20, the suspect forced his wife to have intercourse with him. The victim had just had surgery for uterine cancer the previous month and was told to wait another month prior to having sexual intercourse. The victim tried to dissuade her husband from forcing her into intercourse but was unable to get him to stop. The suspect was charged with rape but the case was dismissed without leave.

Victim Reported Mental Health Problems Prior to Incident

Table 6.23 shows the result of the regression analysis of cases in the present dataset in which the victim had prior mental health problems.

Table 6.23 – Regression of Cases in Which Victim Had Prior Mental Health Problems

Logistic Regression Result	B (SE)	Exp (B)
Victim had prior mental health problems	1.452** (0.548)	4.270
Constant	-.228 (0.204)	.796

Note: R2 = .066 (Cox & Snell); .088 (Nagelkerke). Model χ^2 (1) = 8.158, $p < 0.01$; ** $p < .01$

In this analysis, the regression model is significant ($p < 0.01$). Cases in which a victim had prior documented mental health problems were more likely to be classified as false allegations.

Case 307 is an example of a false allegation by a women with a prior documented history of mental illness. The suspect met the victim when she got off her school bus and was able to convince her to come to his house. The victim said she started “feeling funny” soon after she drank some alcohol that the suspect gave her. Fifteen minutes after drinking she felt sick so he helped her into the bathroom. She stated that he raped her in the bathroom and then once again after he helped her into the living room. When re-interviewed by detectives, however, she stated that the suspect had talked her into having sex.

Multiple variables that tend to be associated with false allegations were present in this case: victim used some sort of drugs, consuming alcohol, report filed by a third party, documented history of mental illness, and inconsistent statements provided. No variables were present in this case that tended to be less indicative of a false allegation according to the logistic regression.

Victim Cooperative Throughout Case

Table 6.24 shows the result of the regression analysis of cases in the present dataset in which the victim was cooperative throughout the investigation.

Table 6.24 – Regression of Cases with Cooperative Victims

Logistic Regression Result	B (SE)	Exp (B)
Victim cooperative throughout case	-2.422** (0.774)	.089
Constant	2.140** (0.748)	8.500

Note: R2 = .122 (Cox & Snell); .163 (Nagelkerke). Model χ^2 (1) = 15.511, $p < 0.001$; ** $p < .01$

In this analysis, the regression model is significant ($p < 0.01$). Cases in which a victim was cooperative throughout the investigation process were less likely to be classified as false.

In case 288, the victim reported having been kidnapped at gunpoint from her apartment parking lot. At first, the suspect demanded money but the victim had no money or bank card with her. The suspect raped her at a local park and then returned her to her apartment where he took some of her food.

The suspect then forced the victim to drive him around some more. When the victim saw some police cars, she jumped out of her car and ran to the police for help.

The suspect was charged, found guilty of rape, and sentenced to 34 to 50 months in prison.

Victim Gave Conflicting Statements

Table 6.25 shows the result of the regression analysis of cases in the present dataset in which the victim gave inconsistent statements.

Table 6.25 – Regression of Cases in Which Victim Gave Inconsistent Statements

Logistic Regression Result	B (SE)	Exp (B)
Victim gave inconsistent statements	3.569*** (0.558)	35.486
Constant	-1.350*** (0.300)	.259

Note: R2 = .412 (Cox & Snell); .549 (Nagelkerke). Model $\chi^2(1) = 63.095, p < 0.001$; *** $p < .001$

In this analysis, the regression model is significant ($p < 0.001$). Cases in which a victim provided multiple, conflicting statements are more likely to be classified as false.

Case 322 provides an example. In her first statement, the victim said that she consumed alcohol, went out for a walk and met the suspect for the first time on a street near a park. The victim stated that she was pushed to the ground and forced to have sex with this stranger. Detectives indicated several inconsistencies in the victim's statements. Upon being re-interviewed, the victim stated that she did not want to participate in sex with the suspect but agreed to do so voluntarily after being given some cocaine.

In a later statement, she said that she did know the suspect and that he had picked her up on the night of the reported rape for a date. They went to a city park to drink and get high. The suspect then said she owed him sex because he had gotten her high. He forced her to perform oral sex on him and then raped her.

As this variable is a strong differing characteristic, the implications for interviewing practices should be explored. Methods should be put in place to objectively compare victims' recorded statements. Also, having allegeders convey their stories in reverse order may improve detectives' abilities to detect deception without resulting in a response bias, as suggested by Vrij et al. (2008). Recording interviews may be the best practice to enable investigators to compare statements in the most objective way and look for discrepancies. In addition, recording interviews verbatim

would permit the use of statement analysis methods such as SVA if the interviewers were skilled enough to obtain comprehensive free narrative accounts from interviewees (e.g. Parker & Brown, 2000).

Results of Step 3

Step 3 involved grouping the variables that were more or less indicative of false allegations according to the results of the binary logistic regression model performed in Step 2 of the process described in this chapter (see Table 6.26).

Table 6.26 – Grouping of Variables More and Less Indicative of a False Allegation

More Indicative of a False Allegation	Less Indicative of a False Allegation
Victim Used Some Sort of Drugs	Burglary to Gain Access to Victim
Victim Consumed Alcohol	Surprise Attack
Victim Raped in a Vehicle	Weapon Present
Labelled Attempted Rape	Suspect Strangled Victim
Reported by a Third Party	Violence (1) Control
Victim Had Mental Health Problems Prior to Incident	Witness Listed in Report
Victim Gave Inconsistent Statements	Victim Rape Kit Collected at Hospital
	DNA Collected from the Crime Scene or off the Victim
	Suspect DNA Swab or Rape Kit
	Victim Sustains Injuries Corresponding with Statement
	Suspect Known to Have a Criminal Record at Time of Investigation
	Stealing
	Victim Makes Attempts to Retain Evidence
	Reported by Victim
	Victim Previously Had Consensual Sex with Suspect
	Victim Cooperative throughout Case

Chapter Summary

Kanin (1994) found that 41% of cases in his sample were false rape allegations; the present study determined that 17% of cases were false allegations beyond a reasonable doubt. Unlike Kanin's study, the results of the present indicate that statements of being forced to perform oral or anal sex were not a significant variable with regard to distinguishing between genuine and false cases. However, many other distinguishing variables emerge from the data.

This chapter began the process of unpacking the variables that support the hypothesis that genuine and false allegations of rape have different distinguishing

features. As illustrated in Chapter 5, descriptive statistics help to dispel some rape myths but do little by themselves to identify which variables are indicators of plausibility. Table 6.1 depicted both the 39 variables that showed statistical differences using chi-squares and the 23 from among those 39 that were found to be more or less indicative of a false allegation.

The method used in this chapter was able to identify statistically significant variables through the logistic regression model. Table 6.26 displays these 23 variables, grouped by whether they were more or less indicative of false allegations. The next chapter will use an even more stringent statistical model to identify the most strongly predictive variables within each of these two groupings.

Chapter 7 - Selection Process to Identify Variables to Use in a Multi-Dimensional Approach

A wide range of approaches and datasets have been utilised to identify differentiating variables that could help to determine whether a rape allegation is more likely to be false or genuine. Researchers have all postulated how a researcher with full access to a representative set of data could best make such a determination (e.g. Lisak et al., 2010; Rumney, 2006). Hunt and Bull (2011) presented a statistical approach to identifying variables predictive of the plausibility of cases within a representative UK dataset. Hunt and Bull's approach identified variables indicative of genuine rapes, such as the presence of stealing in the victim's report, through the use of logistic regression.

Does the knowledge that a suspect has a criminal record add plausibility to a rape allegation? Hazelwood and Burgess (1993) illustrated how the presence of a criminal record may influence rape investigations. Awareness of a prior criminal history or lack thereof might feed an officer's cognitive bias or investigative group-think (Rossmo, 2009). Or is the presence of a subject's criminal record a legitimate differentiating factor, since it may indicate a probable tendency to commit anti-social actions? The presence or absence of a criminal record could differentiate genuine from false allegations but the reason for this relationship requires further exploration to determine whether it is due to investigator bias or consistent patterns of human behaviour.

A central thrust of the present research is to build on previous findings and add to the discussions of what characteristics may assist in distinguishing between genuine and false allegations of rape. Like Hunt and Bull (2011), the present research found many candidates for differentiating variables.

The Logistic Regression Process

The previous chapter described the process of independently running variables with a binary logistic regression model. The results from the use of this statistical model for each variable were described in the last chapter, with the results depicted in the column titled "Step 2 – Logistic Regression" in Table 6.1. Positive scores indicated that a variable was less likely to be associated with a false rape allegation; negative scores

depicted variables more likely to be found in false rape allegations. Table 6.26 shows the groupings of the 23 statistically significant predictive variables into “less likely” and “more likely” categories.

Next, the seven variables that independently were more likely to be found in false allegations (left column of Table 6.26) were all run together in one logistic regression model. Similarly, the 16 variables that independently were less likely to be found in false allegations were run together.

Results

This section attempts to provide richer understandings of the distinguishing characteristics of genuine and false allegations.

First, running the seven variables more associated with false allegations together resulted in two of the seven variables remaining statistically significant. These two variables were later placed in an additional grouped logistic regression model, which also included the remaining statistically significant variables from the more associated with genuine allegations group. The results are depicted in Table 7.1 and illustrated with a case example for each variable. These results will be explored in the following discussion.

Similarly, running the 16 variables more associated with genuine allegations together in one logistic regression model resulted in six of them remaining statistically significant. The results are depicted in Table 7.2 and illustrated with a case example for each variable.

Thus, eight of 23 variables remained statistically significant when placed in one of two grouped regressions. The other 15 variables, which did not withstand the more stringent logistic regression test, still help to explore statistically significant differences in reported rapes and should not be dismissed. In this chapter, the remaining eight variables will be explored in more detail as they contribute to the possible development and validation of explanatory theories.

Grouped Variables More Likely To Be Associated with a False Allegation

The two variables that emerged as statistically significant from the grouped regression of variables more likely to be associated with a false allegation are presented in Table 7.1, along with their statistical results.

Table 7.1: Variables Associated with a False Allegation That Remained Significant in the Grouped Regression

Variables More Predictive of a False Allegation	B (SE)	Exp (B)
Constant	-2.903** (0.97)	.055
Mental problems	1.826* (0.83)	6.206
Different stories provided	3.920*** (0.72)	50.386

Note: R2 = .50 (Cox & Snell); .67 (Nagelkerke). Model χ^2 (7) = 82.92, $p < 0.001$;

* $p < .05$; ** $p < .01$; *** $p < .001$

When the seven variables more associated with a false allegation were run together in a logistic regression, five variables were removed in this iterative process and the final model contained two predictor variables. These two differentiating characteristics and the determined constant are indicated in Table 7.1.

Overall, the model correctly classified 101 (84.9%) of the 119 genuine or false cases correctly, with a false positive rate (classifying a false allegation as genuine) of 21.7% and a false negative rate (classifying a genuine case as false) of 8.5%.

Illustrative case examples for those two variables follow.

Victim Reported Mental Health Problems Prior to Incident

Prior to the alleged rape reported in case 41, the 16-year-old victim had been diagnosed with bipolar disorder and depression. She reported that whilst she was being punished and confined to her bedroom, her father raped her. She stated that her parents told her they were going to be at work for a few hours, so she went over to a neighbour's house to watch TV with him. The victim's parents came home early and found her in the neighbour's dark basement, watching TV with a boy. The family argued the whole way home. The alleged's mother saw that the alleged was wearing a thong and her dad kept

calling her a “whore”. Her parents took her phone from her and sent her to her room as punishment for being alone with a boy in the dark at another house.

It was alleged that later the victim’s father came into her room while she was sleeping and called her a “disgusting whore” while he got on top of her with her legs in between his and pulled out his penis. The victim stated that the suspect inserted his penis in her, moved it around and then left the room.

The victim reported the events to the police, went to the hospital, and had a rape kit done. The doctor examining the victim advised the police that there was no evidence of trauma to the victim's vaginal area although the incident had just occurred the previous day. The victim stated that she had already taken two showers and laundered all her clothing and bed linens.

The suspect denied raping, having sex with, or even inappropriately touching his daughter. He stated that he had been receiving treatment for medical conditions that made it impossible for him to get an erection. The detectives were later able to get the suspect's medical records, which confirmed that the suspect had been impotent and unable to reach an erection for the past five years. He had used Viagra in the past with negative results. These facts were presented to the alleged, but she still did not confess to reporting a false allegation.

The victim had also claimed to have been raped previously by a stranger in the park, and on another occasion she had reported the school janitor tried to rape her. In a rare move, this present case was presented to the ADA, who ADA advised the detective to charge the alleged with filing a false police report. Although it is common practice in this jurisdiction not to charge alleged victims of rape with filing a false police report so as not to discourage true rape victims from coming forward, an exception was made in this case. The victim was charged and taken to jail in this case, but there were no court records to indicate any outcome, which typically means that the charges were later dropped.

The victim had a history of claiming to be raped, which appeared to be related to her diagnosed mental illnesses. She may even have believed that one or all three rapes had taken place. Although her statement was not detailed, she did not provide inconsistent accounts of the alleged rape.

Victim Gave Different Statements

Cases in which the victim gives inconsistent reports of the incident are much more likely to be determined a false rape. Due to the very high predictive percentage of this particular variable, the output table was scrutinised to make sure that there were no extreme values that would give a false positive on this statistical test. No extreme values were observed, indicating that the result of this test is likely valid.

In case 152, the alleged gave multiple, varying and conflicting statements. At one point in the investigation, she admitted to lying in her first statement and then said she had been gang-raped by three males. Later she admitted to lying in all her previous rape accounts because she was seven months pregnant, knew only the first name of the baby's father and wanted government assistance.

In the alleged's first statement, she stated that she had just gotten off the school bus and was walking home when she saw a vehicle pull up next to her. A black male driver tried to talk to her but she kept walking. He grabbed her, threw her into the back seat of the car, drove to another location and raped her. In the process of the assault, the alleged, the suspect pulled up the alleged's shirt and pulled off her shorts to take a photo of her chest and her vaginal area. He then drove her back to where he had abducted her and told her to get out.

Grouped Variables Less Likely To Be Associated with a False Allegation

Table 7.2 presents the six variables that emerged from the second grouped regression as remaining statistically significant in suggesting that an allegation is less likely to be false.

Table 7.2: Variables Associated with a Genuine Allegation That Remained Significant in the Grouped Regression

Variables Less Likely to be Associated with a False Allegation	B (SE)	Exp (B)
Constant	5.465*** (1.33)	236.27
Witness listed in the report	-1.509* (0.68)	.221
DNA collected from crime scene or off the victim	-2.702* (1.19)	.067
Victim sustains injuries that correspond with statement	-2.319** (0.85)	.098
Suspect known to have a criminal record at time of investigation	-1.566* (0.67)	.209
Stealing	-4.539* (1.93)	.011
Victim cooperative throughout case	-2.78 * (1.15)	.062

Note: R2 = .53 (Cox & Snell); .71 (Nagelkerke). Model χ^2 (16) = 89.46, $p < 0.001$;

* $p < .05$; ** $p < .01$; *** $p < .001$

The initial step in this portion of the study was to group all 16 predictive variables identified as less likely to be associated with a false allegation, based on the logistic regression model from Chapter 6. Next, these 16 variables were run together in one logistic regression model. Ten variables were removed in this iterative process, leaving six predictor variables. These six differentiating characteristics, the determined constant and the results are detailed in Table 7.2.

Overall the model correctly classified 106 (89.1%) cases correctly. The false positive rate (classifying a false allegation as genuine) was 8.3% and the false negative rate (classifying a genuine case as false) was 13.6%. Case examples for each of the six variables will be presented to illustrate these distinguishing characteristics and the dynamic intricacies of rape investigations.

Witness Listed in the Report

Cases in which a witness was listed in the police report were found less likely to be associated with a false rape. In case 148, a witness heard and observed things that

matched what the victim reported as having occurred. A used tampon, which the suspect had removed from the victim, was located at the crime scene.

The victim and her friends had been drinking throughout the day. They went to the suspect's home and continued to drink. The victim passed out but woke up to find the suspect having sex with her. When she told him to get off, he put his hand over her mouth and told her to be quiet. She was eventually able to push him off. When located and questioned, the suspect told police that he did not have sex with the victim. However, he was later observed through a one-way mirror talking to a friend and stating he did in fact have sex with the victim. He was charged with second degree-rape but was found not guilty.

DNA Collected

Cases in which DNA was collected from the victim or crime scene were also found to be less likely to be classified as false allegations. Case 6 provides an example of a very detailed investigation in which both phone records and DNA were used to tie the suspect to the rape. Microscopic examination of the vaginal and rectal smears and of the victim's panties disclosed the presence of spermatozoa (a motile sperm, or a moving form of the haploid cell that is the male gamete).

The victim reported that the suspect forced his way into her home after she let him use her phone. Once inside, he held her down on the couch and raped her. The suspect was found guilty of second-degree rape and kidnapping. He was sentenced to 46 to 65 months in prison. Prior to this rape he had been convicted of robberies, breaking into cars and felony larceny.

Crime programs on American television, such as CSI, usually give the impression that the presence of physical evidence is generally found in rapes. As noted in Chapter 5, this expectation is a rape myth, since fewer than one-third of offenders reportedly ejaculate. Case 6 is thus not the norm; in fact, only 31 of the 351 cases (8.8%) involved the presence of DNA in the investigation.

Victim Sustains Injuries That Correspond with Her Statement

A third variable strongly associated with genuine cases was the presence of an observable physical injury from the alleged rape that corresponded with the victim's

statement. In case 13, doctors had to use three stitches to heal a seven-year-old victim's vaginal area. In addition, doctors remarked that they observed signs of past tissue damage to the vaginal area.

The suspect, not legally or biologically the victim's father but the father of the victim's half-sibling, confessed to the rape and stated that the action was just impulsive. This was one of only 3% ($n = 11$) of the cases in the present dataset that had both DNA and an injury. The suspect was found guilty of first-degree rape and sentenced to 192 to 240 months in prison.

In case 163, the victim reported that she returned a call from an old boyfriend and informed him that she was dating somebody new and that it wouldn't be a good idea for him to call again. The new boyfriend overheard the call and, in a fit of jealousy, pushed her onto a bed, raped her and then rammed his fist into her vagina. Afterwards, he drove her to the hospital where she had surgery on her vaginal area to repair the damage. She did not report the rape at that time. She later took out a restraining order on him, but she reported that he was continuing to ride by her house.

After the assault was reported, warrants were obtained and the suspect was arrested for first-degree rape and assault on a female. He was convicted of the latter charge and sentenced to 75 days in jail. At the time when the rape was reported, the suspect already had a criminal history including indecent liberties with a minor, resisting a public officer and traffic charges. This case supports the consistency model of anti-social behaviour; in other words, the prior criminal record demonstrated a consistent pattern of lawlessness rather than causing bias in the investigation or becoming a primary factor in the suspect's conviction.

Suspect Known to Have a Criminal Record at Time of Investigation

Cases in which a suspect was known to have a criminal history were less likely to be classified as false allegations. Case 163, discussed immediately above, falls into this category as well. In Case 14, prior to the reported rape, the suspect had been charged with indecent exposure, assault on a female and assault on an officer. Also, at various points in his criminal life, he had been found guilty of larceny, driving while impaired and providing false information to an officer.

In the present case, the victim reported that her ex-boyfriend came to her home and attempted to rape her. He pushed her onto the floor, pinned her shoulders down with his knees and tried to remove her pants. When he couldn't get the pants off, he unzipped her top and began to fondle her breasts. She began to vomit so he finally let her up to go to the bathroom.

The suspect was charged with attempted first-degree rape. He pleaded guilty to a lesser offence of sexual battery and was sentenced to 150 days in jail.

Stealing

Hunt and Bull (2011) found theft was associated with genuine cases at a $p < .01$ level of statistical significance in their backwards stepwise logistic regression model. In the present study, cases in which a victim reported that the suspect stole something of monetary value in addition to the rape were also less likely to be determined a false rape.

In case 56, the victim's wallet was stolen after the rape took place. The suspect came to the victim's house under the pretence of wanting to sell her DVDs. When she turned around to get her money to pay for them, the man entered the house and locked the door behind himself. The victim was wearing pyjamas with no underwear or bra. The suspect followed the victim upstairs and kept pushing himself on the victim. She said no, cried, and attempted to push the suspect off her but was unable to do so. He aggressively fondled her, after which he went to put a condom on so he could "bust a nut". Despite her continued cries, he then raped her. He did not attempt to have sex with her again after that; instead he asked if he could wash up and said that she should call him for "round two" when she wanted it.

The victim realised that the suspect had taken her wallet after he left. She called her boyfriend first and then told her aunt what happened prior to calling the police. The suspect was apprehended and charged with second-degree rape; he pleaded guilty to a lesser charge of attempted second-degree kidnapping and was sentenced to 11 to 14 months in jail.

A month prior to the rape, the suspect had been charged with resisting a public officer, found guilty and sentenced to 20 days of community service. Prior to this, his extensive criminal record included drug charges, traffic charges, two different charges of

resisting a public officer, damage to property, communicating threats, a probation violation and assault with a deadly weapon.

Stealing is not a necessary aspect of gaining access to the victim, raping the victim or fleeing the area. As an example of an additional detail not usually present in fabricated stories, it thus tends to lend credibility to genuine stories of rape (Marshall & Alison, 2006).

Victim Cooperative with Police throughout Case

Cases in which a victim was cooperative throughout the investigation process were less likely to be determined false allegations. Case 208 is an example of the victim being cooperative throughout the investigation. In this case, the victim walked into the police station several hours after being raped, gave an initial statement and agreed to go to the hospital to have a rape kit done. Later she agreed to show the detectives the exact location of the rape, since it had taken place outside in a park and the exact location could not be determined without the victim's assistance, and she provided additional follow-up statements that were consistent with the initial statement. In addition, she agreed to ride around with detectives to show them where she had seen the suspect in the past, since she did not know anything about him beyond having met him a few times. Although he was not located right away, she was able to provide additional useful information throughout the investigation about the suspect that eventually led to locating the suspect.

The suspect was charged with rape and pleaded not guilty but was found guilty of second-degree rape by a jury. He was sentenced to 80 to 105 months in prison. Prior to the rape, the suspect had been charged with entering a toilet facility of the opposite sex, multiple counts of trespassing, drinking in public, assault on a female and simple assault.

Chapter Summary

Initially, the frequency of occurrence of all variables in the two subgroups of genuine and false cases was examined using chi-square tests so as to identify the variables with significant differences. Then, as described in the previous chapter, all variables were run independently using binary logistic regression. Utilising this statistical approach, 23

of these variables were found to be significantly predictive of whether a case was deemed genuine or false.

The process covered in this chapter discussed the grouping of these 23 variables into two groups for further exploration. An additional logistic regression model was used with each group of these two groups. This process identified eight variables of greatest statistical significance. Two (past mental health history and giving inconsistent statements) were associated with false allegations. Six were associated with genuine cases: witness listed in the report, DNA collected from the victim or crime scene, victim sustains injuries that correspond with her statement, suspect has a criminal record, suspect steals, and victim is cooperative throughout the investigation.

The upcoming chapters will use these eight highly discriminating variables to develop a theoretical behavioural profile model.

Chapter 8 - POSAC Model of Genuine and False Cases

This thesis has been based on the postulate that genuine and false reports of rape will have some identifiable features and behavioural structures that distinguish them from each other (Hunt & Bull, 2011; Marshall & Alison, 2006). This chapter begins to develop a new model incorporating such features.

Chapter 4 helped to display the different behavioural structures of genuine and false rapes through the use of SSAs, which indicated empirical evidence of thematic roles that offenders assign to victims in genuine cases of rape and of their contrast (to some extent) with behavioural structures of fictitious offender narratives developed by false allegers. Thematic areas in the SSA space were labelled in a fashion consistent with previous work on genuine reports of stranger rapes (Canter et al., 2003a; Canter & Heritage, 1990). The previous model contained four main themes: hostility, control, theft and involvement (Canter et al., 2003a).

Using the SSA approach and this model, along with the variables utilised in the description of the genuine rape reports, demonstrated that the false allegations did not fall into a similar logical structure as the reports of actual incidents. Arguably, the fictional accounts of suspect behaviours during the incident would have a different structure as they are drawn from the purported victim's psyche (e.g. past experience and rape myths) rather than from an offender's actual behaviour. The SSA behavioural models suggested that it is possible to identify structural distinctions between a highly plausible group of genuine rape reports and a set of highly unlikely accounts of sexual offences, even though both sets of allegations contain a general system of interrelated offending behaviours.

Although the different structures of the two SSAs are suggestive of past findings, they are not conclusive evidence of suggested levels of plausibility. One reason for this inconclusiveness is that the SSA structure is based on a rank ordering of the relationships between the offending behaviours and not the actual correlations themselves. In other words, the plot in geometric space displays the patterns of co-occurrence with the other reported offender behaviours in the analysis. Moreover, the structure represented in SSAs is an average of the interrelationships of the behaviours across all offenders within a group; it does not have the capacity to reliably display individual patterns. To establish stronger evidence of the distinguishability of genuine

from false allegations based solely on features of the accounts, the cases would need to be separated in another model.

The profiles of each case categorised as genuine or false can vary both qualitatively (i.e. as to the significance of the particular distinguishing features present in the case report) and quantitatively (i.e. as to the number of features present). A form of analysis that can be particularly useful in making sense of such complex data and variations is known as partial order scalogram analysis with base coordinates (POSAC).

The POSAC Predictive Plausibility Model

The procedure utilised in a POSAC is an extension of a unidimensional Guttman scaling procedure. It assumes that the variables entered into the POSAC all relate to the concept under investigation and have an underlying common order in relation to this concept (Shye & Amar, 1985). In the present study, the term *common order* refers to the arrangement that every variable included in the concept being explored is stated as more indicative of a genuine rape than false allegations based on the logistic regression results. Each case's relation to these predictive variables is described in terms of a profile.

A limiting aspect of POSAC is that this approach can only handle ten variables without overloading the HUDAP (Hebrew University Data Analysis Package) software used to run this multidimensional statistical approach. However, in the previous chapter we reduced the set of the most statistically predictive variables to eight, which are reiterated in Table 8.1. The descriptions of the two variables more indicative of false allegations were reversed so that all eight variables are stated in a form that is associated with genuine reports. This step was necessary to make the raw scores of POSAC profiles useful, as explained below.

Table 8.1 – Eight Predictive Variables Determined through a Grouping Logistical Model Placed in a Common Order

Differentiating Characteristics of Rape
Witness Listed in Report
DNA Collected from the Crime Scene or off the Victim
Victim Sustains Injuries That Correspond with Statement
Suspect Known to Have a Criminal Record at Time of Investigation
Stealing
Victim Cooperative throughout Case
Victim Reported NOT to Have Mental Health Problems Prior to the Incident
Victim Did NOT Give Different Statements

In order to utilise the HUDAP statistical software to run a POSAC with the most predictive variables as listed in Table 8.1, each variable was assigned a different weight indicating whether it was reported or unreported in a given case. A value of 2 was assigned to variables present in each case and 1 was listed for variables that were not reported as present. Thus, a case containing all eight variables would have a profile of 22222222, whereas a case with none of the variables would be listed as 11111111.

Profiles generated by each case are scaled according to their overall cumulative score. These cumulative scores are a measure of the quantitative difference between the cases. Some cumulative scores, however, may be quantitatively equal yet qualitatively different. For example, profile A could be 22221111 (which equals 12) and profile B could be 11112222 (which also equals 12) but the POSAC makes allowances on the qualitative level.

To allow for examination of the individual profile structures, the procedure attempts to find a partial order configuration that represents the data. The output produced within this portion of the POSAC (illustrated in Figures 8.2 through 8.13) displays the relations between the individual profiles within a two-dimensional space. The profiles are positioned within that space according to a “rationality restriction”, meaning that “for as many items as possible, each item considered independently,

profiles of all those who respond identically to an item form a region, and boundaries between contiguous regions are free to take on any shape” (Dancer, 1990, p. 485). In other words, profiles that are more similar to one another will be closer in geometric space than those that differ more. The accuracy with which the profiles are represented in the plot is reflected in the coefficient of correct representation.

The profiles are positioned on this basis within an inherent POSAC structure. This structure is described by two axes, the joint (J) axis and the lateral (L) axis. The profiles in relation to their quantitative scores are dispersed along the J axis, with the highest profile in the top right corner and the lowest sum in the bottom left corner. This axis measures the total score of a profile over all variables, so the axis reflects the quantitative variations within this construct. The L axis, meanwhile, runs from the top left area to the bottom right area of the plot. This axis is a measure of the qualitative variations within the construct.

Interpretation of the meaning of the qualitative variation requires examination of the regional plots for each individual variable on the profile. These plots show how the scores on each variable relate to the positioning of the overall profiles. To explore this, the item plots are partitioned into regions according to whether the particular variable was present or absent. The varying results are depicted and explained in Figure 8.2, Y-Axis; Figure 8.3, P-Partition; Figure 8.4, Q-Partition; and Figure 8.5, X-Axis. The information extrapolated from the item plots is used to aid in the interpretation of the main POSAC plot.

In summary, POSAC is utilised to compare cases on the basis of the profiles of reported variables in relation to a particular construct, ordering them concurrently according to quantitative and qualitative differences. This enables researchers to see the range of variable patterns along with their similarities and differences. The identification of cases in which differences appear can assist in pointing to the conceptual basis for these differences. As such, the analysis is considered as representing a useful approach to understanding the different reported variable patterns within the population and what these patterns imply with regard to levels of plausibility.

Results of the Partial Order Scalogram Analysis

The profiles that emerged from the POSAC and the location of these profiles on the composite plot, as indicated by the analysis procedure, are shown in Figure 8.1. Table 8.2 displays the coefficients of weak monotonicity for 60 cases selected randomly from the groups of genuine and false reports.

The number of cases was reduced from 119 due to the limitations of HUDAP, as it is recommended not to exceed 10 variables (as noted above) or 100 cases. Running all 119 cases of genuine and false allegations with 23 variables in HUDAP was found to be too heavy a load for this statistical program. Every attempt to run all cases in this manner resulted in the program crashing. Therefore, 30 cases from each subgroup were randomly selected and used with the eight most statistically significant variables.

Table 8.2: Coefficients of Weak Monotonicity for 60 Random Genuine and False Cases

Item Name	J – axis	L - axis	X - axis	Y - axis	P - axis	Q - axis
Witness Listed in Report	.91	.37	.86	.55	.80	.87
No Documented Mental History	.76	.14	.65	.48	.94	.46
Cooperative throughout Case	.81	.41	.78	.38	.96	.50
Victim Does Not Give Different Statements	.97	.04	.84	.77	.93	.89
DNA collected from Victim or Scene	.88	.13	.75	.60	.57	.98
Visible Injury Observed on the Victim	.94	-.41	.60	.88	.85	.89
Suspect has a Criminal Record	.83	-1.00	-.13	1.00	.71	.79
Suspect Stole Items of Value from Victim	.85	.93	1.00	-.05	.40	.99

As described above, the POSAC produces two separate types of plots for examination. The first is the overall plot as shown in Figure 8.1. This plot shows all profiles in relation to their common order of plausibility along the J and L axes. The main POSAC plot displays a spread of the profiles along the J axis portraying an increase in the extent of plausibility.

Figure 8.1: POSAC of 60 Random Cases from the Genuine and False Subgroups

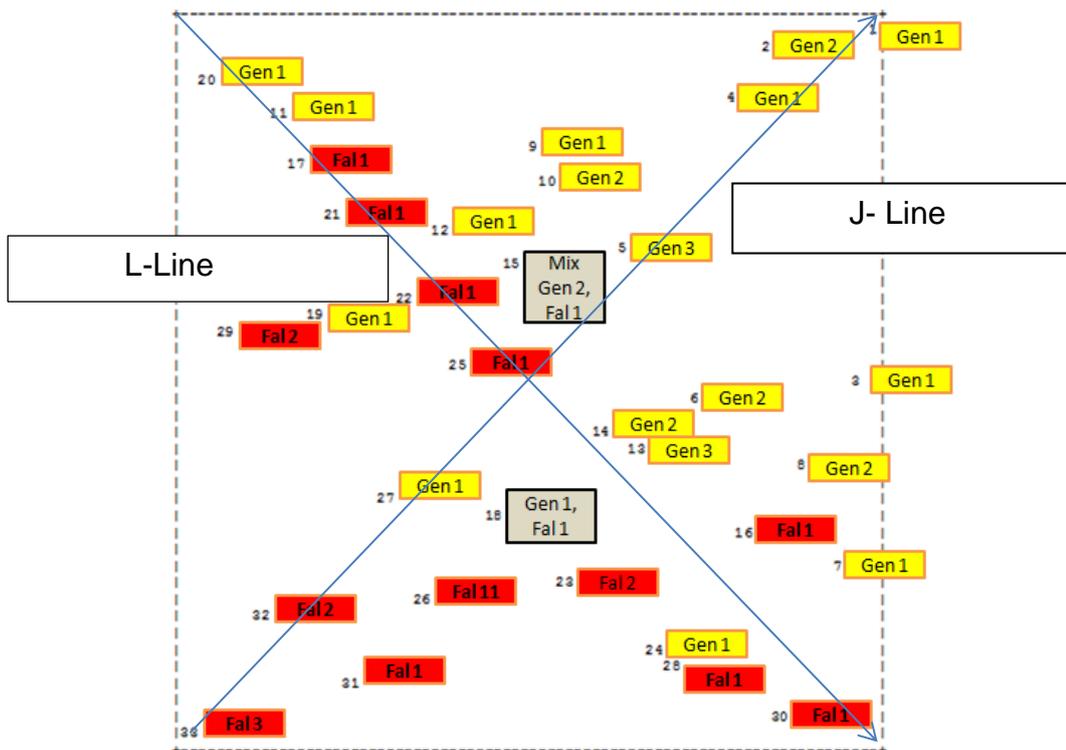
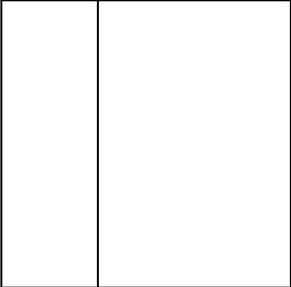


Figure 8.1 displays false cases primarily in the lower regions of plausibility and genuine cases in the higher regions of plausibility. Genuine cases are coloured yellow and false cases are coloured red. The grey boxes represent profiles shared by both genuine and false cases. Each profile plotted may contain more than one case. For example, profile 2 near the upper right corner along the J line is shared by two genuine cases and thus is labelled “Gen 2”. Profile 15, located near the centre, is an example of a mixed profile since it consists of two genuine cases and one false case.

Individual Item Plots

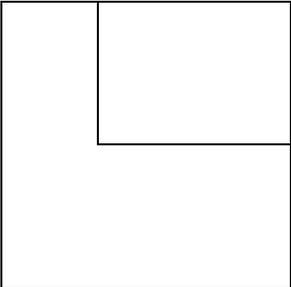
The second plot produced by POSAC is referred to as individual item plots for each of the variables. Analysis of these item plots assists in the explanation of the overall POSAC plot depicted in Figure 8.1. The role of each variable can be determined by the shape of its partition line. Item plots can be partitioned in four distinct ways. Examples of these are displayed below in Figures 8.2, 8.3, 8.4, and 8.5.

Figure 8.2: Y-Axis



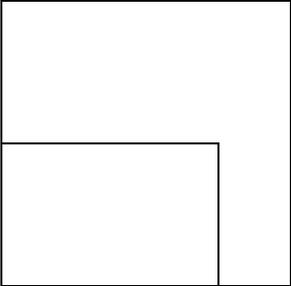
The above table represents how an individual variable may be interpreted within POSAC. The Y-axis is depicted by a vertical partition within this particular variable example. This partition can show that the variable reflects a key conceptual distinction within the overall construct being explained.

Figure 8.3: P-Partition



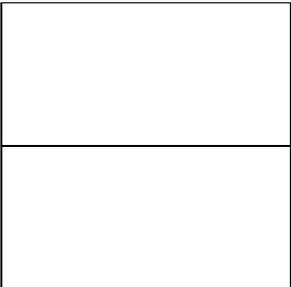
The P-partition indicates items that are polarising or moderating along the qualitative scale. This tends to be present for cases with middle scores on the qualitative scale, indicating that the item may act to moderate the overall qualitative factor within this particular variable example. This partition will also have moderate to higher quantitative scores than the Q-Partition described next.

Figure 8.4: Q-Partition



The Q-partition tends to indicate items that are polarising or moderating on the qualitative scale, as opposed to the quantitative scale as in Figure 8.3. A Q-partition is found where an item accentuates the qualitative scale. For instance, the item tends to be present for cases with extreme scores on the qualitative scale, indicating that the item may magnify the effect of the qualitative factor. Lower quantitative scores would also be more indicative of this type of partition.

Figure 8.5: X-Axis



The X-axis depicts a horizontal partition among a particular variable. This type of partition, like the Y-axis, can show that the variable reflects a key conceptual distinction within the overall construct being explained.

In order to effectively determine what is taking place with the set of profiles in the overall plot, the qualitative outputs need to be explored. As mentioned above, the interpretation of the qualitative variations across the profiles on the first overall plot appears in the individual item plots. The individual item plots for the eight variables are presented in Figures 8.6 through 8.13

Figure 8.6: No Presence of Mental Illness

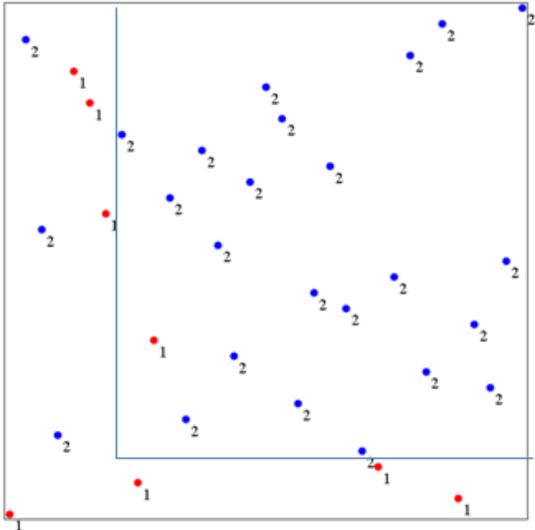


Figure 8.6 displays the “no reported presence of mental health issues” variable in a P-partition configuration. The profiles that include this variable (i.e., with no reported mental health issues) are coloured in blue and labelled 2; profiles without this variable (i.e. with mental health issues) are red 1's. This type of output indicates that the variables are polarising or moderating along the qualitative scale with higher quantitative scores.

Figure 8.7: Different Accounts Not Given by the Victim

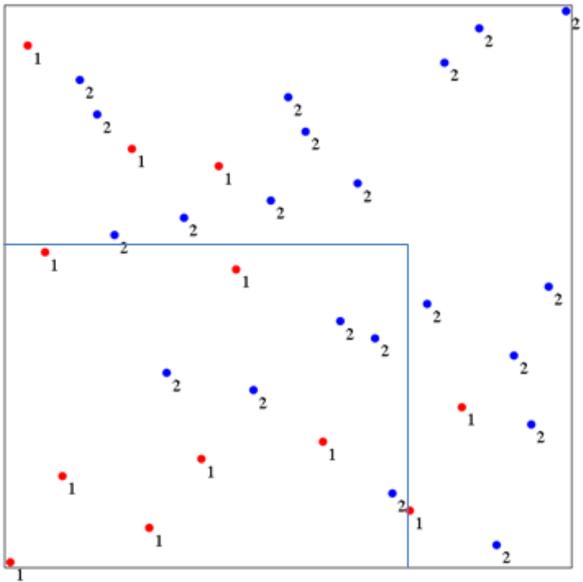
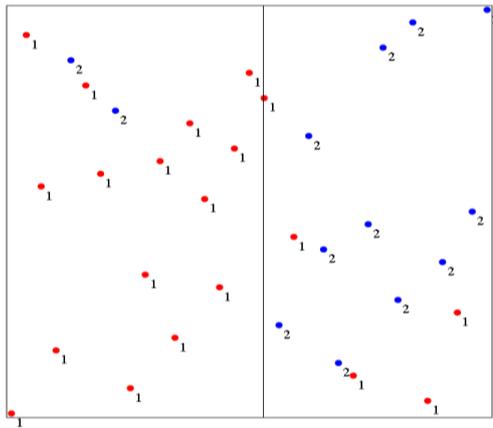


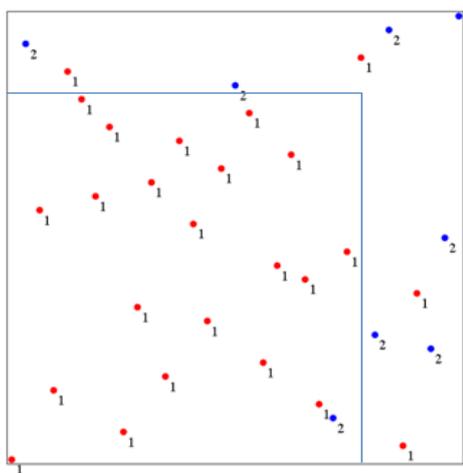
Figure 8.7 displays the variable of different accounts not being provided by the victim in a Q-partition pattern. Again, the profiles containing the variable (i.e., in which the victim's accounts were consistent) are marked with blue 2's and the others are labelled with red 1's. Like a P-partition, this type of output is indicative of polarising or moderating variables along the qualitative scale. However, it differs in the overall quantitative score.

Figure 8.8: Witness Listed in Report



The variable distribution for “witness listed in report” is displayed in Figure 8.8. This variable is split in a Y-axis partition. This type of output indicates a higher quantitative and qualitative profile score within this individual plot.

Figure 8.9: DNA Collected from Victim or Crime Scene



The variable “DNA collected from victim or crime scene” is displayed in Figure 8.9. This variable has a Q-partition. DNA is present in the more likely plausible cases along the J and L lines.

Figure 8.10: Victim Had Visible Injuries Corresponding to Report

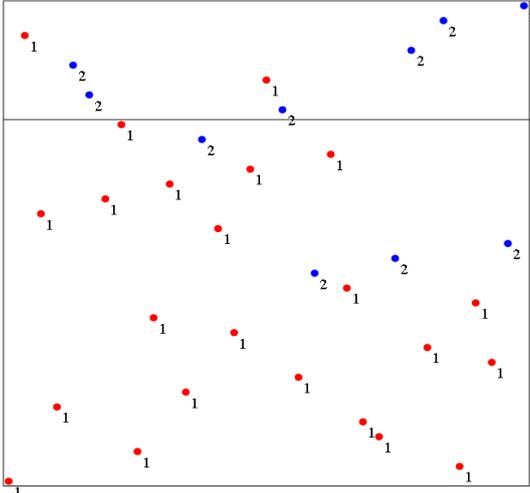


Figure 8.10, illustrating the pattern for the variable “victim had visible injuries”, is split by an X-axis partition. There are a few behavioural profiles below the X-axis partition but most are above the best-fit line.

Figure 8.11: Suspect Had a Criminal Record

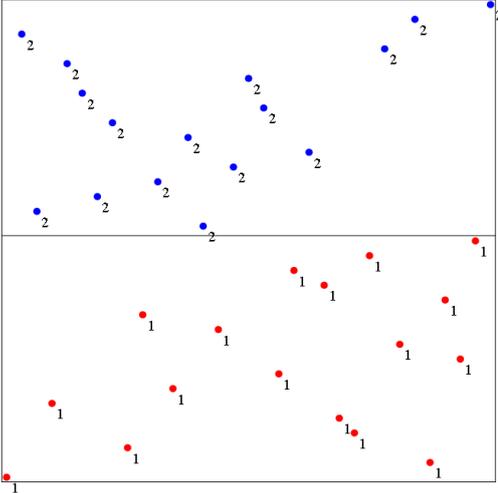


Figure 8.11, for the “suspect had a criminal history” variable is again split by an X-axis partition, with what appears to be a fairly strong separation.

Figure 8.12: Suspect Stole Items of Value

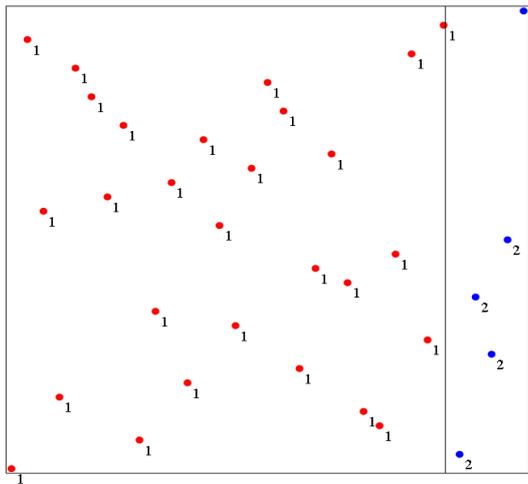


Figure 8.12, covering the variable “suspect stole items of value,” is split along the Y-axis, also with a distinct separation between the cases where this feature is present or not reported.

Figure 8.13: Victim Cooperative throughout Investigation

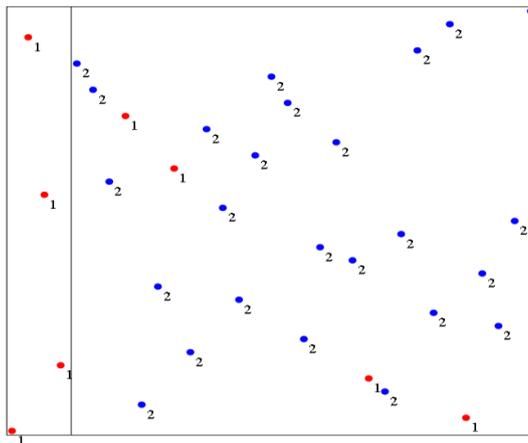


Figure 8.13, for the variable “victim cooperative throughout investigation”, is split by a Y-axis partition. The partition to the left in the figure contains four profiles in which the measured variable was not present and no cases where it was present. Four other profiles in which the victim was reported not to be cooperative throughout the investigation could be located in the remaining space along with all profiles of cooperative victims.

Figure 8.14: Criminal History (X-Axis) and Stealing (Y-Axis) Profile Regions

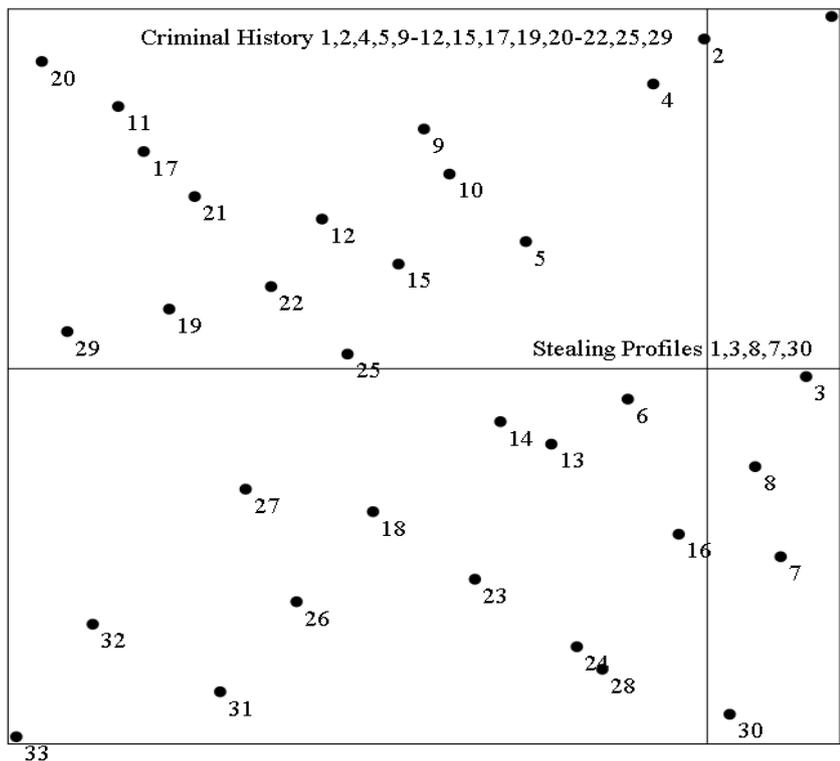


Figure 8.14 presents a POSAC output of the 33 distinct profile combinations of the 60 random cases of rape with both vertical and horizontal partitions. Some cases have the same profile combination, and for the reason the plot does not contain 60 distinct dots. The horizontal line is the best-fit line separating the cases according to the criminal history variable; the numbers of cases in which this variable was present are listed in the upper section of the table. Refer back to Figure 8.11 to see the individual plot of this variable. The stealing profile variable has a vertical line near the right side of the figure; most cases involving stealing are to the right of the line. Figure 8.12 showed the individual plot of this variable. Behavioural profile number 1 in Figure 8.14 is the only profile of the 60 random cases that contained both reported behaviours of criminal history present and stealing.

These two variables, past criminal record and stealing, appear to be the most differentiating of the eight variables when using the POSAC model, as they can be most easily separated into regions. The “past criminal record” variable in the upper portion of the X-axis and the “stealing” variable on the right side of the Y-axis are most indicative of genuine cases based on the overall construct of the POSAC. As a result, these two

strongly indicative variables within this model may be the most distinguishing of the eight variables in determining genuineness.

The presence of a criminal record is often mentioned in the process of building a case against an alleged suspect. As discussed earlier, this may be an indicator of confirmation bias or part of the practice of documenting variables officers believe have evidential value in the prosecution of a case. Files of rape allegations not considered genuine tended not to mention whether the suspect had a criminal record or not. This gives a perception of a lack of standardised investigation practices in rape cases or, at the very least, a general practice of only recording the presence of a record in cases that the police deem genuine, so as to possibly indicate the increased likelihood of guilt. Based on an extensive review of the files, it appears that the common practice of detectives in the present study was to pull criminal records only when they deemed it necessary and not as part of a standard practice for each case. Due to the nature of working with historical data documented for evidential purposes it is unclear whether the discovery of a criminal history produced confirmation bias issues as described by Rossmo (2009), or to what extent self-selection policing (Roach and Pease, 2014) occurred or even to what extent the presence of an offender's criminal history indicates a greater propensity to commit anti-social actions.

Figure 8.15 - POSAC of 60 Random Cases from Genuine and False Categories with Case Numbers Assigned

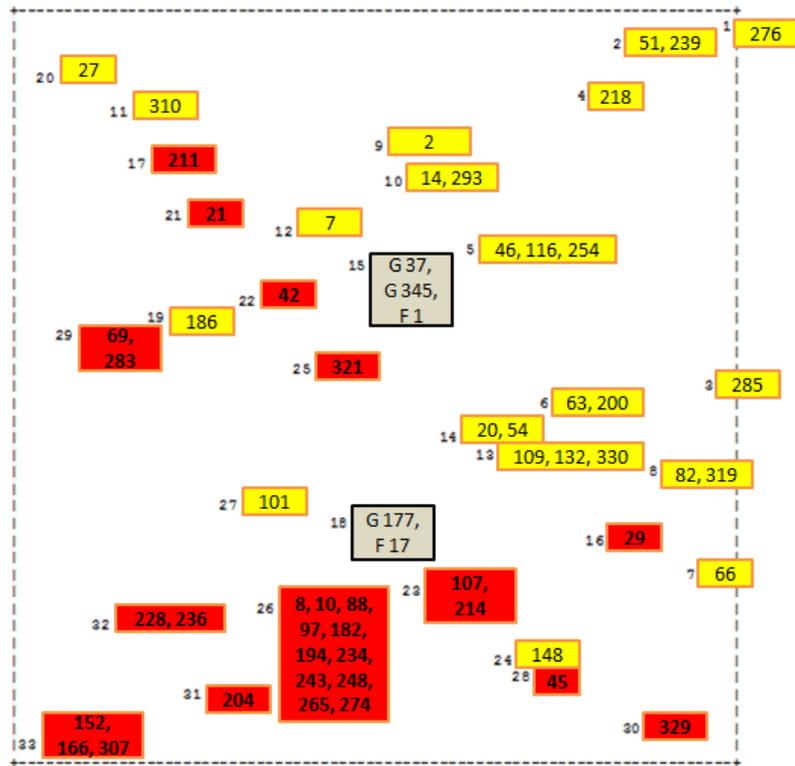


Figure 8.15 shows the colour coding of genuine, mixed and false profiles, as did Figure 8.1, but with the assigned case numbers added for reference. Cases listed in the red boxes are false and those in the yellow boxes are genuine, with the mixed boxes coloured grey. This figure also depicts which of the 33 distinct profiles have multiple cases.

For example, profile 1 in Figure 8.14 is case 276, which had both stealing and criminal history variables present. In this case, the suspect stole a CD Discman from the victim and also had a criminal history that included serving a month and half for a second-degree rape of a different victim. The suspect pleaded not guilty to attempted first-degree rape but was found guilty by a jury and sentenced to 313 to 385 months in prison. Case 276 had all eight predictive variables for a maximum behavioural profile score of 16, so it is located at the high end of both the J- and L-axes, in the upper right corner of Figure 8.15.

It is possible that this model can be used further in the development of similar behavioural models and possibly even help in ranking cases in terms of plausibility in

the future. It may be possible to arrive at a less complicated finding, such as that the sum of the measured variables appears to be predictive based on how the cases rank along the J-axis. This finding supports other research that has found quantity of details to be indicative of genuine reports of rape (e.g. Hunt & Bull, 2011; Marshall & Alison, 2006).

Chapter Summary

The process covered in this chapter utilised a hypothesis-generating approach to develop a theoretical behaviour profiling method. The “past criminal record” and “stealing” variables seemed to stand out as the most distinguishing of the eight variables in this study. The differentiating power of the stealing variable supports the findings of Hunt and Bull (2011).

The more distinct separation of genuine and false rapes in geometric space along the J-axis became the main focus during exploration of the POSAC findings. Persons who reviewed these findings were excited by the possibility of finding that even among the eight most statistically powerful variables, certain variables may be most prominent, justifying further critical research with other samples to build on the present findings.

Based on previous studies and the work described in this chapter, it is believed that the sum of behavioural profiles derived from POSAC scores can be utilised to identify and propose a testable model (e.g. Marshall & Alison, 2006). This model would state that the higher the sum score of a given case on the eight highly predictive behaviours, the more likely the reported rape is genuine. The next chapter explores this possibility further while focusing more intently on the quantitative scores along the J-axis of the POSAC.

Chapter 9 - Proposed POSAC Model: The BPS Approach

It is hypothesised that higher sum scores of the eight most predictive reported behaviours identified in this study will be strongly more indicative of a genuine rape. This chapter tests the hypothesis through a new model. The sums of behavioural profiles derived from POSAC scores have been utilised to identify and propose the model tested in this chapter.

The initial stage of developing the new model covered in this chapter entailed using the eight most statistically significant variables in combination to produce a Behavioural Profile Score (BPS) indicative of a genuine or false rape allegation using *t*-test modelling. The aim of the work described in this chapter was to identify BPS ranges indicative of genuine and false allegations, respectively.

Method

First, a random group of stranger rapes was utilised to test the hypothesis that genuine rapes have a higher BPS than false allegations. The purpose of comparing two means using a *t*-test is to discover if they are statistically different from the other (Field, 2009, p. 317).

Next, this group of stranger rapes was compared to another group of stranger rapes within the population to test the newly developed BPS model. This method was repeated with two randomly selected groups of acquaintance rapes.

Group 1 of Reported Stranger Rapes

The *t*-test established that the difference in scores between genuine and false allegations in this group was statistically significant at the 95% confidence level. There was no overlap in scores between genuine and false cases; in group 1, all genuine cases had a score of 13 or higher and all false cases had a score of 11 or lower.

Table 9.1 - T-Test for Stranger Rape Group 1

Group Statistics

	Gen or False	N	Mean	Std. Deviation	Std. Error Mean
Behavioural Profile Sum	Genuine	7	13.29	.488	.184
	False	10	10.30	1.567	.496

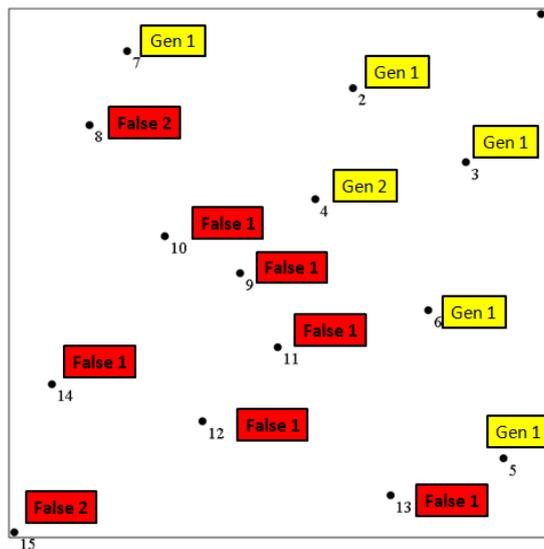
F (1, 15) = 8.933; p < 0.01

Table 9.2 - T-Test and Levene's Test for Stranger Rape Group 1

Independent Samples Test

	Levene's Test for Equality of Variances		T-test for Equality of Means							
	F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
								Lower	Upper	
Behavioural Profile Sum	Equal variances assumed	8.993	.009	-4.837	15	.000	-2.986	.617	-4.301	-1.670
	Equal variances not assumed			-5.647	11.340	.000	-2.986	.529	-4.145	-1.826

Figure 9.1: POSAC of Group 1 Stranger Rapes



The POSAC used for this group of 17 stranger rapes consisted of the eight variables determined through logistic regression to be the most predictive of whether a case is labelled as Genuine or False. Within group 1, 15 different POSAC profiles were found using the HUDAP program. In this case, all genuine cases have sum scores of 13 or 14. In contrast, the sum scores of the POSAC profiles in the false cases ranged from 8 to 11. Therefore, in this group a score of 13 or higher would be indicative of a genuine rape and a sum of 11 or less would be indicative of a false allegation. Next, Group 1 was compared to another random group of reported rapes to see if these two behaviour profiles were similar.

Group 2 of Reported Stranger Rapes

Unlike the first group, there was no clear-cut score distinction between the genuine and false cases. All genuine cases had scores of 13 or higher, and all false allegations had scores of 10 or lower, with the exception of two false cases that had a behavioural profile sum of 13. These two outliers affect the comparison of Group 2 to Group 1.

Table 9.3 - T-Test for Stranger Rape Group 2

Group Statistics

	Gen or False	N	Mean	Std. Deviation	Std. Error Mean
Behavioural Profile Sum	1	7	13.71	1.380	.522
	0	10	10.20	1.549	.490

F (1, 15) = .002; Not significant

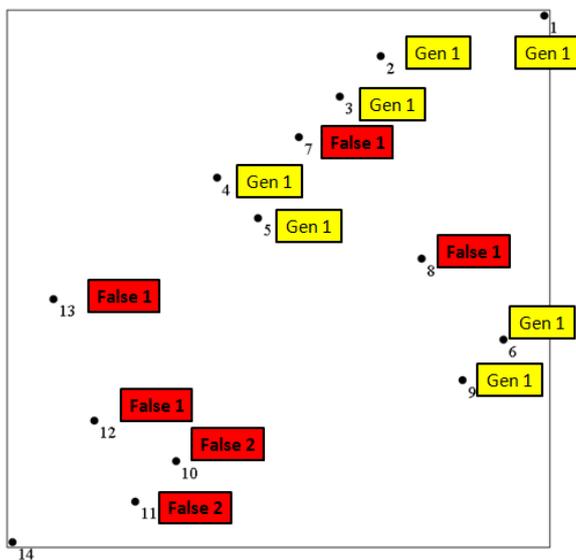
Table 9.4 - T-Test and Levene's Test for Stranger Rape Group 2

Independent Samples Test

	Levene's Test for Equality of Variances		T-test for Equality of Means							
	F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
								Lower	Upper	
Behavioural Profile Sum	Equal variances assumed	.002	.968	4.806	15	.000	3.514	.731	1.956	5.073
	Equal variances not assumed			4.911	13.994	.000	3.514	.716	1.979	5.049

Table 9.3 and 9.4 displays the outputs of the t-tests performed on Group 2 of stranger rapes. A statistically significant cut-off point could not be determined using solely this method.

Figure 9.2 - POSAC of Group 2 Stranger Rapes



The POSAC used in this group of 17 stranger rape cases, as in Group 1, consisted of the eight variables determined through logistic regression to be the most predictive of whether a case is labelled as genuine or false. In this group, 14 different POSAC profiles were found using the HUDAP program. All genuine cases have sum scores of 12 to 16; the sum scores of the POSAC profiles of the false cases range from 8 to 13.

A Review of the Two Outlier Cases in Group 2

The first outlier, case 140, was previously described in Chapter 6. Its features that led to a higher score included the presence of a witness, no previous mental health history, a cooperative victim throughout, no inconsistent stories, and the presence of minor injuries. However, case 140 was determined to be a false allegation. In this case, the witness contradicted the victim's account and assisted investigators in determining that the allegation was false case, but the presence of a witness gave this case a higher behavioural score. Normally, the presence of a witness lends credence to the victim's claims; in this particular instance, the witness did not support the victim's claims.

Case 202 also had five of the eight features usually associated with genuine cases: a witness, no mental health history, cooperative victim, does not give inconsistent stories, and suspect with a criminal record. The victim and some friends went to a restaurant where she had several alcoholic drinks. When her friends went to the bathroom, the victim apparently went home with the unknown suspect.

The victim woke up naked at a stranger's house and could not initially remember all of the evening's events. She went to the hospital because she did not think the suspect used a condom and thought she may have been raped since she felt as though intercourse had occurred but could not initially recall having sex or consenting to it. Although the suspect was not known to the victim prior to that night, he was identified and interviewed. He stated that the sex was consensual.

The victim was later able to recall the evening's events, which made the initial assumption of rape false by the present research standards. She stated that she was heavily intoxicated so it was hard to recall the events. The initial officer wrote the report as a rape since the alleged felt like she had sex but could not remember any details or giving consent. Therefore, it was initially deduced by everyone involved that the suspect had intercourse with her while she was passed out but she was later able to recall having consensual sex with the suspect. Such cognitive gaps are supported by Sapolsky's (2005) research. She remembered getting into the suspect's car, going to his apartment, and drinking water at his house. Everyone there was nice to her and she was offered a couch to sleep on. The victim recalled sleeping in a bed with the suspect and having consensual sex with him. During a follow-up interview, she remembered asking the suspect to stop having sex with her and said that he complied. After recalling the night's events, she was sure she had not been raped. However, none of her statements contradicted each other, which is the criterion for the variable of not giving inconsistent statements (see the coding dictionary in Appendix I).

As with the other outlier case, the presence of a witness contributed to the higher behaviour score typically more indicative of a genuine case. In this case, the witness was described as seeing the alleged flirting with the suspect, getting into the suspect's car and leaving the bar. These two cases may point to an imperfection within the coding dictionary of this variable that may need refining, since in both cases the witness did not confirm the claim of rape. A redefinition of the understanding of "witness present" could reduce the number of outlier cases.

In sum, the test of the stranger rape model found a range of scores from 12 to 15 for a genuine rape, but two false cases also fell into this score range. The two outlier cases have been discussed above.

Acquaintance Rape Group 1

A similar approach was attempted with a random group of acquaintance rapes. The *t*-test scores showed that, within a 95% confidence interval, genuine case scores ranged from 12 to 14. In contrast, the false acquaintance rape cases ranged from 10 to 11.

Table 9.5 - *t*-Test for Acquaintance Rape Group 1

Group Statistics

	Gen or False	N	Mean	Std. Deviation	Std. Error Mean
Behavioural Profile Sum	Gen	15	12.93	1.280	.330
	False	14	10.43	1.222	.327

F (1, 27) = .126; Not significant

Table 9.6- *t*-Test and Levene's Test for Acquaintance Rape Group 1

Independent Samples Test

	Levene's Test for Equality of Variances		T-test for Equality of Means						
	F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Behavioural Profile Sum	.126	.726	5.381	27	.000	2.505	.465	1.550	3.460
			5.390	26.982	.000	2.505	.465	1.551	3.458

The *t*-test was not found to be statistically significant, but there is no overlap between the two 95% confidence interval ranges of the genuine and false groups even given the variance in this model. As a result, one would expect genuine cases to have a BPS of 12 or higher. Scores of 11 or lower would be indicative of false cases.

Figure 9.3 - POSAC of Group 1 Acquaintance Rapes

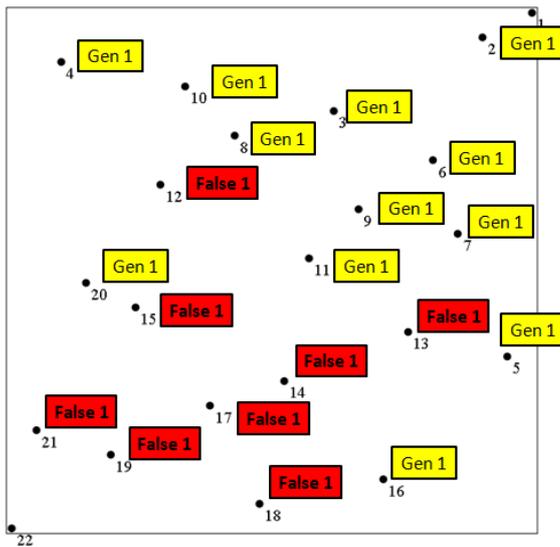


Figure 9.3 is a POSAC output of the model for acquaintance rapes in geometric space. As in the previous POSACs of the stranger rapes, the genuine rapes generally take the form of a P-partition. This means that genuine rapes have a higher quantitative sum score and vary in their overall quality or combination of predictive variables. Again, this quantity of detail is consistent with research by Vrij (2008) and DePaulo et al. (2003). The varying quality of the genuine cases is consistent with the findings of Alison and Stein (2001) and Marshall and Alison (2006) as well.

Acquaintance Rape Group 2

The *t*-test scores of Group 2 of acquaintance rapes help to support this approach, finding a 95% confidence interval for the genuine cases as ranging from 11.91 to 13.16. In contrast, the false acquaintance rapes range from 9.62 to 10.84. There is thus no overlap within the 95% confidence intervals.

Table 9.7 - *T*-Test for Acquaintance Rape Group 2

Group Statistics

	Gen or False	N	Mean	Std. Deviation	Std. Error Mean
Behavioural Profile Sum	Gen	15	12.53	1.125	.291
	False	13	10.23	1.013	.281

F (1, 26) = .246; Not significant

Table 9.8 - *t*-Test and Levene's Test for Acquaintance Rape Group 2

Independent Samples Test

	Levene's Test for Equality of Variances		<i>t</i> -test for Equality of Means							
	F	Sig.	<i>t</i>	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
								Lower	Upper	
Behavioural Profile Sum	Equal variances assumed	.246	.624	5.653	26	.000	2.303	.407	1.465	3.140
	Equal variances not assumed			5.697	25.952	.000	2.303	.404	1.472	3.133

As with Group 1 of acquaintance rapes, the *t*-test was not found to be statistically significant, but as noted, there was no overlap in the 95% confidence intervals. As a result, one would expect genuine cases to have a BPS of 12 or higher. Scores of 11 or lower would again be indicative of false cases. However, two false cases had a BPS sum score of 12 and are therefore outliers that will be discussed further below.

Figure 9.4 - POSAC of Group 2 Acquaintance Rapes

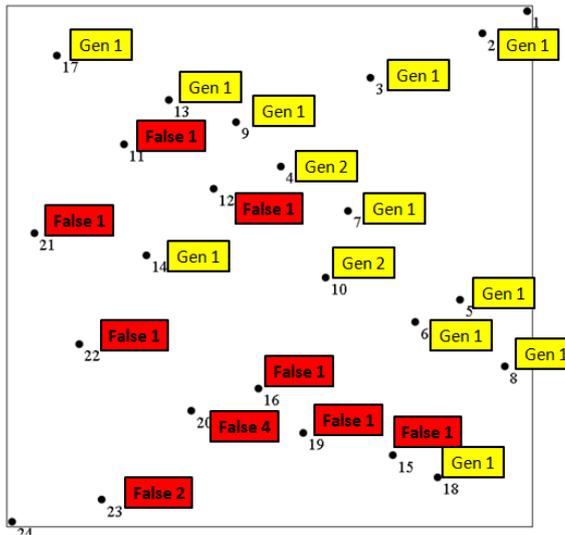


Figure 9.4 is a POSAC output of the model for acquaintance rapes in geometric space. As in the previous POSACs of the stranger rapes, the genuine rapes form a P-partition. This means that genuine rapes have a higher quantitative sum score and vary in their overall quality or combination of predictive variables. Again, this quantity of detail is consistent with research by Canter et al. (2003a).

Testing the Acquaintance Rape Model Developed from Group 1 on Group 2

Group 1 was used as a model to test against another random group of acquaintance rapes within this study sample. The *t*-test with a 95% confidence level set the range of BPS scores for genuine rapes at 12 and above, but two false allegations from group 2 also had a BPS score of 12. This again raises the question of whether the two outliers, cases 211 and 318, are due to mislabelling or definitional flaws or are simply unusual cases.

Case 211 had a BPS score of 12. The variables contributing to this score were a cooperative victim, no inconsistent stories, injuries to the victim, and a suspect with a criminal record, causing this case to into the apparently genuine subgroup if based solely on BPS scores. However, it was determined to be false by police and by the classification process covered in Chapter 3.

The victim stated that she was washing the dishes when she observed the suspect choking a cat to the point that the cat's tongue was hanging out, so she hit him on the head with a plastic spatula. She said that the suspect dropped the cat and she put it outside. The suspect became angry, broke some of her items and was acting like a "jerk", so she hit him. He hit her back and choked her several times until she told him she could not breathe, at which point he stopped.

She went to the bedroom and he laid down on the couch. A few minutes later the suspect called the victim to him and asked her to "coax him to come to bed so that things would be okay".

The victim appeared concerned primarily because the suspect seemingly wanted only sexual favours and did not show any concern over the cat or the broken items. He asked for a "blow job" and didn't use physical force but used "mental manipulation" to get her to give him oral sex. Afterwards they had intercourse during which she said she did not feel threatened or forced to have sex but was crying the whole time.

The suspect was unable to reach orgasm through intercourse. He then put his foot inside her vagina—an activity that the victim said he knew she would dislike, since "he knows I don't like toenails." The suspect grabbed the victim's hair and forced her to sit still when he was on top of her. She did not know if he ejaculated during this stage of intercourse. After this, the suspect fell asleep on the couch and the victim went to sleep in the bedroom.

Later in the morning the suspect woke the victim up and tried to get her to apologise again. They had sex again and the victim said that when she told him it hurt, he responded by saying he didn't care. After they had sex this second time, she took a shower and went to work.

When she arrived at work, the victim told her manager what had happened. At her lunch break, the victim informed her best friend, who took her to the hospital; the hospital then contacted the police. The officer observed a bruise on the victim's neck when interviewing her at the hospital. The victim consented to a rape kit. The medical staff did not see any evidence of forced intercourse or signs that a toenail had been inside her vagina (it would normally have created scratches on the inside walls of the vagina) during the examination.

The suspect admitted to having sex with the victim but said that it was consensual. He also stated that the victim had not been taking her medication for bipolar disorder for some time and had been acting strangely. It was noted that the suspect had a prior criminal record of shoplifting and furnishing alcohol to a minor.

A few days later the victim was re-interviewed by a rape investigator. At this point, the victim stated that she was not forced to have sex but did so to appease him and to make things better between them. She added that she was never scared, intimidated or forced into having sex. Although the initial officer had written up the case as a rape, he seemed to have assumed that the sexual activity was against the victim's will. The contents of the victim's statements did not appear inconsistent, so it may be that in this instance the factors were not adequately clarified at the onset of the case.

In case 318, the variables contributing to a higher BPS score were the listing of a witness in the report, no mental health history, a cooperative victim, and a suspect with a criminal record. However, this case was also determined to have been a false allegation.

The victim and suspect had been drinking and flirting during a party. At some point they ended up in bed together in the victim's bedroom. Her boyfriend heard the victim "moaning" inside the locked bedroom, so he kicked the door in, thinking that the suspect was raping his girlfriend. The boyfriend observed the victim on the bed with her pants down to her knees, her shirt open and red marks on her chest. It is possible that the alleged may have been motivated by the need to develop an alibi after being found in that situation (see e.g. O'Neal et al., 2014).

The responding officer observed the victim vomiting throughout the first encounter. The victim went to the hospital claiming to have been raped and had a rape kit done. When interviewed, the suspect stated that the sex was consensual.

The witnesses in this case stated that both the suspect and victim in this case were drunk and that the victim was flashing her newly pierced nipple at everyone. Witnesses also stated that the suspect and victim were making out in front of them throughout the night.

After interviewing all the parties involved and gathering all available facts, the detective in this case stated, "Both the victim and suspect were intoxicated. ... The victim was not physically restrained and had been having consensual contact with the

suspect during the evening." The detectives noted several times throughout the investigative process how the victim remembered detailed aspects about everything prior to going into the bedroom with the suspect and after the boyfriend (with whom she had had an argument with earlier in the day) kicked the door in. These detailed statements covering the time period before and after the possibly fictitious event may indicate deception, as discussed by Vrij (2008). At first, the victim had no memories of any activities that occurred while she was in the bedroom and did not know if they had intercourse. The victim made multiple conflicting statements, and it appeared to the detectives that she was sticking with the rape scenario as an alibi because her boyfriend would likely leave her if he knew that the sexual activities seen by witnesses throughout the night and observed by the boyfriend were consensual.

Although the victim gave multiple conflicting statements throughout the case, it appears that she remained cooperative. This factor and the presence of witnesses (whose statements tended to corroborate the view that the sex was consensual) contributed to the high BPS score.

Discussion of Random Group Stage of BPS Testing

Three of the four outliers in the stranger and acquaintance rape groups included the variable of a witness present. In these cases, contrary to the normal pattern as displayed in Figure 8.8, the witnesses made the victim's statement seem less credible by describing consensual sexual behaviours and by contradicting aspects of the victim's report. It thus appears that the definition of this variable in the coding dictionary negatively impacted the power of the model. Rewording this variable so as to reduce these false positives would enhance the overall power of the BPS.

A cooperative victim is typically more likely to have been genuinely raped. However, in these outlier cases, the victim's cooperativeness led to the discovery that she was in fact not raped. Even when it was determined that no rape had occurred, the alleged remained cooperative. This cooperation may have been motivated by a desire to avoid prosecution for filing a false police report, although this cannot be determined from historical documents.

When the suspect has a previous criminal record, this factor also tends to lend credence to genuine rape statements; however, when present in false cases it can contribute to raising the BPS into a range usually indicative of genuine cases.

Based on these initial tests, the BPS model appears vulnerable to some false positives variables in this first stage of studies in this chapter. Additional research was conducted with a larger set of cases to more fully examine the model's strengths and limitations.

We have seen thus far that a BPS of 12 to 16 appears to indicate a genuine rape and that scores of 8 to 11 generally indicate false accusations. A visual output of the BPS on the POSAC axes showing both stranger (Figure 9.5) and acquaintance (Figure 9.6) rapes helps to illustrate the strengths and limitations of the model. Figure 9.7 combines all genuine and false allegations in the population and further illustrates the power of the BPS.

Figure 9.5 – POSAC of All Stranger Rapes

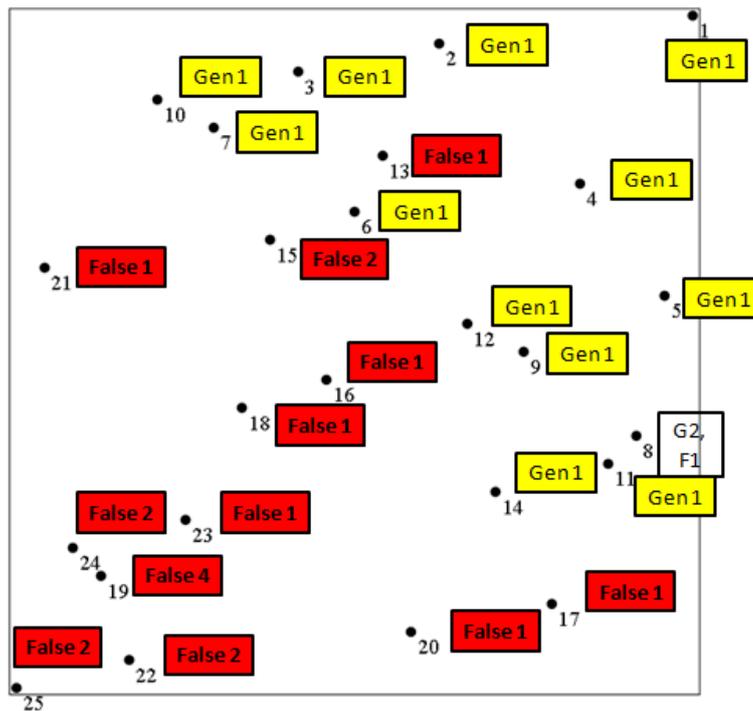


Figure 9.5 shows a POSAC output of the model for all reported stranger rapes in geometric space. As in the previous POSACs of the stranger rapes, the genuine rapes form a P-partition with only two false cases occupying that space, demonstrating that genuine rapes have a higher quantitative sum score and vary in their overall quality or combination of predictive variables. Again, these results are consistent with previously discussed research (e.g. DePaulo et al., 2003; Hunt & Bull, 2011; Vrij, 2008). As in the previous models, the varying quality of the genuine cases is consistent with previously discussed research as well (e.g. Alison & Stein, 2001; Marshall & Alison, 2006).

Figure 9.6 - POSAC of All Acquaintance Rapes

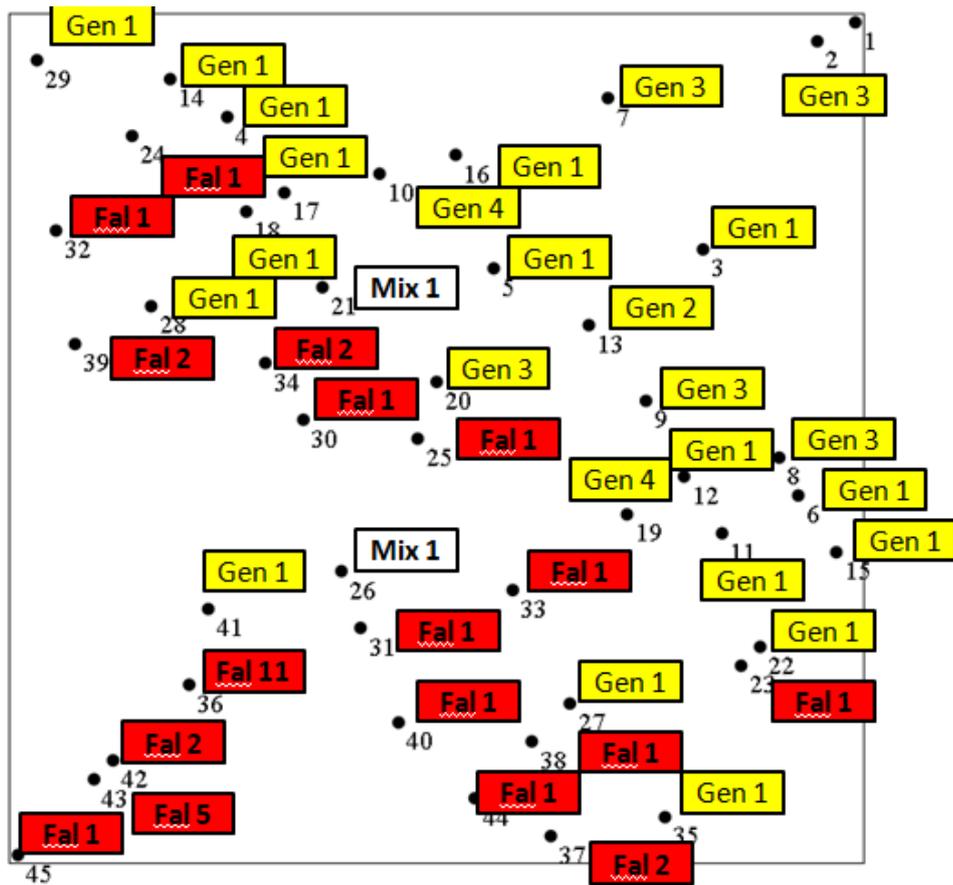


Figure 9.6 is a POSAC output of the model for all reported acquaintance rapes in geometric space. Again the genuine cases form a P-partition with few exceptions, demonstrating that they have a higher quantitative sum score and vary in their overall quality or combination of predictive variables.

Figure 9.7 - POSAC of All Genuine and False Rapes

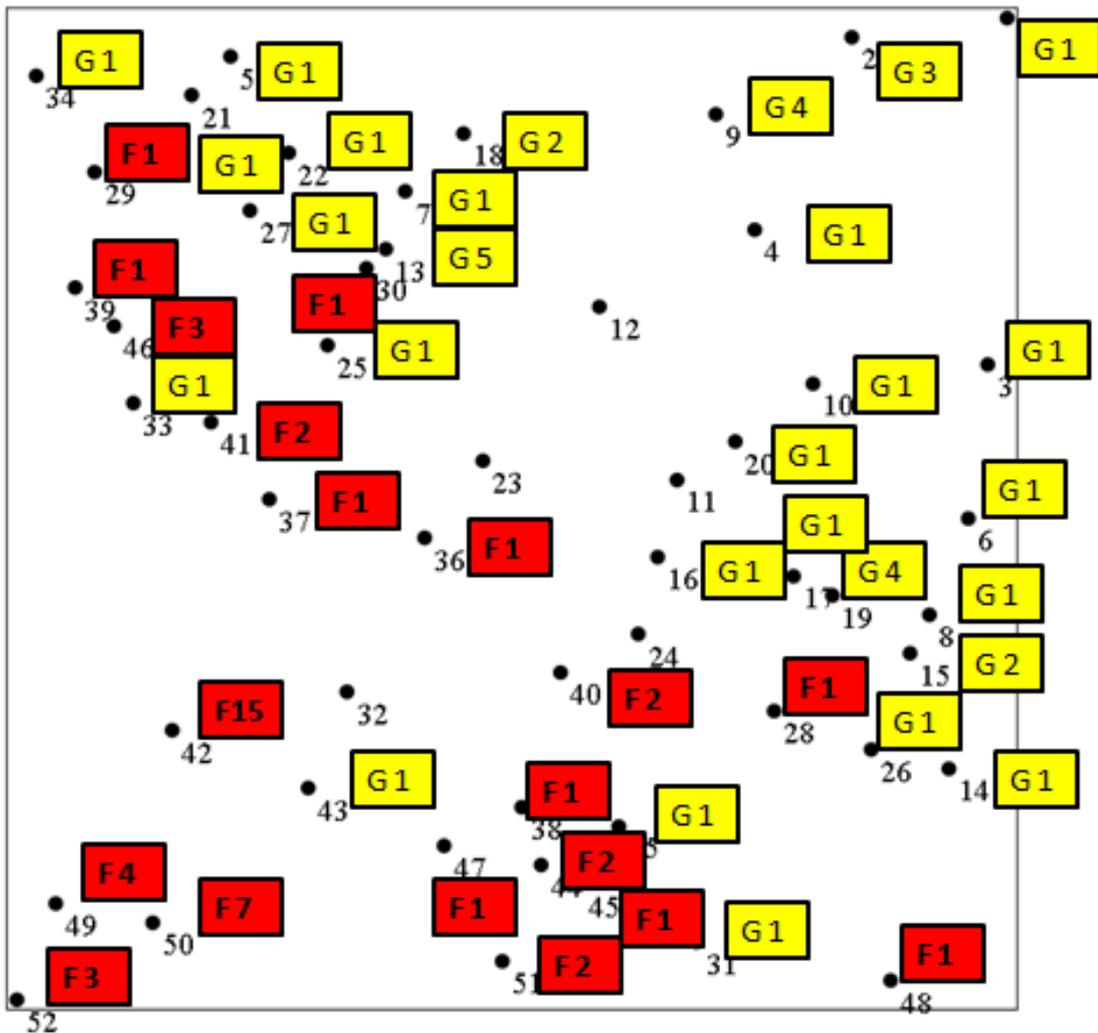


Figure 9.7 includes all 60 false rapes and all 59 genuine rapes. Only 5 (8.47%) of the 59 genuine cases had a BPS below 12. Of these five, four of these cases had a BPS of 11 and one had a BPS of 10.

As illustrated earlier in this chapter, the false positives tend to be slightly more frequent because some variables, such as the presence of a witness who contradicts the victim's story, work against the reliability of the BPS in some cases. Ten (16.67%) of the false cases have a BPS more indicative of a genuine case. Eight of these ten had a BPS of 12 and two had a BPS of 13.

Chapter Summary

The aim of this process was to identify the cut-off area for the BPS. Although the null hypothesis cannot be rejected by the *t*-tests, they aided the development of the BPS by

objectively determining a profile range for each subgroup. With the exception of the first group of stranger rapes, the behaviour sums of genuine rapes and false rape allegations do not differ at a statistically significant level within the *t*-tests.

The substantial majority of BPSs were identified as falling within a range of 12 to 16 for genuine cases and 8 to 11 for false cases. These range values for genuine cases were 92% effective in identifying genuine rapes across the population. The BPS range for false cases was 83% accurate in identifying false rape allegations within this population. Generally speaking, it can be theorised that when a case has four or more of the eight variables (or a BPS between 12 and 18) as ranked in common order, it is likely to be genuine.

Chapter 10 - Exploring All Subgroups with the BPS Model

A primary goal of this current study was to avoid an overly simplistic definition of genuine and false rape allegations based on a single variable, such as whether the complainant admitted to reporting a false allegation of rape, as was found in some past studies (e.g. Kanin, 1994). Initially, the present research worked with cases that could clearly be identified as either genuine or false. Working with cases that could not be placed unmistakably in the genuine or false subgroup could be expected to pose a greater challenge. In this chapter, these cases and the question of what kept them from being classified as genuine or false will be explored.

To uncover some reasons for the inability to classify these cases, a systematic investigation of the data, using the framework developed to understand what was occurring in each case, was carried out. The BPS model was used to assist in understanding what characteristics typically occurred within the unclassified group. Although this systematic approach provided a clearer picture of what factors were occurring in cases determined to be genuine, it also presented a challenging hurdle in studying the overall characteristics of rape.

Methodology of Working with 94 Randomly Chosen Cases in the POSAC

As explained in Chapter 8, the HUDAP software repeatedly crashed during attempts to run all 351 cases. Thus it was impossible to run a POSAC on the entire population. This software limitation was also encountered when trying to run POSACs with all 23 statistically significant variables outlined in Chapter 6. Because of this problem, the methodology described in Chapter 7, using only eight variables, was developed.

For the analysis in this chapter, 94 cases were randomly selected from the population, using SPSS's random feature, and run in HUDAP's POSAC analysis function. The methodology was similar to the one described in Chapter 8. Each of the six variables found to be more indicative of a genuine rape was coded as 2 if present and 1 if not recorded in each case. The two variables more indicative of false allegations were rewritten as "not" statements; the score assigned was 2 if each of these variables was not present and 1 if present. This process was essential in providing coherence to the raw scores of the POSAC. For the reader's convenience, the eight variables are restated in Table 10.1.

Table 10.1 – Eight Predictive Variables Determined through a Grouping Logistical Regression Model and Restated for Scoring Purposes

Differentiating Characteristics of Rape
Witness Listed in Report
DNA Collected from the Crime Scene or off the Victim
Victim Sustains Injuries That Correspond with Statement
Suspect Known to Have a Criminal Record at Time of Investigation
Stealing
Victim Cooperative throughout Case
Victim Reported NOT to Have Mental Health Problems Prior to the Incident
Victim Did NOT Give Inconsistent Statements

Results

The POSAC produced two separate types of plots for examination along with the table of coefficients of weak monotonicity (Table 10.2). The first is the overall plot as shown in Figure 10.1. This plot demonstrates all the profiles in relation to the common order of plausibility along the J-axis. In other words, the main POSAC plot displays a spread of the profiles along the J-axis, portraying an increase in the extent of plausibility. Figure 10.2 displays false cases in the lower regions of plausibility and genuine cases in the higher regions of plausibility and the unclassified in the middle region.

Table 10.2: The Coefficients of Weak Monotonicity of 94 Random Cases

Item Name	J - axis	L – axis	X - axis	Y – axis	P - axis	Q - axis
Witness Listed in Report	.88	.50	.84	.39	.73	.79
No Documented Mental History	.78	.33	.73	.28	.99	.24
Cooperative throughout Case	.78	-.16	.47	.62	.90	.41
Victim Does Not Give Different Statements	.84	-.21	.52	.70	.75	.67
DNA Collected Off Victim or at Crime Scene	.88	.21	.74	.53	.47	.98
Visible Injury Observed on the Victim	.88	-.23	.56	.77	.75	.75
Suspect Has a Criminal Record	.81	-.99	-.24	1.00	.30	.91
Suspect Stole Items of Value from Victim	.80	.97	1.00	-.27	.21	.97

As in previous analyses in this thesis, the variables of criminal record and theft appear to have the strongest effect on the coefficient of weak monotonicity within this sample of cases. The presence of the stealing variable had a coefficient of 1.00 along the X-axis. In contrast, the presence of the suspect having a criminal record had a coefficient of 1.00 along the Y-axis.

Figure 10.1: POSAC of 94 Randomly Selected Cases

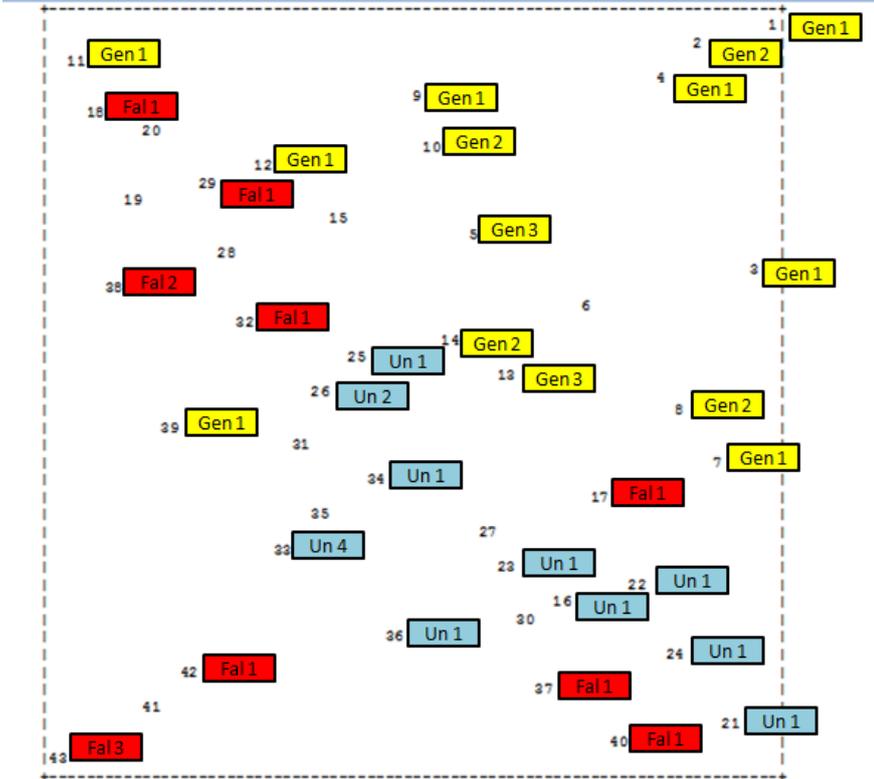


Figure 10.1 visually represents how all the random samples were located within the POSAC. The model used the behavioural profile and score to plot the cases in the best fit within a geographical space. A cluster of unclassified cases falls between the genuine and false allegations in both geometric space and BPS score. This clustering pattern of the unclassified cases between the genuine and false cases appears to explain, in part, why the investigations could not decisively determine that these cases were genuine or false.

The clustering nature of unclassified cases in space along the Q-axis is consistent with the lower quantitative scores expected within the unclassified group. In addition, the unclassified cases appear to range from the middle to the maximum scores along the L-line. This theoretically means that the variables with a higher coefficient of weak monotonicity among the L-axis variables will have a higher percentage of unclassified cases. To test this theory and explore the unclassified cases, we must scrutinise the variables by means of individual variable plots. This step should provide some insight as to why these cases could not be classified as genuine or false.

Figure 10.2: 94 Random Cases with Mixed Cases Identified

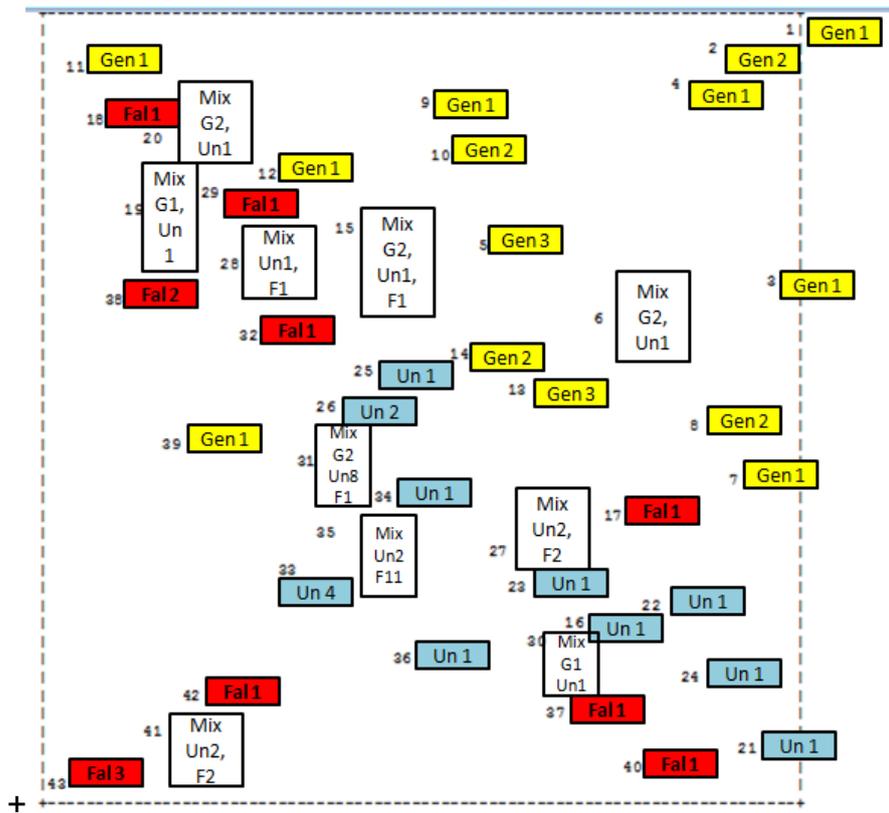


Figure 10.2 illustrates mixed groupings of cases that have the same behavioural profile and the same BPS score. For example, POSAC behavioural profile 41 in the bottom left corner contains two unclassified cases and two false cases. These cases have the same combination of variables and total behavioural sum, yet they were categorised differently through the framework laid out in this thesis.

Looking at the overall POSAC plot from this perspective illustrates that the instances of mixed cases tend to run along the L-line (which runs from the top left corner down to the bottom right corner) of the geometric space. However, the profiles with both genuine and unclassified cases tend to have a lower L-score than those containing both false and unclassified cases. More specifically, the majority of unclassified cases are near the middle and higher score range (lower right corner) of the L-line, which shares more general space with the false allegations. For example, profile 20 is the only mixed profile with an L-score within the middle to lower score range (closer to the upper left corner). In contrast, the majority of mixed profiles containing

unclassified and genuine cases share a lower L-score (lower right corner). This pattern will be examined further in the individual plots.

Figure 10.3: Individual POSAC Plot for the Variable “Witness Listed in Report” in 94 Randomly Selected Cases

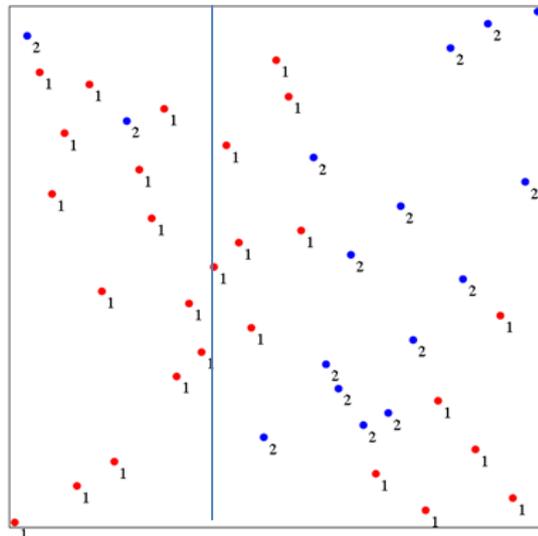


Figure 10.3 looks at the individual plot for the variable of “witness listed in report”. The blue 2's indicate the profiles where this variable was documented to have been present; red 1's indicate where it was not reported.

Overall, this individual plot could be primarily partitioned along the Y-axis, which means that this variable reflects a key conceptual distinction. The presence of this variable is statistically more indicative of a genuine report of rape. It was reported in 58% of genuine, 31% of unclassified, and 23% of false cases.

All unclassified cases with this variable present are to the right of the Y-axis partition. Although this variable is reported in almost one-third of the reported unclassified cases, it shares only two BPS profiles with genuine cases and one BPS profile with a false case in this random selection of cases. By examining to Figure 10.2, Table 10.1 and Table 10.3 (the individual plot above), one can see that the unclassified cases will typically have a higher score than the midrange (.50) coefficient of weak monotonicity score along the L-axis. This tells us that although the variable of whether the report lists a witness is a key conceptual distinction in determining genuine from false allegations, it is not as helpful by itself in determining whether an unclassified case

is more likely genuine or false, even though the unclassified cases share more overall geometric space along the L-line with primarily false allegations.

Figure 10.4: Individual POSAC Plot for the Variable "No Mental Illness Reported" in 94 Randomly Selected Cases

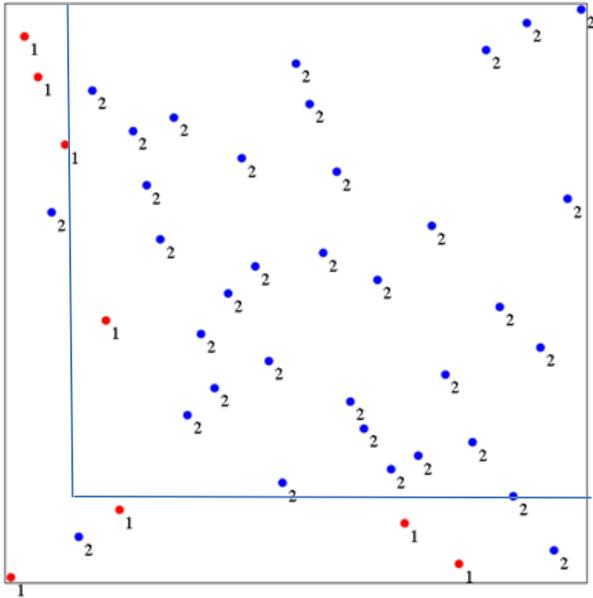


Figure 10.4 considers the variable of whether the victim had a known history of mental illness. Since this was one of the two variables with a negative score in the logistic regression (i.e. more indicative of a false rape allegation), it had to be reworded as "No Mental History Present" and coded so as to maintain the needed common order for a POSAC. In this case, the blue 2's indicate the profiles where this variable was *not* recorded as present and the red 1's indicate the profiles of cases where it was present. This variable, now coded to maintain the common order, is indicative of a genuine report of rape along the J-line.

Overall, the plot has mainly a P-partition, which indicates that the variable of no history of mental illness has a polarising or moderating effect on the overall qualitative scale of the POSAC structure. This variable was reported in 8% of genuine, 14% of unclassified, and 27% of false cases.

The unclassified cases with this variable present are dispersed within the moderating partition of this output. Unclassified cases share BPS profiles with this variable in mixed profiles containing both genuine and false cases in this random

selection of cases. By referring back to Figure 10.2, one can see where these shared profiles fall. This result tells us that although the variable of no reported mental illness is helpful in distinguishing genuine from false allegations, it is not as helpful in determining if an unclassified case is more likely genuine or false by itself, even though the unclassified cases once again appear to share more geometric space overall with the false allegations within this partitioned area.

Figure 10.5: Individual POSAC Plot for the Variable "Cooperative Victim" in 94 Randomly Selected Cases

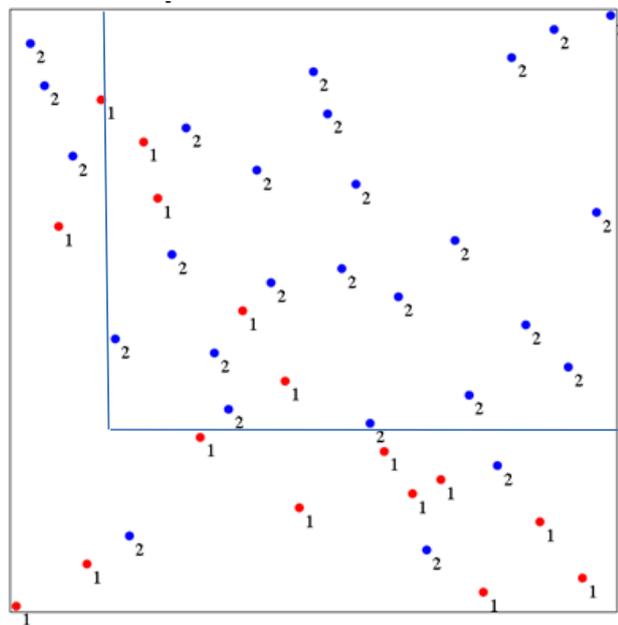


Figure 10.5 looks at the behavioural profile plot for the individual variable of a cooperative victim, which generally indicates a genuine report of rape. Overall, this individual plot has mainly a P-partition, which indicates that the variable has a polarising or moderating effect on the overall qualitative scale of the POSAC structure. The presence of this variable is statistically more indicative of a genuine report of rape. This variable was reported in 97% of genuine, 49% of unclassified, and 72% of false cases.

As with the other two subgroups, the unclassified cases with this variable present are dispersed within the moderating partition of this output. Unclassified cases share BPS profiles with this variable in mixed profiles involving both genuine and false cases in this random selection of cases. By referring back to Figure 10.2, one can see where these shared profiles fall. Again, although this variable is helpful in distinguishing genuine from false allegations, it is not as helpful in determining if an unclassified case

is more likely genuine or false by itself, even though the unclassified cases appear to share more overall geometric space with false allegations within this partitioned area.

Figure 10.6: Individual POSAC Plot for the Variable “Different Statements Not Given” in 94 Randomly Selected Cases

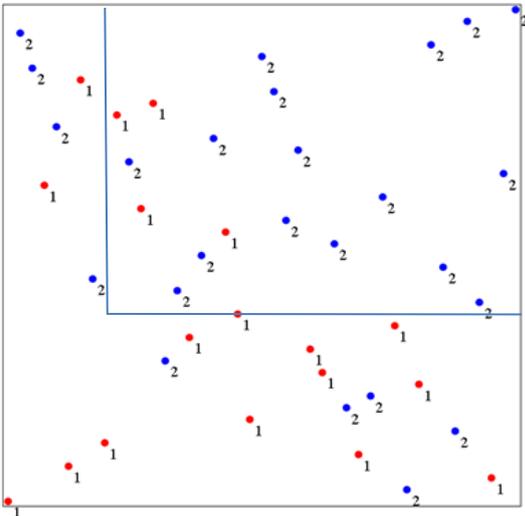


Figure 10.6 explores the variable of whether the victim gave different, inconsistent statements. This was the second variable that had to be reversed to maintain the needed common order for a POSAC. Thus, in this case the blue 2's indicate the profiles where this variable was documented *not* to have been present.

Overall, the plot has mainly a P-partition, which indicates that the variable of different statements not given has a polarising or moderating effect on the overall qualitative scale of the POSAC structure. A lack of inconsistent statements was reported in 92% of genuine, 78% of unclassified, and 25% of false cases.

As with the other two subgroups, the unclassified cases with this variable present are dispersed within the moderating partition of this output. Unclassified cases share BPS profiles with this variable in mixed profiles involving both genuine and false cases in this random selection. By referring back to Figure 10.2, one can see where these shared profiles fall. Although the variable is helpful in distinguishing genuine from false allegations, it is not as helpful by itself in determining if an unclassified case is more likely genuine or false, even though the unclassified cases once again appear to share more overall geometric space with false allegations within this partitioned area.

Figure 10.7: Individual POSAC Plot for the Variable "DNA Present" in 94 Randomly Selected Cases

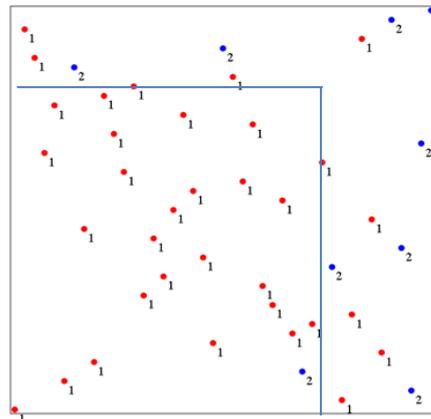


Figure 10.7 looks at the behavioural profile plot for the variable of DNA having been collected at the scene or from the victim. The blue 2's indicate the profiles where this variable was documented to have been present. This variable is indicative of a genuine report of rape.

Overall, the plot has mainly a Q-partition, which tends to indicate items that are polarising or moderating on the qualitative rather than the quantitative scale. This variable was reported in 51% of genuine, 3% of unclassified, and 3% of false cases.

As with the other two subgroups, the unclassified cases with this variable present are dispersed within the moderating partition of this output. Unclassified cases share BPS profiles with this variable only in mixed profiles involving genuine cases in this random selection of cases. However, this result could be due to the very low percentage of unclassified and false cases with this variable. Nevertheless, we may tentatively conclude that the variable of DNA being collected may assist in determining if an unclassified case is more likely genuine. The unclassified cases share overall geometric space only with genuine cases within this partitioned area.

Figure 10.8: Individual POSAC Plot for the Variable "Injury of Victim" in 94 Randomly Selected Cases

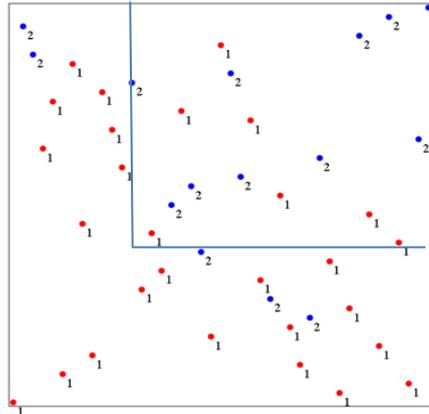


Figure 10.8 looks at the behavioural profile plot for the variable of injury to the victim. The blue 2's indicate the profiles where this variable was documented to have been present.

Overall, the plot has a P-partition, which indicates that the variable has a polarising or moderating effect on the overall qualitative scale of the POSAC structure. This variable was reported in 46% of genuine, 19% of unclassified, and 5% of false cases.

Unclassified cases share mixed BPS profiles only with genuine cases in this random sample. This may tentatively suggest that, like the variable of DNA being collected, the variable of injury to the victim may assist in determining if an unclassified case is more likely genuine. This is because the unclassified cases share overall geometric space only with genuine cases within this partitioned area, as they did with the DNA variable.

Figure 10.9: Individual POSAC Plot for the Variable "Criminal History" in 94 Randomly Selected Cases

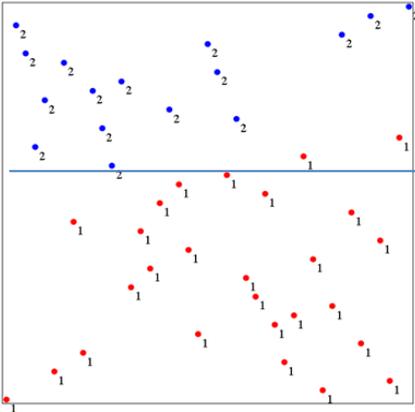


Figure 10.9 depicts the behavioural profile plot for the variable of whether the suspect was known to have had a previous criminal history at the time of the investigation. The blue 2's indicate the profiles where this variable was documented to have been present. This variable is indicative of a genuine report of rape.

Overall, the plot has an X-axis partition, which means that it likely reflects a key conceptual distinction within the overall construct being explained with POSAC. This variable was reported in 54% of genuine, 14% of unclassified, and 20% of false cases.

Unclassified cases with this variable present are both above and below the X-axis partition. This variable shares mixed BPS profiles with genuine and false cases in this random sample. This tells us that although the variable criminal record is a key conceptual distinction in distinguishing genuine from false allegations, it is not as helpful by itself in determining whether an unclassified case is more likely genuine or false.

Figure 10.10: Individual POSAC Plot for the Variable "Stealing" in 94 Randomly Selected Cases

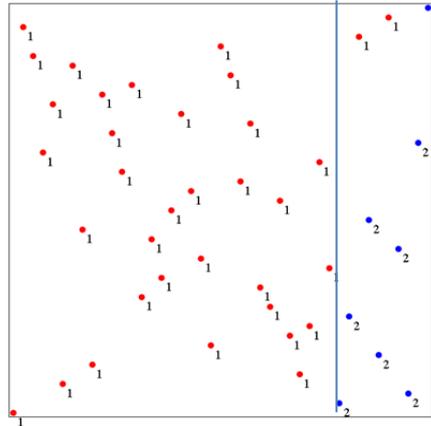


Figure 10.10 looks at the behavioural profile plot for the variable of stealing. The blue 2's indicate the profiles where this variable was documented to have been present. This variable is indicative of a genuine report of rape.

Overall, the plot has mainly a Y-axis partition, which can show that the variable reflects a key conceptual distinction within the overall construct being explained. This variable was reported in 17% of genuine, 8% of unclassified, and 2% of false cases.

Unclassified cases with this variable are present on both sides of the Y-axis partition. However, as this variable relates to the unclassified subgrouping it does not share any specific BPS profiles with genuine or false cases in this random selection. This tells us that although the variable of stealing is a key conceptual distinction in distinguishing genuine from false allegations, it is not as helpful in determining whether an unclassified case is more likely genuine or false by itself. Nevertheless, criminal history and stealing remain the two strongest differentiating variables based on the individual profile plots. Case examples involving these two variables in the unclassified subgroup will be described later in this chapter.

Figure 10.11: POSAC of Randomly Selected 94 Cases with Criminal Record and Stealing Within Best-fit Lines

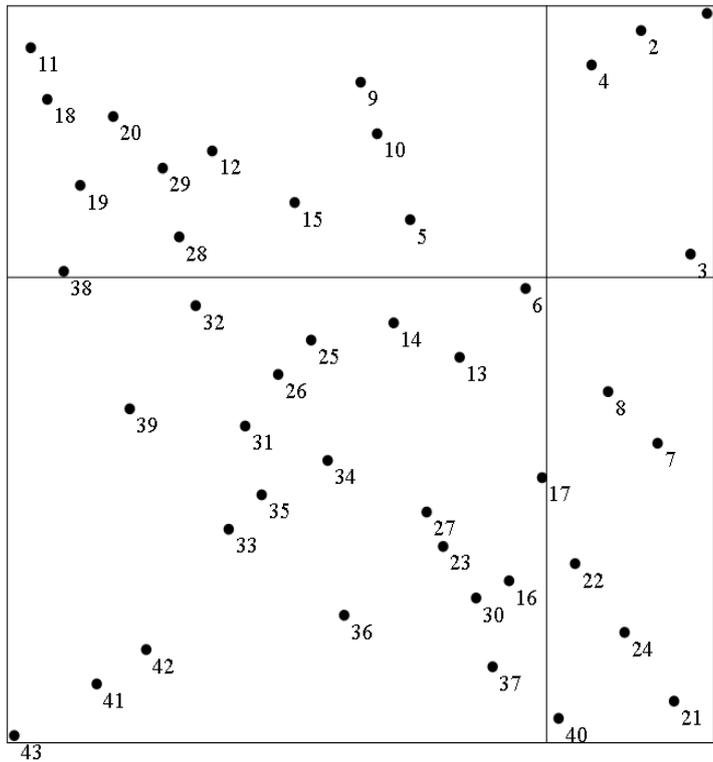


Figure 10.11 shows the POSAC behavioural profiles with best-fit lines for the cases in which the suspect had a criminal record and/or stealing was reported. As expected, all profiles that had both the variables of criminal history and stealing were in the upper right corner of the POSAC, with 4 different BPS combinations (POSAC Profiles 1, 2, 3 and 4); all four of these profiles included five genuine cases and are located within the boxed region in the upper right corner of the graph.

Since, in the random sample, only genuine cases fell in this geometric space, a full search of all cases was conducted to see if any false or unclassified cases contained both these variables. One unclassified case with these two strongly distinguishing variables was found and is summarised below. It is indicative of the complexities of rape investigations.

Case 251, an acquaintance rape, had a BPS of 12 with four of the eight variables present (stealing, criminal record, witness listed, and no prior record of mental health issues). In this case, the victim reported being asleep and on drugs. The suspect, her ex-husband, broke into the house to gain access to the victim and was interrupted by the victim’s children. As he fled the scene, he took the victim’s wallet and keys.

The first responding officer thought the victim was mentally challenged at first until he realised that she was drug-impaired. She stated that she had drunk three beers before falling asleep. The victim gave the following initial statement: "I was sleeping in my bed. I had been sleeping since 11 p.m. I woke up because [the suspect] was on top of me. He was penetrating me. It took me just a minute to realize what was going on. Once I came to my senses, I tried to push him off me. He punched me in my mouth. He kept hitting me and holding me, trying to keep me from getting up. I was hitting him back. I bit him on his arm. I yelled to the kids for them to call 911. The kids busted into the room. When they got in the room, [the suspect] jumped off me and said, 'Look what your mom did to me. I love her.' Then he ran downstairs and out the door. He took my keys and my wallet."

Initially the victim was cooperative. She had already given her initial statement when she realised that officers were speaking with her children, at which point she said that the kids should be in bed and asked the police to leave. Her initial statement had been partially corroborated by two of the children before she became hostile and concluded the initial investigation. The children stated that they heard screaming and saw the suspect flee the house. The victim refused to have a rape kit done.

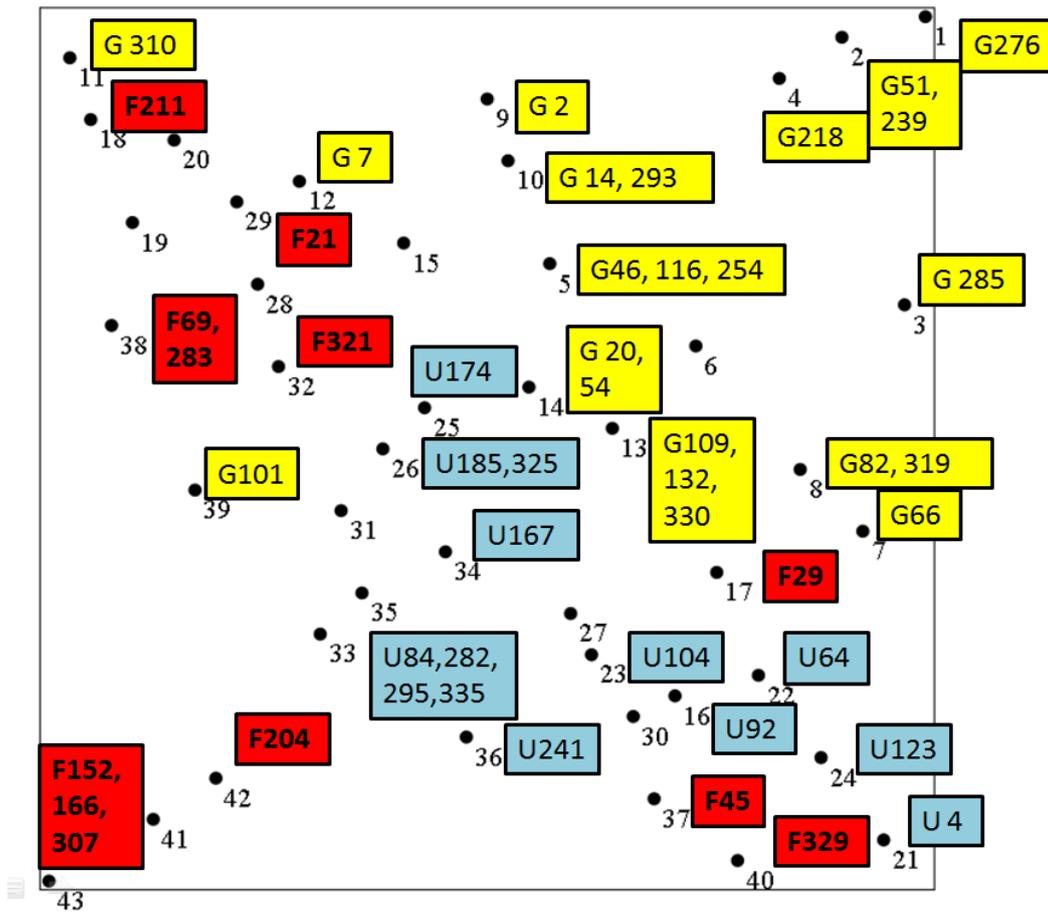
The initial investigation concluded that "the intoxicated victim refused to cooperate with our investigation." However, officers had dealt with the couple in multiple domestic violence cases and knew who the suspect was. They made extensive attempts to locate him for an interview but were unsuccessful.

When the detective researched the victim's address, he found that the police had been called to the house 20 times over the past 12 months and had filed 10 police reports including domestic violence, unauthorised use of a motor vehicle and damage to property. The detectives discovered that the suspect had an extensive criminal history, which included property related crimes but no previous sex offences.

When interviewed a second time over the phone, the victim stated that she had thought about what had happened and did not believe she had been raped. She explained, "I think I have overreacted and may have said the wrong things. I know I said the wrong things. I was drinking and I take medication for depression. I was not in my right mind. I don't want to continue with this investigation because I know I was not raped. I don't want to waste your time but I appreciate what you all have done. I was

just upset and frantic and I said some things I should not have said because it was not true.” Although the detective classified this case as “unfounded”, he did not indicate that he thought the initial allegation was false. Rather, he had an uncooperative victim and described the case as currently baseless in nature but not false. Therefore, it did not meet the first criterion of genuine cases in the grouping process for the present research and remained unclassified.

Figure 10.12: POSAC of 94 Random Cases with No Mixed Profiles



It is hypothesised that cases in which both of these two variables are reported to have occurred would have a very high likelihood of being genuine. Figure 10.12 is used to illustrate this theory, using the cases from the random sample of 94 in which either a criminal record or stealing was present (Profile 1 which includes case 276; Profile 2 which includes cases 51 & 239; Profile 3 which includes case 285; Profile 4 which includes case 218). The best-fit lines were not redrawn to avoid causing confusion in the figure. Each genuine case is shown as yellow, each blue case is unclassified, and each red case is false. The corresponding numbers in these colour-coded boxes are the case numbers.

Stealing was reported in only one false allegation within the random sample covered in this chapter (case 329). Criminal records were present in four false allegation cases within the present random sample (cases 21, 69, 211, and 283).

Generally, the BPS is supportive of published theories contending that genuine rape accounts will contain greater quantity and quality of details than false allegations.

However, the presence of any specific variable (even ones that appear more strongly associated with genuine cases within the BPS model) such as a criminal record will not always be associated with a genuine allegation. It should, of course, not be surprising that men with prior criminal histories are sometimes falsely accused of rape.

Unclassified cases involving stealing but in which the suspect had no prior criminal record are explored below. There are three such cases in the random sample: cases 4, 64 and 123. However, as case 251 (recounted earlier in this chapter) demonstrated, it is difficult for an investigation to determine the truth with reasonable confidence if a victim does not remain cooperative.

Case 4: The total BPS for this case of alleged stranger rape was 11: there were no known mental health issues, DNA was collected, and stealing was reported to have occurred. As discussed in the individual plot analyses, the presence of DNA may be especially helpful in determining if an unclassified case is more likely genuine than false.

Officers responded to a call in which a female had broken into a car and was going through its glove compartment. An officer located the female inside someone else's vehicle with the contents of the glove box removed.

It appeared as though the female was impaired as the officers questioned her about why was in another person's vehicle. At first, she stated that she could not locate her purse and was not sure if she had lost it or left it in the male friend's vehicle. As the investigation progressed, she changed her story, indicating that she had been parked in a car and talking with a man but he took her purse, kicked her out of the car, and drove off.

Initially there was no mention of a rape but only of the theft of her purse. She stated that she struggled with using drugs and had previously been a prostitute. However, when the officer arrested the female for breaking into the car, she indicated that the male had raped her before stealing her purse. Officers were unable to locate the alleged suspect in this case.

By the time the rape investigator received the case, the victim had already been released from jail. She did not show up for court on the charges related to this case and could not be located for a follow-up interview. Lacking a proper follow-up interview with a cooperative victim, this investigation remains inconclusive and incomplete. Therefore,

it is not possible to place this case in the genuine or false subgroup with any level of certainty.

Case 64: The total BPS for this stranger rape case was 11: there were no prior mental health issues, the victim was cooperative, and stealing was reported, but the other five variables most associated with genuine cases were not present.

The victim in this case went to a house to have her hair braided and told another person there that she had been raped. That person told the hairdresser, who called the police.

The victim explained that she was walking through city park when a black male grabbed her, pulled her into a tunnel and raped her. Afterwards, the suspect stole the victim's underwear, threw \$20 at her and said the money was not for the sex but that he just wanted her to have it.

Officers noted several variations of the victim's stories. In addition, the victim did not mention that she had allegedly been raped twice over the last two months prior to the current reported event. Also of interest, the alleged stated that she had consensual sex with her boyfriend just prior to the rape, but when the boyfriend was interviewed he said that the last time they had sex was a week ago. The victim had a rape kit done in which doctors found no signs of trauma. Detectives were unable to develop a suspect in this case.

Case 123: The total BPS for this case was 11: there were no known mental health issues, no inconsistent statements were provided, and stealing was reported.

The victim called an emergency number for help and stated that she was being held against her will while being raped. An officer responding to the call located the victim, who stated that she was currently a prostitute and did not want to report anything.

In the same area within a week of this incident, four prostitutes were arrested and two of them reported rapes upon being arrested. As a result of these two additional claims of rape, the original victim—upon being arrested for shoplifting a short time later—was questioned again about her rape allegation. The woman stated that the suspect had stolen her underwear after raping her. The case was two years old and still listed as pending, but for no apparent reason, at the time of this research.

Discussion

Although the presence of DNA or an injury seems to be helpful in adding plausibility to an unclassified report, based on the individual POSAC plots studied in this chapter, this finding is counteracted by an uncooperative victim. The unclassified case examples just reviewed and case 251, presented earlier in this chapter, illustrate the extreme importance of having a cooperative victim. As noted previously, great care must be taken in interviewing rape survivors, not only to avoid re-victimising them and causing further PTSD through a negative experience with the criminal justice system but also to keep the victim cooperating with the effort to determine the truth as fully as possible. Indeed, the victim's cooperativeness is one of the key variables determining how to categorise a case, and it is an essential factor in locating a suspect, perhaps collecting his DNA, and determining if he has a prior criminal record.

As theft is more predictive of genuine reports, it seems likely that the unclassified cases involving stealing could have been confirmed as genuine had the investigation been able to run its course.

Chapter Summary

A systematic study of the dataset used in this research enabled the development of a model that was used first to explore the genuine and false rape subgroups. In this chapter, the BPS model was used in an effort to identify variables that may have hindered cases within the unclassified subgroup from being placed in the genuine or false subgroup. Reviewing the case examples and the individual POSAC behavioural regions containing the variables in unclassified cases showed that the unclassified cases tend to be in the middle range of the scale with regard to both quantity and quality of evidence. Also, in many of the unclassified cases, victims withdrew their cooperation during the investigative process. More than half of the victims were described as not being cooperative throughout the investigation, and this does not account for the additional allegeders who simply did not return the detective's phone calls or agree to meet with him or her about the case. Overall, these results indicate a multitude of inherent difficulties within this unclassified subgroup that constrain our ability to categorise these cases with any certainty.

It was originally hoped that the BPS model would provide a way to identify different levels of plausibility. However, exploring unclassified cases with the BPS model shows the limitations of its explanatory strength.

Although the BPS model tested in this chapter is an original and unique approach to exploring rape allegations, in its present form it provides only a small glimpse of what is presently occurring. However, this research has strongly supported previous findings that genuine rape accounts typically contain more detail than false allegations. In addition, the BPS builds on this knowledge by using a combination of eight statistically significant variables in differentiating between genuine and false allegations.

The case examples in this chapter have helped to illuminate how convoluted each rape case is and highlighted some of the challenges of sorting out what actually happened in unclassified cases. Specifically, this chapter has underscored the complexities of human interaction that are involved in criminal investigations of rape.

Based on this part of the research and analysis, it appears that some cases currently listed as unclassified could have been placed in the false allegation subgroup had the definition of the “witness listed as present” variable been modified to limit the amount of false positives. In contrast, the individual variable behavioural plots suggested that the presence of DNA collection and injuries seemed more indicative of genuine rapes.

Using this thesis's BPS model, 91% or 31 of the 34 unclassified cases explored in this chapter had a behavioural profile sum indicative of false rape allegations. This finding suggests that many of the unclassified rapes could be false rape allegations. However, exploring the interaction of each variable within the overall BPS construct shows that most of these unclassified cases are in the middle range of reported variables associated with genuine rapes—which reinforces the difficulty of classifying them as genuine or false in the first place. We must recall that the multi-stage grouping process used in this study to identify genuine and false cases left 66% of the cases unclassified. This was because the case needed to include an arrest in genuine cases, or a comparably strong extent of evidence to determine that the case was fictitious in nature. It can be concluded that, in many cases, the lack of detail available during the investigation process, usually due to attrition-related issues such as an uncooperative victim, leave investigators unable to definitively identify an allegation as genuine or

false. This factor indicates that the unclassified cases are characterised primarily by a lack of sufficient details for making investigative decisions, rather than being overwhelmingly false.

Chapter 11 - Discussion and Conclusion

Unfortunately, most research has had to rely on non-random, unrepresentative and/or restricted samples, usually consisting of case summaries compiled and selected by the police in assessing the veracity of rape allegations (Lisak et al., 2010). These and other fundamental problems discussed are complicated by vagaries of various issues inherent in this area contributing to a wide range of false allegation estimates. It can be concluded from this review, that researchers have had to work with highly flawed data in the majority of published studies.

In contrast, the present study offers a higher level of reliability because the researcher was granted full access to every reported and recorded aspect of a complete population of documented rapes. Researchers such as Hunt and Bull (2011), Canter et al. (2003a) and Canter and Heritage (1990), who also had relatively extensive access to the recorded accounts of rapes, have been able to provide more robust findings. Several findings in the present research have been linked to these earlier works, as will be discussed further in this chapter. One way to contribute to discussions of the proportion of false allegations is to work with a total population of reported rapes and to explore carefully the conditions that can give rise to a case being deemed genuine or false. Such conditions have been extensively discussed in this study and contrasted with the work of other researchers.

In this study, cases were assigned to three subgroups: genuine, false and unclassified. A high standard was used for declaring a case genuine or false. Given that the assigning process was influenced by police decisions (such as what was documented in the case files and police perceptions), the results should be viewed with caution. Various forms of possible bias have been discussed. Comparisons with prior studies have been presented to add clarity and reliability to the results of this research.

Although the present research suggests that 17% of reported rapes within the examined dataset were false allegations, the more important finding is the conditions in which false allegations tend to occur. Moreover, the thesis has demonstrated the usefulness of a unique multi-faceted approach to studying both stranger and acquaintance rapes and has contributed to existing knowledge by providing substantial analytical and psychological insights into a US population of reported rapes.

This thesis has provided an exploratory study, ground-breaking in its detail, of the common attributes and characteristics of rape allegations reported to a US police department. Other researchers such as Kelly et al. (2005) and Hunt and Bull (2011) have looked at these aspects within rape accounts, using data from the UK; the present study is the first multi-faceted exploratory study using a representative dataset from the US. The purpose of this approach was to identify the most prominent, distinguishing characteristics between genuine and false allegations and contributing to the body of research knowledge in this area.

This thesis has explored in depth the differences between cases that the police considered genuine and those considered false. Distinguishing these is an important and difficult issue for police. Past studies suggest that it may be possible to identify features that distinguish the two with statistical reliability (e.g. Hunt and Bull, 2011). Then drawing on the work by Hunt and Bull (2011), Canter et al. (2003a), Marshall and Alison (2006), Rumney (2006) and Kanin (1994), established analytical methods were applied to the present data set. Several methods were utilised to answer the question: what analytical tools are more supportive of exploring these ideas of differing levels of details found within police investigative reports of rape to assist in distinguishing true from false allegations with any sufficient reliability?

It was hypothesised that the analysis of (a) SSA, (b) the number of variables apparent, and (c) the presence of specific variables would assist in testing the theory that false allegations would be different from genuine ones. The results of hypothesis: (a) was investigated through SSA, following Canter et al.'s (2003a) work within the genuine grouping and thematic differences within the false grouping which is consistent with Marshall and Alison's (2006) findings. Hypothesis results of (b) the number of variables apparent and (c) the presence of specific variables can be used in this regard through the present multi-analysis approach which resulted in supporting findings by Kelly et al. (2005) and Hunt and Bull (2011).

To answer these questions, this researcher used several statistical approaches with the ability to work with datasets in which non-reported events did not get weighted as non-occurrences such as SSA and POSAC. SSA led to identifying behavioural differences in both quantity and quality of detail. Some theories in existing literature relate to false allegers' frequent reliance on rape myths, as discussed in Chapter 5.

Published studies have explored this behavioural issue, but with limited and possibly biased samples and, in some cases, using simulated incidents rather than summaries of real events. There is a significant difference between the consequences of providing a fictitious account of rape in an academic environment and those of giving a false account to the police. Marshall and Alison (2006) acknowledged such limitations of using simulated allegations from college-aged females in their research. However, the present study did confirm many of Marshall and Alison's findings.

Fewer actions were reported in the false allegations and were more consistent with rape myths in the present narrative SSA structure. A mean number of 6.6 behaviours in false allegations compared to 9.3 behaviours were reported in the genuine cases. In addition, the present SSA is supportive of the theoretical framework put forth by Canter and associates (2003a) by illustrating a very similar narrative structure indicative of the role a survivor unwillingly plays in genuine rapes.

Conversely, Marshall and Alison (2006) found differing behavioural structures when looking at genuine and simulated rapes. This finding was supported within the present results, which indicated that behaviours primarily controlled by the suspect in genuine rapes differed significantly from the invented behaviours present in false allegations. As noted previously, false alлегers are likely more dependent on rape myths and other cognitive distortions rather than fully appreciating the complexities of what occurs during the course of a rape.

Identifying the most prominent distinguishing characteristics between genuine and false cases in terms of the present multi-analysis approach supporting earlier findings took the present research in another direction (e.g. Kelly et al., 2005); Hunt and Bull, 2011). One important component of this research entailed determining what is typically reported to the police. A detailed account of the variables pulled from classified rape files has been presented; further details are provided in the appendices. The frequency of the occurrence of several of these variables was further explored throughout the thesis.

Along the way, various interesting patterns emerged. For example, the victims' use of drugs was about three times higher in false allegations, and alcohol use was present twice as often. The impact of psychological impairment on human decision making and how drugs interact (perhaps differently) with both genders' sexual desires

should be further explored in future research. However, these findings were consistent with research by Fisher et al. (2000), RAINN (2006), Sapolsky (2005), Burrows (2013) and Jordan (2004).

Locations of where the crime occurred varied as well. The victim reported being raped in the street in nine of the false cases and in none of the genuine cases. Reports of rape in a vehicle were reported in nine false allegations and only two in genuine cases. As Burrows (2013) noted, being raped in the street or alleyway is consistent with rape myths. This statistic may demonstrate allegeders' propensity to draw from rape myths in developing a fictitious report of rape, consistent with research by Roach (2010). However, it may also indicate officers' scepticism that a victim was actually raped in a place where they perceive that it is riskier for an offender to commit the crime.

Actions taken to gain access to a victim also showed some noticeable variations. The act of burglary to commit rape was present in genuine cases almost three times more often than in false cases. Somewhat related to this variable, the offender was twice as likely to first encounter the victim in her home in genuine cases. In contrast, an initial encounter in the street occurred three times as often in false cases as in genuine cases. Again, this discrepancy is likely due to false allegeders' reliance on rape myths about attacks by strangers in dark alleys (Burrows, 2013).

Behaviours occurring during the incident were also explored. The presence of a weapon was disproportionately common in genuine reports as compared to false allegations. Reactions by the victim that successfully deterred further sexual assaults within the incident were reported in twice as many genuine as false cases as well. Although these findings are consistent with previous studies (e.g. Hunt and Bull, 2011), the extent to which they may be intertwined with an officer's need to develop a plausible narrative as to why a victim did not fight back should also be considered.

Impersonal language was reported in 11 genuine cases and only four false allegations. Victims were forced to participate in requested actions such as manual masturbation in twice as many genuine cases. These additional acts beyond those necessary to commit a rape were also found to be indicative of genuine rapes in other studies (e.g. Hunt and Bull, 2011). One explanation for this contrast is that humans are

cognitive misers (Roach, 2010) and will tend to construct fictitious accounts containing only details that they believe are indicative of a genuine rape (Burrows, 2013).

The logistic regressions in this thesis draw attention to certain behaviours statistically associated with genuine or false rape allegations, but it is important to recall that the police generally record only behaviours and other data that are brought to their attention and that they perceive as having evidential value. Unfortunately, this means that researchers will lack access to aspects of the event that the police did not feel a need to document. Therefore, statistical methods such as multi-dimensional scaling (MDS), which account for variables that were not reported but still may have occurred, are essential as an alternative to most traditional statistical methods which count non-reported events as non-occurring (Dancer, 1990; Guttman, 1954; Jaccard, 1908; Lingoes, 1973; Shye & Amar, 1985). The dynamic of the police not documenting every reported detail led to the use of the MDS techniques applied through this thesis.

Specific behaviours such as additional violence being used as a means to control the victim were reported in 13 genuine cases and only four false cases. Verbal violence was reported in almost three times as many genuine cases as false cases. Strangling the victim was reported in 11 genuine cases and only one false case. The suspect biting the victim was reported in six genuine cases and only one false allegation. The presence of an injury that corresponded with the victim's statement appeared in 27 genuine cases and only three false allegations. These findings are consistent with published research, which also found more variety and total sums of reported behaviours in genuine cases (e.g. Hunt and Bull, 2011; Marshall and Alison, 2006). This dynamic is likely because false allegers are often motivated to report a rape in order to address or mitigate a real or perceived problem without fully understanding what is commonly reported in rape allegations (O'Neal et al., 2014). In these cases, allegers tend to pull from rape myths or from their cognitive distortions of what a genuine rape would typically consist of. In other words, false allegers may not have created an elaborate narrative of the fictitious event(s) but remain focused on reporting what they believe would be a plausible rape without fully understanding the multi-dimensional interactive aspects of a rape.

Events reported after the assault also showed differences in frequency. A witness was listed in the report in twice the number of genuine cases. DNA was

collected from the crime scene or the victim in only two of the false allegations but half of all genuine cases. Except in an allegation motivated by revenge, the presence of DNA would not be expected in a fabricated allegation, unless the allegation was used as an alibi because the alleged was caught in the act of copulation or became pregnant as a result of the incident (MacDonald and Michaud, 1995; O'Neal et al., 2014). Suspects displaying forensic awareness after the incident, such as trying to get rid of DNA from the crime scene, were reported in six genuine cases, five unclassified cases and no false allegations.

The suspect demanded items of value after the attack in seven genuine cases, three unclassified cases and no false allegations. The suspect stole items in 10 genuine cases and just one false allegation. Hunt and Bull (2011) found statistical differences between the features of genuine and false rapes similar to those in the present sample.

Anti-social aspects of the suspect were also explored. For instance, a suspect known to have a criminal record at the time of the investigation was present twice as often in genuine cases. This differentiating variable was also suggested by Hazelwood and Burgess (1993). The stigma of a criminal record, which tends to enhance belief that a suspect is guilty, and the reactions of all people involved in the criminal justice system to the fact that the suspect has a criminal history can be important aspects of an investigation (Gross, 2009).

Research by Roach and Pease (2014) indicates a propensity of officers to overestimate a criminal's career homogeneity. An example they give is rapists don't just rape. Although, this particular cognitive heuristic within police decision making was not the focus of the present thesis it does highlight additional cognitive distortions that can derail an investigation or lead to self-selection policing. It is worth noting that the case examples displayed within this thesis support Roach and Pease's findings of a broader criminal repertoire rather than sex offenders only sexual assaulting others.

Canter and Baughman (2006) looked at the influence of the suspect's criminal history on the public's perception on the truthfulness of a rape statement. The presence of a criminal record was found to be highly significant in affecting the perceived truthfulness of the victim's story. However, a prior criminal record also indicates a behavioural pattern, just as one's credit history impacts what types of loans a person

can obtain. It is thus extremely difficult, and probably undesirable, for either investigators or the general public to ignore past criminal patterns. As a result, it becomes difficult to determine to what extent a previous criminal record predicts additional anti-social behaviour and, conversely, whether it produces any confirmation bias in investigators.

Consistent with previous research, a higher portion of the false allegations were reported by younger females (Kelly et al., 2005). In fact, 16- to 20-year-old females were twice as prevalent in false allegations as in the genuine rape subgrouping of the present dataset. In contrast, older victims such as the 41-45 age range were twice as prevalent in the genuine group. Possible explanations may be related to previous findings that younger females do not have a fully developed frontal lobe, which would help to reduce their tendency to pursue a socially unacceptable solution, such as making a false allegation, to deal with being in a compromising situation.

The factor of the victim's sexual history was also explored. The victim had consensual sex with the suspect prior to the rape twice as often in genuine as in false cases. Previous reports of rape or sexual assault did not occur in any of the genuine cases but were present in 17% of the false allegations. Rape myths may play a role in causing false allegers not to say that they had consensual sex with the suspect in the past. On the other hand, confirmation bias could be leading officers to declare some allegations false because they find it difficult to believe that a person could be a victim of rape more than once.

Consistent with previous studies (e.g. Kanin 1994), the victim provided different accounts or changed her story as to what occurred in the reported assault in a significantly higher proportion of false allegations. This feature was present in most fictitious reports but only five times in genuine cases. A possible explanation for this finding is that trying to recount a false statement consistently is a cognitively more difficult task than recalling an actual event (Roach, 2010). A compilation of the latest research and guidelines on how to interview skilfully to reduce such contradictions are outlined in Bull, 2014. Research in Bull's book stresses the importance of performing active listening techniques which help support allowing the interviewees to provide a narrative account of the events in a non-judgemental environment (2014, p.14).

Kelly et al. (2005) found that complainants with a mental health disability were almost twice as likely to be in the false allegation group as subjects with no mental illness. Parker and Brown (2000) also found that a disproportionate amount of false allegers had previous accounts of mental instability. Findings in the present sample were consistent with these studies. In fact, a history of mental health issues was three times more prevalent in false than in genuine allegations. In some cases, allegers with mental health issues may have believed that an event occurred when in reality it did not, or mentally unstable people may be more apt to lie about being raped as a means of solving their perceived problems.

Although the proportion of reported rapes that should be labelled false remains a matter of active debate, the present data contained 17% clearly false cases. This result is in line with several other studies, such as those of McCahill et al. (1979) at 18.2%, Philadelphia Police Study (1968) at 20%, Chamber and Millar (1983) at 22.4%, and Grace et al. (1992) at 24%. The cases, in the present research, were deemed false by the police and then objectively confirmed as such by a preponderance of documented facts.

Although Kanin (1994) found a larger portion of false cases (than the present study) both studies found if a third party made the initial report, the likelihood of a false allegation was greater. In fact, agencies with a legal obligation to notify the authorities, such as hospitals, reported the alleged rape in 15% ($n = 9$) of the genuine cases and 27% ($n = 16$) of the false allegations in the present study. A population of data in an ecologically valid sample makes these results statistically representative of the region where it was collected. Similar findings would be expected in other locations within the south-eastern United States.

The implications of obligated third parties reporting alleged rapes appears to unknowingly propel allegers seeking to solve a problem into the criminal justice system. As discussed, there are several reasons why an alleged victim would need to justify a story to someone else and may choose to utilise an authority outside of law enforcement in an attempt to cope with the situation they find themselves in. This may explain the disproportionate amount of false allegations initiated by a third party which unnecessarily use law enforcement resources and in some cases may even lead to miscarriages of justice. In contrast, genuine survivors may seek needed medical and/or

mental assistance and not want the police involved. The implication for genuine survivors who know the police will be called if they seek help and don't want them involved could lead to less survivors seeking needed medical and mental health support.

The argument that multiple variables could be utilised in combination to determine whether a case is genuine or false was set forth by Jordan (2004) and supported in the present research. Distinguishable characteristics of cases deemed genuine as compared to false allegations were identified through various analytical methods. The variables most effective in making this distinction were determined through methods such as logistic regression were then used in combination to develop the Behavioural Profile Score (BPS) model in subsequent chapters. The BPS offers an exploratory approach to the distinguishing characteristics in terms of both quality and quantity.

McDowell and Hibler (1987), Parker and Brown (2000), Marshall and Alison (2006), and Feist et al. (2007) found a larger number of behaviours described in genuine cases than in false allegations. This finding was supported by the present research and illustrated through the BPS model and by case examples. Higher BPS sum scores were strongly associated with a greater likelihood that the report was genuine. Building on Jordan (2004), the present research supports the belief that a combination of variables can help tip the scale in one way or the other.

Limitations

Although this thesis has successfully identified various characteristics of rape reports, 66% of the data obtained by this researcher remained in an unclassified subgroup. This result was not anticipated, but a strict process of classification into genuine and false subgroups was necessary to obtain clearly representative cases and thereby develop the strongest BPS model possible. Some encouraging success was experienced in applying this BPS model to the unclassified cases. The BPS model cannot definitively determine whether a case is genuine or false, but its use helped to elucidate the complex psychological issues that police and researchers consider when classifying a case.

Steps were taken to mitigate the inability to utilise inter-rater reliability methods. This procedure was not used due to the strict conditions associated with gaining access to all confidential rape files from a US police department. As a result, no additional researcher could be used due to the nature of the files accessed for the present research. Specifically, the files used are deemed classified material which requires the appropriate level of security clearance to access such documents. The participating agency chose not to give another researcher this clearance. However, the SSA analysis helped to support the grouping of both the genuine and false rapes. Also, the similarities between the present findings and those of previous researchers add additional credence to the grouping methodology used here. Nevertheless, the absence of inter-rater reliability is an obvious limitation of the results. It is hoped that, after the present findings are shared with the police department that supplied the data, other researchers will be given the security clearance to work with the same classified files and further verify these results.

SSAs are limited to working with variables rather than cases. This MDS approach helps explore the relationships between the variables by looking at the correlations. Although most variables indicative of thematic regions support previous structures, one variable fell into an unexpected area. Binding was reported in one genuine case and fell in the involvement region rather than correlating with other control narratives as in Canter et al. (2003a). This is likely a result of the variable only being reported in one case, the additional variables added in the present research, and using all reported rapes rather than only stranger rapes. The interpretable pattern of the true

reports in the SSA could arguably be solely the result of co-occurring actions rather than narratives assigned to the victim by the suspect. An example of this possibility is the condom worn variable which is interpreted as part of the intrinsic nature within the theft narrative in the present SSA but additional research will need to be done to support this inference. Nevertheless, similar thematic regions with variables used by both Canter et al. (2003a) and the present SSA further support the theoretical narratives which the relationships of these variables indicate.

One significant challenge in the data was the lack of standardised documentation, as observed during the early stages of content analysis. The documented events were recorded in a free text-based reporting system in which officers' cognitive abilities, formal education and ability to record necessary elements related to the reported crime were uncontrollable factors. These psychological aspects and other environmental factors likely influenced how thoroughly each incident was documented. The MDS approaches used minimised the impact of these factors on the present research results by counting variables not recorded as non-reported events rather than non-occurrences. Conversely, to address this variation in recording practices, it is suggested that a more standardised approach to documenting rapes is implemented. Due to the success of CBCA in detecting deception in a relatively non-confrontational manner, it is also recommended that police are trained in this approach and record the interview verbatim.

Likewise, due to the narrative style of the sample collected for this research, several psychological facets are likely to have interfered with getting a full picture of what may have occurred, what was reported and what was investigated. Facets to consider in this regard include, for example, the officers' past experiences, training, formal education, emotional state throughout their involvement with the investigation, personal bias and cognitive ability. Additional research is recommended to understand the impact of and limitations posed by variations in recording practices; however, the use of a more standardised, non-judgemental set of open-ended questions and verbatim recording of interviews would reduce these limitations.

Although devices measuring cognitive ability could not be incorporated in this research, readily observable cognitive differences in the writing styles were apparent. The formal education of detectives within the selected department ranged from high

school (equivalent to secondary school in the United Kingdom) to master level degrees. The present researcher did not have access to any personnel files in order to provide a breakdown of the formal education or additional training received by officers or otherwise address this possible limiting factor.

Another notable restriction of the present data is it consists only of rapes brought to the attention of the police and does not necessarily include cases in which survivors went to rape counselling centres. The proportion of rapes that go unreported remains unknown, but rape is strongly believed to be a significantly underreported crime (Rennison, 2002; Turvey, 2005). Nevertheless, all the rapes in the dataset fit the standardised UCR criteria used during this time period.

Practical Implications

One key practical goal of research on rape accounts is to give officers more scientifically based cues for false allegations and help them reduce the amount of negative encounters that true victims of rape have with the criminal justice system. I hope that this study will assist officers facing the daunting challenge of separating factual cases from false claims. However, it is essential to reiterate that the immediate goal of this thesis was to identify distinguishing characteristics between cases deemed genuine and false, respectively, by police.

The BPS model was developed to explore discriminating characteristics of cases determined genuine or false and to explore the unclassified grouping as well. The criteria for classifying cases into these three subgroups, the process of identifying behavioural characteristics primarily controlled by the offender for use in the SSA, and the selection of variables used in the POSAC analysis were three very distinctly different processes. The combination of these three analytical activities encompasses but goes far beyond examining how police determine the plausibility of a rape allegation.

The BPS model provides a unique way to explore the qualitative and quantitative variations within the genuine and false subgroups of cases reported to the police, and it could conceivably offer a scientific platform to assist police in prioritising their caseloads. Nonetheless, the model should also be tested with several datasets to determine its validity before it is used in a practical setting.

Possible operational applications of this research vary. First, police could focus on the eight statistically most distinguishing variables to maximise use of their limited resources. Such an approach could help officers in the early stages of a rape investigation by using scientifically supported findings rather than relying on gut feelings, rape myths, or cynical approaches. As with any new knowledge regarding distinguishing variables, these findings should not be utilised as part of a check-the-box approach to rape investigations.

A cautionary word about the use of criminal histories is in order. The findings of this study could further encourage detectives to approach rape suspects differently if the suspect has a criminal history. Conversely, this pervasive stigma could cause a false allegation to be believed and could even lead to a false conviction. In addition, a suspect with a criminal record may be persuaded during the interview process to avoid a lengthy sentence by cooperating with the police; like Brian Banks, he may feel coerced into confessing to a crime he did not commit in hopes of shortening his sentence. The suspect's lawyer might be more likely to believe that their client is guilty and may suggest accepting a plea bargain in order to avoid a lengthy sentence. Finally, if the case does go to court, the jury may also be affected by the suspect's previous convictions and may be predisposed to convict him, as were the university students in Canter and Baughman's (2006) study (also see Canter et al., 2003b).

Parts of the US criminal justice system are subjective in nature. The information that the judge or jury gets to hear has been both filtered and skewed by both the defence and prosecution. Then, when the jury deliberates, group-think and other cognitive biases may affect their decisions. The presence of a criminal history may have a domino effect if there is no general practice put in place to minimise the influence it may have on people involved in a rape case. Training of criminal justice officials and not providing the jury with information on rape suspects' prior criminal record may assist in reducing false convictions. Further empirical testing of the effects of criminal history on cognitive bias about a suspect would be useful to clarify and address these issues.

False Allegations: The Legal Standpoint and the Future

Rumney (2006) argued that the spectre of false rape allegations has significantly influenced the development of legal doctrine and its enforcement. The fear of false allegations has been used to justify evidential rules in cases involving sexual offences such as the corroboration warning and the retention of the marital rape immunity, and it continues to influence police and prosecutorial decision making. Rumney observed that while the issue of false allegations is prominent in how the criminal justice system handles rape cases, minimal attention has been given to the reliability of research evidence on the prevalence of false allegations, particularly with respect to the rate of false allegations and police recording practices.

Issues related to false allegations can and do destroy people's lives. Rumney (2006) proposed several reasons for more fully incorporating the study of false allegations into discussions concerning the enforcement of rape law and associated legal reform. First, there appears to be a widely held view that false allegations of rape are common and easily made by vengeful or desperate women, mirroring media coverage that cites high estimates as to the number of false allegations. This popular view facilitates a world of scepticism when a victim comes forward, resulting in secondary victimisation and often causing the victim to withdraw the charges rather than pursuing prosecution. The present findings indicate a wide range of definitional and methodological approaches, some of which are more inclined to classify a large number of allegations as false. However, the objective process utilised in the present study identified only 17% of the reported cases as clearly false allegations.

False allegations contribute to miscarriages of justice in various ways. Investigations into fictitious rapes divert attention from genuine victims. They can even foster a dangerous scepticism among criminal justice professionals (Rumney, 2006). These concerns interfere with proper care for rape survivors and with the effectiveness of the legal system in bringing sexual predators to justice.

Contributions to Psychological Theories

Having full access to all documented events in an ecologically valid and representative US population of reported rapes has never before been achieved. The hypothesis-generating approach used here enables more robust investigation into the psychological

aspects involved in the current dataset of cases by utilising past research in this area as a springboard.

Although Hunt and Bull's (2011) recent UK-based study is an exception, most previous research has relied on whatever information the police decided to release to a researcher. As in all scientific endeavours, the study of all recorded information provides a rich dataset and more robust results. Having all the recorded variables allowed this researcher to build on psychologically grounded theories such as Canter's thematic areas of hostility, control, theft and involvement (Canter & Heritage, 1990; Canter, 1994; Canter et al., 2003a). The present research was able to demonstrate the power of the thematic areas by applying them to both stranger and acquaintance rapes. Notwithstanding cultural differences, the US data supported Canter's past findings on thematic areas within stranger rapes, adding to the validity of this theoretical framework. Specifically, the cases deemed genuine in the present study maintained a similar thematic structure of co-occurring behaviours controlled by the suspect to that in Canter et al.'s (2003a) study. Confirming a typology of offender motivations for rape is an important step in untangling the complex array of rapists' behaviours.

The present research also looked at all false allegations using the same SSA approach, finding that fictitious accounts of offender behaviours do not line up with past findings of psychological themes in genuine rapes, presumably since the stories are drawn from personal experience and rape myths. Furthermore, cultural differences between the US and the UK did not appear to affect the explanatory power of the thematic areas defined by Canter and associates.

Methodological Contributions

This thesis stood on the shoulders of many researchers to address the problematic issues surrounding past attempts to determine the prevalence of and reasons for false allegations. The present research identified 23 significantly distinguishing characteristics between genuine and false allegations, using a logistic regression model. Sixteen of the variables were associated with a reduced likelihood of a false allegation, and the other seven tended to indicate a false rape claim.

Each of these two groups of variables was then run together in an additional logistic regression test. At this stage, the 16 variables associated with genuine cases

were reduced to six that were most statistically resilient: witness listed in the report, DNA collected from the victim or scene, visually observable injuries, suspect with a previous criminal record, stealing items of value, and cooperative victim throughout the entire investigation. This extra step systematically selected a smaller set of variables that could be supported by the HUDAP data analysis package.

The other seven of the original 23 independently significant variables, those associated with false allegations, were grouped together and run in a second regression. Two variables emerged from this group as most statistically resilient: the victim having a history of mental illness, and the victim giving inconsistent statements.

As emphasised throughout this thesis, statistically significant variables such as stealing and the presence of a criminal history can be found only in studies in which the researcher was able to gain full access to all classified documentation on all reported rapes in order to conduct detailed content analysis. Once more, having as complete a picture as possible of the variables involved in reported incidents enhances the chances of obtaining valid and reliable results. Case examples were utilised to illustrate the distinguishable characteristics of cases, show how the BPS model was applied to cases, and shed more light on the complexities of rape investigations.

The influence of rape myths on the results were minimised through reliance on a stringent content dictionary and use of a multi-dimensional process to assign a case to one of the subgroupings. Sleath and Bull (2012) have contributed to this aspect of rape investigations with their study on victim blaming, which they found could be predicted by acceptance of rape myths and by belief in a just world. In addition, their research supported previous findings that specialised training and experience do not affect an officer's ability to reject rape myths. These findings support use of a method, like the one used in this thesis, which does not rely solely on the police's ability to identify false allegations. Specifically, only events documented in investigations were coded in the present study's review of cases; reliance on speculations was thereby minimised. Even so, it is acknowledged that the results could still have been influenced by human psychological fallacies.

Studies of less sensitive information such as when cases are dropped from the investigative process (typically referred to as attrition-based studies) have largely been used in determining the prevalence of false allegations. However, the present study

casts a wider net, capturing the amount of false allegations without looking at conviction rates but, rather, by relying on overt discriminating behaviours. In short, another contribution of this research is providing a unique, systematic meta-study framework to explore and objectively identify distinguishable characteristics of all reported rapes.

Although previous attempts have been made to use structural and behavioural aspects of rape in determining whether a case is genuine or false, the proposed BPS model gives a more straightforward way of identifying key, statistically significant, discriminating characteristics of genuine and false cases. As a result, it can be used in conjunction with other decision-making methods in considering the plausibility of individual cases. Of course, this framework should be tested with other datasets of rape investigations.

The BPS model was 92% effective in identifying genuine rapes and 83% accurate in identifying false rape allegations within the present sample. When used with the unclassified portion of cases, the model suggests false allegations scores 75% of the time. This high percentage is believed to be more indicative of case attrition (e.g. because the victim became uncooperative or declined to move forward with the case) than signifying the unclassified cases were actually fictitious. In other words, the primary defining feature of the unclassified cases is lack of detail, not lack of credibility, as in many of these cases the victim withdrew her complaint or would not give a sufficiently detailed account of what happened to facilitate an effective investigation. As is the case in all forensic situations, it is acknowledged that these success rates are based on a concurrent and/or construct validity that is not 100% provable.

Even though it cannot effectively analyse the unclassified subgroup of cases, the BPS model still has considerable value. The model, along with the results of the SSAs, offers further insight into the psycho-social aspects of false allegations of rape. It provides a methodological support of operational value for prioritising police rape investigations in departments with resource constraints. These contributions have far-reaching policy implications and can challenge some popular assumptions.

Appendix I: Coding Dictionary

case = Case Number: Each rape case reported to the agency providing the documents for research were assigned a case number by the researcher.

gen_mud_false = Genuine, Unclassified, or False: All cases were placed into one of three groups for the purpose of analysis and discussion. The methodology is described in Chapter 3. For SPSS purposes, 1 = Genuine, 2 = Unclassified, 3 = False.

report_number = Agency Case Number: Case number assigned by the agency supplying the data. To protect anonymity, Agency Case Numbers have been removed from this research and replaced by newly assigned, unique case numbers.

attempted_or_rape = Attempted Rape or Rape: This variable indicates whether the alleged assault was reported as an attempted rape or a completed rape by the police department taking the report. It is based strictly on the indication marked on the police report (0 = Attempted Rape, 1 = Rape).

Victim race: The victim's race is provided within the content of the official police report (1 = White, 2 = Black, 3 = Hispanic, 4 = All Other).

Victim age: Age of the subject reporting the incident at the time of the alleged assault.

Statutory rape only: The answer is "Yes" if the alleged victim was 15 years of age or younger at the time of the alleged incident and sexual intercourse was consensual by nature (but not by law) and no force was used. This variable would receive a "No" if the subject was age 15 or under at the time of the incident but it would have been classified as a rape by the reporting agency regardless of the victim's age. The field is left blank if the alleged victim was age 16 or older at the time of the reported incident (0 = No, 1 = Yes).

Vic report: If the police report indicates the survivor of the alleged rape or attempted rape was the first subject to bring the incident to the police's attention, then this variable was coded 1 for yes. If anyone other than the victim called the police to initiate the report of the alleged attack, the value would be 0 for no. In the rare cases in which the report did not indicate how the incident was reported and the information could not be determined, the variable was scored as 0.

Reported by third party: If the police report indicates that anyone other than the survivor of the alleged rape or attempted rape was the first subject to bring the incident to the police's attention, then this variable was coded 1 for yes. If the victim initiated the report, a value of 0 for no was given to this variable.

Agency report rape = Reported by hospital or another agency: If the police report indicates that an outside entity (not the boyfriend, a family member or a known acquaintance) was the first subject to bring the incident to the police's attention, then this variable was coded 1 for yes. If the victim herself, a boyfriend, family member, friend or acquaintance initiated the report, then the coding was 0 for no.

Boyfriend call = Reported by boyfriend: If the police report indicates that the victim's boyfriend was the first subject to bring the incident to the police's attention, then this variable was coded 1 for yes. If anyone else initiated the report, then this variable was coded 0 for no.

Family report = Reported by a family member: If the police report indicates that a family member of the victim was the first subject to bring the incident to the police's attention, then this variable was marked as 1 for yes. Otherwise, a value of 0 for no was given to the variable.

Friend report = Reported by a friend: If the police report indicates that a friend or acquaintance of the victim was the first subject to bring the incident to the police's attention, then this variable was coded 1 for yes. Otherwise, a value of 0 for no was given to this variable.

wit_n_report = A witness is listed in the police report: This could range from someone who observed a possible suspect leaving the scene to someone observing the rape. This label was determined by the police and is listed in the reports. Even if it appeared that the label may have been incorrect, the information in the police report was followed, since the police may have had reasons for identifying or not identifying a person as a witness (0 = Not Reported, 1 = Witness listed in report).

wit_observe_assault = Witness Observes Assault: This variable indicates that a subject observed the suspect and victim engaged in the possible rape or sexual assault activity being investigated by the police. The observation must be based on one of the person's senses, such as hearing or seeing what they perceived as the reported incident (0 = No third party observed attack, 1 = Third party observed sexual assault).

Reported in three days: If the incident was reported within 72 hours or the police decided it was close enough to the 72-hour mark and did a rape kit on the victim, this variable was coded 1 for yes; otherwise it was coded 0 for no.

Time pass before report = How long before rape was reported: This variable is broken into time periods as to how long after the alleged attack the victim or third party waited to report the incident (1 = Less than 3 days; 2 = 4 to 7 days; 3 = 8 days to a month; 4 = Longer than a month).

More than one sus = More than one suspect: If more than a single suspect sexually assaulted the victim then 1 for yes was recorded; if only one attacker was reported, then 0 for no was selected.

Sex w susp in past = Previously had consensual sex with the suspect: This variable was coded 1 for yes if the report indicated that the victim and suspect had consensual sex in the past. If there was no indication of the victim and suspect(s) having had vaginal intercourse, then 0 for no was selected.

Pre rape reports = The victim has reported a rape and/or sexual assault in the past: In cases where the report indicated that the victim had reported a rape in the past, 1 for yes was selected; 0 for no was selected if the report indicated that the victim had never reported a rape in the past.

Past unreported rapes = Does the victim allege that she had been raped before but not reported it to a law enforcement agency: For this variable, 1 for yes was selected in cases where the police report indicated that the victim stated having been the victim of a rape or attempted rape in the past but that it was not reported to a law enforcement agency. This also includes past statutory rapes not been reported to the police. The variable was coded 0 for no if there was no statement of past unreported rapes by the victim.

Mental Problems = Does the victim have a past history of mental health issues and/or is she taking or has she been directed by medical personnel to take medications for mental health issues: If the police report indicated that the victim had some mental health issues and/or had been medicated for mental health conditions prior to the sexual assault, this variable was marked 1 for yes; if no past mental health issues were mentioned in the report, it was coded 0 for no.

High risk vic = Is the victim high-risk: If the victim had ever used her body in a sexual manner as a direct tool to gain material goods, then 1 for yes was selected. This would include instances where the victim had engaged in prostitution, served as an escort or stripped for material items such as money. If the victim had not earned material items by doing any of these types of behaviour, the coding was 0 for no.

Genuine = If the police investigation determined that the reported rape was true, charged a suspect with the reported rape and documented the facts that guided the police to determine that the case was genuine beyond a reasonable doubt, then this variable was coded 1 for yes; 0 for no was used in cases when it was determined by the investigation that no rape or attempted rape had occurred or if there was not enough evidence present for the investigation to determine whether a genuine rape occurred.

Poss true false = Unclassified, possibly true/possibly false: This variable is marked 1 for yes if the investigation concludes that the rape most probably occurred or if it could not determine whether the reported incident occurred. A 0 for no would be selected if it was considered more probable than not that no rape or attempted rape had occurred, or in cases where the police records or investigation appeared inconclusive. If it was not clear how to code the case, then 0 was selected by default.

Police say false: For this variable, 1 for yes was selected if the police indicated that the reported incident was more likely false than true. This includes cases marked "Unfounded" by the investigating officer or detective. The coding is 0 for no if the investigating agency did not indicate the reported incident to be false and therefore assigned it to the Genuine or Unclassified Category.

Comp said false = Complainant said false: For this variable, 1 for yes was selected if at some point in the investigation the victim denied being the victim of a rape or attempted rape. Where the victim did not recant her account, 0 for no was selected.

Cooperative victim: This variable was coded 1 for yes unless otherwise depicted in the police report. For example, if at some point the victim refused to press charges, have a rape kit performed on herself when it would be useful to the investigation, be interviewed by officers or detectives or give additional information that could assist with the case, then this variable was coded 0 for no.

Diff stories report = Does the officer or detective indicate different stories or statements given by the victim: In this variable the content analysis of the documents

was scrutinised to determine if anyone involved in the official investigation indicated that the victim had given two clearly different accounts of what had transpired during the investigation of the reported incident, or if two clearly fundamentally different statements about significant details of the case were given even though this may not have been pointed out in the documented report. In these instances, the variable was coded 1 for yes. If the statements were not clearly different and no official involved with the case pointed out different statements given by the victim, then the variable was coded 0 for no.

Relationship = Acquaintance or Stranger: In this research an acquaintance is defined as someone whom the victim had met or with whom she had communicated with the subject prior to the series of events leading up to the sexual assault. If this was the case, the variable was marked 2 for Acquaintance. If the victim had never met or communicated with the suspect previously, then 1 for Stranger was selected.

Suspect family = Family member the suspect: If the suspect is a blood relative or legally bound in some way to the victim, then this variable was coded 1 for yes. This would include cases in which the victim was raised by the suspect, as well as relatives such as a niece. A husband or boyfriend of the victim was not coded 1 for this variable since there are or may be some expectations of sexual encounters in these relationships. Other members of society not meeting the above criteria were coded as 0 for no.

Weapon present: If any item was present that could reasonably be perceived by the victim as a weapon at the time of attack, then 1 for yes was selected for this variable. If no perceived weapon was used in the attack or leading up to the attack, then 0 for no was chosen.

Type weapon = Type of weapon used: A drop-down box of different possible weapons was created and used to select the type of weapon used by the suspect. If multiple weapons were involved, then the most deadly weapon was selected (e.g. a gun over a knife or blunt object). The codings were as follows: 0 = No Weapon, 1 = Handgun, 2 = Rifle or shotgun, 3 = Knife or cutting instrument, 4 = Physical force, 5 = Blunt object, 6 = Other type of weapon (6).”

Vic rape kit = Rape kit used on victim: If a rape kit was done on the victim, this variable was coded 1 for yes; if not, it was coded 0 for no. A rape kit, for the purposes

of this research, is a medical procedure done by a doctor or nurse, typically within 72 hours of the alleged attack. The goal of rape kits is to collect forensic evidence and/or look for vaginal trauma that may indicate a forcible rape.

DNA collected = DNA collected from the scene or off the victim (i.e. sperm or blood): This variable was coded 1 for yes if any DNA such as sperm or blood was collected from the scene or the victim. This includes an indication by the police that sperm was collected during the rape kit. If no DNA evidence is mentioned in the report, the variable was coded 0 for no.

Forensic connection = Suspect forensically linked to the crime scene (i.e. fingerprints or DNA): For this variable, 1 for yes was selected only in cases where physical evidence forensically linking the suspect to the victim is documented in the case. The coding was 0 for no if this was not the case or if cannot be determined from the police records that this occurred.

Sus rape kit = Rape kit, swab or DNA collected from the suspect: The coding was 1 for yes if any physical evidence was collected from the suspect. This is typically done by trained medical personnel doing a rape kit or taking a swab of DNA from the suspect's mouth. The coding was 0 for no in cases where no physical evidence was collected.

Sus volun talks to detect = Did the suspect voluntarily participate in all requests from the police: If the suspect did participate voluntarily, such as by answering questions when encountered by police, going to the station for questioning and consenting to give DNA samples or to cooperate with searches, then this variable was coded 1 for yes. If the suspect is documented as not having cooperated or there is no mention one way or the other then the coding was 0 for no.

Sus confesses to rape = Does the suspect confess to sexually assaulting and/or having sexual intercourse with the victim against her will: The coding was 1 for yes and 0 for no or not reported.

Sus consens statement = Does the suspect admit to having sex with the victim but states it was consensual and not forced intercourse defined as rape by the legal system: The coding was 1 for yes or 0 for no or not documented.

Suspect race (as listed in the police document): The coding was 1 = White; 2 = Black; 3 = Hispanic; 41 = All Other. In the rare cases in which the victim could not guess the race of the suspect, 5 for Unknown was selected.

Suspects age: If the suspect's age was not documented in any way and the victim could not report an estimated age, then the value of 99 was used. If a range such as 30 to 40 was given, the midpoint (e.g. 35 in this case) was used. If the suspect was believed to be in his early thirties, then 30 was used.

Vic drug asleep during rape = Does the victim report being drunk and asleep/unconscious during some part of the incident: 1 for yes, 0 for no or not documented.

Vic use drug = Does the report list or indicate that the victim used some sort of drugs including alcohol within 24 hours leading up to the alleged incident: For the purpose of this research, "some sort of drug" refers to any drug that has known mentally impairing qualities. The coding was 1 for yes and 0 for no or none reported.

Vic alc = Does the report list or indicate that the victim ingested some sort of alcoholic substance within 24 hours leading up to the alleged incident: 1 for yes, 0 for no.

Vic mix alc w other = Does the report list or indicate that the victim used some sort of drugs and some sort of alcoholic substance within 24 hours leading up to the alleged incident: 1 for yes, 0 for no or none reported.

Sus use drugs = Does the report list or indicate that the suspect used some sort of drugs within 24 hours leading up to the alleged incident: 1 for yes, and 0 for no or none reported.

Sus use alc = Does the report list or indicate that the suspect ingested some sort of alcoholic substance within 24 hours leading up to the alleged incident: 1 for yes, 0 for no or none reported.

Sus mix alc and other = Does the report list or indicate that the suspect ingested some sort of alcoholic substance and some sort of drugs within 24 hours leading up to the alleged incident: 1 for yes, 0 for no or none reported.

injury_victim = Does the victim indicate a physical injury claimed to be as a result of the alleged incident: This variable was marked 1 for yes in cases involving physical

evidence of injury that corresponded with the victim's statement, or 0 for no or none reported.

Burglary = Did the incident occur in the course of a burglary: 1 for yes, 0 for no or not reported.

Encounter location = Where was the victim encountered (1 = Home of victim; 2 = Home of offender; 3 = Home of both victim and offender; 4 = Someone else's house; 5 = Street, highway, or other location not hidden from the public; 6 = Park, wooded area, or hidden from the public; 7 = Bar; 8 = Motel/hotel; 9 = House party; 10 = All other).

Vic enc outside = Was the victim first encountered outside during the incidents leading up to the alleged assault: In some cases, it was necessary to exercise the best possible judgement, based on the totality of circumstances reported, as to where the alleged victim was first encountered. If it appeared that the encounter occurred outside, then the coding was 1 for yes; if inside, 0 for no.

Occurrence of crime = Where did the crime occur (1 = Home of victim; 2 = Home of offender; 3 = Home of both victim and offender; 4 = Someone else's house; 5 = Street, highway, or other location not hidden from the public; 6 = Park, wooded area, or hidden from the public; 7 = Bar; 8 = Motel/hotel; 9 = House party; 10 = All other).

Crime occur outside = Did the rape occur outside: In some cases, it was necessary to exercise the best possible judgement, based on the totality of circumstances reported, as to where the alleged victim was sexually assaulted. If it appeared that the assault occurred outside, then the coding was 1 for yes; if inside or if it could not be determined, 0 for no.

Interrupted = Was the incident interrupted by an outside variable such as a witness, a noise that scared the suspect away, or any other outside influence or variable: 1 for yes, 0 for no or not reported.

Vic jogger = Was the victim jogging, walking, or riding a bike when she was attacked: 1 for yes, 0 for no or not reported.

Raped in car = Was the victim raped in a vehicle: 1 for yes, 0 for no or not reported.

Vic marital status = Was the victim married or did she describe herself as in a relationship, such as having a boyfriend, with someone other than the suspect at the

time of the alleged attack: 1 for yes, 0 for no or not documented. For example, if the suspect was the victim's husband, this variable would be coded as a 0.

Sus marital = Was the suspect married or in a relationship, such as having a girlfriend other than the victim, at the time of the alleged attack: 1 for yes, 0 for no or not recorded.

Sus criminal history = Do the police records indicate that the suspect had a known criminal record at the time of the investigation: 1 for yes, 0 for no or not reported.

Forensic awareness = Did the suspect show signs of forensic awareness indicated in the police records: For example, did the suspect make the victim take a bath or shower, or attempt to disrupt the crime scene by cleaning it or in other ways beyond wearing a condom? The coding was 1 for yes, 0 for no or not reported.

Confidence = Confidence approach: The style of approach used by the offender in which any ploy or subterfuge is used in order to make contact with the victim prior to the commencement of the assault: this would include any verbal contact - questions asked, false introductions, or a story told. The coding was 1 for yes, 0 for no or not recorded.

Surprise attack: "The immediate attack on the victim, whether preceded by a confidence approach or not, where force is used to obtain control of the victim: force in respect of this variable includes threat with or without a weapon" (Canter & Heritage, 1990, p. 205). Violence is used for the physical control of the victim but is not excessive as in a blitz attack. The coding was 1 for yes, 0 for no or not recorded.

Blitz attack: This term refers to "the sudden and immediate use of violence, whether preceded by a confidence approach or not, that incapacitates the victim.: typically this is the sudden blow that leaves the victim unable to respond or react to the attack. This variable focuses on the extreme violence of the initial assault that leaves the victim incapable of reaction" (Canter & Heritage, 1990, p. 205). The coding was 1 if a blitz attack was present, 0 for no or not recorded.

Blindfold: Anything used to cover the victim's eyes or interfere physically with the victim's ability to see, such as a pillow. "This includes only the use of articles and not verbal threats or temporary use of the offender's hands" (Canter & Heritage, 1990, p. 205). The coding was 1 for use of blindfolding, 0 if no or not recorded.

Binding: This includes handcuffs or any use of articles to disable the victim; it “does not include the possible situational effect of partial stripping of the victim, nor the temporary use of manual control of the victim.” (Canter & Heritage, 1990, p.205) The coding was 1 for use of binding, 0 for no or not recorded.

Gagging: This involves use of an object other than the suspect’s hand to cover the victim’s mouth. “This does not include the manual gagging of victims commonly associated with an attack.” (Canter & Heritage, 1990, p.205) The coding was 1 for use of gagging, 0 for no or not recorded.

Strangulation: According to the police records, is there mention of the suspect putting his hands around the victim's neck? The coding was 1 for yes, 0 for no or not reported.

Reaction deter = Reaction Deter/Change: This variable is used “to examine how the offender copes with, or reacts to, active victim resistance; the resistance of the victim can be verbal or physical but does not include the act of crying alone. The categorization addresses the offender and not the victim” (Canter & Heritage, 1990, p. 205). Does the offender change his behaviour due to the victim’s verbal or physical reaction to the attack? The coding was 1 for yes, 0 for no or not reported. The categorisation addresses the behaviour of the offender and not the victim, emphasising the change or negotiation of any act as a result of victim resistance.

Compliments lang = "Language (1) Compliments": This variable considers whether the suspect complimented the victim, usually on some aspect of her appearance. The coding was 1 for yes, 0 for no or not reported. This is the first of four “variables concerned with the complexities of what is said by the offender to the victim: this is not necessarily the result of verbal interchange but is focused on the style of speech used by the offender, in the non-violent context (Canter & Heritage, 1990, p. 206).”

Inquisitive lang = "Language (2) Inquisitive": “The second language variable categorizes the offender’s speech in being inquisitive of the victim. This includes any questions asked about the victim's life-style, associates, etc. There are other variables which deal with the identifying of the victim and the requirement, for example, of the victim to participate in the acts committed against her. This therefore focuses on

questions asked of the victim which are those non-sexual in nature” (Canter & Heritage, 1990, p. 206). The coding was 1 for yes, 0 for no or not reported.

Impersonal lang = "Language (3) Impersonal": “This language variable categorizes those aspects of the offender’s impersonal / instructive dealings with the victim. The focus is the impersonal style of the offender rather than the categorized differences between personal / impersonal. The personal style of speech will be shown in one or more of the other language variables” (Canter & Heritage, 1990, p. 206). Does the offender use an impersonal or instructive style of speech in dealing with the victim? The coding was 1 for yes, 0 for no or not reported.

Demeaning lang = "Language (4) Demeaning/Insulting": “A non-violent language variable which categorizes offender’s speech with or towards the victim that is demeaning and/or insulting: this would include profanities directed against the victim herself or women in general. The focus of this variable is the insult and not sexually oriented comment” (Canter & Heritage, 1990, p. 206). Does the offender use language that is insulting and not sexually oriented? The coding was 1 for yes, 0 for no or not reported.

Vict clothing disturb = Victim’s clothing disturbed: Does the suspect remove the victim's clothes? The coding was 1 for yes, 0 for no or not reported. The answer is considered to be no if the victim removed her own clothing.

Vict cloth cut torn = Victim’s clothing cut or torn: This variable addresses the offender’s removal of clothing by particular methods that reflect an apparently more violent style in his treatment of the victim. The focus of this variable is on the removal of clothing and not what the offender does with it after removal. The coding was 1 for yes, 0 for no or not recorded.

Control weapon: This variable differentiates “those offenders who are prepared to display a weapon in order to control the victim, from those who do not (Canter and Heritage, 1990, p.207). The threat of the possession of a weapon are coded as 1; 0 means no or not reported.

Demands goods: This variable categorises an approach to the victim that includes a demand for goods or money. The variable is concerned with a request made in the initial stages of the attack; stealing is covered by a separate variable. The coding was 1 for yes, 0 for no or not reported.

Vict part verbal = Victim's verbal participation: There are two variables dealing with requirements that the victim participate in the offence. Both have been found to occur at the instruction of the offender. This variable deals with the offender's requirement that the victim say words or phrases to him at his insistence. It does not encompass occasions where an offender directs a question to the victim but does not appear to require her to answer. The coding was 1 for yes, 0 for no or not reported.

Vict part acts = Victim's participation in acts: This second variable on required victim participation covers requirements to participate physically. The acts demanded of the victim may be associated with specific sexual demands made of her but are in addition to those sexual acts. For example, the victim may be required to kiss the offender or place her arms around him. The variable is intended to differentiate between those offenders who may commit, for instance, fellatio against the victim and those who commit the same act but accompanied with instructions to perform specific acts associated with oral sex. The coding was 1 for yes, 0 for no or not reported.

Disguise: This variable covers offenders who wore any form of disguise, coded as 1; 0 means no or not reported.

No report threat = "Threat ... No Report": This variable specifically refers to a verbalised threat advising the victim not to report the incident to the police or any other person (Canter and Heritage, 1990, p.208). The coding was 1 for yes, 0 for no or not reported.

Stealing: Offenders who stole from the victim were coded as 1, and 0 represented cases where stealing did not occur or was not reported.

Control vic = "Violence (1) Control": This variable refers to the use of force beyond just physically controlling the victim or the initial attack – e.g. punching or kicking to reinforce the control that the offender seeks to exercise over the victim (Canter and Heritage, 1990, p.209). The coding was 1 for yes, 0 for no or not reported.

Verbal violence = This variable refers to intimidating language in the form of threats to maim or kill, which are not necessarily associated with control or resistance. The coding was 1 for yes, 0 for no or not reported.

Kiss vic = Does the suspect force kisses on the victim (this does not include consensual kissing)? The coding was 1 for yes, 0 for no or not reported.

Fondles breasts = Does the suspect fondle the victim's breasts (non-consensually)? The coding was 1 for yes, 0 for no or not reported.

Finger pent = Does the suspect finger the victim's vagina against her will? The coding was 1 for yes, 0 for no or not reported.

Biting vic = Does the suspect bite the victim? The coding was 1 for yes, 0 for no or not reported.

Vaginal penetration: This variable covers whether vaginal penetration was achieved or attempted by the suspect's penis. The coding was 1 for yes, 0 for no or not reported.

Foreign object used = Does the suspect insert a foreign object in the victim's vagina such as a vibrator, bottle, bat or stick? The coding was 1 for yes, 0 for no or not reported.

Doggy style = Does the suspect have sex with the victim from behind? This includes anal or vaginal intercourse. This variable looks for actions of depersonalisation such as having the victim's face in a direction that can't be seen by the suspect. The coding was 1 for yes, 0 for no or not reported.

Ejaculate = Does the suspect ejaculate? The coding was 1 for yes, 0 for no or not reported.

Internal ejaculation = Does the suspect ejaculate inside the victim? The coding was 1 for yes, 0 for no or not reported.

Face ejaculation = Does the suspect ejaculate on the victim's face? The coding was 1 for yes, 0 for no or not reported.

Sus condom = Did the victim state that the suspect wore a condom? The coding was 1 for yes, 0 for no or not reported.

Sus flush con = If a condom was used, was it flushed? The coding was 1 for yes, 0 for no or not reported, if no condom was known to be present, or if what happened to the condom was not known.

Fellatio = "Fellatio (1)": "This is one of two variables dealing with the forced oral penetration of the victim." This variable deals only with whether oral penetration was carried out or attempted (Canter and Heritage, 1990, p.209). The coding was 1 for yes, 0 for no or not reported.

Fellatio sequence = "Fellatio (2)": This second variable of fellatio covers offenders who required that their victims submit to oral penetration and whose performance of the act was part of a sequence of sexual acts (Canter and Heritage, 1990, p.210). The coding was 1 for yes, 0 for no or not reported.

Cunnilingus: This variable deals with the performance of a particular sexual act committed against the victim's genitalia by the offender's use of his mouth. The coding was 1 for yes, 0 for no or not reported.

Anal penetration: This variable refers to penetration of the victim's anus by the male organ (penis) only, or instances where there was a clear indication of intent to do so. The coding was 1 for yes, 0 for no or not reported.

Anal pen sequence = Anal penetration in sequence: This second anal penetration variable addresses anal assault in sequence with other sexual acts. The coding was 1 for yes, 0 for no or not reported.

Apologetic: This variable covers apologetic speech or activities used by an offender, most typically at the end of a sexual assault. The suspect may have said he was sorry afterwards or over the phone or sent flowers after the incident. The coding was 1 for yes, 0 for no or not reported.

Keeps trophy = Does the suspect keep expressive items that are likely taken as a trophy (for example, the victim's underwear or something of very little monetary value)? This category does not cover money, jewellery or any item that could be sold for financial gain. The coding was 1 for yes, 0 for no or not reported.

Length attack = Estimated length of attack and suspect staying at the location after the attack (1 = Less than an hour; 2 = One to three hours; 3 = Three to six hours; 4 = Six to 12 hours; 5 = 12 or more hours). This is a subjective variable in many cases, and the researcher must review the totality of the circumstances reported to make an educated guess at about how long the suspect stayed with the victim after the sexual assault.

Vic mentions shower = Does the victim mention taking a shower afterwards? The coding was 1 for yes, 0 for no or not reported.

Vic kept evidence = Does the victim make attempts to retain evidence such as not showering, not washing clothes, or keeping clothes or sheets that may contain DNA or evidential value? The coding was 1 for yes, 0 for no or not reported.

Vic charged false report = Was the victim charged with filing a false police report? The coding was 1 for yes, 0 for no or not reported.

Disposition = Disposition of the case. At the end of each police investigation, the status of the case is noted. CBA (coded as 1) stands for cleared by arrest but may or may not imply a conviction. Exceptionally cleared cases (2) are ones in which the alleged suspect has been identified but the District Attorney declines to pursue the case or some other element kept the detectives from charging the suspect(s) with the sexual assault. Unfounded cases (3) are similar to United Kingdom's "no crimed" cases; they do not meet the criteria of a rape or are cases in which the police determined that the allegation was false. Inactive cases (4) are reported incidents in which the police have run out of leads to follow up on; they therefore classify the case as inactive until further evidence can be obtained or the victim decides to cooperate. Pending cases (5) are those in which the police still have investigative leads to follow or have not been able to locate and physically arrest the suspect.

Category = CBA/Except (1) or Inactive/Pending (2) or Unfounded (3). This variable was used to group similar investigative results together. The department in this study does not have a strict standard in place that dictates how the case must be closed. Cases marked CBA typically signify that the suspect was arrested. However, in some CBA cases the suspect was not charged with rape, and in one CBA case the charge was against the victim, for filing a false police report. See the previous paragraph for descriptions of the other categories.

DA declines prosecution: It is common practice for the police department investigating a rape case that is not clear-cut to detectives to present the case to an Assistant District Attorney (ADA) for guidance. In the American legal system, an ADA is the prosecuting lawyer representing the government in these cases. The coding question for this variable is whether the ADA's office was approached and asked if it would take the case or decline prosecution. The coding of 1 signifies that the ADA was approached and wanted to pursue the case; 0 means that which the ADA was not consulted or refused to move forward with the case.

Note: Most of the behaviourally based variables were modelled on Canter and Heritage (1990).

Appendix II: Descriptive Statistics with Chi-Square results

	Genuine <i>N</i> =59	Unclassified <i>N</i> =232	False <i>N</i> =60	Total <i>N</i> =351	Notes
Before Incident					
Victim used some sort of drugs					$\chi^2 (2) .003, p < .01$ (8.849)
No	52	123	39		
Yes	7	108	21		
Victim consumed alcohol					$\chi^2 (2) .022, p < .05$ (5.275)
No	50	146	40		
Yes	9	86	20		
Victim consumed alcohol and another drug					$\chi^2 (2) .414, p > .05$ (.667)
No	57	216	56		
Yes	2	16	4		
Suspect used some sort of drugs					$\chi^2 (2) .513, p > .05$ (1.336)
No	38	157	41		
Yes	21	75	18		
Suspect consumed alcohol					$\chi^2 (2) .720, p > .05$ (1.28)
No	44	171	43		
Yes	15	61	17		

Suspect consumed alcohol and another drug					$\chi^2 (2) .233, p > .05$ (1.420)
No	54	222	58		
Yes	5	10	2		
Burglary to gain access to victim					$\chi^2 (2) .022, p < .05$ (5.255)
No	45	222	55		
Yes	14	10	5		
Suspect first encounters victim where?					$\chi^2 (9) .001, p < .01$ (27.218)
Home of victim	30	54	15		
Home of offender	6	24	4		
Home of both victim and offender	6	20	5		
Someone else's house	3	15	2		
Street/highway/somewhere not hidden from public view	8	59	22		
Park/wooded area/hidden from the public	5	11	0		
Bar	1	22	3		
Motel/hotel	0	9	3		
House party	0	10	3		
Other	0	10	4		
Victim encountered					$\chi^2 (2) .369, p > .05$ (.807)

outside					
No	41	155	37		
Yes	18	77	23		
Victim jogging, walking, or riding a bike when attacked					$\chi^2 (2) .311, p > .05$ (1.026)
No	58	231	60		
Yes	1	1	0		
Confidence approach					$\chi^2 (2) .765, p > .05$ (.089)
No	23	81	25		
Yes	36	151	35		
Surprise attack					$\chi^2 (2) .035, p < .05$ (.035)
No	25	143	37		
Yes	34	89	23		
Blitz attack					$\chi^2 (2) .233, p > .05$ (1.420)
No	54	226	58		
Yes	5	6	2		
During Incident					
Weapon present					$\chi^2 (2) .001, p < .01$ (10.633)
No	45	206	58		
Yes	14	26	2		
Type of weapon used					$\chi^2 (4) .025, p < .05$ (11.100)
No weapon	45	206	58		

Handgun	4	10	1		
Knife/cutting instrument	5	15	1		
Blunt object	2	1	0		
Other type of weapon	3	0	0		
Victim reported being drunk and asleep during some part of the incident					$\chi^2 (2) .151, p > .05$ (2.066)
No	54	186	51		
Yes	5	46	9		
Where did the crime occur?					$\chi^2 (8) .013, p < .05$ (19.302)
Home of victim	28	52	17		
Home of offender	7	47	10		
Home of both victim and offender	6	20	5		
Someone else's house	6	19	2		
Street/highway/somewhere not hidden from the public	0	25	9		
Park/wooded area/hidden from public view	12	33	12		
Motel/hotel	0	16	2		
House party	0	8	2		
Other	0	9	0		

Crime occurred outside?					$\chi^2 (2) .785, p > .05 (.074)$
No	47	186	48		
Yes	12	46	12		
Was the incident interrupted by an outside party or element?					$\chi^2 (2) .843, p > .05 (.039)$
No	49	201	49		
Yes	10	31	11		
Victim raped in a vehicle					$\chi^2 (2) .029, p < .05 (4.780)$
No	57	211	51		
Yes	2	21	9		
Blindfold					$\chi^2 (2) .311, p > .05 (1.026)$
No	58	230	60		
Yes	1	2	0		
Binding					$\chi^2 (2) .311, p > .05 (1.026)$
No	58	229	60		
Yes	1	3	0		
Gagging					Not Calculable
No	59	231	60		
Yes	0	1	0		
Suspect put hands around victim's neck					$\chi^2 (2) .002, p < .01 (9.456)$

No	48	206	59		
Yes	11	26	1		
Reaction (1) Deter/Change					$\chi^2 (2) .212, p > .05$ (1.559)
No	41	212	56		
Yes	8	20	4		
Language (1) Compliments					$\chi^2 (2) .563, p > .05$ (.334)
No	54	223	53		
Yes	5	9	7		
Language (2) Inquisitive					$\chi^2 (2) .680, p > .05$ (.170)
No	55	220	57		
Yes	4	12	3		
Language (3) Impersonal					$\chi^2 (2) .049, p < .05$ (3.874)
No	48	211	56		
Yes	11	21	4		
Language (4) Demeaning/ Insulting					$\chi^2 (2) .680, p > .05$ (.170)
No	55	221	57		
Yes	4	11	3		
Victim's clothing disturbed					$\chi^2 (2) .515, p > .05$ (.425)
No	10	57	13		
Yes	49	175	47		

Victim's clothing cut/torn					$\chi^2 (2) .709, p > .05 (.139)$
No	54	226	56		
Yes	5	6	4		
Victim's verbal participation					Not Calculable
No	59	232	60		
Yes	0	0	0		
Victim's acts of participation					$\chi^2 (2) .157, p > .05 (2.005)$
No	49	223	55		
Yes	10	9	5		
Disguise					$\chi^2 (2) .077, p > .05 (3.130)$
No	56	232	60		
Yes	3	0	0		
Violence (1) Control					$\chi^2 (2) .017, p < .05 (5.737)$
No	46	213	56		
Yes	13	19	4		
Violence (3) Verbal					$\chi^2 (2) .177, p > .05 (1.821)$
No	52	222	57		
Yes	7	10	3		
Forced kissing					$\chi^2 (2) .480, p > .05 (.499)$
No	44	193	48		

Yes	15	39	12		
Offender fondles victim's breasts					$\chi^2 (2) .872, p > .05 (.026)$
No	45	197	45		
Yes	14	35	15		
Suspect fingers the victim					$\chi^2 (2) .213, p > .05 (1.550)$
No	46	206	52		
Yes	13	26	8		
Suspect bites victim					$\chi^2 (2) .049, p < .05 (3.885)$
No	53	227	59		
Yes	6	5	1		
Vaginal penetration					$\chi^2 (2) .082, p > .05 (3.030)$
No	10	33	4		
Yes	49	199	56		
Suspect inserts a foreign object into the victim					$\chi^2 (2) .157, p > .05 (2.0)$
No	59	232	58		
Yes	0	0	2		
Suspect has sex with victim from behind					$\chi^2 (2) .307, p > .05 (1.044)$
No	47	198	52		
Yes	12	34	8		

Did the suspect ejaculate?					$\chi^2 (2) .157, p > .05 (2.007)$
No	35	162	43		
Yes	24	70	17		
Suspect ejaculates inside the victim					$\chi^2 (2) .360, p > .05 (.838)$
No	43	180	48		
Yes	16	52	12		
Did the suspect ejaculate on the victim's face?					$\chi^2 (2) .311, p > .05 (1.026)$
No	58	232	60		
Yes	1	0	0		
Suspect wears a condom					$\chi^2 (2) .325, p > .05 (.970)$
No	52	191	49		
Yes	7	41	11		
Condom flushed					$\chi^2 (2) .549, p > .05 (.359)$
No	57	227	59		
Yes	2	5	1		
Fellatio (1)					$\chi^2 (2) .582, p > .05 (.303)$
No	49	204	52		
Yes	10	28	8		
Fellatio (2)					$\chi^2 (2) .489, p > .05 (1.431)$
No	50	211	54		
Yes	9	21	6		

Cunnilingus					$\chi^2 (2) .714, p > .05 (.134)$
No	56	219	56		
Yes	3	13	4		
Anal penetration					$\chi^2 (2) .479, p > .05 (.501)$
No	56	220	55		
Yes	3	12	5		
Anal penetration in sequence					$\chi^2 (2) .662, p > .05 (.192)$
No	57	220	57		
Yes	2	12	3		
After Incident					
Labelled attempted rape	12	25	4		$\chi^2 (2) .029, p < .05 (4.778)$
Labelled rape	47	207	56		
Possibly true/ Possibly false					$\chi^2 (2) .650, p > .05 (206)$
No	38	1	41		
Yes	21	231	19		
Police indicate report is false					$\chi^2 (2) .000, p < .001 (111.262)$
No	59	200	2		
Yes	0	32	58		
Witness listed in report					$\chi^2 (2) .000, p < .001 (14.537)$
No	25	161	46		

Yes	34	71	14		
Victim rape kit collected at hospital					$\chi^2 (2) .033, p < .05$ (4.567)
No	20	115	32		
Yes	39	117	28		
DNA collected from the crime scene or off the victim					$\chi^2 (2) .000, p < .001$ (21.302)
No	29	217	58		
Yes	30	15	2		
Suspect forensically linked to the crime scene					$\chi^2 (2) .006, p < .01$ (7.564)
No	52	232	60		
Yes	7	0	0		
Suspect DNA swab or rape kit					$\chi^2 (2) .000, p < .001$ (12.517)
No	34	209	52		
Yes	25	23	8		
Offender voluntarily participates in all requests from police					$\chi^2 (2) .310, p > .05$ (1.031)
No	25	128	31		
Yes	34	104	29		
Victim sustain injuries that correspond with					$\chi^2 (2) .000, p < .001$ (21.199)

statement					
No	32	189	57		
Yes	27	43	3		
Suspect known to have a criminal record at time of investigation					$\chi^2 (2) .000, p < .001$ (14.964)
No	27	199	48		
Yes	32	33	12		
Does the suspect show signs of forensic awareness after the incident?					$\chi^2 (2) .011, p < .05$ (6.426)
No	53	227	60		
Yes	6	5	0		
Demands goods					$\chi^2 (2) .021, p < .05$ (5.308)
No	52	229	60		
Yes	7	3	0		
Threat ... no report					$\chi^2 (2) .144, p > .05$ (2.133)
No	45	215	52		
Yes	14	17	8		
Stealing					$\chi^2 (2) .004, p < .01$ (8.282)
No	49	213	59		
Yes	10	19	1		

Apologetic					$\chi^2 (2) .634, p > .05 (.227)$
No	56	224	58		
Yes	3	8	2		
Suspect keeps inexpensive items, likely taken as a trophy					$\chi^2 (2) .986, p > .05 (.000)$
No	57	228	58		
Yes	2	4	2		
Length of Attack					
Less than an hour	50	227	58		
One to three hours	8	5	0		
More than three hours	1	0	2		
Victim takes shower after attack					$\chi^2 (2) .668, p > .05 (.184)$
No	49	192	48		
Yes	10	40	12		
Does the victim make attempts to retain evidence					$\chi^2 (2) .004, p < .01 (8.072)$
No	22	160	38		
Yes	37	72	22		
Was the victim charged with filing a false police report					$\chi^2 (2) .044, p < .05 (4.070)$
No	59	232	56		

Yes	0	0	4		
Disposition of the case					$\chi^2 (3) .000, p < .01$ (115.066)
CBA	59	13	2		
Exceptionally cleared	0	59	2		
Pending	0	1	0		
Unfounded	0	37	52		
Inactive	0	122	4		
CBA/Except or Inactive/Pending or Unfounded					$\chi^2 (2) .000, p < .001$ (104.015)
CBA/Exceptionally	59	72	21		
Inactive/Pending	0	123	4		
Unfounded	0	37	25		
DA refuses to take case					$\chi^2 (2) .044, p < .05$ (4.070)
No	59	141	56		
Yes	0	56	4		
Offender					
More than one suspect					$\chi^2 (2) .709, p > .05$ (.139)
No	54	209	56		
Yes	5	23	4		
Offender's relationship with victim					$\chi^2 (2) .246, p > .05$ (1.345)

Stranger rape	14	76	20		
Acquaintance rape	45	156	40		
Offender a family member					$\chi^2 (2) .212, p > .05 (1.559)$
No	51	220	56		
Yes	8	12	3		
Offender confesses to rape					$\chi^2 (2) .002, p < .01 (9.901)$
No	49	231	60		Higher presence in genuine statements
Yes	10	0	0		
Offender indicates having just consensual sex with victim					$\chi^2 (2) .054, p > .05 (3.71)$
No	28	156	39		
Yes	31	76	21		
Race of Offender					
White	6	39	13		
Black	42	158	31		
Hispanic	10	29	14		
All other	2	5	1		
Unknown	0	1	1		
Age of Offender					
15 and under	3	7	4		
16-20	6	44	12		
21-25	9	51	14		
26-30	8	41	10		

31-35	7	21	5		
36-40	11	20	3		
41-45	8	10	2		
46-50	5	8	1		
51-55	2	4	0		
56-60	0	1	0		
61-65	0	2	1		
66-70	0	1	1		
Unknown	0	18	5		
Suspect in a relationship with someone other than the victim at the time of the alleged attack					$\chi^2 (2) .307, p > .05 (1.044)$
No	47	191	52		
Yes	12	41	8		
Victim					
Race					
White	21	111	19		
Black	26	102	33		
Hispanic	10	16	4		
All Other	2	3	4		
Age					
15 under	12	23	12		
16 – 20	11	84	24		
21-25	7	46	7		
26-30	5	20	6		
31-35	3	21	1		
36-40	4	16	3		

41-45	9	15	4		
46-50	2	11	2		
51-55	4	2	1		
56-60	0	0	0		
61-65	0	1	0		
Reported by victim					$\chi^2 (2) .008, p < .01$ (7.064)
No	24	114	39		
Yes	35	118	21		
Reported by a third party					$\chi^2 (2) .035, p < .05$ (4.457)
No	35	118	21		
Yes	24	114	39		
Reported by an agency					$\chi^2 (2) .127, p > .05$ (2.335)
No	50	175	44		
Yes	9	57	16		
Reported by victim's boyfriend					$\chi^2 (2) .098, p > .05$ (2.738)
No	58	226	55		
Yes	1	5	5		
Family reports incident					$\chi^2 (2) .681, p > .05$ (.169)
No	48	202	47		
Yes	11	30	13		
Friend reports incident					$\chi^2 (2) .527, p > .05$ (.401)

No	55	214	54		
Yes	4	18	6		
Victim reports within 72 hours					$\chi^2 (2) .102, p > .05$ (2.676)
No	11	65	19		
Yes	48	167	41		
Time before report					
Less than 3 days	48	167	41		
4 to 7 days	1	18	9		
8 days to a month	1	13	1		
Longer than a month	9	34	9		
Victim previously had consensual sex with suspect					$\chi^2 (2) .023, p < .05$ (5.139)
No	41	185	52		Higher presence in genuine statements
Yes	18	47	8		
Victim reports rape and/or sexual assault in past					$\chi^2 (2) .001, p < .01$ (10.735)
No	59	216	50		
Yes	0	16	10		
Victim alleges she had been raped and/or sexually assaulted before but not reported					$\chi^2 (2) .479, p > .05$ (.501)

No	56	200	55		
Yes	3	32	5		
Victim reported mental health problems prior to incident					$\chi^2 (2) .009, p < .01 (6.774)$
No	54	200	44		
Yes	5	32	16		
High-risk victim					$\chi^2 (2) .317, p > .05 (1.00)$
No	58	217	57		
Yes	1	15	3		
Victim says reported incident is false					$\chi^2 (2) .000, p < .001 (54.897)$
No	59	202	18		
Yes	0	30	42		
Victim cooperative throughout case					$\chi^2 (2) .000, p < .001 (13.795)$
No	2	118	17		
Yes	57	114	43		
Victim gives different statements to the police					$\chi^2 (2) .000, p < .001 (54.039)$
No	54	159	15		
Yes	5	73	45		
Victim in a relationship with someone other than					$\chi^2 (2) .577, p > .05 (.311)$

the suspect at time of attack					
No	44	145	42		
Yes	15	87	18		

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