Corroboration, Consent and Community: A "Meaning Finitist" Account of the Forensic Medical Examination of Rape and Penetrative Sexual Assault Complainers in Scotland

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Declaration of Originality of Submitted Work

In conformance to University regulations, I hereby declare that:

1. this thesis has been composed solely by myself;
2. this thesis is entirely my own work; and
3. this thesis has not been submitted in part or whole for any other degree or personal qualification

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Contents

Abstract

This thesis examines the construction of forensic medical evidence in penetrative sexual assault cases and the procedures that Forensic Medical Examiners (FMEs) employ in order to ensure the authority of that evidence. Drawing upon interviews and on the texts and artefacts that FMEs use in their work, the thesis employs the concept of "meaning finitism" to analyse how FMEs perform forensic examinations for evidential purposes. The thesis starts with an exploration of how medical practitioners are taught to identify and classify injuries of medico-legal significance, culminating in their being judged "safe" to provide expert testimony by other members of the clinical forensic medical community. The thesis next addresses the construction of what I call the "morphological account": a set of judgements about the nature of a case based upon a combination of the observed injuries, the FME's training and their previous experience of cases. While there is considerable agreement amongst practitioners about how to interpret injuries (a result of their training), because the morphological account involves personal judgement, there is also scope for differences of opinion. The thesis therefore explores the methods that FMEs employ to limit the risk of being seen to disagree with one another during trials. The thesis also examines the role that guidelines play in the forensic medical examination. The thesis argues that standardised medical kits and associated guidance documents were originally introduced in the early 1980s in response to sustained criticism of FMEs' practices, and further developed in the late 1990s and early 2000s with the rise of Evidence-Based Medicine. Kits and guidance documents provide a means for FMEs to legitimate and explain their work to others, particularly during trials: they codify collective practice and provide FMEs with an *aide memoire* of the requisite procedures, without overly determining or constraining practice. Finally, I will argue that FMEs' concern to ensure the authority of their evidence may sometimes limit the value of that evidence. Caution over drawing inferences that might be challenged in court, and a concern not to be seen as "prosecution-minded", commonly leads FME to compose so-called "Neutral Reports" which neither confirm nor deny the complainer's allegations. As Scottish Procedural Law

makes provision for non-contentious evidence to be removed from trial, such neutral reports are likely to be dismissed from consideration.

List of Abbreviations Commonly Used in the Thesis:

ACPO	**Association of Chief Police Officers**
AFP	**Association of Forensic Physicians**
APS	**Association of Police Surgeons**
BCS	**British Crime Survey**
BMA	**British Medical Association**
CID	**Criminal Investigations Department**
COPFS	**Crown Office and Procurator Fiscal Service**
CPD	**Continuing Professional Development**
DFM	**Diploma in Forensic Medicine**
DMJ	**Diploma in Medical Jurisprudence**
DNA	**Deoxyribonucleic Acid**
EBM	**Evidence-Based Medicine**
FFLM	**Faculty of Forensic and Legal Medicine**
FME	**Forensic Medical Examiner**
FMEK	**Forensic Medical Examination Kit**
FSS	**The Forensic Science Service**
GP	**General Practitioner**
GUM	**Genito-Urinary Medicine**
NDNAD	**National DNA Database**
NHS	**National Health Service**
RCP	**Royal College of Physicians**
SANE	**Sexual Assault Nurse Examiners**
SARC	**Sexual Assault Referral Centre**

SAEK	**Sexual Assault Evidence Kit**
SIO	**Senior Investigating Officer**
SOCO	**Scenes of Crime Officer**
SOLO	**Sexual Offence Liaison Officer**
SSK	**Sociology of Scientific Knowledge**
STD	**Sexually Transmitted Disease**
STS	**Science and Technology Studies**

1 Introduction

1.1 Constructing Credible Forensic Evidence

Forensic scientific and medical evidence has considerable authority in contemporary society. Various television series, from the Crime Scene Investigation (CSI) franchise to the various documentary style "cop shows" which demonstrate the work of the police as they heroically conduct investigations and make arrests, provide the public with an insight (albeit heavily edited and constructed) into the way in which forensic technologies can result in arrests and secure convictions. Prainsack and Kitzberger (2009), in their interview-based study of convicts in Austria, point out that convicts' knowledge of forensic evidence (particularly DNA technologies) derives in part from such television shows, but also from their own experience as well as that of other convicts; in general, convicts feel reassured by (but also powerless against) forensic technologies. Likewise, high-profile trials, such as the O.J. Simpson trial in America and the successful appeal of the Birmingham Six in Britain, have made the public more aware of the uses and drawbacks of certain forensic technologies.[1] The upshot of all this discourse surrounding forensic work is that forensic evidence is generally considered to be a highly useful tool in dealing with crime (for example, see Prime Minister of Great Britain, Rt. Hon. Gordon Brown's "speech on security and liberty" (Brown 2007)), and is granted considerable authority within the courtroom. It is also the case, however, that as the old adage goes, "with great power comes great responsibility", and in holding such a privileged position, forensic practitioners have to control and police themselves in order to maintain that status. One particular group of forensic practitioners, the fingerprint analysts, have recently learnt to their cost that it is fairly easy for a single case or a collection of cases to undermine the public perception of a forensic practice, and

[1] However, recent public awareness of some of the limitations of forensic technologies should not be read as a decline in the level of public trust in said technologies. As Gary Edmond (2002a) claims, quite correctly, the appeal case of the Birmingham Six (where one technology originally used to convict was found to have limitations and superseded by another technology that was used to acquit) did not damage trust in forensic science, but rather served to reinforce the authority (albeit "asymmetrically", i.e. the new technology was accepted uncritically while the old technology was undermined) of the new technology.

diminish the credibility of fingerprint evidence (see for example the furore and fallout surrounding the Shirley McKie perjury case (O'Neill 2006)). In this thesis, I am interested in investigating the ways that forensic practitioners maintain their authority (and thereby the authority of forensic evidence), i.e. the ways that practitioners and their communities make their work and the evidence that they present appear objective and incontrovertible.

Such a study has a rich heritage in the field of Science and Technology Studies (hereafter "STS"). Working with the general agenda of challenging the belief of scientists and lawyers that there is a "culture clash" between science and the law (where science is considered to produce "truth" while the law delivers "justice"), STS analysts like Sheila Jasanoff (1995) and Brian Wynne (Smith and Wynne 1989), amongst many others, have outlined the manner by which different expert groups have not only negotiated the particular difficulties thrown up by the legal system (such as cross-examinations, of which more below), but have also demonstrated the similarities between the fields of science and law and the ways that they mutually constitute each other. As an example, American judges were criticised in the early 1990s for allowing so-called "junk science" (Huber 1993, Foster and Huber 1999) into the courtroom. Due to judges' supposed scientific illiteracy, expertise that was not considered to be the "best science" was being considered in the courtroom, which, it was claimed, led to dubious legal judgements.[2] In response to these accusations, a set of rules was introduced in order to determine whether a form of scientific or technical expertise was "good" enough to be made admissible in court. The *Daubert* Rules provided American judges with a set of criteria by which to assess the admissibility of expert evidence; however, STS scholars have been very critical of these rules, as they are based upon a set of scientific ideals which fail to take account of the contingent, fluid and pragmatic nature of scientific work (Caudill 2004, Caudill and LaRue 2006, Edmond 2001, 2002b, 2004, Edmond and Mercer 1998, 2000, 2004a, 2004b, Jasanoff 1995, 2002, Mercer 2002, Solomon and Hackett 1996). Jasanoff (1992) has taken this critique a step further and argued that in making the judge a gatekeeper who determines the legitimacy (i.e. the admissibility

[2] The archetypal cases of this kind were the (in)famous *Daubert* Trilogy: *Daubert v. Merrell Dow Pharmaceuticals*, *General Electric v. Joiner,* and *Kumho Tire Co.*, *Ltd. v. Carmichael*. For more on all three cases, see Caudill and La Rue (2006).

of use in court) of a form of expert knowledge, the introduction of rules, like those introduced in *Daubert*, sets the judge up as an active participant in the construction (or deconstruction) of the authority and expertise of a particular scientist/technician/discipline. This could potentially constitute interference in possible broader debates involving that expertise (in addition, it could set precedents for future trials), and is an example of the way that the law can constitute aspects of science.

Another area generally discussed with relation to the "culture clash" is cross-examination within adversarial legal contexts.[3] It is often argued that in an effort to "win" the adversarial battle, defence or prosecution teams will attempt to demonstrate partisanship on the part of the expert towards the party for which they are providing evidence, or request in minute detail the technical processes that the expert employed (wherein the expert has to express the content of their work to an extent that would not be required by their peers within the scientific community, resulting in a need on the part of the practitioner to confess to aspects of their practice being more contingent or uncertain than they would care to admit (Oteri et al. 1982, Lynch 1998, Yearley 2005)). Such deconstructive practices do not occur in "normal science" (Kuhn 1996), and some scientists and technologists believe that such behaviours do not follow the spirit of discovering the "truth" of the question that has been put towards the court, but instead constitute a move in a competitive game. In an imaginary conversation in an editorial in *Science*, it was described this way:

> *Science*: So the judicial system is not a system to get at the truth as simply as possible.
> *Noitall*: Finally you understand. The judicial system is an adversarial system in which clever lawyers match wits with one another. If a lawyer defending a mobster murderer can show a technical discrepancy that gets his client free, the lawyer is widely admired even though the killer has been freed (Koshland cited by Jasanoff 1995: 3/4).

Gary Edmond and David Mercer (developing the earlier work of Sheila Jasanoff (Jasanoff 1995)) have paid close attention to this question of deconstruction, and, in

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[3] It should be noted that while cross-examination is only found in adversarial legal systems, Raymond Bal's (2005) study of the "Leiden Ballpoint Pen" case in the inquisitorial legal system of the Netherlands found that equally deconstructive strategies were employed by both forensic and legal actors in order to undermine conflicting forensic evidence.

addition to focusing upon the way that experts are undermined during cross-examination, have also demonstrated that the cross-examination process serves to construct experts as objective in the first place and reconstruct expertise after deconstruction (Edmond 1999, 2001, Edmond and Mercer 1998, Mercer 2002). Edmond and Mercer's chief argument is that when an expert is first called, they will present themselves as members of a particular scientific community, providing evidence of credentials and years of experience working in a particular field, and will then explain their evidence, not only in terms of what they found, but also by demonstrating the rigorous method they employed to collect said evidence. In other words, they construct their epistemic authority in light of a method discourse (see Schuster and Yeo 1986). The opposing team then have the opportunity to deconstruct the expert's evidence; I have described some of the popular mechanisms above. Essentially, because the work conducted is not likely to have been as rigorous as the expert's method discourse suggests, the defence will emphasise the importance of the contingent or craft elements of that work.[4] Highlighting these craft aspects may make it appear that the expert is working outside the constraints of her scientific field. Having set up the idea that expertise is constructed and eventually deconstructed, Edmond and Mercer then argue that evidence is reconstructed: courts do not only rely on science to aid in their decision-making, but do draw upon ideas of the rationality and the objectivity of science to justify their own decision-making (see Smith and Wynne 1989). To this end, in the judge's summation or in post-trial discourse, the scientific evidence will be reconstituted in order to fit with the scientific method (even if it has previously been deconstructed under cross-examination), in order to achieve closure in the case as well as to reinforce the authority of the law. As far as the present study is concerned, this type of STS work provides us with the concept of the constructed nature of expertise. The authority of expert knowledge and evidence does not enter the courtroom fully-formed; instead, it is highly negotiated and an achievement of the courtroom procedure itself. That said, experts do attempt to make their work (and thereby their evidence) appear objective and factual before the trial. Such pre-trial practices will be the focus of this study.

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[4] Such a process has led one legal scholar to quip, "[s]cientists are constantly at risk of being hoist by their own positivist petard" (Jones 1994: 270). For a discussion of science as craft-work, see Ravetz (1971).

While the STS literature has provided many valuable insights into the construction of expertise (discussing both admissibility decisions and courtroom construction), it has been very limited in its focus, chiefly investigating the intersection between science and law as it plays out in courtrooms. Very few studies have investigated the way that evidence is constructed pre-trial. Such an omission is somewhat interesting given that STS (and the social sciences more broadly) have turned towards practice as the focus of their analysis (Bourdieu 2006, Lynch[5] 1992, 1993, 2006, Pickering 1992, Schatzki 2006, Schatzki et al. 2006), and also because, as legal scholars have made abundantly clear, the majority of crimes never make it to trial (Duff et al. 2004[6]). Yet, questions concerning the way that evidence is constructed, developed, granted authority and used by the various parties (scientists, technicians, prosecutors, etc.) during the pre-trial stages have chiefly been ignored (although there are a few recent studies that have begun to address pre-trial evidence construction, concerning the way that deoxyribonucleic acid (hereafter "DNA") profiling (otherwise known as DNA fingerprinting) is conducted in particular (see Daemmrich 1998, Jordan and Lynch 1998)). The pre-trial construction of evidence, therefore, constitutes a considerable gap in the current science and law literature within STS, which this study will go some way towards addressing.

Having established that the study will focus upon the pre-trial construction of evidence, I will next outline some of the details of the specific area of forensic practice that I investigated, including some of the justifications for focusing upon that practice. Attrition rate studies (i.e. studies that investigate how many and where cases drop out of the criminal justice process) have demonstrated that only a small proportion of rape cases result in a conviction, with the majority of reported cases never making it to trial (Harris and Grace 1999, Kelly 2005). Such findings have resulted in much media and popular anger about the investigation of rape and severe sexual assaults (see Howie and Brown 2005 and Howie 2007a, 2007b for Scotland and BBC 2005, Dyer 2006, 2007, 2008, Norfolk 2006, Campbell 2007, Hall 2008,

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[5] Although it should be noted that Lynch is one of the few who does step outside the courtroom to perform his analysis, and by all accounts, his (at time of writing) unpublished new book, *The Truth Machine* (Lynch et al. forthcoming), will deal with the pre-trial construction of DNA evidence.

[6] Although it should be noted that while Duff et al. (2004) are aware of this criticism, they do advocate that the criminal trial is indeed in need of reform, and so should be a focus of study, notwithstanding its quantitative irrelevance in the vast majority of criminal cases.

for England). Kelly et al.'s study revealed that approximately 70 per cent of reported rape cases in England do not continue past the police station, with the cases either being withdrawn by complainers, or labelled as "No Crimes" or "No Further Actions" by the police. No similar study has ever actually been conducted in Scotland,[7] and so it is difficult to ascertain whether a similar distribution would exist in Scotland (particularly given that in Scotland the procurator fiscal is the "master of the instance" (Duff 1999) and therefore makes decisions about dismissing cases).[8] While the distribution of attrition throughout the Scottish criminal justice process is unknown, it is clear that Scotland has a very low conviction rate. The journalists Howie and Brown (2005) estimated (using police statistics) that 4.2 per cent of rapes, reported between April 2002 and March 2003, resulted in a conviction; this figure diminished between 2005 and 2006 to 3.9 per cent (Howie 2007a). Partially spurred on by the first statistic, in 2006, the Scottish Crown Office and Procurator Fiscal Service (hereafter "COPFS") published a *Review of the Investigation and Prosecution of Sexual Offences in Scotland* focusing on the way pre-trial decision-making in Scotland. One chapter of the COPFS report concerned the use of forensic evidence, and how it could be improved in order to attempt to secure more convictions. The COPFS study concluded, in agreement with other clinical forensic medical studies that have investigated pre-trial decision-making (McGregor et al. 1999, McGregor et al. 2002, see also Du Mont and White 2007 for a review of the international clinical forensic medical literature), that cases which demonstrate injury evidence are more likely to proceed through the criminal process.

While studies such as the ones mentioned above have demonstrated that evidence of injury improves the likelihood of cases continuing through the criminal justice process (and potentially securing a conviction), no study has investigated how such evidence is generated. While aspects of the forensic medical examination of rape and sexual assault complainers have previously been the object of study (see for example the work of Du Mont and Parnis 2000, 2001, and Parnis and Du Mont 2002, 2006 upon the collection of procedural evidence in Ontario, Canada), the full extent

[7] The closest Scotland has to an attrition rate study is the recent review of sexual history evidence in sexual offence cases (Burman et al. 2007), a follow-up to a similar study conducted a decade earlier Brown et al. (1993).

[8] As I will explain shortly, the procurator fiscal only makes decisions about cleared up cases; if the police in Scotland cannot identify or apprehend a suspect the case is left open.

of Forensic Medical Examiner (hereafter "FME") evidence has yet to be fully investigated (certainly in Scotland, let alone Great Britain as a whole). Such a study would not only serve my purpose of exploring the way that a particular type of forensic practitioner carries out pre-trial precautions in order to ensure that their work is credible to the court and other legal actors, but would also provide a background to the studies that I have discussed concerning the relationship between injuries and pre-trial decision-making concerning rape cases. Some scholars argue that findings such as the one I have mentioned above (i.e. that cases are more likely to succeed if there is evidence of injury) are demonstrative of a series of "rape myths" entrenched within society (Harris and Grace 1999, Kelly et al. 2005, Temkin 2005, Temkin and Krahé 2008, see Chapter Seven for a detailed discussion of "rape myths"). While it is not the intention of this study to address the question of why cases drop out of the criminal justice process, a study of the way that FMEs collect, interpret and present injury evidence certainly has the potential to engage with such discussions, particularly the issue of forensic evidence in relation to myths about "real rape" victims.

To sum up, my aim is to investigate the forensic medical examination of rape and other penetrative sexual assault complainers,[9] with a particular focus upon the way that evidence is generated and the strategies employed to make such evidence credible. At the same time the thesis will also engage with questions of popular and prosecutorial attitudes towards victims and how FME evidence relates to these popular discourses. To this end, I will be discussing the work of FMEs, and so before addressing my actual research questions and the reasoning behind them, it is appropriate to first explain the professional role of the FME.

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[9] Throughout this thesis, I will use the term "complainer" to signify the victim. While I am aware that the use of the Scottish legal term "complainer", similar to its English equivalent of "complainant" (and I will continue to use the term "complainant" whenever discussing English cases or forensic medical artefacts specifically), can connote a disbelieving attitude on the part of the researcher, based upon the assumption that the victim does not achieve the ontological status of "victim" until her claim has been deemed valid in the courtroom, I still choose to use the term "complainer", because that is the word that the majority of my respondents employed. While it may be the case that my respondents used the language of "complainer" instead of "victim" (and this may be based upon the fact that, for them, when they perform the medical examination, the validity of the complainer's account has yet to be established), it is important that I hold no such presumptions. I consider all complainers mentioned in this study to be victims.

1.1.1 Who are FMEs?

FMEs, previously titled “”police surgeons” or “police doctors”, are medical practitioners who choose to work either part-time or full-time for the police, carrying out forensic examinations of both those making a complaint of rape or sexual assault and those identified as the suspect in such a case. FMEs perform other work in addition to carrying out those kinds of procedures, however; they also perform “fitness to be interviewed” and “fitness to be detained” examinations of suspects in custody, and can be utilised to tend to the therapeutic and legal needs of victims of other forms of assault. As far as medical backgrounds and specialisms are concerned, those who choose to become FMEs have generally been (and in some cases continue to be) General Practitioners (hereafter “GPs”), pathologists, paediatricians, or gynaecologists. This list is far from exhaustive, and the community of FMEs allows anyone to train as long as they hold a general medical degree and have been practicing in any specialism for a number of years. Not all doctors who train will become FMEs, however, and as I will discuss in Chapter Three, there is a training regime that provides the trainee with experience of FME work, but also identifies those who are not fit to perform the job.

1.2 Research Questions

As has already been noted, this study is concerned with the generation of clinical forensic medical evidence in penetrative sexual assault cases. Consequently, I am chiefly interested in the mechanisms by which physical phenomena (injuries or biological trace material, for example) are collected and moulded into authoritative evidentiary statements that can be employed in a criminal case. A major aspect of this transition from physical phenomena to evidence is the classificatory practice of the FME; the practitioner interprets their observations in order to decide whether or not there are injuries present, and diagnoses the type of injuries and the potential cause. Likewise, it is the FME who decides which samples are likely to produce beneficial evidence for the criminal case. Although it is not the FME, in the final analysis, who actually converts the forensic biological samples into authoritative evidence (that is the job of the forensic scientist working in the scientific laboratory), the FME does decide which samples are collected, thus starting a process which eventually results in the development of evidential statements. To this end, because

of the importance of maintaining the chain of custody of evidence (Smith 1989, Lynch 2004), the FME exists as a node in a network which eventually produces evidential statements, and so the authority of their decisions (as with their own evidential testimony) has to be maintained for the sake of the credibility of the later forensic scientific evidence. My research questions, therefore, focus upon the ways that FMEs learn their craft, including the correct classification of injuries, the way they continue to classify cases throughout their independent practice, and the ways in which these and other associated practices meet the objective of making clinical forensic medical work and evidence credible for use in the criminal justice process.[10] It should be noted that although I will separate the research questions into those appertaining to injuries and those relating to the procedure of gathering information and collecting forensic biological trace material, such a separation is in many ways arbitrary. As I have already suggested, both processes are mechanisms by which evidence is produced, and both derive chiefly from the way that FMEs classify cases. With this in mind, in the next two sections I will outline the research questions that are the focus of this thesis and the justifications behind those questions.

1.2.1 Constructing Facts

In ensuring the credibility of evidence, it must be agreed by non-FMEs in the criminal justice process (investigators, prosecutors, the judge, jury, etc.) that the evidence presented is objective, and that it either constitutes a fact or is an opinion that draws heavily upon known facts. Expert witnesses constitute a special group in trials; unlike other witnesses, who are only allowed to testify upon facts (an eyewitness, for instance, is only allowed to explain what they actually saw; they are

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[10] Throughout the thesis, for preference, I will label the criminal justice system (the machinery applied to the investigation, detection and prosecution of a suspect in a criminal case) as the "criminal justice process". My justification for omitting the word "system" is that it connotes a unified structure wherein the individual parts all work harmoniously together with a clear purpose and method. Conversely

> [t]here now exists a large body of research on the workings of criminal justice that casts doubt on whether the term 'system' adequately captures the very complex ways in which crime is handled. Rather, the image created by this research is of a number of separate organisations, such as the police, the criminal courts or the penal establishments, which are loosely related to one another. The research also suggests that these institutions do not always share the same view of matters but, rather, that there are a number of overlapping perspectives which may come into conflict. As with all institutions, there is also a competition for scarce resources (Young 1997: 35).

I prefer to apply the term "process", as this connotes a group of organisations working together, but not necessarily systematically.

prohibited from inferring beyond those observations), expert witnesses are allowed to draw such inferences, if the inferences relate to the technical skill of a specific scientific or medical specialism (in the case of pathologists, for instance, inferring a singular cause of death from a potential panoply of probable causes) (Raitt 2001, Chalmers 2006).[11] Scholars working within the field of STS have challenged the apparently simple dichotomy between facts and opinions, and have demonstrated how facts are actually the achievements of expert communities. Before outlining my three research questions, I will explain how STS analysts who have investigated expert witnesses analyse the complex relationship between professional judgements, facts and opinions.

In a legal sense, facts are phenomena that are not open to interpretation. Take, for instance, the example of a body in a murder or a rape case: although aspects of it are open to interpretation (the cause of the injury, the question of whether or not the observed signs demonstrate that sexual intercourse was consensual), the body itself constitutes a material fact of the case. Experts have taken the language of fact and extended it to cover a number of their judgements. In Roger Smith's interview study of pathologists (1989), he discovered that the language of facts was used to describe aspects of their work that could be considered to be interpretations: "the number and distribution of bruises, the degree of occlusion of an artery, the blood group" (Smith 1989: 66). The pathologists interviewed did not conceive of these classifications as judgements, but rather routine objective descriptions that all pathologists would agree upon, and believed that if there was any disagreement amongst practitioners, it would be the result of incompetence on the part of one of the pathologists. At the heart of this fact-creation lies the community of experts (in Smith's case, pathologists): what makes an interpretation a "fact" is its shared status amongst the community. A fact is the result of the community's shared way of seeing, or to use Smith's phrase, its "factual consensus",

[11] Raitt suggests, however, that eyewitnesses do provide opinion evidence as well, particularly in cases where the witness is requested to identify whether or not the person that they saw perpetrating the crime is the suspect in the dock. In what I consider to be a highly sophisticated move (and one that I will employ in a similar way throughout this thesis), Raitt argues that every act of identification includes an element of judgement of the similarity (such a judgement will later be labelled a "similarity relation") between the person in the dock and the witness' own recall of the perpetrator of the crime.

and so judgements that other practitioners would concur with are no longer interpretive classifications, but rather authoritative facts.

How is this "factual consensus" achieved, however? Smith argues that a major part of this shared vision is a community's "mutual trust":

> Pathologists report that experts do not disagree about facts; they are 'professional', and hence there is mutual trust and respect precisely because they have the competence to make factual reports with which their peers would concur (Smith 1989: 66).

Hidden in this quotation are two ways by which, I will suggest, a shared vision is constructed: 1) training and the development of competence, and 2) limited statements and unanimity; I will expand on each of these in turn. Smith's study does not explain how pathologists are trained to embrace a shared vision, but in a similar study investigating the (now much maligned) latent fingerprint examiner (Cole 1998, 2002), there is a hint at the importance of training. While Cole, like Smith, barely hints at the importance of training in determining a shared vision, there are cases in his historical study that demonstrate this importance. For instance, Cole identifies the American *Jennings* case of 1912 as one of the first test cases involving fingerprint evidence. Five fingerprint experts testified, and they all agreed on a match between a collected latent fingerprint and that of the suspect. Interestingly, all five fingerprint examiners were trained at the same time by the same trainer. Cole does not explicate the importance of training as much as I believe he might; he argues, again like Smith, that when experts are considered competent by the relevant community (and with a similar training to one another), their fingerprint identifications are deemed correct so long as their peers agree with their interpretations. Smith and Cole could both, in my opinion, go further and make explicit that the training serves to produce a shared vision amongst practitioners in the first place. Cole, however, instead of focusing upon the way that training could produce similar ways of seeing, concentrates upon the limited and consensual nature of the statements made by fingerprint examiners, and looks at how they aid in the constitution of facts. In contrast, I will look seriously at training as a manner by which FMEs collectively ensure credibility.

Fingerprint examiners are an interesting type of forensic expert; unlike most other forms of forensic practitioner (particularly in America), no opposing defence

fingerprint experts have emerged (Cole 1998). This is a result of the determination on the part of the community of fingerprint experts that in order for their evidence to be credible, there must be unanimity amongst the practitioners. As I have already suggested, this is partially a result of the shared vision, but it also develops from the kind of statements that practitioners make: they are limited and consistent. A statement's factual status is undermined if the expert in question over-reaches in their interpretation and is then contradicted by another expert. Both Smith and Cole provide examples where forensic practitioners restrain their statements in order to ensure that other members of the community do not challenge or contradict them. In the case of fingerprint examiners, the community based its entire fact-producing machinery upon the notion that all examiners agreed in their interpretations of fingerprints, and so to the community, this consistency meant that what they produced was not just opinion, but instead hard facts.

> LFPEs [Latent Fingerprint Examiners] suddenly found themselves in a precarious position. While juries seemed more than willing to believe their testimony, LFPEs knew that they could easily undermine their credibility by bickering on the stand. To avoid falling prey to the ignominious fate shared by graphologists and psychiatrists, LFPEs developed a novel occupational norm: unanimity. Fingerprint matches, they argued, were not matters of opinion because all LFPEs' opinions agreed; as LFPE Frederick Kuhne declared as early as 1917: 'The testimony of a finger print expert is not subject to contradiction by another finger print expert' (Cole 1998: 699).

Unanimity may be the result of (as Smith mentions) mutual trust and respect, or a shared vision, but it is also a result of the limited nature of expert claim-making. Smith provides the example of pathologists giving time of death estimations; because of uncertainty surrounding differential rates of bodily cooling, the environment in which the body was found, etc., pathologists choose not to be overly specific as to the time of death, and so place it within a rather large margin. Likewise, Stefan Timmermans' more recent study of pathologists (2006) found that in high-profile cases, or cases where other professionals are involved (for example, deaths in police custody or iatrogenic deaths), pathologists are far more circumspect about the cause of death than they are in cases of (for example) suspected heart disease. The difficulties that these kinds of cases introduce necessitate that the pathologist limit their claims in order to avoid being contradicted in the courtroom. While these latter examples may be considered pathological opinions rather than facts, they do

exemplify the way that pathologists (and fingerprint experts, for that matter) make limited statements that are acceptable to other members of the community in order to maintain the community's unanimity, and thus the claim that they provide incontrovertible, objective and fact-based evidence.

The last two examples do introduce opinions into the discussion, and I will spend a moment demarcating facts from opinions. While facts are constituted by judgements upon which the community substantially agree upon (those who disagree are generally considered incompetent),[12] opinions are judgements where there is legitimate space for disagreement (such as whether a particular knife is the cause of the victim's stab wound, or whether observed injuries signify consent). Smith outlines the pathologists' belief that there exists the potential for opinions to coalesce into facts if those involved in a case (prosecution and defence experts) are able to discuss those questions beforehand, and that it is only the separation of experts due to the adversarial nature of trials that results in observed differences of opinion.[13] This suggestion of group consensus, even regarding opinions, maintains the idea that the work that forensic practitioners do is objective, and that the evidence they produce should be considered authoritative and credible. It does not follow, however, that group consensus is always possible; when there is a conflict (such as in Smith's example, where a stabbing was performed in such a way that made it impossible to determine the angle from which the blade entered), forensic practitioners either limit their claims by arguing that such statements are impossible, or claim that the problem lies outside their areas of expertise (in the stabbing case, the claim was limited to "impossible to tell" due to the difficulties of observation). Making such claims maintains the authority of any other presented forensic evidence by ensuring that in an area where consensus is impossible, it is better for the community if the individual practitioner avoids giving an opinion rather than providing contradictory evidence.

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[12] See, for example, how international fingerprint experts have distanced themselves from those working on behalf of the Scottish Crime Records Office, in order to maintain the authority of fingerprint experts in general (O'Neill 2006). International fingerprint examiners have labelled the McKie case as "the Scotch Botch", as this label highlights that those fingerprint examiners working in Scotland are incompetent and are not representative of the remainder of the fingerprint examiner community.

[13] In effect, the pathologists are requesting a pre-trial science court. This has been tried before and found to fail (Caspar and Wellstone 1982).

The above has demonstrated the importance of the community in maintaining the credibility of forensic evidence. Evidence is considered a fact if other members of the forensic community would collectively agree with the judgements of the expert. Such facts are constructed on the basis of a shared vision, as well as the limiting of statements in order to ensure that the expert's testimony does not over-reach and affirm phenomena in cases where her peers may disagree. Likewise, opinion evidence also reinforces the authority of the forensic community; while differences of opinion are sometimes considered legitimate, it is accepted that if the experts involved were to collaborate upon their decision-making, there would be no disagreement and a fact would be produced, thereby emphasising once more the collective vision of the community. Of course, some differences in opinion cannot be resolved, but these are not a problem for the community of forensic practitioners, as they fall outside the boundary of their expertise.

Drawing upon this material, I have constructed three research questions that my own study of FMEs will attempt to answer:

1. How does training serve to reproduce a paradigm? (This follows on from the work of Cole and Smith, and my suggestion that the role of training in the development of a shared vision can be further investigated.)
2. How do FMEs classify injuries, and what processes are employed to ensure the authority of the evidence? (This also relates to the work of Cole, Smith and Timmermans, and concerns the way that FMEs make claims which they know will be accepted by other members of their community.)
3. Are there cases when FMEs are unable to make classifications, and what processes are employed to maintain the authority of other evidence in cases of such uncertainty? (This follows from the last point and concerns the construction of boundaries in order to maintain the authority of the community.)

These three questions are very general, and could relate to the practice and classifications of FMEs in any aspect of their medico-legal work. It is important to remember that this study is investigating the way that FMEs conduct forensic medical examinations of rape and sexual assault complainers, as this creates a particular tension for FME work, particularly with regards to the legal definition of

rape (which I will discuss in detail shortly). To this end, I will include a cluster of more focused questions in my list, which fit well with the case study: FME examinations of rape and sexual assault complainers.

4. How do FMEs interpret, record and classify signs of injury in rape and sexual assault cases, how do they ensure that their evidence is authoritative and credible given the difficulties surrounding the law of rape (matters concerning consent in particular), and what effect does this have on the perceived relationship between ideas concerning injury evidence and rape? (These questions encompass the other three questions, but contextualise them within the particular case-study that I investigated (the forensic medical examination of rape and sexual assault complainers). The questions also flag up the issue of the relationship between injury evidence and "rape myths", which is explored in Chapter Seven).

These questions have been constructed in order to investigate the way that FMEs judge sexual assault cases (injuries in particular) and construct facts and opinions that are considered credible by investigators, prosecutors and the court. In the next section, I will develop more questions based on FMEs' classifications of cases and decisions on the necessary procedures to carry out during the forensic medical examination.

1.2.2 Processing Cases

The manner in which police doctors perform forensic medical examinations in sexual assault cases has been a contentious issue for quite some time. During the late 1970s and early 1980s, extensive criticism was aimed at police doctors from both outside (feminist groups and academics, for example) and within. Using the relatively new professional journal, *The Police Surgeon*,[14] some police doctors launched scathing attacks on the performance of forensic examinations.[15] One of these criticisms concerned the inconsistent way in which examinations were conducted. This criticism was most damningly expressed in the Scottish Office's study, *Investigating Sexual Assault*, conducted by Gerry Chambers and Anne Millar (1983). The study observed the investigation of sexual assaults in Glasgow and Edinburgh conducted

[14] See Chapter Five for a longer discussion on the *The Police Surgeon* journal.
[15] See Smith (1980), Roberts (1984), some of which is quoted at length in Chapter Four.

during 1980-1, and, when discussing the forensic medical examination, criticised the length of time that the complainer had to wait before a medical examiner would attend, the location of the medical examination room, the sex of the examiner (i.e. overwhelmingly male) and *his* "insensitive, unsympathetic and abrupt manner" (Chambers and Millar 1983: 101). The criticism most relevant to the present study was the level of inconsistency observed, not only between the two locations (Glasgow and Edinburgh), but also between individual practitioners. The chief reason for this inconsistency was the consideration that police doctors were pre-judging allegations as false, and hence failing to perform examinations as rigorously as they could, but Chambers and Millar also noted other reasons for incomplete examinations: insufficient training, and the lack of the requisite equipment (syringes, phials for storing blood, etc.). Partially in response to Chambers and Millar's criticisms of police doctors' decision-making in Scotland, and other charges aimed at police doctors in Great Britain more generally, the Association of Police Surgeons (hereafter "APS") advocated the incorporation of a sexual assault examination kit for use by police doctors nationwide, which, it was hoped, would lead to more routinisation in the medical examination.[16] While the introduction of the kit (as well as other interventions designed to improve the police's image and limit the harm done to complainers going through the criminal justice process) resulted in a number of positive effects, Jennifer Temkin (1998), in her interview study of police doctors in England, stated that there was still a long way to go in many areas. One of these was the inconsistent performance of examinations.

Similarly, in their attrition rate studies in constabularies in England, Harris and Grace (1999) and Kelly et al. (2005) noted that biological samples were often not collected or sent for analysis; in a different report Liz Kelly (and her co-author Linda Regan) illustrated the situation in England by drawing upon the work of Weeden and Hicks in the United States who commented that in terms of biological trace material "little is recovered from crime scenes, less is submitted to crime labs and still less is analysed" (Weeden and Hicks, cited in Kelly & Regan 2003: 8). Even following the introduction of routinised kits, some evidence remains uncollected. Scholars are

[16] I will discuss the sexual assault examination kit, as well as Chambers and Millar's criticisms, in considerably greater detail in Chapter Five.

divided, however, on the extent to which this lack of collection should be considered negative. There have only been two studies that have investigated the forensic medical examination kits, and they were both conducted in Ontario by Janice Du Mont and Deborah Parnis (Du Mont and Parnis, 2000, 2001, Parnis and Du Mont 2002, 2006). Parnis and Du Mont[17] investigated the way that FMEs employed the Sexual Assault Evidence Kit (hereafter "SAEK") and whether or not they followed the strict procedures outlined in that protocol. As with the findings in Harris and Grace and Kelly, Parnis and Du Mont discovered that FMEs did not adhere to the strict regime of the protocol. Parnis and Du Mont suggest a very interesting reason for non-adherence, which challenges the presumption that failing to gather evidence is inappropriate.

Parnis and Du Mont draw upon the work of Kathleen Kelly et al. (1996, 1998) and Steven Savage et al. (1997), who both conclude that the police doctor exists in a state of role-conflict, represented by their very job title: on the one hand, they are a medical doctor, whose chief role is the performance of therapeutic functions; on the other, the police doctor also works for the police, and so is required to be an "objective" evidence-gatherer. The police doctor, so Kelly et al. and Savage et al. suggest, is conflicted as to the client that they are working for; they could be said to work for their patient, as is the case within general medical practice, or alternatively for the police. So in a case where (for example) the doctor will not see the complainer again (i.e. she is not one of the FME's patients in their GP work), under what compulsion is the police doctor to be sympathetic to the complainer, considering that their other obligations prevent sympathy? As one of the police doctors interviewed by Temkin put it, "You're never going to see them again and you have no on-going commitment to them or responsibility for them" (police doctor cited in Temkin 1998: 844). Conversely, the doctor will, in all likelihood, work for the police again; the FME could therefore feel that their police role constitutes their first priority.[18] Due to these complicated relationships and conflicts, the therapeutic

[17] In this thesis, I will use "Parnis and Du Mont" to signify both the Du Mont and Parnis articles and those credited to Parnis and Du Mont.

[18] Other critiques have been made regarding the forensic science and forensic pathology services' close relationship with the police, in light of the miscarriages of justice concerning the Birmingham Six, the Guildford Four and the Maguire Seven. The pathologists' and scientists' close relationship resulted in the forensic practitioners allegedly becoming "prosecution-minded" (Jones 1994, Roberts

aspect of the examination (including a sympathetic attitude or at least courtesy towards the complainer) may become subsumed to the agenda of evidence collection. On the contrary, however, this is not what Harris and Grace, Kelly, or Parnis and Du Mont observed; instead of unimaginatively collecting samples from a set protocol in the interests of ensuring that all available evidence is gathered, it appears that FMEs often choose not to collect samples/gather evidence. Parnis and Du Mont argue that Savage et al. and Kelly et al. are partially correct in suggesting that FMEs exist in a state of role-conflict; however, they also claim that FMEs choose not to side with the police and the forensic/evidence collection role (which they suggest is itself inscribed onto the kit; see Chapter Six) but instead actively renegotiate the kit out of a duty of care to the complainer. Parnis and Du Mont suggest that it is therefore the therapeutic aspect that takes priority over the forensic in sexual assault investigations, and so when decisions are made not to take samples, it is not a case of FMEs distrusting the veracity of the allegation, or performing incompetently, but instead an example of FMEs interpreting the meaning of the kit out of a duty of care to the complainer.

As Parnis and Du Mont have provided the only example of an actual evaluative study of FME use of Forensic Medical Examination Kits (hereafter "FMEKs"), there is definitely scope for more work in this area. Furthermore, as has clearly been identified from this discussion of the literature, the forensic medical examination of rape victims in Scotland has not been critically investigated since the early 1980s; as such, given the cultural authority held by the forensic sciences,[19] as well as the groundswell of negative public opinion surrounding the criminal investigation of rape complaints, a study of the procedure of forensic medical examinations is not only novel, but also timely and necessary. The previous research, coupled with the need for research in this area, prompts me to ask the following further questions:

5. Under what circumstances were FMEKs introduced into forensic medical work, what role did they play and how have they developed? (These

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1996), which resulted in unsafe convictions. I will discuss the effect that this has had on FMEs in Chapter Seven.

[19] Again I point the reader to Rt. Hon. Gordon Brown's "speech on security and liberty" (Brown 2007) and how Brown draws upon the cultural authority of forensic science to defend his position.

questions fit with the broader thesis project of identifying how credibility is managed by FMEs and their community.)

6. How do FMEs make decisions about the evidence that is collected during rape and sexual assault examinations, and what role do the FMEK and other guidance artefacts play in those decisions? (These questions are similar to those asked by Parnis and Du Mont, and represent both an attempt to inquire into the applicability of their analysis to the Scottish context, and a further investigation into the role that guidance artefacts play in managing the authority of evidence.)

The thesis, therefore, has six sets of questions to address, and in Section 1.4 I will break down the content of the following chapters in order to explain how I intend to answer them. Before addressing this, however, it is appropriate to give a brief outline of the legal context in which this study took place: Scottish law and Scottish criminal procedure.

1.3 The Scottish Context

1.3.1 Corroboration and the Scots Law of Rape

As has already been made clear, this study will focus upon forensic medical examinations of penetrative sexual assault complainers under the Scottish legal system. Before proceeding with the study itself, it is necessary to briefly outline a number of the peculiarities of Scots Law, particularly those relating to corroboration as well as the law of rape, as doing so places the thesis within its particular legal context and introduces some of the legal changes that will be drawn on throughout the thesis. I will commence with corroboration before discussing the law of rape.

A distinctive feature of the Scottish law of evidence, the corroboration rule states:

> No matter how trivial the offence and how high soever the credit and character of the witness, still our law is averse to rely on his single word, in any inquiry which may affect the person, liberty, or fame of his neighbour, and rather than run the risk of such an error, a risk which does not hold when

> there is a concurrence of testimonies, it is willing that the guilty should escape (Hume, cited in Chalmers 2006: 21).[20]

To this end, all "crucial facts", i.e. elements of evidence that go towards helping to determine the outcome of the trial (the identity of the perpetrator, the cause of injury for example) are required to be supported (corroborated) by independent evidence. Clinical forensic medicine, therefore, can be a useful tool for corroborating the claim that sexual intercourse took place. While proof of force is no longer required for an act of rape to be established, the prosecution must show lack of consent. Forensic evidence can corroborate force; the question remains, however, whether lack of consent can be corroborated. As this distinction between lack of consent and force is a vital factor for part of my argument (particularly Chapter Seven), I will spend some time discussing the law of rape.

Gane and Stoddart suggest that a "generally accepted statement of the law [of rape] is that a *man* is guilty of rape if *he* has *sexual intercourse* with a *woman* by *overcoming her will*" (Gane and Stoddart 2003: 346 emphasis added).[21] While Gane and Stoddart's "generally accepted" definition was not actually the law of rape during my fieldwork (it was amended in 2002 by the *Lord Advocate's Reference No. 1 of 2001*, of which more below), it is a good basis to start from, and will help to explain some of the later changes to the law made by the *Lord Advocate's Reference No. 1 of 2001*, which was the working definition of rape while I was conducting my fieldwork. The first point of note about the law is that it is sexually differentiated: only a man can be a rapist and only a woman can be a victim. The reason for such differentiation is the determination that rape requires sexual intercourse, which the law determines as the insertion (to any degree) of the penis into the vagina (Gane 1992).[22] Given this definition, other forced penetrative acts performed by a man

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[20] Please note that this David Hume should not be confused with the well-known philosopher David Hume, whom I will mention below. The David Hume cited was the nephew of his namesake and a famous Commentator on Scottish law.

[21] The copy of Gane and Stoddart used was published in 2003, but was a reprint of the third edition (the most recent) originally published in 2001. Due to the 2001 publication date, it does not mention the *Lord Advocate's Reference No. 1 of 2001*, which I will discuss shortly.

[22] I specifically used the phrase "sexually differentiated" rather than the more commonly used "gendered" on the understanding that sex is biologically determined while gender is socially negotiated. As the law (in this case) is clear that it requires a penis and a vagina (i.e. physical attributes) to perform sexual intercourse, it is a sexually differentiated crime rather than a gendered one.

upon a woman do not count as rape, but are instead likely to result in a charge of indecent assault (these assaults are, however, subject to the same maximum penalty); meanwhile, penetrative acts performed on men could result in charges of sodomy or indecent assault, depending upon the nature and circumstances of the act (Gane 1992).

The second point to note is the phrase "overcoming her will". This phrase is carried over from Hume's *Commentaries*, where Hume wrote that rape consisted of "[t]he knowledge of the woman's person… against her will and by force" (Hume cited in Gane 1992: 18). Hume's definition emphasises the violence assumed to be part of rape by early legal commentators (Gane 1992).[23] A woman's will (i.e. her resistance) would have to be physically (forcefully) overcome in order to have "carnal knowledge" of her. While Hume's definition does emphasise violence, he was aware that it was not always the case; as Tadros (1999) explains, Hume analogised rape to robbery: "rape is at once a crime of sexual violence *and* a crime against a woman's proprietary interest in her sexual integrity" (Tadros 1999: 319 emphasis in original). Extending the metaphor, Hume claimed that as the victim hands over their wallet as a result of a threat of violence in some robberies, so it is also the case that a woman's will could be overcome by a threat of force (Tadros 1999). It could likewise be overcome if she were rendered insensible by the suspect with the use of drugs or alcohol. A woman's resistance (her will) could thus be overcome with force, the threat of force, or intoxicants. Some cases constituted rape even when the woman's will had not been overcome. In cases where the victim (by which they meant girl) was 12 years old or under, or where the victim was, to use Hume's and Alison's (another early commentator on Scottish law) language, a "lunatic" or an "idiot", rape did not require force or a threat of force, as such victims were incapable of providing consent (Ferguson 2002).[24] To sum up, unless the victim did not have the capacity to consent, rape consisted of a man performing penile-vaginal penetration after having overcome the will of a woman through force,

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[23] However, a strong argument can be made that such an attitude is still prevalent, particularly amongst the police, prosecutors and the public.

[24] It is necessary for a distinction to be drawn between lack of capacity to consent and the provision of a *valid* consent. As I have explained, a girl aged 12 or under is thought not to have the capacity to offer consent to intercourse; on the other hand, a girl aged between 13 and 15 does have the capacity, but such consent is judged to be irrelevant under Scots law (Gane 1992).

a threat of force, or intoxicants.[25] This definition was roughly to provide the *actus reus* of rape until 2002.

The case *Watt v HM Advocate* (2001) was a landmark case in Scottish rape law; while there was evidence that intercourse had taken place, plus evidence that the sex was not consensual (although the suspect's defence was that the complainer consented), the suspect was found to have "No Case to Answer" and acquitted, as it was not proved that he had overcome the will of the complainer via force, threat of force or by means of intoxicants. Lord Abernethy's decision was highly criticised, both in legal circles and in the press (see Ferguson 2002), and the then Lord Advocate,[26] Lord Colin Boyd, employed Section 123(1) of the Criminal Procedure Scotland Act which states:

> Where a person tried on indictment is acquitted or convicted of a charge, the Lord Advocate may refer a point of law which has arisen in relation to that charge to the High Court for their opinion (Shiels at al. 2001 188)

The point of law in question was whether "overcoming her will with force or a threat of force" was still pertinent in contemporary society, and whether the *actus reus* (the physical aspect) of rape should be defined in terms of non-consent rather than non-consent plus force. Seven judges decided, with a majority of five to two, that in fact "overcoming her will" was no longer relevant, and so the *Lord Advocate's Reference (No. 1 of 2001)* (hereafter "*Reference*") amended the *actus reus* of rape to sexual intercourse by a man with a woman to which the woman did not consent at the time of intercourse. While it is clear that there has been a significant change in emphasis in some of the *actus reus*, there is much that has not been changed by the *Reference*; most notably, rape is still based on penile-vaginal penetration.[27]

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[25] Of course, this is a simplification of the pre-*Lord Advocate's Reference 2001* rape law, and cases like the oft-cited *Sweenie* (1858)*, Fraser* (1847), *Jamieson v HM Advocate* (1994) and *Grainger and Rae v HM Advocate* significantly complicate matters. For more on these cases, see Gane (1992), Gane and Stoddart (2003), Ferguson (2002), Tadros (1999) and Chalmers (2004).

[26] For a discussion of the role of the Lord Advocate and the other actors involved in the hierarchy of Scottish prosecutions, see Young (1992) and Gane and Stoddart (2003).

[27] In 2004, the Scottish Law Commission was requested by the Scottish Executive to evaluate the law of rape and provide recommendations for the improvement of the law. One of the Commission's recommendations was to expand the definition of rape in order to define all penile-penetrative acts as rape, thus removing the sexual differentiation of victims (although the Commission rejected the suggestion that women should also be capable of rape), and also to introduce a new "sexual assault by penetration" offence, which differentiates penetration of the vagina or anus with objects other than the penis (including other body parts) from the existing catch-all of indecent assault (Scottish Law Commission 2006). Such a change will mean that the Scottish law becomes more similar to the

While the *Reference* was generally considered a positive step, some commentators have highlighted a significant problem that has manifested as a result of the change. Under the pre-*Reference* law the *mens rea* (the intention to perform a criminal act) could be determined from the *actus reus*, i.e. by overcoming the will of the victim, it was clear that the perpetrator had the intention to rape her: "if force is no longer an element of the *actus reus, mens rea* cannot be inferred from proof of the *actus reus* alone… In other words, under the pre-*Reference* law, proof of *mens rea* flowed almost automatically from proof of the *actus reus.* That is, however, no longer the case" (Chalmers 2004: 141/2). The Crown must demonstrate not only that the act took place with the suspect, but also that the suspect either intended to do it, or behaved recklessly; in the case of post-*Reference* rape law, that means that the Crown must prove that the suspect knowingly had intercourse without the consent of the complainer, or was oblivious to whether consent was provided or not. While I do not wish to focus overly on the details of the problems that have resulted from the *Reference*, as they are not wholly relevant to the current study,[28] it is necessary to emphasise this particular shift from force to lack of consent as it provides a substantial problem for FMEs. During the time that evidence of force was a necessary precursor to a charge of rape, FMEs held a more powerful position with regard to what they could and could not say concerning the corroboration of the complainer's account. The FME, providing opinions on signs of injury, could speak with more certainty on the evidence they had collected. With the move towards having to prove lack of consent, it has become harder for FMEs to corroborate a complainer's account, as it relates to intent and other mental process that do not easily fall into FMEs' sphere of expertise. I will deal with this issue at greater length in Chapter Seven.

1.3.2 The Criminal Justice Process

In this section, I will address the organisational context that surrounds the forensic medical examination. I will briefly describe the processes that take place both before

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English law, which was changed with the 2003 Sexual Offences Act. For a good description and analysis of the English Sexual Offences Act 2003, see Stevenson et al (2004).

[28] However, the cases of *McKearney v HM Advocate* and *Cinci v HM Advocate* demonstrate the difficulties of administering the *Reference*, and may have provided the impetus for the Scottish Executive to invite the Scottish Law Commission to undertake a review of the law of rape. See Chalmers (2004) for more details.

and after the complainer is examined by the FME. As with the previous discussion of the law, such a description of the process is necessary in order to place the medical examination in its institutional context. The aim of this section is to provide a narrative of certain aspects of the investigatory procedure (although a particularly relevant aspect of the prosecutorial process will also be outlined), intended to enlighten the reader about the Scots processes. Where appropriate, the description will also point out the areas in which a case can be diverted from trial.

One final point before moving onto the investigation element: some of what I present here is somewhat reified. There is no single Scottish investigation procedure (there is more homogeneity in the prosecution process than in the police in Scotland, given the existence of a single public official, the Lord Advocate). There are eight police forces in Scotland (Central, Dumfries and Galloway, Fife, Grampian, Lothian and Borders, Northern, Strathclyde, and Tayside) and each police force has its own police authority or board, made up of local councillors. While each constabulary is answerable to the police authority, it is the constabulary's Chief Constable that makes decisions on a day-by-day basis, and who decides on the most efficient and effective ways for their constabulary to operate (Young 1997). To this end, each constabulary is to some extent autonomous in its operation of investigations (although the police are required to submit reports to the more homogenous Procurator Fiscal Service, and so, in reporting at least, there needs to be some uniformity between constabularies), and there are some substantial differences in the ways in which constabularies investigate penetrative sexual assaults. While I do not wish to remove complexity from the research, it is necessary to minimise such difficulties for current purposes and present something appertaining to a uniform approach by the various constabularies. Therefore, in the text I will provide an idealised description of how rape and serious indecent assaults are investigated and prosecuted in Scotland, and will note any considerable inter-constabulary disagreement.[29]

[29] The description has generally been constructed from various police and prosecutor guidelines, discussions with the police and reviews of their reporting documentation.

1.3.2.1 The Investigatory Process

The criminal justice process begins when the police are informed that a person has been sexually assaulted. From interviews with police officers it was mentioned that this report was usually made by the complainer, over the telephone, a while after the actual assault. Other studies based in England (Harris and Grace 1999, Kelly et al. 2005) revealed that it was often a third party (friend, relative) that contacted the police. The decision of whether or not to inform the police is often considered the first point of attrition or diversion of a case away from trial.[30] Once the police have been informed, a police officer specially trained in interviewing vulnerable victims is sent to the complainer's home to act as liaison to the complainer. While the term Sexual Offence Liaison Officer (hereafter "SOLO") is not used by all constabularies for this liaising or accompanying officer, for ease of exposition I will choose to do so here (although I will use the term interchangeably with "accompanying officer" throughout the following chapters).[31] The SOLO's chief function is to provide support for the complainer, but they also collect some initial details about the alleged assault, particularly those concerning the alleged suspect. While the formal statement will not be taken at the initial meeting of the SOLO and the complainer (particularly in cases where the complainer has reported very shortly after the attack), some details (the suspect's description or identity and whereabouts if known, any witnesses, the locus of the assault, the names of anyone else the complainer has talked to, and a brief description of the incident) are gathered at this initial juncture. Such details enable the rest of the investigatory team to perform some preliminary investigations, including apprehending the suspect (if known), to which I shall return shortly. The SOLO also acts as a point of contact between the complainer and the police all the way through the investigation, and, due to the level of rapport that can develop between the complainer and the SOLO, even beyond (although the Victim Information and Advice (VIA) service are supposed to help the complainer once the case moves to the prosecutorial stage). Once the SOLO has gathered the initial

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[30] See Temkin (2002), Temkin and Krahé (2007) and Withey (2007) for discussions of the reasons why some victims choose not to report.

[31] Some constabularies (for example, Lothian and Borders), instead of developing a single officer type to liaise with the complainer, have created a specialist section (known as the "Amethyst Team" in Lothian and Borders) who deal exclusively with sexual assaults. The "Amethyst Team" do not call their officers SOLOs, however; they prefer to call their liaising officers "accompanying officers".

details of the alleged assault, she[32] then contacts both an FME and a Scenes of Crime Officer (hereafter "SOCO", who will act as a photographer, photographically recording evidence of injuries) in order to organise a forensic medical examination. When it is time for the examination, the SOLO, acting as liaison, accompanies the complainer to the medical suite.

Before providing a brief discussion of the medical examination (brief being the operative word, given that the entire thesis is an exploration of the examination itself), I should first mention a forensic evidence collection technique that takes place before the medical examination, and the suite where the examination takes place. At some point before the medical examination, either once the complainer and SOLO have arrived at the medical suite, or when still in the complainer's home, the SOLO will employ an "Early Evidence Kit". Early Evidence Kits contain mouth swabs and a urine collection module, in order to enable the complainer to have a drink or relieve herself (whilst waiting for the medical examination proper) without any potential further degradation to trace material that still may be present in the mouth, or evidence of the use of drugs (via the urine sample). Early Evidence Kits were introduced to the investigation stage after significant pressure was placed on the police, particularly by feminist groups (including academics), rape crisis groups and some police doctors, who reported that women were having to wait long hours for the examination without being able to drink or use the bathroom due to fears of losing forensic evidence. The Early Evidence Kits serve the purpose of reassuring the police that they have done all they can to collect forensic evidence, and, more importantly, allow complainers to have a drink or relieve themselves, providing them with a certain degree of comfort while waiting.

The introduction of "One Stop Shops", otherwise known as Sexual Assault Referral Centres (hereafter "SARCs"),[33] was also a response to significant criticism of the investigation procedure. SARCs are buildings created jointly by the police and the local health authority with the express purpose of serving all the needs of sexual assault victims under one roof. In order to do this, they contain a forensic

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[32] It is certainly the case that the SOLOs are nearly all women. When visiting constabularies, I only came across one SOLO/accompanying officer who was male. I do not use the "she" in the above sentence to signify that SOLOs are women, however; rather I am using it as a generic pronoun.
[33] For a fuller discussion of SARCs, see Lovett et al. (2004).

medical examination suite, and also have counsellors on hand in order to help with any psychological problems that the complainer may be suffering, as well as legal representatives to provide advice to the complainer. While there is currently only one SARC in Scotland ("The Arch" in Central Glasgow, which serves as the examination suite for Central Glasgow, a part of the Strathclyde constabulary), other constabularies are trying to organise similar buildings. The important difference between SARCs and other buildings containing forensic medical examination suites is that with the former, anyone can walk in and be examined whether or not they have been brought there by the police, i.e. victims of sexual assaults can receive counselling or be examined without a criminal investigation (forensic samples collected during these examinations are kept in case the victim wishes to pursue a criminal prosecution). In non-SARCs, examinations are always followed by an investigation. To this end, the new building used by the Amethyst Team in Lothian and Borders, while acting like a SARC (and one of my interviewees was adamant that it was), is not, by definition, as it is also the base for the Amethyst Team and can only be accessed by those making a criminal complaint.

The SOLO accompanies the complainer to either the SARC (if in Central Glasgow), or another location which has been kept by that constabulary specifically for examining sexual assault complainers. At that location, they are made as comfortable as possible, and await the FME who performs the forensic medical examination. When the FME[34] arrives, the SOLO informs them of the details of the assault which she has already gathered from the complainer. Having been provided with this information, the FME starts the examination. The aims of the forensic medical examination have been most succinctly explicated by Kelly and Regan:

- to identify the assailant (blood, saliva, semen, skin cells can all be tested for DNA);
- to confirm recent sexual contact (injuries/soreness around the genital area; seminal fluid, saliva and internal injuries)
- to establish force (documentation of internal and external injuries, torn/soiled clothing, positive toxicology tests);

[34] Some constabularies claimed that the examination was "double-doctored", i.e. two FMEs performed the examination. After conducting further interviews in those constabularies, however, I discovered that this was actually quite rare (although I will explore the times it does happen in Chapter Six) and was really only the case during the training of neophyte FMEs (see Chapter Three). To this end, for my description, I think it suffices to say that the examination is generally "single-doctored".

- to corroborate the victim's account (are findings consistent with it) (Kelly & Regan 2003: 10).

During the examination, the FME observes the body of the complainer, searching for signs of injury or physical contact and collecting samples for further forensic scientific analysis. A further aim of the examination, not included in the above quotation, is to take care of the therapeutic needs of the complainer. Before making a start, however, the FME first has to gain consent to perform the examination. In seeking "informed consent", the FME informs the complainer of what they are about to do (i.e. observe the complainer's body for signs of injury and collect samples for scientific analysis) and the differences between a general medical examination and a forensic medical examination. Along with the latter, the FME must explain to the complainer that the report produced, based upon the findings of the examination, will be shared with the police, prosecutors and possibly the defence, and that the complainer is required to consent to the material being disclosed. Moreover, if photographs or colposcopic recordings are to be taken, then the FME must gain additional consent for them. Before beginning the examination, then, the complainer must consent to samples and recordings being taken from them, and to the dissemination of that the report to other parties. This is of vital importance, as the point to note here is that the FME is supposed to be disinterestedly gathering evidence, be it signs of injury or trace material, and this practice could be highly detrimental to the complainer. The process, in particular the gathering of intimate trace material, can be highly traumatising; moreover, the requirement to gather evidence could run counter to the therapeutic aspects of medicine, and the evidence gathered could actually undermine the complainer's allegation. I will engage with these points later. Nevertheless, if any of the consents are not granted, it is likely that a particularly *forensic* medical examination will not be performed, as it will not be possible to collect the requisite evidence, and so the examiner will perform a routine medical, tending to the complainer's therapeutic needs only. It is the SOLO's job to report the reasons why consent was not provided.[35] Kelly et al. (2005) notes that it is very rare for a complainer to refuse consent, as there is an assumption on the part of

[35] If an adult has reported sexual assaults that took place when they were a child, a "historic assault", then a medical examination will not take place (Common 2004).

the complainer that upon making the report they will be forensically examined; more interestingly, Kelly et al. also explained (and this was confirmed by anecdotal evidence in my study) that Senior Investigating Officers (hereafter "SIOs") looked less favourably on cases where the complainer did not consent to the medical than those where consent was given.

If consent is granted, then the FME follows the routine set out in constabulary-developed protocols, employing the standardised Forensic Medical Examination Kit. They commence with general medical questions concerning current medication and alcohol consumption, and then move onto questions that may have a bearing on their observations; date and time of last consensual intercourse, for example, or menstrual and pregnancy history. Once the questions are asked, the FME performs a top-to-toe observation of the body of the complainer, recording any injuries observed and taking all necessary samples. They then focus on the ano-genital-oral areas, with particular attention to areas of contact suggested by the complainer's account. The areas are sampled, and any injuries found are recorded. The FME stores the samples, as detailed in published guidelines, in preparation for distribution to the forensic science laboratory. Once the examination is complete, the FME then prescribes any medication that they believe to be required (usually the contraceptive pill or antibiotics to prevent sexually transmitted diseases (hereafter "STDs")), and arranges follow-up appointments with Genito-Urinary Medical (hereafter "GUM") units (if there are signs of an infection or if the complainer is worried about HIV) and counselling services. If necessary, the complainer is then given a new set of clothes (if she is still wearing the clothes she was assaulted in, these will be taken by the SOLO for forensic scientific analysis) and allowed to return home. At this point, the SOLO is able to hand over the details of the case they have gathered to either the Criminal Investigations Department (hereafter "CID") or a specialist "Family Protection"/"Sexual Assault" Unit (depending upon constabulary) for further investigation, and the FME writes up their report based on what was observed during the examination.

When the suspect has been identified by the complainer, the police attempt to apprehend and detain him in line with Section 14, "Detection and questioning at police station", of the Criminal Procedure Scotland Act 1995 (Shiels et al. 2001). In

cases where the suspect is unknown, more work is necessary to deduce the identity. It is not the aim of this thesis to go into details about the various investigative strategies that the police employ to uncover the identity of a perpetrator, but I do want to touch upon the ways in which some of the forensic medical samples collected by FMEs are used in the attempt to discover the identity, and the situation that results if the police do not uncover the identity, or to put it another way, the crime is not "cleared up". Firstly, in cases where the suspect is known and where the case is forwarded to the procurator fiscal, it is the fiscal who decides which samples are sent to the laboratory and which analyses are run, as they are attempting to piece together the strongest case possible in order to secure a conviction. Due to this, it is also their responsibility to pay for those analyses. In the case where the identity of the suspect is unknown, it is the police who decide which samples are sent to the lab and which analyses are conducted, with the aim of discovering the identity of the suspect. Using the trace material collected on the swabs, the police can make a request for a DNA-typing analysis to be performed by the forensic scientists; this will produce a DNA profile, which the police hope will match with a pre-existing profile contained on the Scottish DNA Database (Williams and Johnson 2008) and so provide a suspect for the police.[36]

If the case is not cleared up, i.e. the identity of the suspect is not discovered (from either the database, or other investigative techniques), or the police are unable to arrest the known suspect (no evidence is discovered that corroborates the complainer's account, or the suspect has absconded), then the police choose to leave the case open, in case evidence appears in future which is useful to the open case. Although cases left unresolved during the investigation are not marked "No Crime" or "No Further Action" as they are in England (Harris and Grace 1999, Kelly 2005), the unresolved case still constitutes the second attrition point in the criminal justice

[36] While I do not follow the samples collected by the FMEs after the examination, and therefore do not explicitly engage in this thesis with the question of how the samples are sent to the lab, I believe it is appropriate to add this information as it supports the claims made by Liz Kelly about samples not being forwarded that I touched upon earlier. It is my contention that criticism has shifted from the sample collection to sample distribution under the assumption that FMEs are now collecting all samples in agreement with guidance artefacts. I will explore such assumptions in Chapters Five and Six.

process (unless the case is resolved later via the Moorov doctrine).[37] On the other hand, if the investigation does discover a suspect, either via the complainer providing the identity or through the investigation, and the police have corroboratory evidence, then they will pass the case, including all the evidence they have gathered, to the procurator fiscal for the prosecution.

1.3.2.2 The Prosecution Process

Having set out in detail the aspects of the investigation process, in this final section I intend to address a single aspect of the pre-trial prosecution process that is salient to FME work. While Scottish law has many diverse aspects to its pre-trial decision-making, I will focus upon the Preliminary Diet.[38] The Preliminary Diet became a mandatory part of the Scottish criminal justice process with The Criminal Justice (Scotland) Act 1995 (Young 1997). It has two chief aims: 1) to discover the level of preparation of both the prosecution and defence (including whether or not the defence intend to plead guilty) and 2) to ascertain if there is any evidence that the prosecution and defence agree upon and can therefore be disposed of. I will discuss both aims in turn. Prior to The Criminal Justice (Scotland) Act 1995, it was considered to be too common for the accused to plead guilty on the day of the trial, causing inconvenience to all involved (particularly witnesses) (Young 1997). In order to limit this practice, it was decided to make the Preliminary Diet mandatory and thereby provide a mechanism for the accused to plead guilty earlier, potentially avoiding inconvenience. If the accused does plead guilty at this stage, the case goes into Accelerated Procedure, skipping the Trial Diet and passing directly to Sentencing. The second aim of the Preliminary Diet is the statutory requirement of the prosecution and defence to agree (and thereby dismiss) uncontested evidence. Sections 256 and 257 of The Criminal Procedure (Scotland) Act 1995 make it

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[37] See Raitt (2001) and Chalmers (2006) for discussion of the Moorov doctrine, which enables crimes "so inter-related by character, circumstances and time… as to justify an inference that they are instances of a course of criminal conduct systematically pursued by the accused person" (Lord Justice-Clerk (Aitchison) cited in Chalmers 2006: 26) to corroborate each other. Cases that have not yet been cleared up could still be useful for other cases, and could themselves be resolved via the Moorov doctrine.

[38] For discussions of procurator fiscal decision-making, particularly those concerning the relationships between the police and the procurators fiscal and focusing on the way that decisions are made regarding Solemn and Summary decisions and breakdowns of the types of courts used in Scottish Criminal Procedure, see Pounder 1993, Young 1997, Duff 1999, Gane 1999.

necessary for both parties to agree on certain facts, making their appearance unnecessary at trial. This is vitally important when it comes to forensic scientific and medical evidence; if the forensic evidence confirms only that penetrative sexual contact has taken place (findings of genital examination consistent with recent sexual intercourse, semen found in the vagina, etc.) and the defence are intending to claim that the complainer consented, then the forensic medical and scientific evidence can be dismissed, as the evidence does not conflict with either account. Both parties can agree with the findings of the forensic practitioners, and so they need not be called as witnesses to trial.[39] If the accused does not plead guilty, then once the evidence has been agreed upon, the case proceeds to the Trial Diet.

1.4 Chapter Summary

As previously set out, this thesis aims to investigate the pre-trial work of a particular forensic practitioner, the FME, with particular focus on the way that they attempt to make their evidence appear authoritative. In Section 1.2 I explained, using the work of STS scholars Roger Smith, Simon Cole and others, that a facet of this is the construction of facts, employing community cohesion and consensus in order to construct credibility. In the following chapters, I will demonstrate how such fact construction can be observed in FME work as well as the examples employed by those scholars. To this end, as this study investigates the routine work of FMEs, it will also show how FMEs claim to construct incontrovertible evidence. In the following chapter, I will set out the methodology that I will employ: the semi-structured interview, accompanied by the analysis of documents and other clinical forensic medical artefacts. I will also discuss my choice of analytical method, the use of the theoretical concept "meaning finitism", which is a philosophical tenet that sets out that all classifications are essentially underdetermined, and so communities determine the appropriate manner by which objects are classified; this argument is of particular salience to my own study of the ways in which communities of FMEs develop facts and make classifications.

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[39] A forensic medical report that does not benefit either the prosecution or the defence I will label (using the FMEs' language) the "neutral report". The neutral report, and its problems, will be the major focus of Chapter Seven.

Chapter Three investigates how medical practitioners are trained to become competent FMEs. The chapter focuses upon the importance of shadowing and textbook photographs as exemplars to the neophyte, which start to shape their perceptual and cognitive apparatus. Such shaping is reinforced through the use of exercises, both in textbooks and by the observation of the trainer during shadowing; in both cases, the authority corrects the responses of the trainee until they fit with those agreed upon by the rest of the community. Possession of the same shared vision as that of the general FME community is finally achieved (after the trainee has been deemed competent by their trainer) via the undertaking of an examination, the Diploma of Medical Jurisprudence (hereafter "DMJ"). An FME passing the DMJ, or being judged "safe", means that they observe, classify and record cases in the same manner as other members of the community. Chapter Three sets out the way that FME training is an attempt to develop a shared vision and shared praxis amongst members of the forensic medical community, in order to construct unanimity in the classifications and practices of its members.

The real world provides more complex cases than those provided in textbooks and encountered in training, however, and the competent FME is required to draw analogies between the cases they observed during their training and new cases that they encounter during their professional life. Chapter Four investigates FME injury classification more closely, focusing on the process by which FMEs record and make judgements about contusions upon the body. In the majority of cases, FMEs are capable of describing the type of injury observed and determining its cause, a result of their training and their experience of injuries. Such statements are granted the ontological statements of facts, because practitioners generally make statements that would be accepted by others within the community as a result of their shared training; in addition, they do not extend themselves in cases where there is a risk of being contradicted (for example, if they are unable to determine the cause of an injury, they either bring in a more experienced practitioner or limit their claims-making in an effort to avoid providing refutable testimony). Even with these conservative strategies, there are still cases where FME evidence is contradicted, and the community of FMEs is attempting to further limit this by pressuring the COPFS

to establish the disclosure of defence expert evidence before trials, thereby providing opportunities for FMEs to limit any demonstration of community disagreements.

Chapter Five takes a step away from actual forensic practice, and investigates the incorporation and subsequent development of guideline-driven work in clinical forensic medical examinations. Focusing initially upon the sustained criticism of police doctor work in the late 1970s/early 1980s and the introduction of the FMEK, the chapter identifies the incorporation of such technologies as legitimation strategies, which chiefly served the rhetorical purposes of alleviating the pressure on police doctors and making the evidence gathered during the examinations credible again (although they did make some changes to the content of medical examinations of sexual assault complainers). Likewise, the rise of the Evidence-Based Medicine and Evidence-Based Policy movements in medicine and the law in the late 1990s/early 2000s made it imperative that the FME community also appeared to have an evidence-base if it was to continue with its claim that it produced authoritative evidence. This resulted in something of a paradox, given that although the FME community did not wish to prescribe rules governing work and desired to maintain doctor discretion, it required its work to be accountable to guidelines. Forensic scientists have picked up on this paradox, and have put pressure on FMEs to be more accountable to the published guidelines by asking them directly (in face-to-face meetings) to collect all possible samples. Chapter Five engages with the rise of guidance-based medicine, and also questions of autonomy and accountability.

Chapter Six looks at the questions of FME practice and guidance artefacts on a micro-sociological level, by investigating the way that FMEs actually classify cases and make decisions about which questions to ask, samples to collect, etc. As with the work of Parnis and Du Mont, Kelly et al. and Savage at al., my findings suggested not only that the notion of the FME role-conflict between the therapeutic and evidence-gathering aspects of the forensic medical examination is sound, but also that there exist other role-conflicts, such as the economic conflict between the desire to gather all evidence and the time and cost required to process such evidence, resulting in FMEs gathering only what they consider to be enough to generate corroboratory evidence. FMEs have developed strategies for negotiating these multiple role-conflicts, and have partly codified them into their guidance artefacts.

While such artefacts are in some ways consistent with FME practice, and supply FMEs with an *aide memoire*, they are necessarily underdetermined, requiring the practicing FME to classify the case and assess which practices (samples, questions, etc.) would be agreed upon by their colleagues. Guidance artefacts still play an important role, however; guidance documents help explain FME work to outside parties, and legitimate FME work in cases of critical deconstructive questioning.

While Chapters Three to Six address the ways that FMEs ensure the authority of their evidence, Chapter Seven outlines an unintended consequence of these aims. Focusing on the example of the "neutral report" (i.e. a report that does not confirm nor refute the complainer's allegation of rape, itself an act of boundary-work (Gieryn 1983, 1999) demonstrating an FME's impartiality in the adversarial framework of the trial), the chapter suggests that as their evidence is not contentious, i.e. it does not support either side, FME evidence is unlikely (because of the procedure of the Preliminary Diet) to be called as evidence. FMEs, therefore, make a trade-off between epistemic authority and evidential significance. Unfortunately this trade-off could serve to undermine FME efforts to diminish society-wide "rape myths", in particular those that postulate a relationship between injuries and "real rape". Prosecutors' use of FME (injury) evidence, could, in fact, be serving to reinforce such beliefs, not undermine them.

In Chapter Eight, I will reinforce the arguments of the previous chapters, particularly those relating to the way that FMEs construct and maintain consensus in complex and contentious areas. I will explain how the maintenance and dissemination of a paradigm allows FMEs to claim that they produce incontrovertible evidence for use by the courts, and explain that even when such a claim is open to challenge (a "meaning finitist" interpretation of classification asserts this is possible), they have means by which to limit the demonstration of divergent forensic medical discourse in the courtroom. However, I will also argue that whilst sustaining such a consensus is beneficial to the credibility of FMEs, it may also be doing a disservice to both rape victims and the FME community, as the evidence produced does not benefit either party in the adversarial arena of the legal courtroom; their evidence may be dismissed in the majority of cases, with FMEs being called only in cases demonstrating significant injury – actively reinforcing popular mythologies

concerning rape and injury. I will conclude by comparing my findings to the policies currently advocated by police and prosecutors concerning the generation of clinical forensic medical evidence in rape cases.

2. Methods

The Introductory Chapter set out the questions that I intend to answer in the thesis. In this chapter, I will explain how I set about researching them, by outlining the methods that I chose to employ and the manner in which I actualised those methods. I will explain how, having drawn entirely upon qualitative research methods (chiefly the semi-structured interview, but also document and artefact analysis), I generated access and sampled interview respondents and documents, interviewed respondents (at all times ensuring that the interview procedure itself and my use of data was consistent with ethical protocols) and then proceeded to analyse the collected data, via the appropriation of the "framework analysis" method, and using the conceptual tool "meaning finitism" as an explanatory framework. As such, this chapter will conclude with an explanation of "meaning finitism", which will set up the analysis within the following chapters.

2.1 Interviews

2.1.1 Qualitative Interviews, Sampling and Generating Access

Given that my research questions addressed the minutiae of FME work, I was initially afraid that an interview-based study would not be the most effective means by which to find answers to my research questions. Methods texts such as Arksey and Knight (1999) and Silverman (2007) have suggested that issues of memory or self-representation may have an effect on the interview, meaning that the collected data does not provide an exact account of the performance of work. Such texts assert that the best manner to collect data upon work and practice is an ethnographic observational study, which (because of such advice) has become a highly established technique within STS (see Latour 1987), and has already been found to be of value within studies of forensic science laboratories (Jordan and Lynch 1998). Unfortunately, the highly distressing nature of the forensic medical examination of sexual assault meant that my presence at an examination would be highly traumatising for all involved (myself included), and so could not be considered ethically appropriate. It soon became clear, however, that my area of interest lay not specifically in the minutiae of actual working practices, but rather in the way that

FMEs present themselves as credible and expert. As I was interested in uncovering FME accounts of their practice and the resources that they draw upon in order to legitimate and explain their work, rather than the detail of that work (although I would also grant the latter a certain level of importance), the interview became the best method with which I could achieve my aims. Of course, the focus on accounts rather than the actual minutiae of work does have significant repercussions for the study's validity and generalisibility. I will engage with these problems shortly. Having decided upon the technique of interviews, I next approached the National Health Service's (hereafter "NHS") Central Office for Research Ethics Committees (COREC) with a request to perform the study, as NHS approval is required when interviewing NHS employees about their work (some FMEs are also NHS-employed GPs). Upon receiving the necessary approval (see appendix 1), I was able to invite practicing FMEs to take part in the study.

As evidenced by my choice of qualitative methods, it was never the intention to produce statistical analyses, and so I did not require a statistically significant sample of interview respondents; however, in order to make claims appertaining to the entire community of FMEs in Scotland, it was necessary to construct a sample that was "symbolically representative" (Ritchie et al. 2004a: 83) of the Scottish FME community. As such, the sample needed to include FMEs from a range of constabularies, with a variety of levels of experience, a representation from both urban and rural areas, and a balance between male and female. As I did not plan on conducting statistical analysis, the sample did not need to be large, and I aimed to cease interviewing when a saturation point (a point where no new data is forthcoming) emerged (Ritchie et al. 2004a). Having decided on these methods, I started to approach potential interview respondents in the manner suggested by Susan Ostrander (1995). The recruitment process drew upon Ostrander's suggested method of developing access to elites by contacting relevant members of the researcher's own social circle in order to access members of the appropriate organisation, and then using the organisation's hierarchy in order to determine the best potential interviewees and generate access. I was able to follow this process with FMEs, as a member of my social circle, although not an FME herself, worked within the Pathology department at the University of Edinburgh and was able to introduce me

informally to members of that department (as well as FMEs in various other constabularies) who she believed would be both interested in my work and willing to speak with me. One of these was a high-status medico-legal professor, who provided me with a list of names of people to interview (see the idea of "snowball sampling" (Arber 1998)) and also (arguably more importantly) allowed me to mention their name on invitations to other FMEs, in both their constabulary and others, which (I assume) granted my invite more authority in the eyes of other FMEs.[40]

In an effort to learn more about the investigation process and the way that forensic medical evidence is employed, collected, and understood by the police, I also interviewed police officers. In a similar manner to my access of FMEs, I began by generating informal contacts via my friend, and also attained clearance from the relevant constabularies' Chief Constables. In each case, the Chief Constable was very glad for me to interview their officers, and attempted to set up meetings; however, when officers were "requested" to attend an interview by their superior officer, the officer either was highly evasive (for example, SIO A, who asked that I not record the interview electronically) or made it very difficult to find a suitable time for the interview, resulting in the briefest of interviews (SOLO C) or, in some cases, in interviews not taking place at all (I did have a SOLO D and a SIO E; however, these interviews did not take place due to difficulties in arranging a meeting). On the other hand, in cases where I pre-arranged the interviews on a personal basis (either through my friend, or through FMEs who introduced me to officers, such as SOLO A and B who are quoted throughout the thesis), both the original access and the interviews themselves went without a hitch.

While my gaining access to both FMEs and police did rely in many ways upon interpersonal and professional relationships, I also tried to generate access by

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[40] This is an example of an instance where generating access by means of a hierarchy proved beneficial in my work; however, there were also instances where the same practice proved deeply problematic. At the outset of the study, it was also my intention to interview procurators fiscal and advocates depute about the use of clinical forensic medical evidence in their decision-making. As with my access to the community of FMEs, I was informally introduced by my friend to people working in the Crown Office, who agreed to be interviewed by me and set up other interviews with other staff. However, before starting to conduct the interviews, I thought it only right that I should formally request interviews with the COPFS, and so I sent a letter to the Crown Agent (appendix 1). Unfortunately, the already prepared interviews had to be cancelled (and the study's avenue of investigation discontinued), as a member of the Crown Office, writing on behalf of the Crown Agent, did not believe it appropriate for fiscals and deputes to be interviewed about their experiences, (response reproduced in appendix 1).

disclosing a great deal about the study within the invites that I distributed (again, this is advocated by Ostrander). The invitations explained the fact that I was a PhD student, the nature of my research interests, and the areas on which I wished to question the respondents (for template versions of these letters, see appendix 1). In addition to the invitation, I also drew up a research agenda and posted it on a website, the address of which was included with the invites (a copy of the research agenda can also be found in appendix 1); the aim of the agenda was to provide FMEs with more information about the study than had been provided in the invitation, meaning that if the respondent was so inclined, they had the opportunity to research further my personal credentials. As with the name-dropping of high-status practitioners within the invite, it was hoped that such self-disclosure on my part would provide the study with more credibility in the eyes of potential respondents. Having completed these processes, I managed to collect enough respondents to reach a saturation point; I will next turn to the breakdown of my sample, and then explain how I conducted the interviews.

There are approximately 150 practitioners who can loosely be labelled as FMEs working in Scotland; however, an overwhelming proportion of these are located in one constabulary (110 in Strathclyde), and the vast majority of these Strathclyde FMEs work in rural areas, where a surgery is linked to the local police station and provides a forensic medical service, although without a rigorous training system for its practitioners. In these cases, all doctors working within the surgery are counted as FMEs by virtue of their workplace, even though they may not actually perform FME work. Such figures tend to skew the overall numbers of FMEs in Scotland. While this finding is important, it should also be noted that I did not intend this study to be statistically representative, as I have already mentioned. However, I did hope that the study's findings would be generalisable to other FMEs working in Scotland,[41] and so I intended to interview FMEs from a range of constabularies; the study, as envisaged in the design, was of practice within the whole of Scotland. Although I did not gain access to FMEs in every one of the eight constabularies, I was granted access to the four that had not only the largest quantity of practitioners,

[41] My wish to be generalisable appears to contradict my acknowledgement of the use of accounts and FMEs' representations of their work. I will attempt to square this circle shortly.

but also the highest levels of recorded assault cases (particularly Strathclyde and Lothian and Borders). The four constabularies sampled also provided a balance between urban and rural areas, meaning that the doctors working in those areas had experience of performing examinations in both kinds of area.[42] Overall, I interviewed thirteen FMEs: one in Constabulary 1, four in Constabulary 2, seven in Constabulary 3 and one in Constabulary 4. This group of 13 was made up of a mix of practitioners, some working full-time for the police and some dividing their time between the police and another organisation (university, surgery, or professional association); their backgrounds provided different kinds of medical specialism (8 GPs, 3 Forensic Pathologists, and 2 Community Gynaecologists) and a spectrum of levels of experience, with some practitioners being retired or close to retirement, and some practitioners just beginning to work as FMEs. I have not provided a figure for the number of experienced or inexperienced FMEs, as I do not believe it would be appropriate: it would be difficult and arbitrary to demarcate "experience" as 10 years, 20 years, etc. The practitioners ranged from those with over thirty years of experience to those who were currently compiling a casebook for the DMJ (see Chapter Three); to this end, all interviewees had been through a period of training and were considered competent practitioners by their own community.

The final category that needs to be recorded is the sexual division of the FME interview respondents. While my analysis does not consider the sexual differentiation between male FMEs and female FMEs, there has certainly been much prior discussion of whether the forensic medical examination of penetrative sexual assault victims should only be performed by women practitioners, and some readers may use the data within this thesis to make further arguments for or against such causes. Anecdotally, while I was performing the interviews, I did find it far easier to develop rapport with female practitioners than with their male colleagues; however, whether that has more to do with my role as a male researcher (as opposed to a male or female complainer) is a point of contention. Either way, my sample had eight

[42] While I have no direct evidence for the reasons why four of the constabularies did not provide access, I do have my suspicions. One of the constabularies that did not offer access was Northern, which was criticised in 2005 for employing agency doctors as FMEs (Dyer 2006); another was Grampian, which was criticised by the Scotsman journalist, Howie (2007a), for its low conviction rate. Such bad publicity may have led to these constabularies wishing to avoid being interviewed about their decision-making practices.

male practitioners and five female practitioners. By constabulary, the sexual differentiation breaks down thus:

Constabulary	Male/Female Split
1	0/1
2	3/1
3	4/3
4	1/0

As the sample contained a mix of sexes, levels of experience, knowledge of working in urban and rural areas, and occupations, I believe that the chosen sample is "symbolically representative" (Ritchie et al. 2004a: 83) of FMEs in Scotland.

In addition to FMEs, I also interviewed the police, including officers at both the SOLO/accompanying officer level and at the SIO level. While I was unable to gain access to the police at Constabulary 4, I did manage to interview police (although with great difficulty; see above) in the other three constabularies. Overall, I was able to access seven police officers, four SIOs and three SOLOs, with a sex split of three to four (three of the SIOs being male, the remaining one SIO and all three SOLOs female). The constabulary split is below:

Constabulary	SIO/SOLO
1	1/2
2	2/1
3	1/0

As questions concerning the relationship between FMEs and prosecutors are not at the forefront of the current study, I employed the data collected during these interviews as context for the more important FME interview data, using the police data to triangulate aspects of the FME interviews. Where I have used the police data during the results chapters that follow, I have used it very sparingly, and only to reinforce points already made by the FMEs themselves, or as part of a broader argument. Having broken down the sample of 20 interviews conducted during the fieldwork, I will now explain how I conducted the interviews themselves, with particular focus on the way that I framed the interview for ethical purposes.

2.1.2 Framing the Interview, Ethics and Transcription

As mentioned in the previous sub-section, I decided to employ semi-structured interviews, and so drew up an interview plan based around a selection of key areas and questions that developed from my research questions, while also leaving enough space within the interview itself to enable me to follow up on answers and allow the respondent to veer off in directions that I had not anticipated. While the semi-structured format is flexible, it is also robust enough to provide a baseline structure to which I could return if the interview began to move towards discussion of areas that I did not believe profitable (see Kvale 1996, and Arksey and Knight 1999 for comparisons of the different kinds of interview). I piloted my interview plan with the friend who had helped me generate access before the first interview. Having made a small number of amendments upon her advice, I was ready to conduct the actual interviews. In this section, I will explain how I conducted interviews, with a particular focus upon the way that I framed them in order to ensure that my respondent was adequately informed of both the focus of the study itself and the way that the interview material would be used, which would hopefully result in the FME feeling safe and secure when telling me about their work.[43]

Kvale (1996) advocates that framing the interview is of great importance to good interview technique, and also to ensuring that the interview material gathered is ethically generated (i.e. the respondent has been adequately informed about its purpose and has not been forced into providing it). As I have already explained, in order to help gain access for interviews, I outlined the most important details of the study in the letter that I sent to the respondent, and also created a website which provided greater details about the study. Prior to the interview, therefore, there was considerable opportunity for the respondent to find out more about the study. As I was recording the interviews (of which more below), I started by asking the respondent whether or not they were willing to be recorded, explaining that recording would enable accurate transcription (more accurate quotations in any written documents), that nobody else would hear the recording, and that all identifying

[43] Such a point cannot be over-exaggerated; I was frequently amused after an interview when the respondent would let out a sigh of relief and inform me that "that was not contentious at all" or words to that effect. I suspect that FMEs, working in such a difficult area, constantly believe themselves to be under siege, and being asked about their work by social scientists constitutes another potential means by which their authority can be undermined.

details (names, high-profile cases in which they were involved) would be removed during the transcription (this was done by alphabetising the respondents – Dr. A, B, C, etc. – and numbering the constabularies – Constabulary 1, 2, 3, etc. – although I did believe it important to provide the gender of the respondent). If they agreed to the recording (and all did with the exception of one SIO), then I recorded the interview and started by outlining again who I was, the nature of my research interests and motivations, and the main foci of the particular interview. I then proceeded to conduct the interview proper, asking all the pre-set questions while still allowing space for the interview to organically flow into new areas, and all the while returning to the structure when the respondent ran out of steam or moved into what I considered to be significantly irrelevant areas, or when I noticed that time was running out.

At the end of the interview, the respondent and I both signed a contract (see appendix 1 for a template contract). The contract stated that, if requested by the respondent, I would make a copy of the transcript and any future published material (including the PhD thesis) available to them, and would make changes to those texts if we both agreed that I had made a technical mistake or a potential breach of anonymity. It was made clear during the closing of the interview that I would not make substantial changes to the content of the material. Furthermore, I also agreed that I would uphold the statements that I made at the beginning of the interview (that I would anonymise the data, transcribe and quote accurately, etc.). In signing the contract, the respondent agreed that she was happy with what she had said during the interview and gave consent for me to use the recorded material (this was part of the reason for asking for their signature after the interview, as only then could the respondent be said to be "informed" and properly able to offer consent to the use of their responses (Kvale 1996)). Having conducted an interview, I then proceeded to transcribe it.

I decided to record the interviews, as doing so would enable an accurate, verbatim record capturing the intonation and hesitations of the respondents, and also allow me to devote my full attention to the respondent instead of taking copious notes (Fielding 1998, Legard et al. 2004) (although I did take notes recording phenomena that could not be captured on the audio recording, such as body

language). I transcribed each recording shortly after the interview (I would generally start the transcribing process the day after the interview, in order to give myself a chance to reflect), typing up the entire interview in keeping with my agreement with the respondent. Each act of transcription identified new areas of interest, or ones that required further development, and with these new areas, I was able to amend following interviews (particularly with the use of probes) to investigate areas that I had not focused upon previously. Having full transcripts of each interview to hand meant that I was then ready to perform data analysis (although of course the act of transcription itself should be considered analysis, as illustrated by the changes in my interview content i.e. the probes asked and the avenues of investigation followed during subsequent interviews). I will discuss my data analysis shortly; however, I will first briefly touch upon the other data collection method that I utilised: the use of documents.

2.2 Documents and Artefacts

As previously mentioned, the general aims of the study were to outline how FMEs perform forensic medical examinations, and how they make their work and evidence credible. While interviewing presented one useful way to collect data for such a study, it did not constitute the only means; FMEs write about their practice in journal articles and textbooks. Moreover, as Prior (2003) citing Weber makes clear, modern organisations are inherently bureaucratic, resulting in the production of masses of paperwork as work moves from one location to another (the files examined in attrition rate studies (Harris and Grace 1999 and Kelly 2005 for instance) are evidence enough of the use of forms and documents in criminal investigations). The professional associations concerned with forensic medicine have, over the past thirty years, developed greater amounts of documentation for FMEs to fill in and follow; however, as Garfinkel makes clear (1967), completed forms themselves do not fully explicate how work is conducted. They are, after all, a community resource, and the community has agreed ideas about what does and does not need to be recorded upon a form. Documents and artefacts, although not unproblematic, are a further means, therefore, to attain information about how FME work is conducted. In the following two sections, I will explain how I decided on the documents and artefacts that should be investigated.

2.2.1 Sampling Documents

I have already mentioned some of Ostrander's strategies for gaining access to elites. She also suggests means by which to develop rapport and credibility during the interview interaction; one of these was "doing your homework" and making oneself aware of the work conducted by the respondents by reading their literature. To this end, just prior to the outset of the fieldwork period, I consulted three textbooks that contained sections on the forensic medical examination of sexual assault complainers (Stark 2000, Payne-James et al. 2003, Dalton 2004). In addition, during the course of the fieldwork, I discovered that the Worshipful Society of Apothecaries[44] advocated *A Color Atlas of Sexual Assault* (Girardin et al. 1997) as the training material for injury interpretation, and so I believed that an analysis of said textbook would be highly enlightening in my objective of understanding and explaining how FMEs develop a shared medico-legal vision.

At the same time that I was distributing the first wave of invitations to potential respondents, I also reviewed two forensic journals; one was aimed squarely at FMEs, the *Journal of Clinical Forensic Medicine*, founded in 1994 (although it was previously *The Police Surgeon*, as I discuss in Chapter Five) and published until 2006,[45] becoming the *Journal of Forensic and Legal Medicine* in 2007 (the effect of a shift in the professional status of the association concerned with FMEs, as I will outline in Chapter Three). The other journal was the *Journal of Forensic Science International*, which had a far broader purview than just clinical forensic medicine. Founded in the early 1970s, the journal has an expansive remit and an interest in all aspects of the interaction between science and medicine and the law. It was important to review these journals as 1) they could provide an alternative data collection method in the worst case scenario that I could not gain access to any respondents, and 2) I was aware from my friend in pathology that these were two of the most oft-cited journals in the field. In addition, the archives of both journals were available online, providing ease of sampling. Performing both keyword

[44] The Worshipful Society of Apothecaries examines forensic practitioners and offers the DMJ, which is widely considered by FMEs to be the best qualification. I will discuss the DMJ in detail in Chapter Three.

[45] It should be noted that one article, by O'Keefe (2008), which is drawn upon throughout the thesis, was not actually published in the *Journal of Clinical Forensic Medicine*, but in its successor, the *Journal of Forensic and Legal Medicine*; however, it was on "First Look" while I was conducting the keyword search and so it was generated as a "hit".

searches generated a multitude of hits; I read the abstracts of all the articles generated, and managed to streamline this vast collection (by removing articles that were focused more on forensic science or pathology) to a more manageable collection: a total of 54 articles. As with the discovery of the *Color Atlas of Sexual Assault*, I also discovered a useful collection of journal articles during the fieldwork period. In 1984, the APS published a booklet entitled *The New Police Surgeon: Rape* (McLay 1984a), which consisted of a collection of articles previously published in *The Police Surgeon* journal. These constituted an additional seven articles. Moreover, through the data collection and analysis process, a number of other topics became important, such as the reasons behind the change in the professional association. As such, I collected other clinical forensic medical journal articles in order to answer specific issues; however, I have not counted these towards the 54 articles mentioned above.

2.2.2 Gathering Artefacts and Bureaucratic Documents

The published clinical forensic medical literature was not the only documentation that I analysed during the fieldwork; other bureaucratic documents also provided beneficial evidence. Among the documents that I gathered were those from the Worshipful Society of Apothecaries outlining the details of the courses that they examined: these included the rules and regulations and advice to candidates sitting the examinations offered by the Worshipful Society. I also observed forensic medical examination kits from both the past and more recent times (paying particular attention to the attached documents that came with them: reporting forms, guidance documents, etc.), and the contemporary published guidelines found on the professional associations' websites. Having gathered both types of documents (professional texts and bureaucratic procedural artefacts), as well as the interview data, I was then able to analyse the material in an attempt to answer my research questions. In the following sections, I will address how I performed the analysis.

2.3 Data Analysis

In this section I will explain how I performed my data analysis, and explain the strategies I employed to ensure that the data I collected was internally consistent, thus enabling me to assert that my findings are not only pertinent to my respondents,

but are generalisible to all FMEs working in Scotland. Of course, as part of this latter claim, I must also engage with the supposed problem introduced by the employment of accounts of practice rather than "naturally occurring data" (Silverman 2007: 16). Before turning to this however I will describe the analytical method I employed: "framework analysis".

2.3.1 Framework Analysis

> [Framework analysis] is a matrix based analytic method which facilitates rigorous and transparent data management such that all stages involved in the 'analytical hierarchy' can be systematically conducted. It also allows the analyst to move back and forth between different levels of abstraction without loosing [sic] sight of the 'raw' data (Ritchie et al. 2004b: 220).

This quotation encapsulates the way in which one performs framework analysis, as well as the justification for its use. Framework analysis - essentially consisting of the construction of matrices (or databases) containing the researcher's data, which become more refined throughout the analysis process - enables analysts to review cases (interview respondents' talk, for instance) against one another, and also allows testing of explanations against original data (i.e. at all stages of the framework analysis, the analyst can return to interrogate the original data and evaluate the strength of their theoretical explanations). To put it briefly, framework analysis consists of the following: reviewing data; developing a set of core and subsidiary themes based upon that data; indexing these themes (upon the transcript or document – note that this is not the same as coding in terms of "code and retrieve" analysis, as at no point is the coded passage ever extracted from its source document); construction of matrices around those themes with the entirety of relevant quotations being input into the matrix; searching the completed database for relationships and commonalities amongst core themes, practitioners, etc.; the eventual refinement of the original database using analytical language; and the development of a descriptive account of the data based upon any observed commonalities (for more detail about framework analysis see Spencer et al. 2004, Ritchie et al. 2004b, Ritchie and Lewis 2004). Using this method, I was able to draw out four main themes: Training, Injury Interpretation, Introduction of Guidelines and FMEs' Use of Guidelines in Work; these were separated into 35 subsidiary themes, from which I constructed the databases. On reviewing the databases, I discovered that an essential aspect of all

parts of FME work was judgement, and that considerable work is done by FMEs to maintain a communitarian way of seeing and praxis.

2.3.2 Triangulation and the Problem of Accounts

I commenced this chapter by explaining why collecting interview data would be the most beneficial method for answering the research questions that I had set myself. As I was interested in the strategies and practices employed by FMEs to present themselves as authoritative and credible, accessing their own representations of their work would be a vital means by which to investigate the way that they account themselves and their work to others. However, using accounts does raise a potential provide a problem for making my work generalisable to other FMEs. How can I be sure that the accounts of the working practices I collected from my interview respondents are representative of all FMEs working in Scotland? An important aspect of addressing this question was finding a means by which I could identify the level of distribution of these accounts amongst the community. To determine this, not only did I conduct a number of interviews with FMEs in differing constabularies, but I also used a further method, documentary analysis, to see if similar discourses to those arising in my interviews existed within the texts. Such methods triangulation convinced me that the representations of FME practice generated during interviews were shared by many of the respondents (and in the documentary sources), i.e. the data was consistent.

Moreover, I also conducted a small number of interviews with the police, both accompanying officers and SIOs in a number of constabularies. It was the case that these too corroborated the accounts of FME working practice provided by FMEs, allowing me to draw conclusions that such accounts as I had gathered during interviews are exactly the representations of FME work that FMEs generally employ to explain their work to others in the criminal justice process. To this end the use of accounts about FME work does not constitute a problem for the study, or undermine the generalisability of its findings: on the contrary, it is only by uncovering such accounts that I am able to understand the way that FMEs explain their work to other actors in the criminal justice process and thereby attempt to develop and maintain their authority. I will conclude this chapter by outlining the philosophical tenet of

"meaning finitism", which is the theoretical framework I will employ in order to understand FME classificatory practice and fact-construction.

2.4 Meaning Finitism

The Edinburgh "Strong Programme's"[46] finitist approach (Barnes 1981, 1982, Barnes et al. 1996, Bloor 1982, 2002, Kusch 1999) draws upon and combines the earlier work on paradigms by Thomas Kuhn (1977, 1996) and the "network model of universals" by Mary Hesse (1974). Finitism identifies all acts of classification as based on an individual's previous experience of phenomena, and the classification itself derives from a judgement of the similarity (or difference) between a new phenomenon and previously experienced phenomena. The classification itself, therefore, is a drawing of an analogy between an old case and a new one based upon the judged similarity between the old case and the new. Such similarity judgements, however, are not the products of an individual mind, but are instead collectively developed, judged and disseminated by communities; this means that they can also be altered as new, problematic cases arise, meaning that all classifications are indeterminate and revisable. In the following sections, I will expand upon this brief definition of finitism, explaining how individuals are taught how to classify objects (i.e. how to identify phenomena based upon a similarity relation shared by a community), and also how such a concept can be taken further to explain how scientific and medical work is done in addition to classification. I will start by explaining training.

2.4.1 Training

The Strong Programme's "meaning finitist" account of training draws heavily upon Thomas Kuhn's (1977) allegory of a child learning to identify different kinds of waterfowl. Kuhn asks the reader to imagine a pair of actors, Johnny (a small child) and his father, as they walk around a park labelling different birds. The father is considered a competent labeller of birds by the community (i.e. he knows the

[46] The "Strong Programme" label derives from the development of a particular form of the sociology of knowledge that developed in Edinburgh in the 1970s. Formed in contradistinction to previous "sociologies of error", which only provided social explanations for why members of different cultures shared beliefs that disagreed with "scientific knowledge", the Strong Programmers advocated a "symmetrical" approach that treated all knowledge (including science) as conventional, and sought social explanations as to why people held such beliefs (Bloor 1976).

"correct" names for them), while Johnny is deficient in such knowledge. Already, then, one actor (the father) is considered to have greater competence by the community than the other (Johnny), and so the father's claims about the world are more valid than those of his son. The father, as the authority figure, points to a particular object (in this example a type of bird) and attaches to it a particular label, "swan". Johnny's attention is directed to the bird by his father's pointing, and Johnny then proceeds to observe the bird (due to the authoritative relationship between the two actors), accept that the name of that particular kind of bird is "swan", and add the mental image of that bird to his pre-existing cognitive collection of birds under the label "swan" (we are told that Johnny can already distinguish birds from other phenomena and can discriminate a particular kind of bird, the robin redbreast). Johnny and his father next come to another bird, and Johnny attempts to classify it against his existing collection of examples of birds. Johnny states that the observed bird is a swan, because within Johnny's stored mental collection of birds, the new bird being observed most closely resembles the swan that they saw previously. According to Johnny's father, however, the bird being observed is not a swan, but instead a kind of bird that Johnny has yet to observe, a goose. It is not the case at this point that Johnny challenges his father about the validity of his correction; Johnny does not even ask his father to provide particulars to justify why the bird is a goose and not a swan. Instead, Johnny assumes that his father is the authoritative source of knowledge, and so amends his own cognitive schema to accommodate the new class of bird, the goose.

Kuhn tells us that after a few more attempts at classifying geese and swans, Johnny becomes adept at both distinguishing between the two types of birds and identifying them, but what does it mean to be able to correctly identify an object? It is clear that Johnny was generalising (what I will later call drawing an analogy) from the previously observed case to the new ones in front of him (with his father either agreeing with Johnny's classification or correcting him). No two swans are identical, and so each one that Johnny observed (reinforced or corrected either directly or indirectly by his father) would have slightly amended his understanding of what

swans are.[47] Johnny's cognitive schema was altered by each observed case. Barnes, using *L* to represent a learner being taught to identify dogs by *T* the trainer, put it like this: "*L* shows that he knows what a dog is by correctly identifying dogs generally within his environment, and not just the particular instances of 'dog' given by *T*" (Barnes 1981: 309). The trainee, then, is "endowed with a disposition to generalise" (Bloor 1982: 270) from the finite number of previously generated cases to new cases. It should be noted, however, that while the neophyte is developing their own cognitive framework, the independence of that framework is minimal (if it exists at all); through the sanctioning and reinforcement of the trainer, the neophyte develops a classificatory schema that fits with that of the already competent members of the community. In Kuhn's example, Johnny learnt to identify birds in the same way his father identified birds. As mentioned, Johnny's father was considered a competent practitioner in labelling birds, and so by learning from his father, Johnny learnt the community's agreed terms for the different cases of birds.

Training, therefore, provides neophytes with a finite selection of cases, from which trainees learn to generalise when presented with new cases. Some of these generalisations will not be appropriate, and so an authority figure will either correct or reinforce the classification; either way, the experience of that case will amend the trainee's cognitive schema, bringing it closer to the schema shared by the rest of the community. Kuhn, and those subscribing to the Strong Programme in the Sociology of Scientific Knowledge (hereafter "SSK"), do not think that such training is only relevant to questions of language learning, however; the example is a metaphor that can also be employed to explain how scientific work is carried out. Kuhn uses the same procedure to explain how physics students learn to identify and employ concepts such as "force" or "speed"; it is only through the process of working out accepted exercises or examples (exemplars) that such abstract concepts become meaningful to the student, and via the introduction of textbook answers to those exercises, which are granted a considerable level of authority, the student gains a sense of whether or not their interpretation and use of such concepts is considered

[47] An easier-to-comprehend example is Barnes' (1981) illustration of dogs; the finite cases that Johnny's father would show him to identify dogs could be big dogs (for example an Alsatian, Rottweiler, or a Great Dane) or small dogs (for example Yorkshire Terriers, Pekinese or Chihuahua). All examples, however, represent the class "dog", and each exemplar would serve to change Johnny's conception of what a "dog" is.

"correct" by the community of physicists. Barry Barnes summed up Kuhn's work thus:

> Just as competence with regard to 'duck' involves familiarity with a finite cluster of instances of 'duck', so competence with, say, 'compound', or 'force', or 'speed', involves familiarity with a finite cluster of problem solutions (paradigms, exemplars) wherein the use (and thus the 'meaning') of the terms is directly displayed. And just as consideration of the finite cluster that is the similarity relation 'duck' leads to a finitist account of its use, so can consideration of the finite cluster of exemplars associated with physical concepts establish how finitism properly describes the use of concepts in physics (Barnes 1982: 36).

Likewise, Warwick and Kaiser (2005) have outlined a model based upon the work of Kuhn that explains scientific and medical training. For a medical case study drawing upon their method, see Sturdy (2007a). Finitism, therefore, does not only provide the analyst with a way to explain how people learn language, but also provides an explanation for the way that scientists and medical practitioners learn to perform their highly sophisticated work. The learning of classification and concept applications does not end with training, however, and I will expand on this in the following section.

2.4.2 Concept Application

The previous discussion of training served to start an account of the way that an individual actually classifies phenomena, be it an object or a situation. Kuhn's illustration identified that a neophyte is first ostensively taught the correct name for a phenomenon, then attempts to generalise from the particular case that they observed to new cases and is either corrected or praised; either way, their internal classificatory system is amended. At some point, the community determines that the practitioner has adequately mastered their paradigm, and labels that practitioner "competent". However, being determined competent does not necessarily guarantee that practitioners are capable of making classifications without difficulty. This stems from the fact that classifications are essentially judgements, based upon what members of the "Strong Programme" call a "similarity relation", i.e. the similarity between object *x* (the new object to be classified) and a person's pre-existing categories *y* and *z* (made up of previous exemplars). When a person makes a classification, therefore, they make a judgement about the closeness of the fit of the

new phenomenon with the previously observed phenomena. The discrimination of a swan or a goose requires a comparison of new and known: a judgement on whether the new bird looks more similar to the previous geese or the previous swans that the person has seen.

> An assertion of resemblance therefore, which is what the application of a concept amounts to in this case, involves that the similarities outweigh differences. But there is no scale for the weighting of similarity against difference given in the nature of external reality, or inherent in the nature of the mind… All applications of 'dog' involve the contingent *judgement* that similarity outweighs difference in that case (Barnes 1981: 309 emphasis in original).

The claim that all classifications are judgements has significant implications; some of these I will address presently. The most important point to note is that as classifications are judgements, and (as the quotation makes clear) "there is no scale for the weighting of similarity against difference given in the nature of external reality", all of our classifications are ultimately social conventions.[48] It is the relevant social community (not nature itself) that determines what counts as the appropriate classification; hence, Johnny's father (who was considered a competent classifier) corrected Johnny when Johnny's classification was not the same as that of the rest of the community, or, to use Wittgenstein's language, "as we do it" (Wittgenstein 1968: 145). A correct act of classification such as labelling a natural object is correct only by virtue of its acceptability by other members of the relevant community, and that acceptability derives from whether it fits with the classifications of other members of the community, i.e. whether the individual is classifying an object in the same manner as the community "do it".

With the argument that classifications are conventional, it follows that they must be open-ended and revisable (Barnes et al. 1996). Consider the case of the practitioner who has already been trained and is considered a competent classifier by a community. Is it the case, as Barnes et al. ask, that such a practitioner is capable of

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[48] It is necessary here to make clear that, by social conventions, Barnes and the other members of the Strong Programme are not stating that such classifications are imaginary, or that they have no relationship to the real world; this is vital for the reader to understand. Barnes and others are realist in that they argue quite convincingly that there is an existing real world which has an effect on our existence, i.e. it constrains us etc.; however, it is our descriptions of the real world that are conventional and relative to our current circumstance (see Barnes 1983, Barnes et al. 1996, Bloor 1999, 2006).

carrying on with classification without any difficulty? If we accept the basic tenets of finitism, then this is not always the case; the classificatory schema is based on a previously observed, finite collection of cases and so a new case can always pose difficulties to that schema.[49] It may be a new class of object that the individual has not experienced before, or it may be an object that is highly similar to two distinct previously observed classes. Barnes (1981) invites the reader to consider two competent classifiers from the same community, who observe the same object but classify it differently: one classifies the object as "dog", as it has greatest similarity to previous dogs that they have observed, while the other classifier labels the object "cat", as it is similar to their previous experience of cats. In the final analysis, the "correct" classification (i.e. what the object "actually is") constitutes the classification that the others in the community agree with, but, of course, such a determination is open to revision in the future. Bloor provides an illustration of how a new case could undermine the community's existing classificatory arrangement, which also displays the inter-relatedness of the schema.

> Imagine a very primitive system of classification where it is said that 'fish' live in the sea; 'birds' fly in the air; and various classes of 'animal' live on the land. Of the land animals a sub-group of 'mammals' has been discriminated on the grounds that they suckle their young… Suppose now that the users of this network come into contact with a new creature, say, the whale. This has the habitat and appearance of a huge fish but suckles its young – facts which could be established by the routine use of the labels of the network (Bloor 1982: 273-4)

The new case, the whale, problematises the community's classificatory scheme in that it lives in the sea, and so is most similar to the class of animals that the community call fish, but is also similar to a sub-set of the land-based animal population, mammals, which suckle their young. The discovery leads to necessary adjustments to the classificatory schema, in that the community have to accept either that some fish also suckle their young, or that mammals are not just land-based animals. This finding, which could jeopardise earlier acts of classification, demonstrates the inter-relatedness of the scheme; the introduction of the whale has an effect upon both the animal and fish groups, leading the community to determine

[49] This, of course, is not a new claim and is a direct descendant of the philosopher David Hume's "Problem of Induction" (Hume 1984).

whether the whale resembles a fish or an animal, resulting in a significant amendment to both groups. We can understand the cognitive schema, therefore, as a network of classes of phenomena where a change to one class has a "rippling" effect through the network and affects the other classes as well (each correct classification of a swan, for example, provides further grounds for discrimination).

Having outlined the main arguments supporting finitism, I will now summarise its main tenets:

1) The future applications of a term are open-ended. (All classifications are ultimately judgement calls.)
2) No act of classification is ever indefeasibly correct. (There is no natural determination for one classification being more suitable than another.)
3) All acts of classification are revisable. (It follows that all classifications may be revised in the future.)
4) Successive applications of a kind term are not independent. (Each new case provides a new exemplar, adding to the practitioner's existing compilation.)
5) The applications of different kind terms are not independent of each other. (Each class in a schema relates to the others by being different from them; an evaluation of resemblance concerns the practitioner determining whether or not the object in question is similar to other objects in the list. Amendments to one of the kind terms can result in changes to the entire network.) (Barnes et al. 1996).

These tenets not only provide a conceptual framework to help explain how FMEs make classifications, but also explain how FMEs generate evidence and maintain that evidence as credible. I do not wish to pre-empt my discussion in the following chapters, but I will briefly outline how these tenets fit the argument that follows. In Chapter One, I drew upon the work of STS scholars who argued that fact-creation is the result of community consensus; this fits closely with the finitist argument that the determination of the nature of an object does not derive from an external source (nature, for example) but is instead an achievement of the community, and new cases can always challenge that interpretation, requiring the community to police itself regularly, or alter its classification. Moreover, it is only via the use of exercises and the gathering of examples and cases that practitioners know the correct work praxis.

Both of these arguments will be at the heart of the following chapters and my explanation of the ways that FMEs perform medical examinations and make the generated evidence credible.

3. Forensic Training and the Disciplining of a Trainee's Vision

This chapter will investigate the process by which practicing medical doctors are trained to become FMEs, focusing in particular on the way that they learn to classify injuries of medico-legal significance. While all medical doctors are able to speak competently on medical pathology, with greater or lesser specificity (depending on their particular specialism), most doctors are not considered forensic medical experts. Doctors granted the status of FME are distinct from their medical colleagues; the latter may also perform medical examinations of sexual assault victims within hospitals (and be asked to provide evidence at a potential future trial), but are not considered forensic medical experts. The distinguishing factor is the education and training undertaken by the novice FME. During training, the FME is taught how to identify and interpret injuries of medico-legal significance, in accordance with the agreed classifications of the forensic medical community. A successful assimilation of the community-agreed classifications means that the trainee FME has mastered the community's paradigm. The extent to which the trainee has done so is assessed by FMEs via determinations of the trainee's "competence" and "safety". As part of training and the gathering of postgraduate qualifications, the trainee is examined, which (it is suggested by FMEs) helps to impress upon the court in any future trials that the medical expert providing testimony has been appropriately educated and tested. While this is true, such examinations also serve the purpose of assessing whether or not the trainee's perception, cognition and practice has been disciplined to fit with the rest of the FME community (meaning that they would be unlikely to bring the FME community into disrepute).

In this chapter, I will investigate the processes of developing forensic medical competence: the shadowing process and the attainment of the postgraduate qualification. Particular emphasis will be placed upon the role of authority in the determination of correct acts of classification, and the way that the dissemination of a shared vision by way of both training and determining "safety" serves to develop the credibility of the individual practitioner, and also maintain the authority of the entire FME community.

3.1 An overview of the shadowing and qualification procedures

Trainee FMEs come from a variety of medical specialisms. In my sample, the FMEs had previously worked as GPs, Forensic Pathologists, Community Gynaecologists and Community Paediatricians. It was thought that the trainees' pooling of their varied experience (in cases where several novice FMEs were training at the same time) was useful for new FMEs, as this pool of shared experience could rectify any deficiencies in an individual's knowledge. As Dr. A explained:

> We did a good thing because hers [a fellow new FME's background] was general medicine and mine was gynae [gynaecology], so we just complemented each other. She would tell me about the medicine side, if I needed something, and she would with the gynae side [ie. I would tell her], so we complemented each other very well (Dr. A, female, Constabulary 1).

Coming to the field of clinical forensic work with significant previous medical experience was considered highly beneficial, as it could enable sharing of information and experience with other neophyte practitioners. Moreover, it could inform the future forensic practice of the individual examiner. As Dr. A again put it during a discussion regarding the empathy of doctors:

> But I find that two or three of these guys are so nice and the victim, once the victim have met them, they've changed their mind, and that's okay, and I think the police will say "I've seen him, I've met him, he's really nice" and most of them are, because they are full-time GPs, they are used to seeing people and dealing. I think that's why I feel that this is one field I don't feel this [clinical forensic medicine] is ideal for somebody finishing their training and coming into it. I think you have to have a well defined experience, then you can go into court, stand up and say "Look, in my experience, I've done this, dah-dah-dah, and that's why I have come to this conclusion"; so to have that I think mid-thirties to early forties would be the right time (Dr. A, female, Constabulary 1).

A trainee's previous medical experience can provide them with the appropriate skills for dealing with vulnerable and emotional patients, as well as a basis on which to justify their evaluations of cases.[50] On the other hand, an extensive previous experience is not, in itself, sufficient qualification for a candidate to become an FME;

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[50] A recent advertisement for new FMEs suggested that the skills necessary for a successful FME are "great listening skills, warmth, humanity but ability to be scientific in assessing an account, thoroughness in examinations and documentation, clarity in statement writing, and confidence when presenting in court." (White 2007)

the neophyte must undergo a period of apprenticeship under an experienced FME and gain a postgraduate qualification.

The apprenticeship, or shadowing, is a period of time during which the initiate follows an experienced examiner and observes them in their performance of their various functions, including sexual assault examinations.[51] Following this period, roles are reversed and the experienced examiner observes the initiate, reviewing the novice's practice and correcting if necessary. While the initiate is shadowing, they compile a casebook in which they note the specifics of observed cases as well as anything encountered that is new to them.[52] The casebook enables the trainer to keep track of the types of phenomena, or cases, which are missing from the trainee's experience. Shadowing continues until the trainer believes the initiate is of a suitable standard to work competently on their own, or conversely, that the novice is unsuitable for FME work.

During the period when the novice is undergoing the apprenticeship, they are also expected to research the medical expert's function within the legal system. This research has been consolidated within the "Diploma in Forensic Medical Sciences" (hereafter "DFM") that is offered by the Division of Cancer Sciences and Molecular Pathology at the University of Glasgow[53] and examined by The Worshipful Society of Apothecaries of London. The DFM is run as a part-time evening course in Glasgow, and provides attendees with a "theoretical knowledge of the basic facts and principles of all forms of medico-legal enquiry and the reasons for the form of that enquiry" (The Worshipful Society of Apothecaries of London 2007a: 6). The course covers a broad range of medical as well as legal topics (modules range from basic "human anatomy and physiology" to more complex matters of jurisprudence such as the module "Procurator Fiscal and sudden deaths"), and all who attend receive a Certificate of Attendance. Those with a Certificate of Attendance are then eligible to

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[51] The forensic medical apprenticeship does not only cover sexual assault examinations; it also provides experience that can be drawn on in other aspects of the FME's job. These include (among other things) examinations for "fitness to be interviewed", "fitness to be detained" and other forms of assault. As the focus of my research is the forensic medical examination of sexual assault complainers, I will not touch on these other forms of examination here.

[52] For a discussion of the politics of medical case notes (focusing upon sexological cases) see Crozier (2008).

[53] A similar course has recently opened in St. Bartholomew's Hospital and the London Queen Mary's School of Medicine and Dentistry.

take the examination, which comprises a 6,000 – 10,000 word dissertation on one of the topics covered and a three-hour examination covering the medical, legal, scientific and toxicological aspects of the forensic medical sciences. Increasingly, while the course and the qualification are still available, new FMEs often choose to attend the course but not apply for the examination. This is because the DFM course serves as good preparation for Part I of the DMJ.

> The DMJ is the preferred qualification of FMEs:
>
> I think you need to have a qualification that makes you show the courts that you, that you have been through the mill and have developed some sort of specialisation/expertise, and the only qualification that I think fits that is the Diploma in Medical Jurisprudence, or the Society of Apothecaries, that has been going on since year dot (Dr. B, male, Constabulary 2).

The DMJ, which is also examined by the Worshipful Society of Apothecaries, is constituted by two parts: Part I concerns theoretical knowledge, Part II practical expertise.[54] While Part I takes place at the same time as shadowing (in place of the DFM), Part II occurs (up to) three years after the trainee has been determined a competent practitioner by their trainer and started to perform medical examinations independently. During Part II the practitioner specialises into her particular area; this can either be in clinical forensic medicine (D.M.J. Clin), forensic pathology (D.M.J. Path) or forensic dentistry (D.M.J. Odont). The Part II clinical examination consists of the submission of a casebook of ten cases completed individually by the FME, two written examinations and an oral examination.

> It's [DMJ] two exams, part one and part two. Part one is a theoretical examination where you really have to learn the law, know the books about forensic medical work, and part two is a practical where… if you are a clinician, you have to look at photographs, look at reports and give your opinion on those (Dr. B, male, Constabulary 2).

While there is a separation in time between the apprenticeship and Part II of the DMJ, I prefer, for analytical purposes, not to separate the disparate aspects of an FME's training, as there are common themes in the separate (yet dependent) training procedures. To this end, the analysis in this chapter will be thematic rather than chronologic. In the next section, I will discuss the role of the experienced examiner,

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[54] It used to be the case that practitioners holding the DFM were exempted from Part I of the DMJ as this was considered equivalent; however, since March 2006, exemptions have been withdrawn and so practitioners are choosing not to sit the DFM examination, but instead the DMJ Part I.

textbooks, and the part that exercises play in learning to identify and classify signs of pathology. This will be followed, in a later section, by a discussion of the way that initiates are examined and come to be classed as competent examiners (the forensic medical casebook will be discussed in the latter section). In all of these discussions, I wish to emphasise the importance of authority and community. I will commence with injury identification.

3.2 Learning to classify injuries

3.2.1 Observing injuries during the shadowing process

The aim of the period of apprenticeship is for the trainee FME to develop experience: experience of the types of cases they will be expected to deal with in their own work, and experience of the kinds of injuries that are generally of medico-legal significance.

> And I think, shadowing seems to be at the moment a big part for any job and this is where most of the experience comes, and I think in shadowing, saying, you know, how many have you seen and how many (Dr. A, female, Constabulary 1).

When a complainer undergoes an examination, the trainer points out any injuries to the trainee, explains the injury type that they represent and explains how they were produced. This process is a continuation of more general forms of medical training, by which a teacher educates the vision of an undergraduate medical student. In some cases of undergraduate medical training, the best students are taken to the mortuary to observe examples of injuries upon dead bodies, and are informed of the injury's type and how it came to be made. The experienced FME behaves similarly with her trainee during the apprenticeship, except using the live bodies of complainers instead.

> You can do a lot of teaching from a single lesion, you can, it doesn't matter if this injury is from a dead body or a living person, you can focus the interests of the students, of postgraduate trainees of course, on these reconstructive aspects. How can, might this have happened? What would you expect if someone falls to the ground? What, which injuries? So we have a physical assault, these persons are often examined by a clinical, by the forensic, by the FMEs, and you must ask yourself, well the accused says he hit the table when he fell to the floor and is this consistent? So you can ask the same question on a body and that is most interesting, it is not that there's a laceration and you take the details of this laceration, but it's not the main question to take

> details; details may be important when you have got a tool or item which was involved, a hammer or something else, but just to get into a different way of thinking, dynamically (Dr. D, male, Constabulary 2).[55]

As well as the description and cause, Dr D's quotation focuses on the process of "thinking dynamically" about the injury (i.e. what does the injury tell the FME about the case being examined?). The novice experiences injury types as coupled with the history of the case, whether observed in the mortuary or while watching their trainer performing a sexual assault examination. The FME's role is to assess whether the physical evidence is consistent with one account or another; as Dr. D suggests, it is not enough to describe the injury, or even to produce a potential mechanism for its production. Their role is to judge whether the injury corroborates one or another of the accounts offered in the case.

Although the process of "thinking dynamically" is a part of this first shadowing phase, the trainee's actual role at this stage is simply to observe the more experienced practitioner and develop experience; this includes a development of their own collection of injuries and potential causes. There are two corollaries of this. First, it would be very rare, if at all possible, for the trainee to challenge their trainer on their conclusion regarding the type and cause of injuries; such an argument echoes Barry Barnes' (1982) exegesis of Thomas Kuhn's work, where Barnes described scientific training thus:

> Scientific training is dogmatic and authoritarian, and it is hard to see how it could be otherwise. Since the neophyte initially lacks the competences and concepts of the scientific culture, he cannot evaluate it or criticise it in its own terms. He has to be regarded more or less as an apprentice… Even his perception must be appropriately channelled and structured (Barnes 1982: 16/17).[56]

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[55] I discuss the manner in which an FME records injuries in my section on the process of conducting a forensic medical examination in the next chapter.

[56] While Kuhn, and latterly Barnes use the words "dogmatic" and "authoritarian", they do not intend to use these pejoratively. Barnes continues:

> Many theories of knowledge are morality plays set in a Manichaean cosmos. The source of light is experience; its agent 'reason'. The source of darkness is culture; its agent authority. The remaining *dramatis personae* are garbed according to their origins. Truth, validity, rationality, objectivity are to be seen among the many white-apparelled children of the light; error and irrationality, custom, convention, dogma and many others are dressed in black. The moving principle of the drama is the unremitting conflict of the two opposed and irreconcilable forces… Kuhn, however, is no Manichaean. At no point does his work suggest any conflict between culture and experience, authority and 'reason' (Barnes 1982: 22/23 emphasis in original).

The second corollary is that as the trainee is required to increase their experience of types of injuries and cases, they are expected to drop everything and attend sexual assault examinations whenever a case presents itself that includes elements they have yet to encounter.[57]

> Ours isn't a field where we can say to this one [trainee], "Oh yes, this afternoon, come in we've got this." No we don't, we may get a case, we may not get a case, and luckily so, the people who are come to be seen [trainees] are said to them, you are to be prepared to come at the last minute, whether you are on-call or not, because that is the only way you are going to learn. For two or three weeks I might not examine anyone for rape, and then suddenly one day I have three or four, so this, it's feast or famine (Dr. A, female, Constabulary 1).

The trainee, if they wish to acquire increased levels of experience, must enter into an exchange with the trainer. The trainer guarantees the movement of knowledge and experience (in this case, the labelling of particular types of injuries, as well as what they look like and how they were produced) from themselves to the trainee. In exchange, the apprentice becomes subordinate: the trainee agrees to attend whenever called and accepts the classifications made by the trainer without question.[58]

3.2.2 Observing injuries during the DFM/Part I of the DMJ

While the FME is shadowing their trainer, they are also expected to be preparing either for the DFM or, more frequently, for Part I of the DMJ. As already explained, the aim of both these examinations is to provide a baseline knowledge for all forensic practitioners, covering both the varied nature of forensic medicine and science and the legal contexts in which the practitioners will be working in due course. While there are many aspects of the DFM/Part I of the DMJ, I will illustrate this aspect of the training process by focusing upon the way in which this course provides the trainee with experience of injuries and their mechanisms. To this end, the DFM course has developed modules devoted to "Injuries and their Interpretation", "Major Trauma", "Specific Injuries: Gunshot/Head Injuries" and "Sexual Offences" (Worshipful Society of Apothecaries 2007a). These modules are carried out using a

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[57] The trainee records all-new clinical experiences in a casebook; I will discuss this in Section 3.3.1.
[58] Such an analysis is consistent with Foucault's (1977) descriptions of apprenticeships and schools. See also Warwick and Kaiser's (2005) analysis of Foucault.

combination of lectures and self-directed learning, mostly focused around textbooks. Both lectures and textbooks make copious use of injury photographs.

> Yes, the Glasgow DFM – Diploma of Forensic Medicine, so that was lecture-based, one evening a week, an hour's lecture with illustrations (Dr. B, male, Constabulary 2).

As with the first phase of the shadowing process, the injuries in the photographs offered in the lectures and textbooks are described and then explained in terms of a causal mechanism. For instance, the textbook recommended for the "Sexual Offences" module, *The Color Atlas of Sexual Assault* (Girardin et al. 1997), contains 221 illustrations of injuries (over 200 photographs; the remainder are anatomical diagrams) found upon actual sexual assault complainers. Due to the importance of this textbook as a pedagogical tool, I will discuss it briefly.

The textbook commences with anatomical diagrams of the male and female anal and genital regions, including representations of adolescent development. This is followed by a chapter showing magnified photographs of the genital, anal and oral areas of sexual assault victims, emphasising injuries found in those regions. Chapter Three contains photographs of complainers whose ano-genital-oral abnormalities,[59] including injuries, are judged to have been caused by other processes; for example, infections, surgery, and what the authors call "other variations" such as incorrectly-inserted tampons. The photographs in Chapter Three are offered as a comparison to the photographs of the previous chapter, and enable the reader to experience the differences between injuries caused by "other variations" and those that are

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[59] Methodologically, I feel it is important to use the word "abnormal" and its derivations, as this is the language of my actors; however, it must be used with significant caution. On the one hand the extent to which FMEs can talk about normal versus abnormal or pathological female genitalia is unclear; Lloyd et al. (2005) purport that there is only a small collection of studies that have systematically studied "normal" female genitalia, and they found that there is "greater diversity than previously documented relating to labial and clitoral size, colour and rugosity, vaginal length and urethral position" (Lloyd et al. 2005: 645). Given such diversity, is it applicable to situate normal female genitalia? It is intriguing, given this argument, that Girardin et al. choose to use an anatomical diagram to represent normal genitalia, when they use photographs for their other examples. Some may argue that as modern textbooks use photographs of real genitalia, such diversity will be passed onto the student reading the text. In response to this claim, I would flag up the work of Moore and Clarke (1995), who argue that all genital representations (illustrations, computer simulations and photographs) contain implicit values (most commonly patriarchal) and editorial judgements, and so anatomical representations are actively constructed (I will explore some of the processes of such construction shortly) and therefore not neutral representations of reality. The extent of the diversity shown by photographs is certainly up for debate. While I will continue to use the language of my respondents, it will be used critically.

representative of sexual assaults. Chapter Four provides a description of what the authors consider "best practice" with regard to the care of the complainer, and Chapter Five contains a set of exercises to enable the reader to test what they have learnt.[60] The authors of the textbook suggest that it is "a crucial visual aid in the examination of patients who report having been sexually assaulted" (Girardin et al. 1997: vii); not only can it act as a reference point for the already practicing FME, but it also serves as a valuable resource for the trainee (as viewing photographic representations of an injury can stand as a proxy for actually viewing the injury type itself, if that particular type of injury/assault does not manifest during shadowing – in addition, viewing these images can provide further examples of already observed injury types). The textbook can provide such experience to the trainee because its compilation was based on a set of conventions (Law and Lynch 1988, 1999, see also Lynch 1985). I will discuss these next.

One of the first things to note regarding the construction of the *Color Atlas of Sexual Assault* (and, in fact, any form of textbook or field guide) is that the photographs used as exemplars for a phenomenon (in this case genital injuries) have been specifically chosen in order to limit complexity for the reader. As such, the photographs chosen are the "best" available out of all the photographs that are considered to demonstrate a particular genital injury, with "best" approximating to the clarity with which a particular injury can be observed. The first thing to note about this process of experiencing injuries via photographs is that the examples that best exemplify the injury are chosen by the authors; one problem with this, of course, is that these injuries may not appear with such clarity during an FME's work. The second convention that textbook compilers employ in order to educate the reader about a particular natural phenomenon is the use of arrows. In the case of the *Color Atlas of Sexual Assault*, the authors used white lines running from the top of an injury to its end. Such lines serve to draw the eye of the reader to the phenomenon described and emphasised by the authors. To this end, the observer of the photograph does not focus upon the entirety of the genitalia shown, but rather the small fraction emphasised by the lines.

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[60] I will discuss these exercises in detail in the following section.

In addition to the use of arrows to focus the reader's observation, each photograph also has a caption explaining exactly what the reader is looking at. These captions provide the trainee with an explanation equivalent to that given by their trainer during shadowing, which is granted the same authority. As the textbook was advocated by the Worshipful Society of Apothecaries to prepare trainees for the examination (as well as FME work), it carries the authority of that institution. Furthermore, the authors of the *Color Atlas of Sexual Assault* make clear in their introduction that the photographs exemplify the knowledge base of the community of FMEs, and that all of the authors have been "frequently… called as expert witnesses in litigated cases of sexual assault" (Girardin et al. 1997: vii), thus imbuing the text with their own individual expertise. To this end, as with the pronouncements of the trainer, the trainee accepts the classifications and inferences that she encounters in the label under each photograph.[61] As can be seen in the two following examples, each caption provides a description of the injury observed in terms of its type and location, and then a proposed mechanism for its cause:

> FIGURE 2-8 Labia minora tear (x15)[62]. Bilateral linear lacerations [injury type] on lateral margin of the labia minora [location] from nonconsensual penile vaginal penetration in a supine position [proposed cause]. Redness [injury type] on the right at 7 o'clock to 9 o'clock [location]. Lacerations result from the force of the unlubricated, penetrating object pushing the labial tissue inward [proposed cause]. The patient is a white 15 year old (Girardin et al. 1997: 28).

As can be seen from the last sentence of this quotation, in addition to the details of the injury, the captions also provide some context about the complainer (age and race); some figures also addressed the outcome of the investigation:

> FIGURE 2-27 Ecchymosis of the gums [injury type] from the frenulum extending left [location] (x10). There is hypervascularity [injury type] of the lower lip [location] that was absent on the follow-up. The frenulum is red and intact. That patient is a white 26 year old who had nonconsensual oral copulation while sitting [probable cause]. The perpetrator was a masked stranger who pushed into her house and threatened her with his knife. He asked her to disrobe, there was no vaginal nor anal penetration. OUTCOME: Suspect was a serial rapist who is in jail, pending trial (Girardin et al. 1997: 39).

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[61] For a history of the construction of scientific atlases, particularly the relationship between image and text, see Daston and Gallison (1992, 2007).
[62] This number represents the level of magnification used in the photograph.

There is little difference, therefore, between trainers and textbooks (and for that matter, photographs in lectures) in the training of FMEs. The authors of textbooks (or lecturers) decide on the photographs that would be of interest to the trainee or demonstrate an injury type particularly well; this is similar to particular injuries of interest being pointed out by a trainer during the first stage of shadowing. When the trainer points out an injury during shadowing, they also explain the nature of the injury and the inferences that can be drawn from it. Likewise, each photograph in a textbook carries a label providing the same information. The trainee accepts the label as authoritative (as with the pronouncements of her trainer), because the community of FMEs (via the body of the Worshipful Society of Apothecaries) have advocated that the book should be used by trainees, and because the authors set out their own credentials in the introduction. As such, in reading the book (or viewing the photographs in a lecture), the trainee gains further experience of injuries, as well as related inferences considered appropriate by the community of FMEs.

While the above descriptions set out the manner by which trainee FMEs gain experience of different types of injuries (i.e. by observing them during both the apprenticeship and/or in textbooks), I have yet to outline how the neophyte learns to differentiate between different types of injuries and their mechanisms, or to put it another way, how the neophyte develops their own classificatory schema. Whether by shadowing, lectures, textbooks, or most often a combination of all three, the knowledge and inferences transferred to the trainee are those of the contemporary forensic medical community. The first thing to note about this statement is that the process is social: it is not nature, or the body of the complainer by itself, that imposes upon the learner the appropriate way in which the injury types should be classified; instead, it is the community of practitioners who provide the parameters by which phenomena should be grouped and labelled. As Barnes states:

> Nature does not mind how we make clusters from the vast array of similarities and differences we are able to discern in it: all that is required of such clusters is that they constitute a tolerable basis for further usage. The clusters are conventions: the similarity relations which concepts stand for are conventions (Barnes 1982: 24).

The inferences that the trainee learns to consider appropriate do not, therefore, constitute the only way in which these injuries could be classified. They are merely

the groupings considered correct by one particular social group, in this case the community of FMEs.[63] This has an impact upon the way that the schema is transferred to the trainee: if the trainers were solely to use words and rules to educate the trainee on the appropriate classification of injuries, there would be no guarantee that the appropriate natural object would be classified correctly; an injury which the community agrees is an abrasion may be identified by the trainee as a bruise, for example. Further linguistic rules outlining the colour and form of the phenomena would be required in order to ensure correct deduction. Following on from this, the trainer and trainee may disagree upon the definition of the colour purple, for example; this would necessitate even further linguistic refinement, resulting in what Barnes calls an "infinite regress" (Barnes 1982: 27). I have already noted that experienced FMEs, in their training of others, do not use deductive linguistic rules to educate their neophytes; instead, they employ direct observation during shadowing, or indirect observation via photographs. The use of photographs avoids this infinite regress by homogenising the vision of the trainees. Following Kuhn (1977) and Barnes (1982, see also Barnes et al. 1996), I will use the label *learning by ostension* for this highly visual form of training.

> Any act whereby a direct association is directly displayed or shown or pointed out between an empirical event or state of affairs and a word or term of a language will be called an act of ostension. Our assumption is that the inherited system of classification of kinds is learned by ostension (Barnes et al. 1996: 49).[64]

So, when the trainer or the textbook informs the observer/reader of an injury type and its mechanism of production, the trainee both sees the injury and learns the appropriate community-ascribed concepts which relate to it. On being ostensively taught that a particular wound constitutes a bruise, the trainee adds the taxonomic group *bruise* to their cognitive schema (if this is the first "bruise" they have encountered, this particular case of a bruise will serve as the basis for the appearance and significance of the injury type *bruise*). As the trainee observes more bruises (i.e.

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[63] Barnes et al. illustrated the community based nature of classification thus:

> The taxonomies of the biological sciences, for example, are elegantly systematized hierarchical orderings of classes themselves, rather than of particular things. Hence when these taxonomies are applied to particulars, nobody is surprised if scientists or groups of scientists find themselves having to agree to differ (Barnes et al. 1996: 48).

[64] See Chapter Two for more traditional examples of learning by ostension.

they are informed that the wound they are looking at is a bruise) along with other types of injuries, they will begin to notice the similarities and differences between the different wound types, and so learn to discriminate one particular class of injuries from another. The classification of each individual injury amends the trainee's cognitive schema, as each injury will appear different to those seen previously; the trainer will express to the trainee that the particular injury they are observing constitutes a bruise, and even though it looks different to other previously observed bruises, the trainee will look for similarities to those past bruises and differences from other injury types. By finding these similarities and differences, the trainee refines their own cognitive schema.

This process, however, is not without its problems. Importantly, no single act of ostension suffices to teach the correct application; for instance, even with pointing/arrows, can it be assured that the observer/reader is actually looking at the same thing as the trainer/authors? Moreover, do observed objects only have one potential classification? This is particularly relevant to mechanisms of injury. It is not correct to say that just because the ostensively-taught black eye is the result of a punch, it follows that all black eyes must be caused by punches.[65] Given these problems, the inter-relation of shadowing and self-directed learning via textbooks serves to increase the quantity of acts of ostension, and thereby provides the FME with numerous experiences of injuries. This, in turn, allows the trainee to refine their classificatory schema and gives them greater and more useful criteria for future use in distinguishing between injury types and causes. However, such learning is not the result of passive ostensive learning alone; it is also active.

3.2.3 Exercises

Shadowing, and self-directed learning using textbooks, both involve the performance of exercises by the trainee in order to test what they have learnt. So as to help explain the importance of exercises to an FME's professional development, I will commence my discussion with a continued analysis of *The Color Atlas of Sexual Assault*. Chapter Five of the book contains a collection of case histories and forensic medical photographs taken from actual cases. The purpose of the chapter is to

[65] I will discuss this further in Chapter Four.

provide a collection of exercises so that the reader can assess their own progress. The trainee looks at the photographs, having studied the account offered in the case history, and: a) labels the injuries; b) identifies the age of the injuries; and c) concludes whether or not the injuries are consistent with the account offered by the complainer in the case history. For instance, in the first case presented:

> ***History:*** A 29-year-old sexually active Caucasian female clerk came to the emergency department 5 hours postassault. She was on a date with a male friend in a hotel room. They were drinking beer and watching cable television. She denied having had consensual intercourse with him. At 5 AM, he awoke and attacked her, restraining her by his weight and with his arms. He forced her legs apart and bruised her legs with the grip of his fingers. While lying supine and on her side, he penetrated her vaginally with his penis and fingers, "two or three times". He unsuccessfully attempted rectal penetration with his penis. He licked her breasts and the left side of her neck, and kissed her lips and breasts, saying, "Tell me you love me." During the examination, she complained of pain in her thighs and head pain.
> ***Laboratories:***[66] Rapid plasma regain (RPR) (nonreactive); *Chlamydia trachomatis* (negative); *Neisseria gonorhea* (negative); human chorionic gonadotropin (HCG) (negative)
> ***Photographs:*** On examination you find the following:
>
> 1. External genitalia (Figure 5-1) (x15)
> 2. External genitalia, after Toludine Blue dye application and decoloration (Figure 5-2) (x15)
>
> ***Conclusion:*** The physical findings (are/are not) consistent with the history and timing of the reported assault (Girardin et al. 1997: 130 emphasis in original).

The photographs in question show various abnormalities, which the reader is meant to compare with the complainer's account offered in the history and the examples encountered in the previous chapters. They are supposed to label the abnormalities and construct potential causes, assess their age, and finally, conclude whether or not they are consistent with the proffered account. Once these conclusions have been drawn, the reader turns the page to find out if their conclusions fit with how the case was actually reported. The assumption is that the closer the match between the reader's conclusions and the actual findings, the better.

> Actual findings and outcome
> ***Findings on Photographs:***
>
> 1. Laceration of the posterior fourchette; swelling and redness of the labia minora from 3 o'clock to 9 o'clock (Figure 5-3)

[66] In Scotland this information is never actually sent to FMEs.

2. Distinct Toludine Blue dye uptake confirming the laceration of the posterior fourchette; dye uptake from 3 o'clock to 9 o'clock on the labia minora indicates an abrasion of the labia minora extending to the posterior fourchette (Figure 5-4)

Actual Conclusion: The findings are consistent with the history and timing of the forceful penile vaginal penetration (Girardin et al. 1997: 132).

In this example, the actual finding explains what should have been inferred by the reader: the injury types and their causes, as well as the conclusion that these findings are consistent with the complainer's account.[67] The normative assessment of the reader's conclusions further illustrates the dogmatic nature of the training. In such an uncertain and subjective area as the question of whether or not physical evidence appears consistent with the complainer's account, there could be significant room for different interpretations of morphology. However, the social milieu in which the trainee, textbook and forensic medical community exist results in equal authority being placed upon the labels and results of the textbook and the human trainer of the novice FME. To this end, if the trainee classifies the cases in the exercises differently from the results found in the textbook, they are expected to disregard their own inferences and acquiesce in those presented within the text.

This description of exercises in a forensic medical textbook is similar to Kuhn's description of textbook use in the training of physics students. Kuhn (1977) noted that while students claimed to understand the text of a textbook chapter, they encountered difficulties when attempting to answer the end-of-chapter questions. These problems tended to disappear as soon as the trainee was able to recognise the similarities between the question they were answering and the given solution in the chapter. After completing numerous exercises, the neophyte recognised the similarities between the new question and those previously attempted, and was more likely to answer the question in agreement with the answer in the textbook. This process disciplines the trainee's vision to that of other members of the relevant community, i.e. it allows the trainee to perceive and understand the world in the same way as other members of the field. Problem-solving exercises, therefore, indoctrinate the trainee into the prevailing paradigm of the relevant community.

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[67] The chapter contains photographic examples where the injuries have been classified as inconsistent with the case history as well (see Girardin et al. 1997).

> Instead, these [text]books exhibit, from the very start, concrete problem solutions that the profession has come to accept as paradigms, and they then ask the student, either with a pencil or paper or in the laboratory, to solve for himself problems closely modelled in method and substance upon those through which the text has led him. Only in elementary language instruction or in training a musical instrumentalist is so large or essential a use made of 'finger exercises'. And those are just the fields in which the object of instruction is to produce with maximum rapidity strong 'mental sets' or *Einstellungen* (Kuhn 1963: 351).[68]

Kuhn was, of course, discussing physics, but the outcome is the same in clinical forensic medicine; the trainee reads the text, and, after numerous attempts at the exercises, begins to see the similarities between the photographs in the previous chapter and those in the exercise section. They will, over time, start to produce answers to the textbook exercises that match the "actual findings". In this way, the trainee's perception and cognition is disciplined to be the same as that of their peers; they are indoctrinated into the paradigm.

As with textbooks, so with shadowing: during the second phase of the apprenticeship, roles are reversed and the trainer shadows the trainee while the latter conducts actual forensic medical examinations. This in effect represents another set of exercises, as the experienced practitioner observes the trainee's actions, behaviours and classifications and assesses them against the former's own practices and decisions.[69] Here, the conclusion as to whether or not the trainee is correct is decided by the extent of the trainer's need to revise the classifications made by the trainee. The trainer does not correct at the time of the examination,[70] but instead while the FME is writing up their casebook; at this time the trainer and trainee discuss the appropriate conclusions to be drawn from the examination. During this process, the experienced practitioner might point out that the injury observed was (for example) not a laceration, but an incision (a very complex and often misclassified injury type, as I will discuss in the next chapter); or that while there

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[68] Foucault (1977) also notes that exercises were initially employed by the religious group, the Brothers of the Common Life. The Brothers used increasingly complex exercises as a method for neophytes to acquire knowledge, which in turn served as a means of developing and sharing a sense of community amongst initiates.

[69] I mention actions as well as classifications, as the trainer will also be assessing the way that the trainee performs the examination and whether or not they are following "best practice". I will save this discussion for Chapter Six.

[70] Doing so, I would imagine, would further distress the complainer, as it may lead them to believe that the examiner is not qualified.

may have been significant reddening, this could be consistent with consensual as well as non-consensual sexual intercourse. As with the answers to the textbook exercises, the trainee accepts these responses unquestioningly, and either looks for reasons to change their classificatory schema, or is ostensively told why the injuries should be labelled thus. This serves to reprogram the trainee's perception in order to bring it further in line with that of the trainer. As with the textbooks, significant correction may be necessary at the beginning of this secondary apprenticeship phase; however, with further practice, the trainee will become accustomed to viewing injuries in the same manner as her trainer, as well as other FMEs.

At this juncture it is important to stress what is meant by the disciplining of vision to that of the existing community paradigm. I discussed this theoretically in Chapter Two, and it has again been briefly touched upon in this chapter; however, as it is a recurring theme in both this chapter and throughout the thesis, I will briefly contextualise it in this context. Essentially, the processes of ostensive learning and practice provide the trainee with the *learned similarity relations* of a particular community of practitioners, in this case the contemporary community of FMEs.[71] Through the processes of using textbooks and shadowing, the neophyte FME learns the correct similarities and differences between injury types and what those injuries represent, as accepted by the community of clinical forensic medical practitioners. Labelling an injury correctly during an exercise means that they have labelled it in the same way as would other FMEs. Once the trainer judges that the trainee has performed correctly, then the trainee is said to have assimilated the paradigm and considered to have received the appropriate training. An FME who is frequently employed as a trainer explained it thus:

> I've been involved with training a lot of young doctors, and our training [in] the last six months is very intensive before we ask the doctor to be involved with general aspects of the work. If it's, I've trained two doctors in the last year, and both of them have my mobile number, which, if they are involved

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[71] I stress the temporal aspect, as during training only the current state of knowledge is transferred (not previously held knowledge, which may be inconsistent with contemporary knowledge).

> Nor is the science student encouraged to read the historical classics of his field – works in which he might encounter other ways of regarding the questions discussed in the text, but in which he would also meet problems, concepts, and standards of solution that his future profession had long-since discarded and replaced (Kuhn 1963: 350).

> in a rape they have to come and ask me to come.[72] In the beginning I would perform the examination and they were in the process of shadowing; now, I'm in a process of shadowing them, because I am not yet sure they are ready and of the prerequisite experience. Now this will have to go on for quite some time, it is very time-consuming for ourselves, very tedious for me, but it's very important that I don't allow my police surgeons to be exposed to the stress of going to court and not being able to say that I have been properly trained (Dr. G, male, Constabulary 3).

Dr. G is still unsure whether his current trainees have the requisite experience; this could mean that he does not yet believe that they have adequately assimilated the paradigm (i.e. whether they are able to discriminate appropriately between injury types, mechanisms, etc.). This decision, i.e. the evaluation of whether a practitioner has reached adequate experience and competence, is my next focus.

3.3 Assessing Competence

3.3.1 Casebooks and the end of the apprenticeship

After a number of months of shadowing of the trainee, it is likely that the experienced practitioner will start to consider (particularly given Dr. G's comments about the process being "tedious") whether or not the novice is close to becoming an independent practitioner. While there was consensus amongst my respondents that trainees should be shadowed for a couple of months, it was considered that the trainer should base their judgement about the exact length of this process (made in conjunction with a team leader/training co-ordinator in some constabularies) upon the particular trainee.

> I think, I think they [trainees] should be shadowing for a couple of months minimum. Depends on the experience of the individual and of the impression someone makes, sometimes they can easily get the work on their own, be a free examiner, whilst others need support and some of them will never learn it. That's the scope, between zero and one hundred, some of them are very keen, of the students and the trainees are very keen, some of them need training for ages. They've simply got the wrong job (Dr. D, male, Constabulary 2).

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[72] Due to problems with numbers of practitioners in Constabulary 3, FMEs are expected to conduct "fitness to be detained" and "fitness to be interviewed" examinations individually from an early point in their training. When sexual assault examinations come in during the training, however, they are expected to call in their trainer.

The determination of whether or not a trainee is competent depends upon a combination of the trainee's ability to learn, their previous experiences and the types of cases that they encounter during shadowing. One example of a trainer making a judgement about the competence of their trainee, based upon the trainee's previous experience, concerned an FME I interviewed. She had previously worked as a Community Gynaecologist, and therefore had considerable previous experience of female genital pathology and the use of the colposcope. Due to this experience, Dr. A was adjudicated by her trainer to be a competent practitioner, and was swiftly allowed to work independently.

> Some people pick up quickly and some don't, and for me they started off with a rape examination, then suddenly they realised that I knew more than them, so after one or two they said "That's fine, carry on" (Dr. A, female, Constabulary 1).

It may be considered that Dr. A's example runs counter to my earlier argument that power and knowledge move unidirectionally (from the trainer to the trainee); however, I do not believe that this is the case. Although Dr. A explains that her trainer "realised [she] knew more than them" due to her previous employment experience, this does not necessarily imply that any multi-direction knowledge transfer took place. The above quotation does signify, however, that Dr. A was making the appropriate classifications and that her trainer, the authority, decided that she was competent enough (after a few observed attempts) to be able to perform those examinations independently. The trainer still constituted the final arbiter. Moreover, we cannot tell from this quotation whether this signified the end of her training; it is unlikely that it did, as there are other aspects to being an FME of which Dr. A may not have had previous experience. For instance, while she had experience of examining genitalia, she may not have had experience of explaining her findings in a legal context.

As mentioned, there are many aspects to the training of new FMEs, and various phenomena with which they are expected to be familiar. To demonstrate that they have this requisite experience, the novice FME keeps a casebook of all the types of cases that they encounter during the apprenticeship. In the book, the trainee records the details of each case (with help from the trainer) in the same style that they will later use when required to report cases for the police, and also for Part II of

the DMJ (see below). Once a month, the trainer reviews the casebook with a training co-ordinator. During this review, they will evaluate what is missing from the trainee's experience, the likelihood of that case/injury/procedure presenting itself in the near future, the trainee's aptitude in the work, and whether or not the trainee is ready to work independently

> A lot of shadowing, and saying, and I've prepared that they [trainee] should keep a logbook of what they've seen and what they've done, and every person that's shadowed, the trainer will sign off and then we see, and I will review at the end of the month and say where are the gaps and what we need to… And again we'll discuss this, if we are training, three or four of us will be training somebody, and we'll discuss this amongst ourselves, I will respect everybody, it's not what I say goes, it's what everybody says and if they feel doubts and fears, someone [trainee] does need extra, I don't have any hesitation in saying to them [trainee] you're not [ready] (Dr. A, female, Constabulary 1).

This meeting between the trainer(s) and the team leader/training co-ordinator constitutes an examination. During the meeting, both the work of the trainee and the trainee's casebook come under the supervisory gaze of the trainer(s).[73] Trainers have an idea of the way that a competent examiner should behave (i.e. they know what is appropriate behaviour for one who has adequately mastered the paradigm), and they use this knowledge to judge whether or not the work of the trainee and the casebook have reached that standard. If the trainee has a broad experience of the phenomena they will later encounter, and is classifying them appropriately, it is likely that they will be deemed competent and allowed to practise independently. Conversely, if they have yet to experience a wide and varied range of objects of medico-legal significance, and/or are not acting appropriately, then they will not be judged to be a competent practitioner. Therefore, this examination discriminates both qualitatively, in that it discerns whether or not a trainee is performing adequately, and quantitatively, as it assesses how soon the trainee will be ready. It also places trainees in a hierarchical system based upon the similarity of the trainee's behaviour to other (experienced) members of the community.[74] This process of evaluating the

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[73] The process of holding a group meeting with other trainers and a team leader is not followed in all Scottish constabularies. In some cases, the trainer makes the decision independently.

[74] As Foucault (1977) put it:

> The examination combines the techniques of an observing hierarchy and those of a normalizing judgement. It is a normalizing gaze, a surveillance that makes it possible to

competence of the trainee FME, by means of the assessment of a casebook, continues after the apprenticeship as part of Part II of the DMJ.

3.3.2 Casebooks and Part II of the DMJ

As mentioned earlier, the DMJ is made up of two parts: Part I is the theory of forensic science, forensic medicine and the law; Part II is practical. Part II is examined by means of a joint written and oral examination, as well as the submission of a casebook of ten cases completed independently by the examinee after they have been deemed a competent practitioner and have started performing forensic medical examinations independently (the examination must be applied for within three years of completing Part I). During these early years, the FME compiles a list of ten cases, which they have conducted on their own and which demonstrate certain competencies. For example, FMEs are required to demonstrate that they can competently use the colposcope, as well as other forensic gynaecological implements and methods.

> When I started we used a hospital facility… so we got access to the colposcopy suite. That was a hassle… although that was of course coming round and that of course is another feature, forensic gynaecology is gaining a lot of credibility and actually they have to do that as part of the logbook as part of the training (Dr. C, female, Constabulary 2).

The FME compiles these cases and (as with the apprenticeship casebook) presents them in report form.

> You present, in a book, ten cases where you have really done the work yourself and will have discussed these in terms of what the courts, what they would have wanted to have heard from you (Dr. B, male, Constabulary 2).

The finished report records the complainer's account, the procedures employed, any phenomena that were found upon examination of the complainer, any photographs of said phenomena, and finally the FME's conclusions about the case. The latter point, the FME's conclusion or discussion, is to be informed by the appropriate literature on the topic. This demonstrates whether or not the candidate is up-to-date with the relevant journal articles and textbooks, as well as any recent landmark legal cases concerning the types of phenomena observed. While there are a certain set of

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> qualify, to classify and to punish. It establishes over individuals a visibility through which one differentiates them and judges them (Foucault 1977: 184).

competencies which the candidate has to demonstrate, it is also recommended that the candidate picks cases that display a varied experience of injuries and case types (The Worshipful Society of Apothecaries of London 2007b).

The FME appointed as assessor, upon receiving the casebook, first evaluates the range of cases. She then asks questions such as: did the candidate employ the appropriate procedures? Were their interpretations supportable? How detailed were the discussions of the cases? The examiner also looks at the language used in the casebook with regards to the clarity and conciseness of the reports, particularly with an eye to potential ease of understanding for police, prosecutors and juries. In contradistinction to the apprentice's casebook (which serves as a checklist of what has or has not yet been observed), the casebook of the DMJ candidate exists as a proxy for the work that they have carried out. The casebook represents the capability of the candidate: the procedures they use, the strength of their claims, and their ability to express themselves to prosecutors. The casebook therefore serves two functions: 1) as a record of the experiences of the candidate in order to justify any future claims, and 2) as a means by which the candidate's practices can be examined by the community of forensic medical practitioners. While the casebook process is certainly considered to be of benefit to new FMEs, some longstanding FMEs have expressed concern at the low number of cases that are requested as part of the DMJ. They suggest that it is far fewer than the number of cases needed in the past to signify expertise.

> The other issue of course is not just surgery but doctors now have their casebooks so they can justify they've seen so many unsupervised but the numbers they have there [DMJ casebooks] are far, far less than what you'd expect. (Dr. E, male, Constabulary 3)

Nevertheless, the casebook containing ten case reports is an accepted record of the practice of the examinee, enabling the examiner to assess the quality of the candidate's forensic medical work.[75]

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[75] I have been unable to determine the specific reason as to why 10 is the required number of cases for the casebook, and why certain competencies are essential. According to Dr. G, FMEs do not experience a large number of cases a year (the number being approximately 25 for him), and so it may be the case that those convening the DMJ believed that taking 10 cases out of a potential 75 would allow the FME under examination a broad range from which to pick the best cases to satisfy the competency requirement. However, some constabularies do not have the same numbers of reported cases as others; rural constabularies tend to experience fewer cases than urban, and so 10 cases may

The DMJ Part II is not solely examined by casebook; there is a formal examination aspect as well. In the examination, the candidate is given particulars relating to a number of real cases (sets of photographs, the complainers' accounts) and asked to draw conclusions about those cases. In contrast to the casebook (where the examiner has to assume that the candidate has recorded all relevant information about the examinations), the examiner knows what should be commented upon in the formal examination format (which is similar to the textbook exercises), because the candidate's remarks and conclusions should be congruent with the original forensic medical report. The assessor's job is to evaluate the level of similarity between the answers given by the candidate and the real forensic medical report. When judging both the casebook and the examination, the assessor evaluates how "safe" the practice and conclusions of the candidate are: for instance, they judge whether or not unsupportable claims are being made.

> The examiner will have two roles, firstly to set out the basic standards, so in a general sort of way we review the examination, conditions, etc. and secondly we examine the candidates who are coming through, sitting the Part I or Part II of the examination… but they [the candidates] are, they are, as we say safe to appear as expert witnesses in the court, that's it, that's the acid test, are these people safe to appear as expert witnesses in a criminal court (Dr. B, male, Constabulary 2).

The word "safe" in this quotation can be interpreted in two interesting and related ways. On the one hand, "safe" could be read as meaning that the examinee will make the appropriate classifications based on the physical evidence, and is therefore suitable to give expert testimony; the examinee will provide evidence that is of value for the court. On the other hand, the "safe" here could also be interpreted as "safe" for the community of practitioners. By evaluating the claims made by the examinee, the community assures itself that her work fits within their parameters of acceptable practice and that the FME should not make any outlandish or unsupported claims that could be contradicted by their peers, thus undermining the FME community's ability to claim that they produce incontrovertible evidence. The determination of safety,

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also have been chosen as a small enough sample for those working in rural areas to collect easily within three years. 10 cases, therefore, appears to constitute a trade-off between the frequency of types of cases within constabularies and the need to demonstrate particular competencies.

therefore, does not only have a legal dimension, but also significance for the legitimacy of the entire community of practitioners.

After assessing the casebook and the examination responses, if the examiner believes the candidate to be practicing appropriately, they pass the candidate and grant her the qualification D.M.J. (Clin.). Holding the DMJ is considered to benefit a witnessing FME's credibility quite significantly in a trial, as the status of having gained the qualification means that the FME has been deemed a competent practitioner by their peers.

> Someone who is an expert will have a long and wide experience, approximately five years, if you've not practised for five years in a particular area then you can't be considered an expert… There's academic qualifications, submitting yourself for rigorous assessment, and going through a few hoops with that (Dr. E, male, Constabulary 3).

Of course, behaving appropriately and thus passing the DMJ actually means that (in a similar manner to the process of the training exercises) the candidate's work has become similar to that of the rest of the forensic medical community; they have successfully been indoctrinated into the prevailing paradigm. While there are issues relating to the ability of the individual FME to articulate their findings to interested parties, the question of the "safety" of the practitioner concerns their ability to make similar claims to their peers, and is therefore related to the correlation of the candidate's classifications to those of other members of the community. The examiners of the DMJ praise examinees whose casebook and examination responses are similar to their own; this is a further example of the practitioner's perceptual and cognitive apparatus being shaped by authority.[76] I will return to this point again in the summary, but before that I will briefly touch upon the FME's continued training.

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[76] During my research, I have not encountered anyone who failed the DMJ. If a candidate fails Part II of the DMJ, they are allowed to re-sit, but only after re-sitting Part I. An unsuccessful candidate for Part II is also able to appeal and receive a report on their performance in Part II, potentially making the examination easier second time round. To this end (although I have no data to support this), I believe that failure of the DMJ first time round does not result in the new FME being dismissed, but instead in a fiscal punishment, as the candidate has to pay for admission to both Part I and Part II of the DMJ again, a combined cost of £750. Furthermore, failure of the DMJ does not bar the practitioner from conducting examinations; however, it does mean that they cannot mobilise successful completion of the DMJ when attempting to construct their credibility in the eyes of jurors.

3.4 Continued FME Training

During my data collection period, the professional body concerned with clinical forensic medicine underwent a change. Previously titled the "Association of Forensic Physicians" (hereafter "AFP"), its role concerned the representation of forensic medical practitioners in cases of financial disputes or negligence claims, but also involved itself in maintaining the standards of FME work and the professional development of FMEs. During the late 1990s, questions were raised regarding the appropriateness of the AFP being involved in both the financial interests and the education of their practitioners (Wall et al. 2007). In response to such criticisms, the AFP decided that it was necessary to separate its representative and educational aspects and establish "an appropriately recognised professional and academic institution" (Wall et al. 2007: 1). In response, possibly, to this call for a new institution, or in combination with other factors, the AFP Council approached the Royal College of Physicians (hereafter "RCP") in 2000 investigating the possibility of forming a college within the RCP. "[S]erendipitously" (Wall et al. 2007: 1), the AFP request was not the only approach made to the RCP by medico-legal associations at that time (including the association of medically qualified coroners), and so out of these various groups was established the Faculty of Forensic and Legal Medicine of the Royal College of Physicians (hereafter "FFLM") in 2006. With the chief focus of the FFLM being the education and training of FMEs,[77] those involved in its founding were able to pass on the representation of FMEs to the British Medical Association (hereafter "BMA"), which (as Dr. E suggests) was considered appropriate as the BMA is a recognised trade union.

> Okay, the Association [AFP] was there to professionally support doctors and there was an education role, but there was also a representation role with terms and conditions of service, and what we've [FFLM] done, the negotiation role has been devolved to the BMA national forensic committee [cut for anonymity] but that is something I think quite rightly, we've handed over to the BMA because that is more of a trade union role and of course

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[77] The three founding objectives of the FFLM were:

> • to promote for the public benefit the advancement of education and knowledge in the field of Forensic and Legal Medicine.
> • to develop and maintain for the public benefit the good practice of Forensic and Legal Medicine by ensuring the highest professional standards of competence and ethical integrity.
> • to act as an authoritative body for the purpose of consultation in matters of educational or public interest concerning Forensic and Legal Medicine. (Wall et al. 2007: 1)

> BMA is a recognised trade union, so that's fine. And the education role, I think quite rightly we've separated the filthy lucre side from the education side and development and continuing professional development side, accreditation and licensing, all the stuff that's coming through the GMC [General Medical Council] (Dr. E, male, Constabulary 3).

It is important to note the movement to the FFLM, as it connotes a shift in the way in which training is supposed to continue after an FME's early career. While neither the AFP nor the FFLM explicitly used/use the language of Continuing Professional Development (hereafter "CPD") as found in other medical specialities, both promote the idea that practitioners continue their education by attending national conferences and local seminars, as well as accruing further professional qualifications. While the association was under the banner of the AFP, however, there was little in the way of governance of training, and these training events tended not to happen, as evidenced by some of my respondents' comments: "Training in forensic elements is very limited" (Dr. K, female, Constabulary 3), or, more facetiously, "[Continuing] training, yes, what training would that be?" (Dr. C, female, Constabulary 2). While the inauguration of the FFLM has yet to find a way to guarantee that all practitioners continue their training, they have introduced recommendations regarding the amount of time each practitioner should dedicate to their development each year, and have introduced training days that would satisfy that minimum recommendation.

> There isn't an official CPD but the FFLM recommend that you do about, you know, I think about 2 and a half days, like so many hours… So since they've [FFLM] been in place, there will be a lot more [training] coming into it (Dr. A, female, Constabulary 1).

> There is the Society of Police Surgeons, which is now the Faculty of the Physicians of London, which have, which have, um, sort of study days, meetings, twice a year. The Royal Society of Medicine also has a Faculty of Clinical and Forensic Medicine[78] and they run at least two sessions, two weekend sessions a year, so those are the only ways (Dr. B, male, Constabulary 2).

The focus of these training days is to keep practitioners up-to-date with the latest developments in the field (including what currently constitutes best practice), and to invite them to share accounts of interesting cases. While all of my respondents

[78] While Dr. B separates the FFLM from the Royal Societies Faculty, these are now actually the same organisation, as they merged following the dissolution of the AFP.

informed me that they had recently attended several conferences and workshops, or that they were looking forward to attending them, some expressed difficulty in finding the time given their work schedules.

> But no, there's not, obviously there are conferences and those type of things, the reality is that most of us are working. Conferencing is all very well if someone is happy to cover for you when you are away, but that is not the reality for us here; it would be nice to do it (Dr. C, female, Constabulary 2).

Attending the meetings convened by the FFLM is a useful way to achieve the recommended training quotient; however, the FMEs' workloads make it difficult for them to take the time off. For this reason, among others, some constabularies have established local seminars.

Two of the constabularies I visited had developed their own ad hoc training days that take place a number of times a year. One constabulary invited outside speakers to present to the FMEs approximately six times a year, and also invited procurators fiscal and senior police officers to attend. This meant that at the end of the meeting, the discussion based upon the presentation was "multi-agency": not only was there input from the clinical forensic medical practitioners, but also from those who would be using the reports of the FMEs; this enabled FMEs to gain advice from the latter. Meanwhile, in the other constabulary, the team leader surveyed the doctors in preparation for the training day, asking which medico-legal areas they wished to be refreshed upon. According to those working within the constabulary, there are fewer reported rapes in the rural districts, and so FMEs in rural areas are unable to gain the same experience as the doctors working within the city. Because of this, the majority of the training days now take place in the rural areas.

> It [training day] can be a themed day or a general training day. What we usually do is ask the doctors what topics they want refreshed on. More and more our training tends to be in the outlaying areas where the doctors tend to be unable to carry out many examinations, so they don't have the experience that the city doctors build up, so over the last couple of years the training has been outwith the [cut for anonymity] area. We find that if we run training in [cut for anonymity] the outlying doctors don't wish to come, but if the training is ad hoc, based on themes and near to them they will come, especially if the themes are suggested by themselves (Dr. G, male, Constabulary 3).

As with the FFLM training days, the day (or weekend) features a series of lectures with numerous speakers, discussing the nature of "best practice" in the field for

which the doctors have requested training. These days are primarily held for doctors working within the constabulary; however, the training co-ordinator also invites those from neighbouring constabularies to attend their sessions. One FME from another constabulary mentioned that although the invitation was there, she did not feel very welcome.

> I mean people are talking about that, even just locally [Constabulary 3] is just starting off, you know, a series of meetings as a sort of regular updates. But that still has the feeling that it is very [Constabulary 3] based and oriented, that's the perception from this side of the water (Dr. C, female, Constabulary 2).

The FFLM's project to encourage an increase in professional development is still in its infancy, and requires a further period of time before its success can be evaluated; however, there does appear to be a number of blocks, both institutional and constabulary-based, to practitioners' success in achieving their development quotas.

While FMEs were sceptical about the logistics of training days and conferences, they were unanimous in their support of developing oneself by keeping up with the literature. As with the DFM/Part I of the DMJ at the very beginning of the FME's training, when the neophyte is required to "learn the books", so it continues throughout the remainder of their career; if they do not keep up with the clinical forensic medical literature, then there might be repercussions if the FME were to undergo cross-examination.

> The defence bring in all the research, so are you keeping up-to-date with all the research papers that come up, what have you done, can you talk on that? (Dr. A, female, Constabulary 1).

> The problems are doctors are inexperienced, doctors are too dogmatic, doctors don't know their onions, they haven't read the books and they get circles run round them in the witness box… If somebody is ranting and raving and saying "I've done this two hundred times, I think so, don't bother me with books, don't blind me with science, I say so, it must be so." That doesn't hold any water with the jury (Dr. B, male, Constabulary 2).

For FMEs, therefore, maintaining a relationship with the current clinical forensic medical literature is vital to their continued training and development, as this enables them to respond appropriately and with authority while under cross-examination.

Summary

In this chapter, I have outlined the processes by which new FMEs come to be adjudicated competent practitioners by the relevant professional community, and also the measures taken by FMEs to maintain their appearance as expert and "safe" to testify before the court. The training process commences with the apprenticeship of the neophyte to an experienced practitioner, who (via an ostensive process) introduces the trainee to the injuries and cases that they will later encounter in their own practice, and explains what they are, and what they represent (their cause, for example). During this process, the trainee is wholly subordinate to the trainer, expected to attend whenever contacted and to accept the claims of the trainer without question. At the same time, the trainee is required to study, and undertake an examination on, the basics of the forensic sciences and the judicature. As with their learning process in the apprenticeship, the trainee accepts the information offered by the lecture course or the textbooks. The trainee's aptitude in following the lessons of the course or the apprenticeship is assessed by a series of exercises, which can be found in textbooks, as well as during the secondary phase of the apprenticeship. The correct answers to these exercises equate to the classifications agreed upon by other FMEs (either the authors of the book, or the trainer), and the performance of this set of exercises by the trainee disciplines their perceptual and cognitive facilities to fit with the prevailing paradigm of the community. The trainee learns to see the world (and thereby draw the same conclusions) in the same way as others in the community. This is finally confirmed with the examination of the trainee's work, and the assessment of the level of similarity between their interpretations and those of their peers. If there is sufficient similarity they will be decreed a competent practitioner, "safe" to testify in court.

The training of FMEs and the assessment of their competency or safety (based upon their similarity to other experienced FMEs) is, of course, vital for the protection of FME practice and the credibility of their evidence as a whole. The development of a shared vision amongst practitioners increases the likelihood of a consensus on FME claims, enabling the community to assert that their inferences concerning injury types and causes are not just opinions, but should be granted the status of facts given that they are agreed upon by all FMEs. It is not the case,

however, that once a neophyte has been deemed competent or "safe", they will be able to classify injuries or cases without problems or always agree with other members of the FME community; in fact, as I will discuss in the next chapter, the inferential manner by which FMEs learn to classify phenomena actually provides significant complications for future classifications (real world cases can be more complex than those previously experienced during training). Nevertheless, the dogmatic training process that indoctrinates the practitioner into the community paradigm marks the first step in the development of community consensus on classifications, and is the first strategy by which FMEs can claim that the evidence they produce is credible and incontrovertible.

4. Injury Classifications and Consensus Management

FME expertise resides in their ability to make claims about injuries. In the previous chapter, I set out the situation from where such expertise initially derives: the assimilation of FMEs into their community's paradigm during training. FMEs are only labelled "competent" and "safe" examiners if they learn to interpret and infer from injuries in the same manner as the rest of the FME community. Unfortunately, even when FMEs have mastered the communitarian paradigm, it is not the case that they are able to label and interpret new cases without problems. "Members [of a community] cannot simply be given the conventions and left to 'go on' as though there is a railway track stretching out ahead of them" (Barnes et al. 1996: 54). As training is based upon the development of an assemblage of experienced cases, it is always possible that a new one may undermine the FME's classificatory schema. The potential exists, therefore, for an FME to break ranks with the community of FMEs and make claims that do not conform to the established views of the remainder of the community. Such demonstrations of disunity amongst practitioners are highly damaging to the expertise and authority of FMEs, both individually and collectively, and so in order to continue with their claim that they produce incontrovertible evidence, FMEs are required to manage their practices and claims-making in order to avoid bringing the community into disrepute.

This chapter addresses the reality of FME claims-making regarding injuries in the post-training period, i.e. after FMEs have been deemed competent. I will outline, in detail, the way that FMEs observe the body of the complainer, discussing the genital examination, the examination of the other aspects of the body (labelled the general examination), the process of looking for signs of injury, and the way that FMEs draw conclusions about the nature of the injury and its significance. As such, I will also explore how injuries are described and recorded. As mentioned, however, this is not an unproblematic process, and FMEs may hold differing opinions on such inferences, which can undermine their credibility. Therefore, I will also explore the many processes by which FMEs manage their claims-making in order to ensure that their claims are accepted by the remainder of the FME community, and also the way that they have involved the COPFS and altered legal practices in an attempt to ensure

that demonstrations of practitioner disagreement are significantly diminished. I will start with a description of the general examination.

4.1 The General Examination

FMEs separate the actual forensic medical examination itself into two sections: the general examination and the genital examination. The general examination consists of a top-to-toe observation of the complainer, while the genital examination is an observation of the ano-genital region. In both examinations the FME is looking for evidence of injuries; however, they differ in equipment and techniques employed. For this reason I will also separate the general and genital aspects of the forensic medical examination.

4.1.1 Observing and Classifying Non-Genital Injury

As its name suggests, the top-to-toe examination involves the FME performing a macroscopic observation of the complainer's body,[79] with the aid of a lamp for illumination. Commencing at the head, and working downwards, the FME observes almost the entirety of the exterior of the body (excluding the external genitalia, as they are examined as part of the genital examination), including both front and back.[80] The aim of this procedure is the "identification and precise documentation of all injuries (fresh or healed) or abnormal signs that might relate to the alleged incident." (Rogers 2004: 91) What the author of this quotation from a forensic gynaecological textbook means by "precise documentation" is the process of recording the type, size, location and colour of the injury under observation. In fact, it should be noted that the process of observing an injury is intimately entwined with the process of describing and recording.

> Yeah, an injury is defined first, is it a bruise, is it an abrasion, the definition first. Secondly you have to locate it somewhere so it is located from an anatomical point, fixed points, so you don't locate it from the belly button, you locate it from sort of the… crest, the shoulder or some point, it has to be located in two-dimension, from the mid-line and against an anatomical point.

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[79] Some FMEs choose to use a magnifying glass during the general examination; however, this is preference and not routine practice. Conversely, a form of magnification is essential for the genital examination.

[80] It should be noted that during interviews, questions concerning the process of observation were generally answered using the illustration of a complainer. To this end my discussion will also focus upon the examination of the complainer. This same process also takes place upon the body of the suspect.

> So you define it, you measure it, now you don't measure it eyeball, you measure it with a ruler, okay, so accurate measurement of the area, and you may want to take trace evidence, if there is grit in it or if there is fibres in it, you swab. So those are the four main things, definition, location, and indeed, swabbing. At the end of the day, the main, the main, the main thing is, if I had no photograph of this can I visualise it? (Dr. B, male, Constabulary 2).

Therefore, an injury only becomes observed once it has been measured and defined. This recording process is a combination of descriptive measurements (location, size and colour) and a classification (the injury type). These details enable further classifications to be made about the individual injury (age and mechanism). In conjunction with other injuries, these details help the FME piece together a potential narrative of how the alleged attack took place (which I will later label the morphological account). I will commence with a description of FMEs' injury-recording procedures, and then discuss how they make classifications. For the FME, of course, such judgements as injury type, age and mechanism, which I have suggested are separate, take place contemporaneously. In Bowker and Star's (2000) language, they are invisible, meaning that the classifications take place instantly and generally unproblematically. Here, I wish to make the invisible visible by describing the process by which an injury is judged and inferences are made concerning its cause and significance.

As Dr. B says, the first act of observation is the classification of the injury into one of four types. At the most basic level, non-genital injuries can be classified as ecchymoses, abrasions, lacerations or incisions. Ecchymoses, commonly known as bruises (sometimes termed contusions) are discolorations of the skin caused by the rupturing of blood vessels due to the impact from a blunt object. This rupturing enables blood to escape, infiltrating the surrounding subcutaneous tissues and leaving an observable mark upon the skin. It is important to note that the skin is not broken by a bruise. Bruises come in various shapes and sizes, which can have medico-legal significance. For example, a particular type of bruise, the petechial haemorrhage, is typically less than two millimetres in diameter and therefore difficult to detect by the naked eye. Groups of petechial haemorrhages can cluster into larger collections, and are thereby made visible. These clusters can reproduce the ridge patterning from the object that caused them: for example, the sole of a shoe, a tire or the texture of clothing. Moreover, petechial haemorrhages are also formed due to the suction of

the skin, and form what are commonly known as "love bites". A further type of important bruise is the circular or oval bruise, which is roughly 1-2cm in diameter and characteristic of fingertip or knuckle pressure (Crane 2000, Rogers 2004).

Abrasions, otherwise known as grazes or scratches, are injuries that damage the surface of the skin but do not penetrate deeper. Abrasions are generally formed by the movement of the skin over a rough surface. Closely related to the abrasion (and sometimes misidentified thus) is the laceration. While the abrasion only breaks the skin superficially, a laceration splits the full thickness of the skin's surface. Importantly, lacerations are caused by blunt force and so their edges are often bruised and abraded due to the crushing and tearing of the skin. Incisions are created by incising implements like knives and razors. Macroscopically, what differentiates incisions from lacerations is that in contrast to the rough and torn edges of the laceration, the incision is sharp and precise. The distinction between the laceration and the incision becomes more complicated when dealing with a blunt weapon, as the blunter the incising weapon, the more likely the wound will appear as a laceration rather than an incision (Crane 2000, Rogers 2004).[81] Even with these potential complications, the FMEs I interviewed did not consider the definition of injury type to be a problem; the decision was based on their previous experience of seeing and classifying, and that enabled them to label subsequent injuries correctly.

Once an injury has been labelled, it is then measured, located and its colour recorded.

> Number one, you identify what you are looking at, you describe it appropriately, bruise, abrasion, laceration, size, etc. because some of that determines causation or corroboration of what she says has happened. So obviously identify what it is and then pretty much describe it clearly, it's three by two centimetres, brown yellow bruise, overlaying the lateral aspect of the left upper arm, six centimetres above the elecron, bracket, elbow, close bracket (Dr. C, female, Constabulary 2).

Both Dr. B's and Dr. C's statements illustrate how an injury is located; it is measured from fixed anatomical points: on the upper limbs, bony prominences like the elbow

[81] It should be noted that although I have taken these descriptions of injury types from clinical forensic medical textbooks, I consider them insufficient as a pedagogical resource for FMEs. As I discussed in the previous chapter, neophyte FMEs need to be ostensively taught how to classify and interpret injuries. I do consider them suitable in the present context to elucidate to my readers the similarities and differences between classificatory groups, as well as the difficulties faced in making an injury classification.

are used; on the head, the injury is measured from an eye, ear, nose or mouth; on the neck, the thyroid cartilage is used, and so on (Crane 2000). Similarly, the size of the injury is measured in centimetres[82] and its shape (circular, triangular, V-shaped, crescentic or irregular) is also recorded, along with the colour of the injury. Finally, the injury is located and marked upon a standardised body diagram (I will discuss these shortly).

Once the descriptive details have been recorded, the FME can then begin to make inferences regarding the age of the injury and how it was made. These judgements are either formed during the examination itself, or when the FME is compiling the report for the police. When deciding the age of injuries, FMEs attempt to address whether the injury pre- or post-dates the timing of the reported assault (which will show whether or not it is relevant to the assault in question). This process is possible with bruises, as they fade and change colour over time, and the speed of the change is considered to be consistent. Forensic gynaecological textbooks often reference the Langlois and Gresham (1991) study, which noted colour change around the eighteen hour mark. Red, yellow or blue bruises are considered to be recent injuries (i.e. less than eighteen hours old) while green or brown bruises tend to be older. FMEs, however, did not find this distinction useful:

> [Sharp intake of breath] Bruising, yeah, gee, something we looked at in the early 90s with colour photometry in the dead and the living and all we could say was if it was red, yellow, purple, blue it was recent, if it was green or brown it'd be older and by recent I mean in the last week and older, more than a week. I had a standard paragraph that I would incorporate into expert work. You can certainly look at a bruise and say that it is compatible with the time stated… it's like this business of saying if it's yellow it's more than eighteen hours, well you see, if you've had kids and you've actually seen an injury you know it's not going to be more than eighteen hours old. That said, I've got my knowledge and this is, I'm thinking outwith the box with this, um and I think some doctors don't do this (Dr. E, male, Constabulary 3).

The Langlois and Gresham scale is made more complex by many factors, including the location upon the body, the force of the blow, and any treatment that the complainer is taking (Crane 2000). Any of these factors can alter the colour of a bruise. Other injuries also have the potential to provide dating evidence: abrasions

[82] Some textbooks suggest centimetres and inches to ease jury understanding during the provision of expert testimony (Crane 2000).

are usually purple and excrete a serum which hardens to form a scab over the wound, while lacerations and incised wounds heal and leave scarring (however, the rates of scabbing and scarring are generally unknown). Bruising, therefore, provides the best assessment of how long it has been since the assault - but only in recent assaults (i.e. within a few weeks), and even then, not without significant difficulties.

The final judgement the FME has to make when observing a single injury is how it was made. This is very important later in the process, when the FME comes to determine whether force was employed (and if so, how much).[83] The determination of the mechanism is inherently linked to the previous descriptive inference concerning injury type. I have already stated that certain injuries are classed depending on how they were produced; for instance, the example given above of how an incision differs from a laceration (in that one is produced by a sharp implement, the other a blunt instrument). I also described how abrasions are produced by the skin coming into friction with a rough surface, while bruises are caused by the application of blunt force which does not break the epidermis; and mentioned that a certain type of bruise, the petechial haemorrhage, can actually cluster to form the imprints of ridge patterns or textures. Therefore, if an FME were to locate a bruise on the upper arm, she would at least be able to claim that blunt force had been applied. If there are a collection of injuries around the bruise, then the FME may be able to make a more specific diagnosis (for example, five small bruises around the upper arm could signify the act of grabbing).[84] Although I have pointed to a reciprocal relationship between the labelling of an injury and its mechanism, I have yet to address exactly how FMEs make judgements about injury type or cause.

Chapter Three set out how new FMEs learnt to conduct a forensic medical examination, and how (via textbooks and an apprenticeship) they learnt to identify and diagnose injuries of medico-legal significance. I would now like to take this to the next step and address how FMEs make judgements (when on their own) in practice. Dr. D's response to the question of how he classified and diagnosed injuries is as follows:

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[83] This will be the focus of Section 4.3.
[84] This, of course, takes us beyond our classification of the individual injury and into the relationship between injuries. I will discuss this further in Section 4.3.

> That's from experience, from experience because we've got lots of cases of perhaps bruises at the head, especially in the mortuary, and sometimes the police are very concerned about these people, this deceased, but it's nothing, they died and they hit the table as they fell and you must know about this and knowledge is the basis of all thing. *So you only see what you know about, if you don't know about it, you don't see it* and this makes the work much easier, to avoid unnecessary work and investigations and that's the same whether you have a young woman with an alleged assault, sexual assault perhaps, she has injured herself… when you have the experience to see it, and you have seen cases before, just in your experience then you can say that's self-injurious behaviour (Dr. D, male, Constabulary 2, emphasis added).

Dr. D's conflation of seeing, experience and knowledge provides a useful way to begin an explanation of FME classificatory practice. As I previously argued, FMEs learn to discriminate between, and provide mechanisms for, different types of injury by viewing cases (both in textbooks and as part of shadowing) and being informed of the appropriate classifications. As such, we can understand how FMEs come to *know* via a combination of *experience of previous cases* plus *authority derived inferences*. To this end, if we substitute "have experience of previous cases + authority derived inferences" into the highlighted sentence in Dr. D's statement it would say *So you only see what you* have experience of previous cases + authority derived inferences *about, if you don't* have experience of previous cases + authority derived inferences *about it you don't see it*. In Dr. D's first illustration, he presents the hypothetical case of bruises at the head. Dr. D states that, due to his previous experiences of seeing injuries, he could ascertain that the injury was caused by the person falling and hitting their head upon the table; in other words, he is drawing an analogy. Each FME has a finite set of previously observed cases which they have already classified. The FME cognitively searches those past cases, looking for the case that most closely resembles the current injury, and when it is found, they apply the classifications from the past case to the one in front of them. In the second hypothetical, Dr. D states that he knows the injury is an example of self-harm because it resembles a wound, or collection of wounds, that he had previously labelled as self-harm (or that someone else would have told him constituted the same). He saw it before, it was classified thus, and so the new case will be classified thus.

An important corollary of understanding acts of classification as analogies is that the FME requires previous experience of that injury or collection of injuries to be able to draw an inference, or as Dr. D put it, "*if you don't know about it you don't see it.*" This was exemplified by Dr. F:

> It's all, every doctor has to work within his area of expertise and the boundary of his experience, and if at any time any of us feel we've gone beyond my boundary here then I'd say call somebody else who has more experience in this particular field. It all depends what's been looked at at that point in time… Mostly I am quite happy to say yes, this is the case, or no, this is not the case, but in this case that I have already mentioned [cut for anonymity] there was a constellation of injuries, the mechanism of which could have been, there could have been various causes [cut for anonymity]. I couldn't say for sure what could have brought these injuries about [cut for anonymity] (Dr. F, male, Constabulary 2).

In this case, Dr. F was examining a complainer that had a collection of injuries that did not resemble those from any of Dr. F's finite collection of cases. Although he could distinguish between the injuries, he was unable to pinpoint the precise mechanism for their production. To aid in the examination, he called in an FME with a wider experience who was able to provide the mechanism. This case served to extend Dr. F's own collection of cases, and so if he were to observe a similar constellation of injuries in future, he would be able to generalise from this case to the new one. Additionally, this continues to demonstrate the role of authority in the creation and expansion of classificatory schemata. As with the process of educating trainee FMEs, it was only after the intervention of an authority figure who informed Dr. F of the appropriate judgement that Dr. F was able to broaden his personal collection of cases.[85]

It is possible to conclude from Dr. F's example that he was lacking the requisite experience, and that at some point in the future Dr. F would come to observe the entire range of injuries and know their mechanisms. To put it another way, experienced practitioners should have no difficulty making classifications.

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[85] It should be noted that this expansion of cases can actually serve to problematise earlier acts of classification, by providing a mechanism that would have explained earlier cases; that is to say that the new explanation bears a closer resemblance to the previously classified case than the one that was actually provided. To put it another way, "[n]o act of classification is ever indefeasibly correct" and "[a]ll acts of classification are revisable" (Barnes et al. 1996: 56/57). Moreover, the addition of the new explanation may undermine other elements of the classificatory network; see Hesse (1974) and Bloor (1982).

While I agree that the case of Dr. F represents an example of limited experience, it is not my contention that there ever exists a time when the FME has such experience that she is capable of classifying injuries without any problems. The explanation for FME classificatory practice thus far expressed has been drawn from Barry Barnes and David Bloor's "meaning finitism", which I discussed in Chapter Two. In essence, the basis of finitism is that no system of knowledge is ever complete; our current state of knowledge is always built on a finite number of cases and so, as with Dr. F, any practitioner could be faced with a case that they cannot explain.

> There are times when we can't, we really can't say and that's the bottom line. We look at the injuries and say it was blunt force but whether it was a finger caused it, a penis caused it, something else caused it, an instrument caused it, we can't say. Sometimes we can and when we can we are quite distinct, we'll say diagnostic of such (Dr. A, female, Constabulary 1).

This quotation is from a highly experienced and well-respected FME. Even with the large number of cases observed throughout her career, there are still collections of injuries she is unable to provide precise mechanisms for. The chief reason for this uncertainty is the multiplicity of possible causes for a particular injury/collection of injuries. For example, bruises upon the face, notably periorbital haematomas (black eyes) do not always signify multiple punches to the eye areas; they can also be caused by trauma to the front of the scalp, or by a fracture at the base of the skull causing blood to drain and collect around the eye sockets under gravity (Crane 2000, Rogers 2004). Multiple causality causes difficulties with discrimination for all examiners, not just inexperienced practitioners. Interestingly, while Dr. F requested a more experienced practitioner to infer a particular mechanism, Dr. A, in her hypothetical case, preferred to limit her classification to one of blunt force trauma, claiming that the uncertainty provided by the potential number of causes could put her credibility at stake.

> [B]ecause that is when we lose our credibility, because we have to be absolutely… what we know and how much we know, and I do not stray out of that, and I think, you know, how do, a lot of times two people were there and nobody else, and if I can, and I'm absolutely confident, and I say what caused it, then I am certain that this would happen (Dr. A, female, Constabulary 1).

This quotation encapsulates a large part of the argument of this thesis: demonstrations of disagreement amongst FMEs can undermine their claims to

provide credible, incontrovertible evidence. In situations of uncertainty, contrary explanations could be postulated, which could in turn result in such public demonstrations of disagreement. In order to avoid this, FMEs limit their claims, thus protecting both their own credibility and that of their community. Limiting claims (or requesting that other FMEs provide or support a classification) ensures that others in the FME community agree with the FME's judgements (either because they have provided their own explanations, or because the claims have been limited to those agreed upon by all FMEs due to their training).

In summary, thus far I have explained how FMEs record descriptive characteristics of injuries, and also how they then use those characteristics to draw inferences about age and causality. These inferences, or acts of classification, are based upon an FME's cognitive search of her own collection of previous cases for an injury that resembles the one currently under investigation, and her subsequent drawing of an analogy from the old case to the current. This process is not only complicated by variations between individual complainers, location, and the multiplicity of potential causes, but also by the different number and types of cases that each FME has observed. Acts of classification based on resemblance necessitate that the FME has previous experience of the injury/injuries before they can be accurately classified. Observing an injury (or constellation of injuries) not previously encountered serves to extend the FME's finite selection of cases, as well as introduce new injury types and their explanations. The new explanation derives from the intervention of an experienced examiner, who provides the community-agreed explanation for that injury. This does not mean that experienced examiners themselves have little difficulty in making classifications; they too have a finite selection of cases to draw upon and are sometimes uncertain about the precise explanation. In such cases, FMEs limit their explanations to those agreed upon by all FMEs, as over-reaching (providing an explanation when the cause is contentious) could result in a "battle of experts" during the trial, potentially tarnishing the epistemic authority of FMEs in general. Conversely, the limiting of claims to those agreed upon by FMEs serves to reinforce the consensual (and thereby factual) nature of FME evidence. Despite these defensive strategies, however, FMEs can still find themselves in disagreement during trials, which, given my analysis of the

classificatory process (based upon practitioners' differing experiences and the judgements of similarity resulting from those experiences, although shaped by their shared training), is not that surprising. In Section 4.3, I will explore some further strategies employed by FMEs in order to limit demonstrations of disagreement; however, I will first continue to explain the way that FMEs record injuries.

4.1.2 Iconographic Representation

Once an injury has been observed and described, the FME plots its location upon a standardised body diagram (see appendix 4), eventually building up a pictorial representation of the injuries upon the complainer's body. The diagram is forwarded to both the science laboratory and the police, along with the remainder of the medical examination form, but its chief function is in helping the FME to draw conclusions about the case under examination. The diagram functions as an *aide memoire* regarding the totality of the complainer's injuries, as it documents the locations and combinations of various injury types. This information can be highly significant when the FME is making a decision about whether or not an assault has taken place (and, if so, the level of severity); as I will elaborate upon in Section 4.3, the body diagram plays an important role in reminding the FME of the locations and quantities of wounds. Here, I will discuss the other method of iconographic representation: photodocumentation. Unlike the body diagram, which provides a representation of the entire collection of injuries, photodocumentation records each wound individually.

Once the medical examination is complete, any observed injuries are recorded by photography. In a similar manner to the body diagram, photographs of an injury are employed to remind the FME of how the injury looked at the time of the examination. The accompanying police officer contacts the photographer, a SOCO, at the same time that she contacts the FME.[86] During the medical examination the FME prepares a photographic schedule, based on the injuries she has

[86] Liaising at such an early stage ensures that photographs can be taken shortly after the examination. Although this is a complainer-sensitive practice, sometimes it can be counter-productive if the complainer has reported at such an early stage that certain injury types (for example, bruises) have yet to develop fully. In these situations, the complainer has a photograph taken at the time of the examination and then returns to the police station the next day to have her injuries photographed.

observed and consistent with the order in which she observed them. In this way, the FME's notes of the examination fit with the photographs.

> So I have to check off on a photographic schedule and when I see I just put 1, 2, 3, 4, and give this copy and the police officer will give it to the SOCO and they take the photographs. They go in the same order so when we go into court we have the [FME case] book, we go inside with what our injuries are, injury number one is photograph A (Dr. A, female, Constabulary 1).

Once the medical examination is complete, the SOCO takes the photographs with the complainer still lying upon the examination couch. Injuries located upon the face, arms, lower legs or back are not considered problematic to photograph, and therefore require no extra consideration. On the other hand, areas that FMEs label "contentious"[87] (such as breasts, buttocks and the tops of thighs), due to their close proximity to what FMEs considered to be sexual areas (anus, genitalia and nipples), require extra measures when taking photographs, in order to protect the dignity of the complainer.

> You can't just say to somebody "take your clothes off"… so there are some areas that they need to cover with the bag: the genital area, the genital area they can't take, the breast they can't, and then they cover that area, and take. If it was like on a buttock, or something, whole thing would be covered by this thing, so it is not too exposed and then they'd take that (Dr. A, female, Constabulary 1).

> Now the photographs are indeed restricted to non-contentious areas, what do I mean by that? If you want to photograph a breast then a) the photographer has to be of the same sex as the victim, and that is done with specific consent from the patient… So if I want to photograph a breast, a thigh, then I have to ask for specific permission and indeed have to have a photographer of the same sex (Dr. B, male, Constabulary 2).

For photographs of contentious areas, extra consent is requested of the complainer,[88] and if a SOCO of a different sex than that of the victim has been sent to the medical examination, they will be dismissed and a SOCO of the same sex called. Moreover, the photographs will be constructed in such a way as to record the injury of interest while protecting the dignity of the complainer as much as can be possible; thus in

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[87] While I am aware that this is not necessarily the correct usage of the term "contentious", as it is an actor's-category I will use it. The term appears to be used to mean "difficult for complainers" due to their close proximity to sexual areas.

[88] With the more routine use of the colposcope, FMEs are increasingly required to ask for extra consent to record contentious areas at the start of the examination. See Section 4.2.2.

Constabulary 1, Dr. A mentions that they have a bag which covers the area, whilst in Constabulary 3, Dr. G explains that the complainer covers what they feel to be inappropriate:

> If there was physical injuries, general bodily injuries, if there were injuries to the inner aspect of the thighs or knees then we would photograph them. Bite marks on the breasts, depends on the complainer, would have to give consent, I mean they are reluctant, you know I've seen complainers with their hands over their nipples and then a mark on the breast (Dr. G, male, Constabulary 3).

Forensic medical associations have paid more attention to the dignity of the complainer since the overhaul of the police doctor service in the mid-1980s.[89] Taking these precautions enables FMEs to get the photographs even though the complainers are (to use Dr. G's word) "reluctant". In the final analysis, the complainer can still deny consent to having photographs of contentious areas taken, and the FMEs have to honour that; however, providing a range of mechanisms to make the complainer more comfortable provides a way for FMEs to negotiate consent. This is important (as I will now explain) as photographs can be a very useful way of engendering trust in an FME amongst potential future jurors.

Photographs of injuries not only remind the FME of how the injuries appeared at the time of the examination, but can also form part of the prosecution's evidence at trial. Temkin and Krahé (2008) cite evidence from Bright and Goodman-Delahunty, demonstrating that visual representations of graphic material (such as photographs of injuries) can have a significant effect on juries, which leads to a greater likelihood of a guilty verdict. Bright and Goodman-Delahunty compared mock juror responses to written and pictorially represented information (itself dissected into graphic and non-graphic) concerning a murder case.

> While the results showed no difference between the graphic and non-graphic material when it was presented in written form, mock jurors exposed to the graphic visual images were more likely to convict the defendant than those who had not seen any photographs. This could be explained, at least in part, by the fact that they [mock jurors] experienced greater anger towards the defendant than participants who had not seen any photographs (Temkin and Krahé 2008: 57).

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[89] I will expand upon some of the changes introduced by the police and the forensic medical service in the light of critical evaluations in Chapter Five.

While studies such as Bright and Goodman-Delahunty have demonstrated the usefulness of photographs in altering the emotional states of jurors, photographs can also make FMEs appear more credible to juries. Unlike other sources of forensic scientific evidence (DNA samples, glass fragments, etc.), which require stringent procedures to ensure the chain of custody throughout scientific and legal processes, photographs (once developed) cannot be tampered with and provide a pictorial representation of the wound at the time of the examination.[90] In this way, photographs, in combination with FME testimony, provide a means for the court to be imaginatively transported to the examination suite and "virtually witness" (Shapin 1984, Shapin and Schaffer 1985, Jasanoff 1998) the body of the complainer at the time of the examination. Photographs allow the jurors to see the evidence for themselves and "supplement… the imaginative witness provided by the words of the text [in this case the FME testimony]" (Shapin and Schaffer 1985: 61). Jurors have greater trust in the FME's testimony when it is coupled with photographs, as they can, at least in their mind's eye, believe that they are following the FME during the examination and draw their own conclusions contemporaneously with the FME. In fact, the FME is educating the juror to "see", or infer, what the FME herself has seen. This education of the jury is very powerful and requires skilful cross-examination to counteract.[91]

Therefore, photographs of injuries, if available, can provide vital support for a prosecution case: they can alter the emotional state of the jury, and can help convince the jury of the FME's conclusions. These factors explain why FMEs have developed mechanisms to enable photographs of contentious areas to be taken if complainers are reluctant. However, photographs of what could be considered the most convincing of wounds (injuries to the ano-genital region) are not admissible to court, although some constabularies do iconographically record them. It is to this that I now turn.

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[90] As mentioned in Chapter Three, it must be noted that photographs are still constructions and therefore have various assumptions built in; they are close to naturalistic realism, but still remain mediated expressions of a given natural phenomena (Lynch 1985).

[91] See Jasanoff (1998) for examples of successful challenges to expert interpretations of visual evidence

4.2 The Genital Examination[92]

While the general examination is commonly a macroscopic examination,[93] the genital examination, or more appropriately the ano-genital-oral examination, is microscopic. The size and location of any potential injuries within the ano-genital area necessitates that both a magnifying device and a cool light for illumination be employed (Rogers 2004). The FME commences by observing the vulval and/or perianal regions,[94] looking for any abnormalities (injuries or evidence of sexually transmitted infection) or any trace material (semen, pubic hair, etc.) that may still be present.[95] Once the exterior ano-genital regions have been examined, the FME then introduces a speculum to aid examination of the vagina, cervix, anus and rectum. As with the general exam, observation of the genital examination is in part recording. Unlike in the general examination, however, the size and location of pathology make it impossible to measure the size of injuries precisely. Therefore, in terms of descriptive characteristics, FMEs only classify injury type, colour (particularly any "reddening" of the skin (erythema) that may be observable), and location. As far as

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[92] Please note: as with the general examination, most of the textbook and interview data collected concerned examinations of female complainers, and so most of the data presented will relate to female complainers (although discussions concerning anal and oral examinations can relate to men as well as women). Unlike the general examination, the genital examination of suspects differs somewhat from that of female complainers. The FME's role in the suspect genital examination is

> [T]o document any features that could assist with subsequent identification of the assailant, to note any acquired or congenital conditions that could make an alleged sexual act impossible, to describe in detail any injuries that could relate to a sexual act, and to retrieve any forensic evidence (Rogers and Newton 2000: 71).

To this end, a penile examination consists of observation, recording any marks, classifying some as injuries (with all the processes already discussed in terms of the general examination) and others as means of identification (Reznic et al. 2004), and inferring whether any pre-existing biomedical phenomena could prohibit a sexual act (i.e. whether the suspect's penis is too small/large to enact penetration or any congenital conditions that could stop him from achieving/maintaining an erection). Recent clinical forensic medical research, notably Wells (2006), has challenged the validity of these latter classifications, noting that both questions of size and impotence are irrelevant. Wells states that although there is no medical evidence to support defences based upon size or impotence, they are still frequently employed, and he argues that FMEs should try and undermine such "rape myths". I will return to the topic of "rape myths" in Chapter Seven.

[93] *Supra* note 79.

[94] As I will discuss in the next two chapters, there is increasing ambiguity amongst FMEs about what is considered best practice, and the incorporation of guidelines. While all the textbooks I have read state that FMEs have to maintain discretion over which ano-genital-oral examinations are conducted based on the complainer's account, laboratories are requesting that all samples be taken regardless. This requires an examination of areas that the complainer may say have not been touched. I will discuss this in greater depth in the next two chapters.

[95] It was once the case that a nuclear stain, Toludine Blue, was added to the vulval area as it highlighted lacerations (Rogers 2004). None of the constabularies I visited employed this method due to the length of time it persisted upon the genitals, causing embarrassment and the stigma of the "rape mark".

location is concerned, FMEs describe ano-genital regions as a clock-face with the 12 o'clock position located under the mons pubis and the 6 o'clock towards the coccyx (Rogers 2004). In describing the abnormality the FME states, for example, that a "laceration [was observed] on the posterior fourchette at 5 o'clock" (Girardin et al. 1997: 70). In addition to the ano-genital region, the genital examination also examines the mouth as a potential area for sexual contact. Again using a form of magnification and a light source, the FME observes the lips, gums and the hard and soft palates, looking for bruises and lacerations. Recording again focuses upon location (although without the use of a clock-face), type of injury and colour. For instance "FIGURE 2-26 Upper lip laceration, abrasion, and redness, along the opposing surface of the upper left lip (x15). Laceration is at superior end of abrasion" (Girardin et al. 1997: 39).

An important difference between the genital and general examinations concerns iconographic representation; as I discussed above, once an injury has been observed during the general exam it is located upon a body diagram and later photographed. Neither of these takes place, or at least not to the same degree, in the genital examination. First, the body diagram: in all the constabularies that I visited, I only found evidence of a standardised genital diagram being employed in one.

> I'm good at talking like this, this thing [one-to-one interview scenario] is not a problem; put me in the witness box and then trying to tell clock-face and three o'clock and these things and I think "Oh my God" and all these pairs of eyes watching you… I've discussed it and they've [COPFS] agreed now, all the advocates, I can take this form [respondent holds up standardised body diagram] and show, because it is far easier to show this way, and even for the genitals… an outline diagram of the female genitalia and the male genitalia and explaining, because you'd be amazed, "Joe Bloggs" the public don't know. The first time I did this, I still remember, it had not been done before, but the procurator fiscal said "if you're willing to, I'll try it." And the defence had no objections, so I brought it in and the judge said "Doctor, I do hope you are going to explain this!" and I thought "Oh God that's coming from the judge!"… so it is easier to have a diagram and then point out and say "This is what we mean" so I find it easier to use that to show (Dr. A, female, Constabulary 1).

While Dr. A suggests that a genital diagram would be useful as a means of helping the trier-of-fact to understand what injuries were observed, and the AFP have released standard ano-genital diagrams (AFP 2004), these have not been added to the

documentation modules of most constabulary FMEKs.[96] As already mentioned concerning the body diagram, its chief function is to act as an *aide memoire* for the FME when drawing conclusions about the case. It also serves another function, however, and that is helping other medical examiners (employed by the defence, or during a peer-review process) to assess the work of the original FME. Independent medical examiners (as those employed by the defence prefer to be labelled, even though both defence and prosecution examiners consider themselves independent) do not get the opportunity to examine the complainer themselves, and so rely on the report of the original examination. A body diagram, therefore, acts as a surrogate for the complainer's body to an independent assessor. The body diagram enables the assessor to observe for themselves where the injuries were located, and so helps them form their own opinions. Where genital examinations are concerned, however, clinical forensic medicine has appropriated a new technique that enables independent examiners to see the actual ano-genital examination for themselves. FMEs in some constabularies are nowadays routinely employing the gynaecological instrument, the colposcope. This enables the actual genital examination to be digitally recorded, and so acts as both an *aide memoire* and a record for FMEs working on both sides of the case, thus negating the chief function of the diagram. Colposcopy, although yet to achieve "best practice" status within Scotland, is becoming more and more usual, and is routinely employed in a number of constabularies. Due to its increased importance, I will devote the rest of this sub-section to an analysis of this new technique.

4.2.1 The Colposcopic Genital Examination

The colposcope, originally a gynaecological instrument developed to investigate the cervix and the tissues of the vagina and vulva after the return of an irregular pap smear,[97] "is an instrument capable of projecting a light within a shaft or cylindrical area and magnifying an image upon which a powerful light source is focused" (Girardin et. al 2003: 419). The colposcope, therefore, provides the required (and in fact improved) illumination and magnification essential for carrying out a genital

[96] See Chapters Five and Six for an in-depth discussion of FMEKs and their use.
[97] The use of the colposcope has also been expanded to cover perianal, anal and rectum examinations as well as female genitalia.

exam.[98] In addition to light and magnification, the colposcope offers one other benefit: attached is a 35mm camera that can record real-time video of the examination. While the non-colposcopic examination relies upon the FME's contemporaneous description of the observed abnormality, the colposcope provides a photographic representation of the entire genital examination, enabling both the original FME and any other assessor(s) to observe the ano-genital area and review the findings.[99] A combination of the improved vision and ability to review is leading some constabularies to use it routinely.[100]

> I always examine with the colposcope because the examination with the colposcope picks up, depending on how many studies you are looking at, about 10 to 30 per cent of the injuries that are not visible to the naked eye, so it is far better to have that. If I see any injury then I would record it, if not I would just be using the colposcope to just look for injuries… as a light source and magnification (Dr. A, female, Constabulary 1).

> May I say though the trend is, again in [cut for anonymity] not elsewhere, to use the colposcope more routinely, more regularly. We may not take photographs with it, but at least we use it for, as I say, value of illumination and magnification. So it is being used more and more frequently, even in adults, of any age group, but no recording carried out, because that gives us the headache then of having to store the video and all the rest of it (Dr. B, male, Constabulary 2).

Both quotations show that while FMEs in the two constabularies routinely employ the colposcope for its illumination and magnification properties, the act of recording

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[98] Although colposcopes differ, they generally magnify to between the range of 5x-30x (Rogers 2004), whilst also allowing the FME to focus light upon particular aspects of the ano-genital region.

[99] Brennan (2006), an FME from New South Wales (where colposcopy is prohibited in cases of adult sexual assault but encouraged for examinations of child sexual assault), argued that colposcopy could not only help in clinical accountability and peer-review, but also in developing training and further research. Brennan based her argument upon the fact that such improvements have already been made in the case of child sexual assault where colposcopy is universally accepted as "best practice".

[100] Two constabularies out of the four I visited have chosen to use the colposcope routinely; when discussing the technique in Constabulary 3 (where they do not use it) I received the following response.

> It's questioned frequently in court as to why video colposcopy has not been made available… big advantage of course is that the defence, the expert for the other side, can have a look at the video colposcope, it's not as good as the naked eye examination, but it's very good, it's a two-dimensional as opposed to a three-dimensional, and it's a dynamic recording (Dr. G, male, Constabulary 3).

Dr. G's claim that the colposcope is not as good as naked eye examination (as the examination is conducted in 2, not 3, dimensions) appears to contradict the majority of studies that appear to demonstrate that far more is actually observed with the colposcope than by eyesight alone. He may have been drawing upon the potential for observer error that other analysts have discussed when critiquing colposcopy (see Brennan 2006 for a review of both the positives and drawbacks of the colposcope).

remains open to the FME's discretion. As with the case of photography of contentious areas, the FME is required to obtain extra consent from the complainer in order to record the colposcopic examination. If given, a compact disc is inserted into the recording aspect of the apparatus to commence recording. If there are no observable injuries, or if the FME judges the complainer to be of an age that she would expect to find pre-existing genital contusions, then the FME chooses not to record. Dr. B continued in his explanation of when he would record the examination:

> Use the colposcope when you feel you are going to get more information; so, for example, if you are looking at somebody who has had six children and had sex last week, the chance of finding any injury are limited, so you wouldn't bother with the colposcope, but if you are looking at somebody who's 18, never had sex before, then you want to record the findings in minute, minute detail (Dr. B, male, Constabulary 2).

Not recording means that what Dr. B labelled the "headaches" of storing the CD are avoided. FMEs are highly aware of, and sensitive to, complainers' fear of how the recorded images might be employed:

> Absolutely, and some people, in fact most [inaudible whispering], I find some women feel that this [the colposcopic recording] is going to be brandished in court, NO WAY, we only allow another medical expert, the defence medical expert to see, they will come to us and I will not stay in the room it will be a police officer who will stay with them, they will see that this thing, see my report and then go (Dr. A, female, Constabulary 1).

Dr. B discussed the same process in more graphic terms for Constabulary 2:

> If we're using colposcopy… then there is a CD now which is recording the examination, now that CD is not available to anybody but the doctor, doctors who've taken it… So the Crown Office [COPFS], the courts, nobody, and we have an assurance from the Crown Office that they will not ask for it [the colposcopic recording] to be produced in evidence, as has been done in England, it has been used in evidence in England. In Scotland we believe, there is a woman in the witness box and in the next minute you are showing "Glorious Technicolors" of her private parts, that's not on. Now you may say "Well, what about the defence?" Now if the defence have their own experts they are allowed to see the video, together with the doctors who have removed it, taken it… And that's how it's done and we've had no problems in Scotland, the fact that we cannot produce it in evidence… But that [the colposcopic recording] we guard with our lives almost, in no way is that going to be divulged, given to anybody (Dr. B, male, Constabulary 2).

If the examination is recorded, it has to be securely stored, and only other FMEs are allowed to view it: no other members of the investigatory team can access the recording. This is done out of a duty of care to the complainer. Brennan (2006) notes the similarity between recordings legitimately taken during the genital examination and pornography, and suggests that due to the numerous arenas that these images could potentially be displayed - "hospital records, a police station, a journal article, or a court room, with no clear boundaries as to who might get to view them" (Brennan 2006: 196) - control of the images is paramount. The complainer consents to the images being used solely in a medico-legal capacity; their transference to other locations could lead to their use as something other than that which the complainer consented to. Allowing only other FMEs to legitimately view the photo-document (i.e. permitting access only to those who would view the document in the same way) protects the complainer against any potential embarrassment and upholds the agreement to which the complainer has previously consented. Similarly, although the defence FMEs do not view the colposcopic recording with the FME who recorded it, the FME working for the defence are required to go to the prosecution's centre to view it.

> So if I'm the defence expert in a rape case, or in a sexual abuse case, I go to the other centre and say "Let me see the video." "Yes, here you are, there's the video machine, we'll wait outside, give us a shout when you're finished" (Dr. B, male, Constabulary 2).

Colposcopic recordings are not entered as evidence into the trial, and so cannot reinforce FME authority in the same manner as (I have suggested) photographs of injuries can amongst jurors, but they can grant authority to the original FME's interpretation via "virtual witnessing" in another manner. The colposcope records the ano-genital area as seen by the FME performing the examination; as such, due to their shared ways of seeing (disciplined during training), the defence expert's interpretation of the same images should be highly similar. Of course, the viewing of the recording occurs in tandem with the reading of the prosecution FME's report by the defence FME, and so the viewing of the recording with the original FME's interpretation in mind could, in fact, reinforce those interpretations. This is not to say that virtual witnessing ensures that there is always agreement between the defence FME and their colleague working with the prosecution; in fact, one of the

main arguments of this thesis is that differing practitioner experiences will inevitably produce differing opinions. However, the use of the colposcope, with its ability to record, could potentially produce consistent reports of the ano-genital region, and/or result in an agreement of interpretation between the defence expert and the original FME. I will conclude by explaining some of the other means by which the collective of FMEs are attempting to limit demonstrations of disunity in the courtroom.

4.3 Force, Judgement and the Morphological Account

Until now, I have focused upon the identification and classification of individual genital or extra-genital injury. Post-examination, such judgements (the definition, age, etc. of particular individual injuries) are combined to provide the FME with their own "morphological account" of the events in question.

> Stating the reconstruction: so we've got hmmm an alleged assault and there is a victim and there is an accused and both of them give different versions of the incident but morphology doesn't lie, um, so I take the morphology as a basis, what does the morphology tell me and many of the pathologists are not experienced and that's a real deficit. So they [police] ask us, I can tell you that there was a cut, or superficial wound, or in cases of rape, often there is no doubt about the sexual intercourse but how it came to that point, that's the interesting thing, that's most interesting that there was sexual intercourse, the man said "yes, she said yes" and the victim says "no, I didn't agree". So that's the account based on the morphology, because the morphology is a witness which doesn't lie, that doesn't lie. (Dr. D, male, Constabulary 2)

The "morphological account" constitutes a collation of all the descriptions and judgements that have previously been made (during the general and genital examinations) about individual injuries (their age, their type, their colour) and provides the FME with, their own interpretation of the events in question. In other words, the morphological account is a medical account of the events based upon the observed physical evidence. The morphological account outlines the nature of the physical interaction between the complainer and the suspect(s) and therefore enables the FME to infer the severity of the attack, and address the related question of how much force was employed. Dr. D's colleagues similarly remarked upon the relationship between injuries, a medical account and judgements of severity.

> I think that just depends on a sense of how you decide the severity, and how you would, well, I think that depends on number of injuries. You are looking at quantity… You got to look at the whole thing, obviously you're looking for patterning in the sense of, you've got fingertip gripping to arms and thighs

> or anywhere else, marks around the neck, we've talked about injuries to the mouth; if the hands been held over the mouth, injuries to the back if they've been pushed onto a hard surface and scapula pressure points. You're looking for sexual contact perhaps; biting, scratching, hitting to the buttocks, injuries to the breasts, looking at all of that and obviously you can have all of that, you can also have significant blunt force trauma if they have been punched, kicked, slapped, hit with something. So I mean, in terms of severity, looking at the overall injuries, type of injuries, whether they've actually, you know, if you see somebody's head is out to a balloon then you know you've got significant blunt force trauma there (Dr. C, female, Constabulary 2).

> Well if there are patterns of injuries, for example grip marks, um punch marks, if someone's been punched around the face or if there are bruises around the face suggesting strangulation, um anything around the face, then that in itself is very pertinent. Finger mark bruising to the inner thighs, because you've got 5 bruises on the left and 5 on the right, then that tells its own story, doesn't it (Dr. F, male, Constabulary 2).

Both quotations demonstrate how individual injuries are compiled to construct a larger account. Dr. C's quotation mentions how she is looking for scratch marks, bite marks, and injuries to the breasts, while Dr. F provides the example of finding five small bruises upon the inner thighs and explains how they can be classified as being indicative of forceful pushing apart of the thighs. The individual injury gets combined with others to provide a morphological account. The compiling of this account is aided by the body diagram, upon which the FME has previously recorded each individual injury they have observed. As already mentioned, the body diagram helps the FME to construct the medical report by acting as an *aide memoire* of all the contusions observed upon the body. Therefore, if the FME notes that there are a collection of scratches or cuts upon the extensor and ulnar surfaces of the forearms and hands, these can be combined and together classified as defensive wounds, where the complainer has attempted to protect herself from attack (Crane 2000). The FME thus creates their own narrative (or range of narratives) from the spread and location of injuries, which they can then compare to the complainer's version of events.[101]

The move from individual injury to morphological account exemplifies the interesting aspect of the sexual assault examination from a finitist perspective. If individual injury classification is a judgement based upon previous experiences of

[101] Such comparison will be the focus of Chapter Seven.

injuries, as opposed to determinate deductive reasoning, then it is ultimately open-ended and revisable,[102] open to multiple interpretations based upon the past cases of the individual practitioner. For example, in terms of injuries observed during a genital examination, the classification of the amount of force necessary to produce a certain collection of injuries will be based on one particular FME's analogy between the current case and her own personal collection of earlier observed cases. Other FMEs may disagree with the judgement; one FME's threshold for force could vary drastically from her colleagues (due to differences in their collection of previous cases), and lacerations that signify considerable force to one examiner could represent "tiny lacerations" (Bowyer and Dalton 1997: 619) to another. I have already explored two methods by which FME disagreement is diminished: the minimising of statements to only those claims agreed upon by all FMEs, and the use of images (photographs and colposcopic recordings) and "virtual witnessing". Even with these strategies, however, there is still scope for disagreement, particularly as FMEs are aware that they will likely be asked in a trial to provide an opinion on the amount of force necessary to produce such injuries, and as such are required to construct a "morphological account" in order to compare the physical evidence to the complainer's account. As such, FMEs do construct "opinions" regarding the severity of the attack (based upon the collected "facts" of individual injuries)[103], and also attempt to construct a medical version of events, although these are both controversial areas and the statements could be contradicted by other FMEs. Due to this potential for contradiction, FMEs have put pressure upon the COPFS to introduce procedures that limit the extent to which contradictory FME evidence is presented at trial.

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[102] Similarly, as part of his study of the history of the Laboratory of the Royal College of Physicians of Edinburgh between 1887 to 1920, Steve Sturdy said the following about the construction of medical explanations:

> [the act of medical explanation] involved far more than just a series of deductive inferences. It also involved a large measure of hermeneutic reasoning and inductive generalization. It was necessary to consider the case and its comparators holistically and analogically, in order to identify meaningful dimensions of similarity and dissimilarity. Moreover, the very imputation of such meaning involved imagination; specifically, it involved the construction of a coherent narrative that tied the various facts of the case together in a web of cause and effect (Sturdy 2007b: 668)

[103] Here, I am using the definitions of both FMEs and the law when discussing facts and opinions, and not my own interpretation, which suggests that both are in fact judgements and are therefore the same.

FMEs frequently expressed concern that they did not receive the defence expert's report until the morning of the trial, and so had little time to consider why there were differences in the interpretations.

> [T]he other thing that they'll [the defence] start on is the defence medical report… two days, one day before the actually [sic] start [of the trial] and I've said… they should fax the defence report, there's nothing worse than actually giving it to you in court (Dr. A, female, Constabulary 1).

> Nine times out of ten nobody bothers their backside to speak to you about your evidence in advance, you turn up on the day, you're presented with the fact that an expert report has been produced that nobody has bothered to give you in advance, you can't, you know, your supposed to respond to it there and then, and then people wonder why evidence is not of the quality that it might be. Do I sound cynical? (Dr. C, female, Constabulary 2).

As it currently stands the defence are not required to disclose their evidence to the prosecution; however, following FME pressure, the COPFS review of rape investigations in Scotland suggested the following concerning disclosure of defence expert reports.

> Experts stressed to us the need to ensure that Crown expert witnesses have had the opportunity to consider the impact on their evidence of any opinion evidence provided by defence experts. The evidence of the Crown expert at trial is weakened or undermined where that expert has not had the opportunity to consider properly or comment on any contradictory evidence provided by a defence expert. Similar considerations apply in asking permission of the court to allow Crown experts to remain in court to hear and comment upon evidence which the expert for the defence may provide to the court. We [COPFS] considered, therefore, that a re-statement of best practice was required in all training and guidance to prosecution staff, emphasising the importance of providing expert witnesses with sufficient opportunity to assess any defence expert evidence and ensuring that the Crown expert is re-precognosced thereafter (COPFS 2006: 120).

Having received or heard the defence expert's evidence, the prosecution's FME can (re-)present their evidence, explaining the differences between the interpretations, and explaining where there are elements of consensus. Similarly, FMEs have also called, as the COPFS quotation suggests, for more precognition.

Dr. C's quotation and the COPFS report allude to the fact that FMEs wish to be questioned about their report before the trial, i.e. to be precognosced about their report. The precognition process is a peculiarity of Scots law and concerns the interviewing of witnesses (before the trial) by both the defence and the prosecution.

Precognition interviews are conducted by either a procurator fiscal or a Precognition Officer[104] for the prosecution, or a Precognition Agent or a member of the defence team for the defence (depending on the severity of the case: more severe cases will be precognosced by the defence team). In terms of the defence, the aim of the precognition is to interview the witnesses (although the interview is not conducted under oath) so that the defence are aware of the strength of the prosecution's case and can advise their client accordingly (Christie and Moody 1999). Prosecution precognition, although rarer, similarly allows the prosecution to ask questions of the witnesses so to expand and clarify upon the statements taken by the police. FMEs are very supportive of the prosecution precognition, as it provides them with a space to assess alternative interpretations of the evidence.

> So first the precognition officer will start with the Fiscal Service [COPFS], for the prosecution and they go through the report that we have produced, what it means, what we say, what our qualifications, what our background is, so that they know. Then they start pulling it apart and then they start, it's very good, often you think "Oh my God, I said left there I meant right, can I take that back please?" "Okay it's already been lodged, we'll bring it up in court", and they will, these little things will come up, so it's important to do a precognition. It's very well to say to someone can we make sure everything is ready, we all make mistakes, so they go through that. Then they say well the defence, they may throw x, y and z at you and how do you feel, could this be this? It has taken years for me to say "actually, yes it could be that, that's a scenario I never thought of" because that's why it's important, it's nice to see both sides, just now I think, after all this time that's what's good, because we see both, then we can turn around say "Good gosh no, there is NO WAY this could be self-inflicted" and that is also possible to say, so that's where we thrash out everything. And the defence come, I tell them my report and just answer the questions, I don't go volunteering telling them anything, they don't volunteer different (Dr. A, female, Constabulary 1).

Undergoing precognition pre-empts any potential alternative interpretations that the defence expert may produce. The FME during the interview can review her own interpretation against potential others and either make amendments to her own testimony, or provide evidence to refute contradictory testimony. As precognition was considered to be so beneficial, the COPFS advocated that it should be conducted in all cases of rape and penetrative sexual assault:

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[104] Pecognition Officers or Agents are generally either employees of the procurator fiscal service, ex-police officers or law students, however; anyone can act as precognoscer (Christie and Moody 1999)

> It is evident from our exploration of this area that precognition of forensic and medical experts requires particular skills and knowledge of the subject matter, bearing in mind the continual advancements in these areas. There is clearly a need to ensure that forensic and medical experts are precognosced as a matter of routine, including cases where the expert's report does not appear to support the Crown case (COPFS 2006: 119-120).

The two strategies introduced in the COPFS report (at the request of FMEs) are very useful for the maintenance of the authority and credibility of FME testimony. As I have already made clear, FMEs' claims to provide factual evidence for the court are based upon the belief that there are certain matters upon which all FMEs agree, and therefore their statements upon such matters should be considered as facts and not opinions. Public demonstrations of disagreement undermine such claims, and so FMEs are at pains to avoid them. As questions of severity and "morphological accounts" are not considered facts by FMEs, but instead opinions drawn upon facts, practitioner disagreement upon such matters is deemed legitimate; however, they still prefer to limit courtroom displays of differences of opinion (to continue the pretence that the "morphological account does not lie"). To this end, examining the defence expert's report, and/or being precognosced, provides space for the FME to consider other potential interpretations of the evidence and explain in court the reasons behind any disagreement. Disagreement constitutes a breach of FMEs' appearance as a consensual collective who produce facts; however, an FME providing testimony can repair this breach if they demonstrate adequately the reasons for the disagreement, based upon medical reasoning (i.e. explain that there are legitimate professional reasons for the difference of opinion, not suggest that the other FME has an interest in the case due to being paid by the defence). The provision of legitimate (medical) explanations for differences of opinion fixes any breaches to the epistemic authority of FMEs that may result from contradictory testimony.

Summary

This chapter has presented a meaning finitist explanation for the way that FMEs interpret signs of injury, and also the way that they assess severity and construct medical narratives ("morphological accounts") for an alleged assault. Finitism stresses the inferential nature of classification; FMEs will have gathered a finite collection of cases of injuries during their experience, and when they come to

classify a new case (be it a particular injury, or a complete morphological account), they will draw upon those previous cases in order to make a new classification. As each FME has a different set, there is considerable scope for variant interpretations. Demonstration of such diversity of interpretation is problematic for the community of FMEs, however, as it limits their ability to claim that they have the expertise to supply incontrovertible evidence to the court. To this end, FMEs have established strategies to ensure that their practitioners do not disagree upon certain matters, and also that when disagreement is unavoidable (for instance, if there is discussion of "opinions" such as the amount of severity necessary to produce an injury or collection of injuries), it is minimal and there is space to mend any breaches (caused by contradictory testimony) to the authority of FMEs. The first of the mechanisms that I mentioned was the limiting of statements concerning the cause of injury. There does not appear to be disagreement amongst FMEs about types of injuries (a result of their shared training), and so an FME's identification of an injury constitutes incontrovertible fact. The cause of injury, or the amount of force needed to make such an injury, can sometimes be challenged and contradicted, and so FMEs either choose to consult another FME about the possible cause (collaboration granting the claim more authority), or avoid making such claims, preferring to stick to statements that will definitely be corroborated by other members of the community. Moreover, the imaging of injuries not only provides FMEs with considerable authority in the courtroom, as the members of the jury "virtually witness" the body of the complainer via photographs, but can also result in the agreement of defence experts with the interpretations of their peer when they view the colposcopic recordings, again "virtually witnessing" the conduct of the examination and drawing conclusions in the same way as the original FME. Such practices, therefore, reinforce the credibility of the individual FME's evidence, and the collective authority of FMEs as a whole.

Sometimes it is not possible for FMEs to limit their claims, however, and they are required to form opinions in order to perform other facets of their work. Such is the case with questions of severity and force and the "morphological account". The "morphological account" is essentially a compilation of previous judgements (injury type and cause); as it can be contradicted by other practitioners, it constitutes an opinion in the eyes of FMEs, and this is also the case with severity.

While opinions constitute legitimate spaces for disagreement, FMEs still prefer to limit divergent judgements as they can be harmful to the credibility of FMEs' expertise. To this end, FMEs have requested that the COPFS introduce strategies that provide practitioners with space to explore and explain the reasons for differences of opinion. Providing such an explanation maintains the belief amongst FMEs and the court that FME interpretations are based on consensus. This is similar to Roger Smith's finding in his study of pathologists:

> [B]elief among forensic pathologists that there is a potential consensus of opinion even if doubts are visible in court, enhances their group self-confidence and hence ability to project a sense of authority (Smith 1989: 67).

There is one other method by which FMEs' interpretations of injuries, particularly "morphological accounts", receive the status of credible evidence in courtrooms, and that is via the construction of "neutral reports". I will not explain these here, as they are not the focus of this chapter. In Chapter Seven, I will explain how FMEs take the judgements encapsulated within the "morphological account" and compare them to the complainer's allegation that they have been raped. Such a comparison constitutes a significant problem for FME claims-making, consensus and authority. Before turning to that, however, I will first explore a number of other classifications that FMEs are required to make: classifications concerning the correct procedure to follow during the forensic medical examination.

5. The Incorporation of "Best Practice" and Guidance into Clinical Forensic Medicine

Not only are FMEs expected to observe and classify injuries during the forensic medical examination; they are also expected to classify cases and identify and collect other types of evidence, including biological trace material and information about the complainer that may be of benefit to both their own assessments of the case and those of forensic scientists. In the past, police doctors (the precursors to FMEs) were criticised for not collecting some of this procedural evidence, and so forensic kits were introduced by the professional associations concerned with clinical forensic medical work in an attempt to improve the rate of evidence collection. In this chapter, I will provide an account of the introduction of those kits, and also describe the contents of the kits themselves, identifying the purpose of some of the artefacts found within. Importantly, this chapter will introduce a discussion of the relationship between guidance artefacts and actual FME evidence collection procedure, which will continue in the following chapter. Here, I will also explore the organisational relationships between the differing professions who compile the kits, and their divergent attitudes towards the accountability of FME work to guidance artefacts. This question is particularly salient to the opening decade of the 21st century, as the late 1990s saw a boom in both Evidence-Based Medicine and Evidence-Based Policy; this has had an effect on clinical forensic medical work, particularly the continuing development of the early kits and documentary artefacts, which now explicate FME practice in significant detail. To this end, in addition to addressing the content of the early kits, I will outline the effect that the discourse of Evidence-Based Medicine has had upon the forensic medical kits.

In this chapter, I will also provide a preliminary explanation for the role that I believe guidance artefacts play in maintaining the authority of FME work and the evidence that they produce. As already mentioned, the fact that the kits were first introduced after a period of sustained criticism of police doctor practice sheds some light on the function of guidance documents: they are there to legitimate FME work in contentious circumstances. This argument will first be sketched out during the current chapter, and fully expressed in the next. I will start, however, with an outline

of the origin of guidance in forensic medical work: the construction, and APS endorsement, of the Forensic Medical Examination Kit (FMEK).

5.1 The Introduction of the Forensic Medical Examination Kit

5.1.1 Criticisms of the Forensic Medical Examination

Influenced by the growing academic, political and public concern surrounding the treatment of women who had reported a complaint of rape,[105] the Scottish Office's "Social Research Study Group" conducted a study of the police's processing of rape complaints during 1980-1981. Published in 1983 as *Investigating Sexual Assault* (Chambers and Millar 1983), the study reviewed all facets of the police's investigation of reported sexual assaults in Edinburgh and Glasgow. They reviewed everything from the tactics employed in the interview of the complainer through to methods of evidence collection and corroboration. As part of the evidence collection and corroboration aspects, "special attention" was paid to the medical examination, "because of its crucial importance in providing forensic evidence in rape cases but also because it was a procedure about which complainers expressed a lot of concern" (Chambers and Millar 1983: 96). The study discovered that medical examinations were generally conducted in an ad hoc fashion, with considerable discrepancies between regions and practitioners.

> In analysing case records and in discussions with police surgeons about their job, the researchers were struck by the number of references to what seemed to be inadequacies or inconsistencies in the procedures and practices surrounding the medical examination and the collection of forensic evidence (Chambers and Millar 1983: 106).

Chambers and Millar found significant disparities, both between regions in general and individual practitioners in the same region. These disparities concerned the level of care given, the attitude of the examiner, the questions asked by the examiner, and the number and types of samples collected. The authors concluded that these "inadequacies and inconsistencies" were the results of: a) inadequate training or experience:

> Case No 1064
> The police surgeon noted in his written report that he was not sure whether he had conducted all the relevant procedures concerning the collection of

[105] See Chapter One for a brief discussion of these critiques.

specimens and swabs as this was the first time he had conducted a medical examination (Chambers and Millar 1983: 106);

b) lack of the requisite instruments:

Case No 1100
The police surgeon noted in his report that it was not possible to take the necessary blood sample as there was no phial for holding the blood among the instruments provided. (Chambers and Millar 1983: 106);

or c) weak delivery links in the chain of evidence:

Case No 1139
The case papers noted that the police 'lost' the collection sheet on which the complainer stood while she removed her clothing. (The purpose of the collection sheet is to ensure that any debris, dirt, or other items which fall from the complainer or her clothing as she undresses can be retrieved and examined for evidential value) (Chambers and Millar 1983: 106).[106]

In Chambers and Millar's opinion, medical examinations of sexual assault victims were performed poorly because of the inexperience and lack of training of police doctors, as well as the fact that the locations in which they were taking place were frequently inadequately stocked (i.e. they failed to have the supplies necessary for conducting sexual assault examinations). Chambers and Millar concluded that while they were critical of the apparent inadequacies and inconsistencies observed in the medical reports, they did not advocate routinising medical examinations; when the authors had interviewed victims about their experiences during the medical examination, the interviewees expressed "dissatisfaction" with doctors who had treated them "routinely" i.e. following a process and paying little consideration to the individual needs of the complainer. As I will show, this balancing act between routinisation (of the examination) and providing a bespoke service tailored to the needs of the individual complainer is a frequent and ongoing problem for the associations concerned with forensic medical examinations.

At the same time as the Chambers and Millar study, similar criticisms of medical examinations were levelled at police doctors by members of their own profession. In the APS's own journal, *The Police Surgeon*, articles were published that questioned the completeness of the medical examinations and the skills of the practitioners.

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[106] See Chapter One for some of Chambers and Millar's other criticisms of the medical examination.

> But we know that it can happen that a woman makes a complaint and is treated unsympathetically by the police, is not believed, and is seen by an unsympathetic and even worse, an unskilled, police surgeon many hours after the alleged offence and is examined in a clumsy and incompetent way in a rather grubby and dingy medical room which always seems to be situated next to the clanking iron doors of the cells; where there may be no proper instruments or lighting, no clean sheet on the bed, sometimes even no soap and towel.
>
> The medical examination may be incomplete or the wrong swabs may be taken. Quite likely the vagina will not be properly examined with a speculum, small injuries and marks of great significance may be missed and the woman may be even more distressed by the examination than she was by the original offence.
>
> She is unlikely to receive advice about pregnancy, V.D. or counselling help and after the examination will continue to be interviewed by the police without being able to scrub herself clean; although this is one of the first things a woman wants to do when she's been raped (Roberts 1984: 78).

Another police doctor, Dr. Smith, was also highly critical, arguing that the insufficient skill of some doctors resulted in loss of evidence, and that the unsympathetic manner of some of his colleagues came close to appearing hostile (Smith 1980). Against this groundswell of negative public and professional opinion, the APS needed to do something. Their response was to produce a booklet that aimed to guide and inform police doctor practice without constraining it.

5.1.2 *The New Police Surgeon: Rape* and the Metropolitan Laboratory Sexual Assault Examination Kit

In 1983, the APS "agreed to compile a booklet setting out a clear description of the medical examiner's duty when confronted with a case of alleged rape." (McLay 1984b: 5)[107] However, the booklet produced (*The New Police Surgeon: Rape*[108] (McLay 1984a)) did not set out to outline hard and fast rules on the correct comportment of the police doctor, as

> the attempt to cover every variation, to tie the officer's hand, will not improve the rate at which cases are cleared up, nor increase the satisfaction of the victim. In practice, each case presents individual problems which may not easily be anticipated, or they would not be problems. *What is not in doubt is the need to promote standards of care, consideration and competence in all*

[107] It is noteworthy that the author chooses to use the antagonistic word "confronted" in this context, to infer "presented".

[108] *The New Police Surgeon: Rape* was produced within a series of other APS *The New Police Surgeon* publications, for example *The New Police Surgeon: A Practical Guide*, which was published in 1978, slightly earlier than *The New Police Surgeon: Rape*.

> *official dealings with those complaining of sexual assault* (McLay 1984b: 8 emphasis in original).

Rather, the booklet aimed to create a baseline standard to which all doctors performing medical examinations of sexual assault complainers could adhere. To this end, the booklet is a collection of articles drawn from *The Police Surgeon*, and represents what was then considered the most up-to-date work in the field. The chapters were written by practicing police surgeons, with the exception of the final chapter, which was written by a forensic scientist. The booklet commences with a chapter on the law of rape written by the (then) editor of *The Police Surgeon* journal, W. D. S McLay, who attempted to present a unified, British approach to the law of rape; however, as McLay worked in Strathclyde, the discussion is mostly based upon Scots law. McLay's chapter is followed by a discussion about how the examination room should be set up and which equipment should be available. This chapter is followed by a discussion of "The Clinical Examination" (Burges 1984), which outlines the role of the examination and offers advice on which instrument(s) to use for each part of the examination, which precautions to take when collecting certain samples, and the preferred order in which to take each sample. Chapter Four is a short critical article that aims to outline criticisms of medical examinations of sexual assault victims. Chapters Five and Six provide two examples of Sexual Offence Examination Kits: one from the Metropolitan Police and the other from The College of Physicians and Surgeons of Manitoba, Western Canada. Finally, the last chapter is written from a forensic scientist's point of view and explains the preferred manner in which forensic scientists choose to receive the samples. Again, particular emphasis is placed upon the usefulness of sexual assault examination kits. By breaking down the chapters, I have demonstrated that over half of the chapters in the booklet were devoted to equipment, particularly the introduction of the Sexual Assault Examination Kit.

Both Chambers and Millar and the police surgeons writing in *The Police Surgeon* mentioned that a frequent cause of sample omission was a lack of the equipment required to store or collect trace material. At the same time that these criticisms were aimed at police doctors, various organisations, both nationally and

internationally, were developing standardised Sexual Assault Examination Kits.[109] During 1977-78, a total of four kits were displayed at the APS Annual Conferences; these included the U.S. Naval Investigative Service Sexual Assault Kit, the Lincolnshire Sexual Assault Kit and the Metropolitan Laboratory Sexual Assault Examination Kit (Clarke 1984). While there were subtle differences in the contents, all kits had the same objective: to provide the police doctor with a standard set of instruments that were deemed appropriate for collecting all available trace evidence from the body of the complainer. As evidenced by the breakdown of the contents of the booklet, the APS clearly advocated that each constabulary should develop their own kits in order to aid police doctors in collecting trace material from the body of the complainer. The booklet frequently reiterates that the kits improve the chance of performing "successful" examinations.

> Experience has shown that a successful examination is more likely to be accomplished if the doctor has available a prepared sexual assault investigation kit. Vital specimens are less likely to be omitted and the forensic scientist is more likely to receive properly prepared samples (Burges 1984: 28).

Likewise:

> The standardisation of basic equipment for use by the Police Surgeon should lead to an improved rate in the recovery of forensic evidence, particularly in those police areas where the facilities and the equipment supplied are inadequate (Clarke 1984: 82).

It is difficult to discern what the authors meant by a "successful examination"; it would appear to connote an examination in which all vital trace material is collected and delivered to the forensic scientists without disruption. While the APS stated that they did not wish to "tie the [police doctor's] hand", it does appear that by advocating the incorporation of a standardised kit into the medical examination, with a normative expectation of what signified a "successful examination", they were suggesting that, while the examination should not ultimately be standardised, a certain routinisation of work should be introduced. This is clearer when one investigates the exact type of kit that the APS was advocating.

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[109] Sexual assault examination kits were already being used in parts of Canada by the time the booklet was produced (Du Mont and Parnis 2000, 2001, Parnis and Du Mont 2002). The Netherlands were also routinely using kits by 1982 (Toom forthcoming).

While four different kits had been displayed at the APS's Annual Conferences in 1977 and 1978, the authors of the booklet decided to devote a chapter to the Metropolitan Laboratory Sexual Assault Examination Kit (hereafter "Metropolitan Kit") alone. The authors make it clear that although it is up to each particular police force to assemble their own kit in discussion with their local forensic science laboratory, the Metropolitan Kit is the model upon which the APS prefer the kits to be based. As well as containing "the basic essentials for the obtaining of forensic evidence in sexual offences" (Clarke 1984: 82), there are two novel elements to the Metropolitan Kit, a reporting form and a brown sheet (although it is clear from Case No. 1139 above that the latter was already part of the examination in parts of Scotland by the time of Chambers and Millar's study). These new elements were preferable as they enabled improved collection and securer transference of material between medical examination and the forensic science laboratory. For later reference I will list the contents of the Metropolitan Kit.[110]

> The kit is presented in a stout cardboard box measuring 1¾" x 8" x 12". It contains the following items:-
>
> > List of contents and instructions for their use and general notes on the examination.
> > Two copies of sexual offences examination form. [appendix 2]
> > Sheet of brown paper measuring 45" x 28" folded in polythene bag.
> > [Blood] Grouping Pack – 10ml. syringe with 21 G x 1½" needle.
> > Linton Towelette and Elastoplast dressing. Glass bottle for blood sample. Glass bottle for saliva sample.
> > 6 plain style cotton wool swabs.
> > 2 polythene bags for fingernail samples.
> > 2 combs, each in polythene bag, for head and pubic hair combings.
> > 3 polythene bags for pulled hair samples.
> > Roll of sellotape 4m. x 2.5cm.
> > Pair of disposable polythene gloves.
> > Drugs/Alcohol Analysis Pack – Glass bottle with fluoride and oxulate for blood sample. Glass bottle for urine sample.
>
> Included in the kit submitted for examination was a strip of 16 adhesive labels 1½" x ¾". The glass bottles each hold 30 mls. and are fitted with screw tops. Each bottle, polythene bag and swab is labelled with an exhibit label and also a small separate adhesive label. [The kits also contain a

[110] Each kit was designed to be used in one examination. After the kit had been used, the parts that were used would be forwarded to the laboratory, while the parts not used would be recycled into more kits.

> disposable white gown and a pair of disposable white pants] (Clarke 1984: 82/3).

It is possible to recognise some form of prescription within the elements of the Metropolitan Kit. The kit provides the practitioner with the instruments to take two blood samples (one to find the blood group of the complainer, the other to test for drugs or alcohol), saliva and urine, along with pubic and head hair (one sample of head hair combed out, the other pulled out), fingernail samples and samples from the ano-genital areas (taken with swabs). While the authors of the booklet claim that they do not wish to remove discretion from the doctors, and that the articles in the kit are there to enable the doctor to collect whichever samples they deem appropriate, there is an extent to which the instruments within the kit already designate which samples ought be taken: for example, 2 x blood, 1 x saliva, urine etc. The elements unused in the kit would remind the doctor of samples that had not been collected but possibly should be, meaning that the leftover items might result in the doctor questioning whether or not they should collect such samples. Such guidance was also given by the sexual offences form and, most explicitly, by guidance notes.

The Metropolitan Kit was the first to introduce a form upon which to record which samples had been taken and to provide any case-specific information that may be of use to the forensic scientist (for instance, the amount of time that had elapsed between the alleged assault and the medical examination, or any signs of STD) (Davies 1984). Prior to the Metropolitan Kit, it was up to the accompanying police officer to transfer the samples to the laboratory, with no oversight regarding which samples had been collected and delivered (see Case 1139 above). As far as any case-specific information was concerned, it was thought that the police officer was "not in a position to give clear and concise details, but the form provides the doctor with an opportunity to convey these direct to the scientist" (Clarke 1984: 84). As well as facilitating the transmission of information, the form also outlines a set of questions or further observations that are required from the police doctor. Using the form, doctors are expected to ask and record the following: whether lubricants or contraceptives were used, whether there were signs of bleeding, whether there were any signs of STDs, whether the complainer had bathed, etc. As such, as well as providing a form of governance over the safe transfer of samples to the laboratory,

the form also acts as a checklist of questions that the doctor should ask, and any preliminary observations that should be made, before performing the examination. While the form provides a modicum of guidance, it is not as explicit as the notes of guidance.

The guidance document is added to every kit, and sets out the exact manner in which the medical examination should be conducted and recorded: a list of things for which the doctor should be looking before conducting the medical examination (the complainer/suspect's mental state, their state of development, their apparent age in comparison to their stated age, etc.); an explanation of the observation process; a description of the samples that should be taken, the reasons for using particular swabs and the method by which the samples should be collected; and finally, the manner in which each sample should be labelled and transported to the laboratory. As with the rest of the Metropolitan Kit, the guidance notes are there to inform and educate police doctors, with particular attention to what is actually required from the medical examination by the other actors within the investigation (forensic scientists and police), with the aim of improving the quantity and quality of samples collected and their transportation to the laboratory. Importantly, this guidance document (like the kit itself) was not produced by police doctors, but instead by other actors involved in the investigative process: namely forensic scientists and the police.

> The main purpose of these notes is to provide doctors with guidance as to the various items, specimens and control samples which are necessary for further examination at the Forensic Science Laboratory and at the same time give some indication of the type of information which is required to assist the Police with their investigations and if necessary form the basis of evidence which is to be adduced in Court (Home Office Forensic Laboratory, Chepstow, cited in Clarke 1984: 84/5).

To this end, both the kit and the guidance notes signify a potential challenge to the autonomy of one profession (namely police doctors) by other agencies (in this case, the police and forensic scientists) over the control of the former's work, which falls under the jurisdiction of police doctors.[111] Due to this potential interference (but

[111] I use the term "jurisdiction" in the sense that Andrew Abbott (1988) uses it, i.e. to identify the way in which a professional group comes to appropriate a particular function (e.g. collecting evidence from someone reporting a complaint of rape) as their own, and the ability of a particular professional group to prescribe the way in which they perform that work. This jurisdictional relation between a profession and the content of its work has been a frequent source of contention within the sociology of

mostly out of a duty of care to the complainer), the authors of the booklet, whilst advocating the Metropolitan Kit as the template for other constabularies' sexual assault kits, strongly defend police doctors' right to use their discretion and conduct examinations on a case-by-case basis, without following to strict precision the routines of the form or the guidance documents.

> Instruction booklets and the various medical protocols should not be interpreted literally so that the victim is assailed by an unimaginative catechism (Burges 1984: 29).

The introduction of the Metropolitan Kit certainly signifies an important moment in the history of the rise of guideline-based forensic medicine; it was the first time that a standardised technology was advocated by the APS in order to improve the quality of the work performed by police doctors, and the introduction of the form and the standard equipment within the kit, did result in some uniformity in the work of police doctors. As I will explain shortly, however, while the introduction of guidance served the purpose of improving the conduct of examinations (i.e. ensuring that the police doctor had all the materials necessary), its more important function was to counter the criticisms aimed at FMEs, and thereby improve the credibility and authority of police doctor evidence. The next twenty years saw the APS taking more control over the production of guidance and protocols for police doctors.

5.2 Evidence-Based Medicine, Best Practice and Clinical Forensic Medicine

The introduction of the Metropolitan Kit was the first step in an effort to ensure that police doctor work was of a certain standard. In the years that followed, the APS and its later incarnations, the AFP and the present-day FFLM, would put more and more emphasis upon kits and guidance, eventually resulting in the "National Medical

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professions. Freidson (1975, 1993) argued that doctors have "Professional Dominance" over their work, meaning control over the way in which they conduct such work and the work of others who enter within their domain. On the other hand, Donald Light (1989, 1993, 1995) argues, similarly to Abbott, that professions are not a monolithic category but instead a fragmented and competing collection of actors, and, using Galbraith's concept of "Countervailing Powers", suggests that when one profession becomes too prominent (as medicine did in America in the 1950s and 60s), other professional groups react to redress the balance. Light suggests that the rise of an administrative professional class and the introduction of guidance for doctors (even though, in the American context, doctors have the ability to write their own guidance) represent a redressing of the balance of power and a decline in the "sovereignty" of the medical profession. As I will show, the conflict between the police doctor profession, the police and forensic scientists is still ongoing.

Examination Kit Working Party". This committee was founded in 1998; its function was to advocate a certain level of homogenisation of kits throughout Great Britain, as well as to evaluate the professional association's guidance to FMEs in light of the best available evidence (Newton 2004). This shift to the discourse of "best practice" did not happen in a vacuum, and is a consequence of broader shifts that had taken place within medicine (as well as in other fields, notably policy creation) at approximately the same time, most notably the rise of "Evidence-Based Medicine" (hereafter "EBM"). To understand the shifts in forensic medical work, it is necessary to spell out these broader changes, with particular attention paid to EBM.

5.2.1 What is EBM?

It was not just clinical forensic medicine that found itself under attack during the late 1970s; medicine in general was placed under a similar critical gaze, and for similar reasons. Both observers and members of the medical profession[112] commented that medical practitioners were carrying out unnecessary and inefficient practices. As a result of varied practices, it was recorded that there were differing standards of care across geographical areas, coupled with inconsistent levels of cost not justifiable by social demographics (Timmermans and Berg 2003, Mercer 2008). Towards the end of the 1980s/early 1990s, in order to counter the observed levels of practice variation (and the medical profession's critics), and in the wake of a highly influential book by Marilyn J. Field and Kathleen N. Lohr, *Clinical Practice Guidelines: Directions for a New Program*, EBM was born.

> With spiralling health care costs, more emancipated patients/consumers, increasing attention to medical practice variations, an information overload, and an overall critical scrutiny of the role of experts and professionals in society, the medical profession felt it had to take unprecedented action to maintain its position as exclusive safe-keeper and wielder of medical knowledge. "Unexamined reliance on professional judgement," it is argued [by Field and Lohr], will no longer do. "More structured support and accountability for such judgement," in the form of evidence-based guidelines, is required to ensure trust in the medical profession (Timmermans and Berg 2003: 16).

[112] The extent to which one can talk about a homogenous medical profession, of course, is debatable. See Mol & Berg (1998).

The acronym, EBM, is most commonly used to represent the integration of clinical practice guidelines into the decision-making of medical work. The role of the guideline, or protocol, is to "offer pre-defined, stepwise, optimal paths through complex or troublesome medical situations" (Berg 1997: 4).[113] Practice guidelines, therefore, are tools that the healthcare practitioner can draw upon in their decision-making. Importantly, as the "Evidence-Based" in the title EBM indicates, the pre-defined paths written into the guideline derive from what has been agreed by the guideline writers to represent the best scientific evidence at the present time. The guideline provides the healthcare practitioner with a summary of the most up-to-date literature on a particular medical procedure, and identifies which actions represent contemporary "best practice". Providing these guidelines, it is argued by proponents, will limit practice variation, ensure that all patients are provided with the best (and most up-to-date) quality of care, and make certain that the most cost-effective treatments are routinely employed. An advocate of EBM put it like this:

> The primary aim of a good clinical guideline is to ensure that all the right things and none of the wrong things are done when a patient presents with a particular clinical problem. This regardless of which health care professional sees them and regardless of the part of the country or time of the day they are being seen. This is also referred to as uniformity of care. It is not aimed at somehow limiting excellence, but is aspiring to ensure excellence for all… The development of a guideline requires consideration of the evidence available about the most effective way to manage a condition. This must take account not just of which treatment is most clinically effective, but which is most cost-effective (Tuffnell 2002: 21/2).

5.2.2 The ASP/FFLM, The National Medical Examination Kit Working Party and Guidelines

With the rise of EBM, FMEs began to talk about the necessity of an evidence-base within their own work.

> And indeed a wish to have proper Evidence-Based Medicine practised in clinical forensic medicine and that is what we see as the role of the faculty [FFLM], to raise standards by educational means and again have the journal [*Journal of Forensic and Legal Medicine*] to publish and encourage research (Dr. E, male, Constabulary 3).

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[113] It should be noted that protocols are not the only form of decision-support tool; there exist computer-based decision-support systems and clinical decision analysis also, but these will not be discussed here; see Berg (1997).

Further evidence of the growing importance of EBM in forensic medicine, particularly in terms of sampling decision-making comes in the form of the title to Rogers and Newton's (2006) article in the special issue of the *Journal of Clinical Forensic Medicine*; the title being "Evidence-Based Forensic Sampling – More questions than answers". As its name suggests, it is an evaluation of the effect that EBM has had upon clinical forensic medicine, particularly in terms of sample collection.[114] The discourse of EBM, therefore, appears to have entered into forensic medical work and was an influencing factor in the APS's decision to form a "National Medical Examination Kit Working Party" (hereafter "working party"), whose role would be to create and evaluate kits and decision-support tools for police doctors. The original working party was headed by prominent members of the APS, but also contained members of the Association of Chief Police Officers (hereafter "ACPO") and the Forensic Science Service (hereafter "FSS") (Newton 2004).[115] As mentioned, one of the two functions of the working party was to develop a template FMEK and, in addition, institute guidelines and a pro forma for its use. The other, more long-term function was to evaluate those artefacts. Evaluation was to centre around two aspects: first, the issue of whether or not practitioners found the artefacts useful, and secondly, the issue of whether or not the artefacts still constitute best practice in light of the most up-to-date clinical evidence. As mentioned in the discussion of EBM, the chief function of a guideline is to provide the healthcare practitioner with that which is considered to be best practice based upon the best clinical evidence at the present time by the authors of the guideline (Hill 2006).[116] The working party's role was (and still is) to sift through all the latest studies and then produce the kit, protocol and relevant guidelines that streamline all the available literature and provide FMEs with a (set of) document(s) that encapsulates contemporary "best practice". Therefore, the role of the guideline is to ease the intellectual workload of the FME by removing the requirement of the latter to digest and remember every article written about clinical forensic medicine. Instead of

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[114] Likewise see Guy Norfolk's (2006) response to charges made in the *Guardian* about problems with police doctors' evidence collection and claims-making processes (Dyer 2006).
[115] Since then, other organisations have become members of the working party, including the Laboratory of the Government Chemist (LGC), the National Policing Improvement Agency (NPIA), and, most recently, Key Forensic Services Ltd.
[116] Alongside the most cost-efficient practices.

applying those individual articles to their decision-making, they use the most up-to-date best practice as already set out in the guideline.

Having outlined the aims of the working party, I shall now turn to their products. As far as the kit is concerned, very little has altered since the introduction of the early Metropolitan Kit discussed above. For the working party, the imperative facets of the kit are:

- a documentation module, which contains sexual offence forms and guidance notes for the FME as well as information for the complainer (relating to the medical itself, the court case, how the complainant might be feeling post-assault, and the investigative and judicial processes);
- a cover for the couch on which the examination will take place;
- a brown sheet for the complainer to undress upon;
- disposable clothing;
- a body outline diagram module;[117]
- a mouth collection module, containing a screw-top phial and two swabs;
- a hair sample collection module, containing scissors, a comb and tamper evident bags;
- a fingernail sample collection module, containing fingernail clippers and tamper evident bags;
- a swab module, containing 6 specially selected swabs and an ampoule of 10 ml of sterile water for moistening;
- an alcohol and drug urine module, containing a 20 ml plastic collection beaker;
- an alcohol and drug blood module containing 2 x needles and a 10 ml phial;
- and a DNA 2 buccal kit, containing 2 swabs (Newton 2004).[118]

While little was done to change the instruments found within the kit, the working group did drastically alter the forms.

Turning first to the sexual offences form (appendix 3), the first thing one notices upon viewing it is its length. In contrast to the original one-page document

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[117] See Chapter Four for more on the body outline diagrams.
[118] I will compare this hypothetical kit suggested by the working party with the contents of an actual FMEK in Section 5.3.1.

found in the Metropolitan Kit, the current form, advocated by the FFLM, runs to a total of thirteen pages and, as a result, requires far more information than the form in the Metropolitan Kit. In even greater detail than its predecessor, the *pro forma* takes the FME through each facet of the examination. It is also worth noting at this stage that this form is only to be used on adults, complainers in particular; there are other forms for children and suspects. The form commences with a request for the details of all those in attendance; this includes the names of the doctor(s),[119] the accompanying police officer, any other attendees there to support the complainer (social worker, friend, relative, etc.) and, of course, the details of the complainer. Only the latter's details were originally requested by the form in the Metropolitan Kit. The attendees' details are then followed by another new addition, the consent page; on this page, the complainer verifies that the FME has informed them of the due examination process and the way in which the material collected (both specimens and photo-documents) can be used in the course of a future trial, and also gives consent to undergo such a procedure. The consent page is followed by four and a half pages of questions relating both to the account and to the medical history of the complainant. Now, it should be noted that the FME herself does not take a statement from the complainer; it is considered best practice that the FME receive the account from the accompanying officer, who has already questioned the complainer and gathered the account.[120] The doctor notes down the person from whom they received the account, their contact details, and additionally the person(s) who were present at the time the account was given. The FME then proceeds to record the location of the assault, any specificities that they feel may be of use to the forensic science laboratory (or to themselves when assessing the allegation), and a breakdown of the events of the assault (i.e. whether there was attempted or successful anal penetration, whether there was ejaculation, if so, where, etc.). Following the account of the allegation, questions are asked pertaining to any substances that the complainer may have consumed before or since the assault, along with other pertinent post-assault questions; it is recorded whether or not the complainant has bathed, changed clothes, etc. Finally, a detailed medical and a ten-day sexual history

[119] Of course, other doctors can be present during the examination in a training capacity; see Chapter Three.
[120] I will develop this point in the following chapter.

are collected from the complainer, including information about previous surgical procedures, any psychiatric diagnoses, allergies, menstrual and contraceptive histories, and any short-term genital or abdominal symptoms that may have developed since the alleged assault. Criminal investigators are increasingly wary about the quantity of sexual history information collected, due to its potential to embarrass and incriminate the complainer in court; therefore, information relating only to sexual intercourse within the last ten days is recorded, as this may be relevant to the forensic scientists' work and the FME's latter decisions. As with its predecessor, the contemporary *pro forma* provides the FME with a set of questions and observations to ensure that they collect all information required both by FMEs themselves (for when they later come to draw conclusions about the medical evidence) and the forensic scientists in the laboratory. It is clear, however, that in contrast to the half page set aside in the Metropolitan form for questions about sexual and medical history, the contemporary *pro forma* explicates in greater detail the questions that are most necessary. It was Dr. E's opinion that this list of questions was beneficial to the practicing FME.

> Well yeah again, I think you have to say, you have to put it into context, you have to say some people do bruise relatively easily, one of the things you have to be asking if you have a protocol is do you bruise easily, I would ask about alcohol consumption and suchlike and so hopefully if there was an obvious cause for excessive bruising you'd have that there. So I think that is one good example of having a rigid protocol, ensuring you ask certain questions (Dr. E, male, Constabulary 3).

The next section outlined in the *pro forma* is the general examination. The *pro forma* leaves space for the FME to record height, weight and hair colour, as well as more subjective conditions such as the complainer's demeanour and level of hygiene. The locations on the body which the FME should examine are next labelled, and the FME records whether or not there are signs of injury; if so, it is recommended that the injuries should be labelled, both on the *pro forma* and on a separate body diagram. With the genital examination, the form likewise has space for the FME to record the position in which they examined the complainer, and whether colposcopy or other forms of magnification and lighting were employed. Following this, the FME records any injuries found upon the areas outlined on the left-hand side of the form, which has its own ano-genital diagrams.

The form next addresses forensic samples, but in contrast to the rest of the *pro forma*, it does not outline which samples should be taken. The reason for this is that there is a whole other guideline within the FFLM template kit that explains how and when to take samples; I will address those guidelines separately. More important to the present discussion is the final page, the instructions for after-care. Unlike its predecessor, the contemporary form has a dedicated page to the therapeutic and after-care aspects of the forensic medical examination. While the page is not entirely prescriptive in describing which therapeutic elements to apply to the complainer, it does provide the FME with a checklist of the types of after-care that they should be providing. Does the complainer need emergency contraception, antibiotics, or other medication? Do they need an appointment at a GUM clinic, or other support service (for example psychiatric)? While this page allows the FME considerable discretion in prescribing this care, it does serve to remind the FME of all the services that they should be providing to the complainer in addition to the forensic aspect of collecting samples, and certainly addresses one of Robert's earlier critiques of police doctors: that complainers are "unlikely to receive advice about pregnancy, V.D. or counselling help… after the examination" (Roberts 1984: 78).

As well as the *pro forma*, the working party also produced guidelines on the manner in which forensic samples should be taken and the timing of these samples, as well as how to transport them (appendix 3). The appropriation of DNA technology by those involved in fighting crime hastened a change in forensic sample collection, particularly in relation to the importance of timescales. Although ano-genital-oral swabbing had been a significant aspect of the medical examination for as long as the examination had existed, prior to the late 1980s it was essentially only of value in order to demonstrate that sexual intercourse had taken place. The tests were not individuating enough to be incriminating (Davies 1984). The advent of DNA fingerprinting (and more importantly, the development of increasingly sophisticated tests), coupled with the development of the National DNA Database (hereafter "NDNAD"), led to a greater significance being placed on the amount of time that had passed between the attack and the examination. If the attacker was unknown to the complainer, then the suspect could be identified either by searching the NDNAD (providing that the suspect's profile already existed on the database), or by a later

identification in relation to further investigations or other crimes. Moreover, if the complainer did know the attacker, the individuating power of DNA would confirm that sexual contact had taken place between complainer and suspect.[121] The importance of the exact amount of time since the attack is evidenced within the "Guidelines for Collection of Specimens" (hereafter "guidelines"); with regard to the decision of whether or not to sample the ano-genital-oral areas; the guidelines expressly suggest the time when it is appropriate to take each swab. For a vulval swab, for instance, the FME is expected to take two swabs (one wet, one dry)[122] if there has been "vaginal intercourse within 7 days; anal intercourse within 3 days or; ejaculation onto vulva/perineum" (Rogers 2007: 2), and that is to be labelled "First female genital sample". A combination of the account given by the complainer and the length of time since the alleged attack becomes the criterion upon which FMEs make decisions regarding whether or not to take samples, and those decisions are heavily informed by guidelines, which are themselves the result of the most recent research into the degradation rates of trace material (including semen) upon different bodily surfaces or within orifices.[123] It is also clear that certain swabs are to be collected whenever there is any form of ano-genital contact within the last three days, for example the perianal swab.

As with ano-genital-oral swabs, the same applies with more mundane sample collection, for example nail-clippings and hair; the guidelines explain the reasons to take fingernail samples or head/pubic hair from the complainer, in "Removal of foreign objects, e.g. glass; Removal of foreign hairs or fibres" or "Detection of body fluids, e.g. semen" for instance. While the guidelines explain the reasons for collecting such samples, they are not explicit about the instances where they are necessarily appropriate. The guidelines have been left curiously open-ended, and do not time-bar collection like the ano-genital samples. The FFLM guidelines outline

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[121] As I will explore in Chapter Seven, however, such evidence is of little help in the majority of contemporary rape cases.

[122] The introduction of the double swab technique (one wet followed by one dry) is itself the result of Evidence-Based practice. Sweet et al.'s (1997) study demonstrated that more trace material (in their case saliva) could be recovered from the body if a swab tip was first moistened and then rotated over the area of the skin, this is then followed by a dry swab which collects all the moisture from the first swab.

[123] See Rogers and Newton (2006) for a review of the most recent evidence-base upon which the authors have drawn in preparing the current sampling guideline.

the correct way to take those swabs, the way in which they should be labelled, and the way in which they should be packaged and stored in preparation for transportation to the forensic science laboratory.

It should be remembered however, that while the working party's kits and *pro forma* are there as a template for what is considered most appropriate, and can be purchased in bulk from "Scenesafe" (the corporate end of the FSS), the working party does not require that all constabularies conform to their particular model; as with the 1984 booklet, the FFLM still consider it suitable for individual constabularies to prepare their own kits, in discussion with their forensic science laboratory, but with due regard to the template kit. In the next section I will discuss the contents of an actual kit used in a constabulary I visited during the fieldwork, which was developed in negotiation between the constabulary's FMEs, forensic scientists and the working party's templates.

5.3 Kit and Guideline Use in Scotland

Appendix 4 illustrates the contents of an actual kit as used in one of the constabularies I visited (along with photographs of the contents of the kit). While the constabulary's kit is very similar to that of the working party, there are four key differences in its contents that are worth flagging up. Firstly, the constabulary's kit does not contain a "brown sheet" as standard; however, FMEs I interviewed from that constabulary stated that the complainer did sometimes undress on a brown sheet.

> We, there are two ways of looking at clothing, clothing is removed before they come to the interview, by the police, if they haven't come, if they haven't removed their clothing, then when they get undressed, each item of clothing is separately bagged and they get fresh clothing to wear before they leave, okay. Again, this is done in a standardised fashion, the person will undress on a big brown paper sheet, every item is removed separately, every sock, every shoe (Dr. B, male, Constabulary 2).

Complainers change their clothing before coming to the medical examination in most cases, and so FMEs only need a brown sheet in certain circumstances. A somewhat similar omission is the couch cover. As in hospitals, the couch in the medical suite has a roll of blue paper attached to the bed; this can be pulled across, and a separate strip ripped off for each complainer, thus making a separate couch cover module unnecessary. Thirdly, the fingernail module does not contain nail clippers for the

collection of fingernail samples. This is quite a significant difference, as it illustrates a considerable divergence from the working party's kit. The constabulary's fingernail kit contains "4 Tetra – small stain swabs", connoting that in contrast to the FFLM-approved fingernail collection strategy of removing a section of the fingernail for analysis, in the constabulary in question, they choose to swab underneath the fingernails for trace material.

The fourth and final difference between the working party's kit and that of the constabulary concerns the examination *pro forma* (appendix 4). The constabulary has chosen to reduce the thirteen pages of the working party's document to three, plus a body diagram. In the same way as with the kit, while there are many similarities between the recommended document and the constabulary form, there are also significant differences and omissions. The first difference to note is that unlike the working party *pro forma*, the constabulary's is a singular document that is to be used for all examinations: both adults and children, both complainers and suspects. Using the same *pro forma* is an attempt to ensure that, for reasons of justice and fairness, both complainers and suspects are treated the same. "But there is no question at all, the suspect needs to be examined, needs to be examined to the same high standards as the victim" (Dr. B, male, Constabulary 2). Use of the same examination protocol provides a way to treat both complainer and suspect equally. In relation to the actual elements of the form, it should be noted that interesting aspects of the complainer's information have been omitted on the constabulary's form. Unlike the FFLM, the constabulary do not ask about the complainer's religion, marital status, living arrangements or occupation. The omission of these details upon the constabulary's form does beg the question of why the FFLM appears to require so much detail. A speculative answer can be found when one takes clinical forensic medical journals into consideration, as their studies tend to classify complainers by such sociological cleavages as class and religion. These details may, therefore, be recorded in the working party's form in order to enable future research. Conversely, Temkin (1998), in her study of police doctors, argued that FMEs were asking for too much information from complainers and that there was no convincing reason for collecting this level of detail, particularly if it was taken into account that some information, if disclosed to the defence, could be

devastating for the complainer's case. This is certainly the case with regard to questions of distress and the complainer's demeanour at the time of the examination (a recent point of contention has arisen over whether or not distress is a potential means by which prosecutors can determine *mens rea*; see Chambers (2004) for more on complainer distress). It appears that the constabulary are negotiating the requirement to gather as much appropriate information (although they do leave space on the form for "other pertinent information") as possible, without "poking [their] nose in" (police doctor cited in Temkin 1998: 832). Furthermore, whilst ethnicity is not requested on the constabulary's form itself, this information is requested on the blood grouping form; this is to enable the correct databases and statistics to be used in the forensic laboratory analysis.

There are three other intriguing omissions from the constabulary's form: there are no pages on consent, medical history or after-care, which provide such important reminders for the FME in the FFLM *pro forma*. While there is space on the form to add notes on the case relating to the medical history of the complainer, and there are indeed a few questions upon the form whose answers may result in a broader medical history (for example: time of last medication, pregnancy history, whether or not there is any vaginal discharge), these are not as explicit as the ones set out in the FFLM form. Another point to note is that there is nothing on the form that would help the FME to remember to provide the full range of after-care services. It could be the case that because such factors as consent, the collection of medical history and the provision of appropriate after-care form significant aspects of the routine work of medical doctors (particularly GPs), the constabulary do not feel it necessary to outline these aspects of work upon the form. Moreover, these aspects could originally have been placed upon the "Guidance Notes" that are mentioned at the top of the first page of the form (normally found upon the reverse of the kit contents page). Unfortunately, the kit that I was allowed to borrow did not have the guidance note, so I could not confirm whether or not that was the case. As the kit was taken from a pile ready to be used, I suspect that such an omission of the guidance page is commonplace and that this was not a one-off error. Either way, the form does not explicate to FMEs that they are to request consent, take a medical history or give the complainer after-care following the examination, all as a matter of

routine; however, this information is frequently emphasised in medical textbooks that deal with the appropriate way to conduct a medical examination.

The final difference between the constabulary and FFLM forms concerns their different approaches to specimen collection. The FFLM's form is rather limited on the question of sampling, in contrast with the rest of the form which is more detailed (however, as I have already mentioned, this is because it is to be used in accordance with the FFLM's guidelines on sampling); the constabulary's form on the other hand is far more explicit about the type of samples that it is necessary to take, and is in fact highly similar, in that respect, to the Metropolitan Kit's original form. In a similar manner to that of the Metropolitan Kit, the constabulary's form alerts the FME to the range of samples that are considered by the form compilers to produce the most valuable sources of evidence.[124] Interestingly, the list of samples does not contain a section for "skin swabs" or "perianal swabs"; in the latter case, the "Guidelines for Sampling" suggest that they should be taken in all cases where intercourse has taken place within the last three days. The constabulary's form does, conversely, have space for "Other Specimens", and so allows these swabs to be collected if the FME considers it appropriate. Leaving room for such professional discretion, for instance allowing the FME to determine for themselves the appropriate time to take certain samples, is approved of by professional associations. However, it is not the case that all those involved with the construction of kits and guidelines agree that space for discretion should be left. In the final section, I will turn to the importance of discretion in the development of kits and guidelines and the ways by which outside agencies are attempting to make FMEs more accountable to guidance artefacts.

[124] The constabulary's form is not identical to the Metropolitan Kit and differs in that: a) it no longer requests the FME to "tick if taken", b) the new form combines penile and oral swabs (as penile swabs would only be taken from the suspect), c) hair samples are now separated into six sections, as opposed to two, based on the manner in which the sample was collected, and d) blood is now separated into serology, alcohol and DNA or drugs, rather than just blood.

5.4 Standardised Artefacts as Legitimation Devices and the Question of Accountability

5.4.1 Discretion and Legitimation Crises

It is important to note that guidelines and *pro formas* allow a certain level of discretion. While kits were initially developed to routinise police doctor work, they have always allowed significant room for individual practitioner judgement. The working party's documents are examples of this; at the top of both their *pro forma* and their guidelines are statements demonstrating that the final decision about which samples are necessary is down to the practicing FME:

> This form has been designed for use by Forensic Physicians…It is provided to assist the examining doctor in the assessment of an adult complainant of sexual assault. It is regarded as an aide-memoire and it is therefore not necessary for all aspects of the proforma to be completed. On completion this form is the personal property of the examining doctor (*pro forma*).
>
> The forensic physician must decide which samples are relevant to a particular case (guideline).

These documents exist to remind the FME of the totality of questions they could ask, the samples they could take and the after-care they could give; however, it is up to the FME to decide which of this range of services should be performed, judging by the situation of the particular complainant. This, at least, is how the FFLM and its predecessors viewed them, and it is not surprising; as Timmermans and Berg put it:

> When professions engage in guideline formation, they bring authority to the guideline but even then their members look at guidelines more as options rather than as true standards. The profession itself does not enforce adherence to guidelines or reward guideline-following behavior from its members. Compliance to guidelines depends upon the fit between the standards and the goals and demands upon the individual healthcare provider. To qualify as practice guidelines for a profession, standards need to retain flexibility in clinical decision making (Timmermans and Berg 2003: 96).

Making the guidelines and the *pro forma* flexible and useful to the practitioner, rather than an impediment, helps the professional association to increase practitioner use of guidelines and *pro formas*. However, if there are impediments to the use of guidelines, and if it is the case that the relevant associations do not enforce them or consider them "true standards", what role do guidance artefacts play in forensic medical practice? I will not answer this question in full here, as a complete answer

necessitates a discussion of the way that FMEs employ guidance artefacts when conducting medical examinations (which is the focus of the following chapter). However, I can provide a preliminary response. In a study of large-scale technological accidents including the Challenger Launch disaster (see also Vaughan 1995) and the Abbeystead Methane Explosion (see also Wynne 1989), Brian Wynne (1988) argues that in an effort to reassure the public after such disasters, the scientists and technologists involved typically introduce rules even more constraining than before with regards to the operation of the procedure that went awry. The disaster itself constitutes a legitimation crisis, i.e. the technology that caused the disaster is considered unsafe or unfit for purpose. In order to make the technology in question appear sound once more, formal rules are introduced to reassure the public that such a disaster will not happen again. The introduction of rules does not necessarily make the technology any safer, as rules can never fully account for all the potential aspects that could go wrong, but they serve the purpose of re-legitimising the once-maligned technology. The introduction of the Metropolitan Kit would appear to be a similar response. Police doctors were undergoing a legitimation crisis, and responded by producing the kit (which also included guidance documents). While the introduction of kits certainly introduced a degree of routinisation into the examination, those who advocated it also argued for the maintenance of practitioner discretion; as such, while police doctors had access to all the materials within the kit, there was no guarantee that the introduction of kits alone would fundamentally alter police doctor practice. In fact, it is likely that some police doctors' attitudes and practices remained the same, even following the introduction of the kit. The introduction of the kit did however serve the purpose of making police doctor work credible again, as it represented a response to the challenges that feminist groups, other police doctors and particularly Chambers and Millar had laid against them.

Likewise, the development of the kits and guidelines under the working party can also be explained in terms of legitimating FME practice. During the 1990s, the cultures of both medicine and the law were shifting towards the Evidence-Based movement, with its focus upon objective work derived from the following of rules or guidelines (Timmermans and Berg 2003, Mercer 2008, see also Porter 1995 for a discussion upon the relationship between rules and objectivity, and Berg et al. 2001

for an appropriation of Porter's work to legal medicine). Given this, in order for FMEs to continue claiming that their work was objective, they had to demonstrate that their evidence collection procedures drew upon an evidence-base, and were also required to construct codified rules or procedures that outlined FME decision-making. In this light, the introduction of guidelines and *pro formas* can be understood as a mechanism for maintaining the legitimacy of FME work (and the evidence they produce) against a set of work-based cultures that favour Evidence-Based rules. If the introduction and development of guidelines serve the purpose of legitimating FME work to non-FMEs, then there is no actual imperative for FMEs to follow those guidelines to the letter, and, as has already been mentioned, the professional associations themselves do not choose to enforce the instructions set out by the guidance documents. I will explore the relationship between guidance artefacts and actual FME decision-making, and also expand upon this preliminary response to the question of why guidance artefacts were introduced, in the next chapter. First, though, I will conclude by outlining the reasons that some professions are not overly keen on the amount of discretion maintained by FMEs.

5.4.2 Forensic Scientists and the "Total Collection Strategy"

As I have shown, the professional associations concerned with forensic medical examinations (initially the APS, then the AFP and currently the FFLM) have all added to the content and number of standardised kits, guidelines and *pro formas*. While an Evidence-Based approach to FME work has certainly spread since the late 1990s, the relevant associations have not enforced strict homogeneity over practitioners, and indeed allow constabularies to develop their own kits with their own forms, in collaboration with the artefacts produced by the association and the relevant forensic science laboratory. While the associations and the FMEs themselves approve of this discretion, others do not. The key actors who are attempting to make FMEs accountable to the content of guidelines are forensic scientists, particularly in relation to the collection of samples.

As has already been noted, reporting forms and kits since their earliest incarnations have been compiled with the agenda of improving the quality and quantity of samples, both in terms of their collection and transportation, to the science laboratory. When tests were not discriminating enough to provide significant

corroboratory evidence, forensic scientists were satisfied with allowing the police doctor to choose which samples to collect, and did not involve themselves in the collection procedure apart from providing the forms of guidance I have already discussed. More recently, forensic scientists have taken a far more proactive approach to biological sample collection, and are now informing practicing FMEs of the exact samples to collect and the instances where it is best to take them.

> As far as best practice is concerned the scientists invite us along to quite regular meetings and they give us some feedback on the quality of samples that we've been producing for them and the type of samples, and that will go in tandem with perhaps a representative from the fiscal's office to tell us, you know, it would be more helpful if you could get this sort of sample as well, so together that sort of input does direct us in dictating what sort of samples are required in an evidential format and also how best to take those samples… And adding to that the scientists will also tell us when it is pertinent to take those samples as well… when I started (cut for anonymity) we had a cut-off of eighteen hours for, for example, blood; alcohol, drugs in the blood, someone's claiming that they've been drugged and sexually assaulted, um, but that has been opened out and we are now taking blood samples up to ten days (Dr. F, male, Constabulary 2).

It is no surprise that the advice given by the laboratory scientists generally matches the advice provided by the FFLM guideline, given that the guidelines produced by the FFLM (particularly the "Guidelines for Sampling") were partly produced by the FSS, and also given that they are evidence-based (i.e. based upon known degradation and recovery rates). Even when there is some discrepancy between the guideline and the scientist's advice (as in Dr. F's example - stating that the scientists have advised that blood alcohol samples should be taken up to ten days when the guideline states that they should be taken only up to three days), the guideline still states that the laboratory is the final arbiter in such a decision: "If in doubt consult the Laboratory for advice" (Rogers 2007: 3). It is of interest that while the guidelines were certainly produced by drawing upon a particular evidence-base, FMEs often stated that the advice offered was couched by the scientists in terms of technological advancement and the capability of the new machines and practices in finding material. For example, Dr. F continued the above response by stating "Well they're [forensic scientists] looking at rates of metabolism and also their analytical machines are picking up drug levels" (Dr. F, male, Constabulary 2). Likewise, another FME stated

that the scientists are becoming more involved in the collection process because of the current ability to collect DNA from a single cell.

> Yes, there are instructions given by the police lab, they want everything, because now they are in a position to extract, be able to extract DNA from one cell and that's a problem as well as these methods are so sensitive, because of the contamination, possible contamination, you have to keep it in mind the contamination, when you have it, the possibility to get the DNA pattern from one single cell (Dr. D, male, Constabulary 2).

Leaving aside Dr. D's concerns regarding contamination, what is notable from this quotation is the assumption that the police labs "want everything" and, taking Dr. D's quotation in parallel with that of Dr. F, who both work in the same constabulary, it is possible to presume that scientists are explicating this point to FMEs during face-to-face meetings; this marks a significant moment in the relationship between scientists and FMEs. Forensic scientists' request that FMEs take "everything", based upon a mixture of biological material prevalence data and technological advancements resulting in a greater likelihood of finding the smallest amount of identifying material, is considered quite abhorrent by FMEs and conflicts massively with the therapeutic motivation for the forensic medical examination.[125] Asking FMEs to collect "everything" also removes their discretionary capacities and reduces their status from that of a decision-maker to that of a technician routinely collecting a standard set of samples. There have been cases however, where FMEs discretion has meant that useful material has been missed; these examples pose a third justification for forensic scientists requesting, what I will call a "Total Collection Strategy".

> Interestingly, I must take this up with the lab again, again, I don't know if it's an issue with people who are less experienced, but sometimes happens you only get, well, you only get so much of the story perhaps at the initial time and what has happened in a couple of cases, a dozen is that two or three days later someone will say "well he anally penetrated me as well"…What's happened then, what I was going to say was that less experienced people have… directed their samples on what they were told, and therefore 2 or 3 days later further evidence has come to light which has been missed. So the lab have actually said, in all cases we want you to take everything, that's their approach (Dr. C, female, Constabulary 2).

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[125] See Chapter Six for examples and an explanation of how FMEs negotiate the evidence-gathering and therapeutic aspects of the forensic medical examination at the level of practice.

FMEs and SOLOs/accompanying officers were quite forthcoming about the extent to which they assumed that the complainer's account was partial, and FMEs stated that extra work was necessary during the examination to ensure that the account they received constituted the fullest expression of what happened.[126] This extra work is necessary because decisions about the samples that should be taken (as categorically stated in the guidelines) should be based upon the complainer's account. In the cases mentioned by Dr. C, what she labelled "less experienced" examiners have taken the complainer's account at the time of the examination at face-value, and that account has been found to be limited at a later date, resulting in material with the likelihood to provide incriminating evidence being lost. As such, alongside the degradation evidence and the improved technology, forensic scientists are requesting that FMEs perform a "Total Collection Strategy" in order to ensure that alterations in the complainer's account during the investigation and prosecution processes do not result in a loss of potential evidence.

The important point to note from forensic scientists' attempts to influence FME sampling decision-making is the manner in which they are trying to invoke change. There may be some confusion between the quotation of Dr. F and those of Drs. C and D (Drs. C and D suggest that scientists have requested that FMEs "take everything", whilst Dr. F claims that scientists have instead advocated that FMEs maintain some discretion, and make sampling decisions based upon the length of time since the attack; of course, such confusion could be a result of a simple difference of emphasis –Drs. C and D might understand decision-making based that is based solely on timescales to be the equivalent of a request to "take everything"), but it is clear that forensic scientists from the laboratory are approaching FMEs directly and attempting to influence their practice. While there is a tradition of interaction between FMEs and scientists in order to facilitate the discussion of the best ways to collect evidence (such as the objects necessary to form a kit for example), the current situation appears to be quite different; instead of working together to decide on the best courses of action, scientists have requested that practitioners relinquish their discretion over the assessment of the case using the

[126] I will discuss both FMEs' and SOLOs' attitudes to complainers' accounts and the strategies employed to enlarge them in Chapter Six.

basis of the particularities of the individual case and suggested instead that FMEs should only make decisions concerning the length of time between the alleged assault and the examination (with the scientists themselves prescribing the exact samples to take for each given length of time). FMEs at the practice level, of course tend to ignore such requests (see Chapter Six, particularly the problems with basing decisions upon timescales alone) and so the level of emphasis that should be placed upon such interaction between FMEs and scientists is, for the moment, uncertain; nevertheless, this development is certainly of importance to the authority of the professional associations and the construction and employment of guidelines. Forensic scientists, it appears, are no longer content with the level of discretion provided for FMEs in the artefacts produced by the working party (even though the FSS are part of said working party), and so are attempting to influence FME work directly; not only do they wish to make FMEs accountable to the language of the guidelines and protocols, but they are going further and trying to remove the discretion written into the artefacts. In terms of professional authority, therefore, it could be concluded that scientists are attempting to wrestle jurisdiction over evidence collection away from FMEs.

Summary

The question of the desired level of standardisation of the forensic medical examination has plagued police doctors and FMEs since the time of Chambers and Millar's study of police doctors in Central Scotland and the introduction of the Metropolitan Kit. While the professional associations concerned with medical examinations have realised the importance of holding FMEs to a particular standard through some degree of routinisation of examination work, they have never wished to "tie the officer's hand" (McLay 1984b: 8) by denying the doctor discretion regarding the manner in which the examination is conducted (the samples taken, the questions asked, etc.). The adoption of standardised kits was an attempt to mediate the dialectic of autonomy versus routine by providing all the materials necessary to conduct an examination, including notes for guidance and a document for recording; however, in the final analysis, the Metropolitan Kit always enabled the police doctor to tailor the examination to the particular case. During the 1990s, clinical forensic medicine did not remain untouched by the EBM movement, and the APS produced

further guidelines and *pro formas*, based upon the best available clinical forensic medical evidence. However, these documents (like their predecessors) were not intended to constitute strict rules, but instead to allow the practitioner discretion in their conduct, and stipulated that the individual FME was free to omit aspects as the case required. Similar discretion was granted in the use of the kits that the APS produced, allowing constabularies to develop their own kits depending on the local situation. The degree of discretion provided by the kits and documents begs the question of why they are necessary. A tentative answer to this (which I will expand upon in the following chapter) is that while they do provide a modicum of guidance and routinisation to the forensic medical examination, the guidance artefacts serve the larger purpose of legitimating FME practice. If faced with any critical challenges FMEs can draw upon the guidance documents to justify their practice (and particularly the evidence they have produced) as authoritative and based upon the guidance of the professional association.

The maintenance of discretion has not been welcomed by all parties involved, however. Citing the increased specificity and discriminatory power of forensic scientific technologies, and the fact that complainers do not always tell the whole truth at the initial time of reporting, forensic scientists have recently chosen to intervene in FMEs' sample collection strategies, proposing that a "Total Collection Strategy" be employed in order to ensure that no evidence is overlooked. While the artefacts produced by the APS and constabularies have certainly moved towards standardisation, their proponents have always asserted that the documents and kits constitute *aides memoires* for the practitioner and that they would not advocate total standardisation of practice. The direct request for FMEs to perform a "Total Collection Strategy" it could be argued, constitutes an attempt to wrestle control of sampling work away from FMEs at the local level; however, such a request is generally ignored by individual FMEs practicing in constabularies. It is to their actual decision-making that I will turn in the next chapter.

6. FME Sampling in Practice

The previous chapter focused upon the introduction of guidelines and protocols into forensic medical work and the content of those artefacts. While it was mentioned in the latter half of the chapter that there were differences in opinion amongst diverse groups involved in the writing of the guidelines, concerning the accountability of FME practice to the guidelines (for example, those representing the professional association of FMEs consider guidelines to be far more discretionary than do forensic scientists), little mention was made of the attitudes or the practice of FMEs themselves, i.e. the way in which FMEs actually employ the guidelines in their day-to-day decision-making. This chapter will directly address that issue. Focusing on the way that FMEs choose which medical samples to collect for forensic scientific analysis, or the questions they ask of the complainer, illuminates the factors considered by FMEs to be influential towards their decision-making. FMEs find themselves in a complex of tensions when performing the medical examination; on the one hand they have to ensure that all available incriminating evidence is gathered, on the other, they are concerned with the dignity of the complainer, and moreover the amount of work feasible for the forensic scientific laboratory. Some of the methods for negotiating these tensions are laid out within guidance documents; however, as I will show, FMEs do not determine their practice by these documents, but instead base their decision-making upon phenomena less tangible than a guideline or a kit. It is my contention that FME decision-making is determined by a shared praxis that is initially distributed during training, but also amended and built upon via interaction. It is this shared practice that determines the evidence that the FME collects, and this consensus, alongside the production of guidance documents, that perpetuates FME credibility and discretionary authority. Before explaining this, however, I will provide evidence of the ambivalent attitude of FMEs towards guidance artefacts.

6.1 FME Attitudes towards Guidelines

The FMEs I interviewed had differing opinions about guidelines and protocols, including denial of their existence: "[t]here is no standardised guideline at all, full stop" (Dr. B, male, Constabulary 2); downright dislike:

> Guidelines, guidelines, guidelines; when you are interested in your job and you are interested in doing a good job you don't need guidelines, that's it. When you are not interested and you are stuck to the guidelines, that's not a good job (Dr. D, male, Constabulary 2);

and finally indifference: "[u]se a sexual assault *pro forma* which outlines which samples should be taken. *Pro forma* is a checklist and results in an exam that could be carried out by any doctor" (Dr. H, male, Constabulary 4). While FMEs expressed diverse (although mostly negative) opinions, it was clear that there was considerable uniformity in the work that they conducted and the samples they collected. Dr. B (of the "no standardised guideline" opinion) said the following:

> Standard sampling is as follows: groins, pubic hair if it is matted, you cut off the pubic hair if it is matted, you take two external vaginal swabs, and after you introduce a speculum, you take two internal vaginal swabs… So those are the canon: the gamut of groins, pubic hair, external vaginal, internal vaginal, external anal and internal anal (Dr. B, male, Constabulary 2).

Such consistency in sampling strategies amongst practitioners has, of course, been helped by the introduction of the forensic medical examination kits and their accompanying forms, which serve (as Dr. H alludes to) as a reminder to the FME of the samples that they have yet to collect; in fact, Dr. B's "canon" maps onto the sexual offences form for his constabulary (appendix 4). Likewise, Dr. G says:

> We do, we have what is known as a "rape kit" where almost all the equipment we'll be needing to conduct an appropriate examination is available. They come in sealed boxes and if on occasion there is something that is not available in one box you open another, say you're looking for a fine tooth comb you open a box and that box is always disposed of. So there's a box with everything you need and we have a forensic science laboratory form which gives us a wee *pro forma* that is a double-sided page where you tick off all the samples that you have taken and so there is a degree of guidance (Dr. G, male, Constabulary 3).

As I explained in the previous chapter, neither the *pro forma* nor the sampling guidelines from the FFLM advocate that FMEs take all samples regardless of the particulars of the case they are examining; whilst professional associations have

promoted an increase in the routinisation of forensic medical examinations, they have not attempted to remove discretion from the individual FME regarding sampling strategies. While the *pro formas* and the guidance documents are available as a reminder for the FME about the entire breadth of samples that could potentially be taken, the FME performing the examination is still the final arbiter over the samples that they consider appropriate for the case in question. According to the guidelines, decisions concerning sample collection should be based upon the length of time since the attack and the complainer's account. However, decisions based solely upon these two criteria are not without their problems, and FMEs take other factors into consideration when deciding where to sample. Such additional decision-making criteria are the focus of the following section.

6.2 Problems with Guideline-Based Sampling

Deciding where to sample purely on the basis of the complainer's account and the length of time since the alleged attack would fail, in the first instance, to take into account the feelings of the complainer; samples would be taken without thought as to whether such sampling would further embarrass or upset the complainer (although it should be noted that all types of sample-taking are, in their own ways, invasive and distressing). Moreover, these decision-making criteria are based upon an assumption that there is a full account enabling the FME to discern which samples are appropriate. As touched upon briefly in the previous chapter (I will elaborate upon this further shortly), FMEs are always aware that the account they have been given has the potential to be partial; it is this that has led to forensic scientists requesting that FMEs perform a "Total Collection Strategy". In response, FMEs have developed their own strategies to negotiate the problem of partial accounts, which further ensure that the dignity of the complainer is maintained. I will discuss these strategies as well as another factor that influences decision-making - the economics of analysis - in the following sections.

6.2.1 Ensuring the Totality of the Complainer's Account

It is considered contemporary "best practice" that the FME avoid questioning the complainer about the events of the alleged attack.

> There are two ways of getting the account of the incident, the one way we use… is the police officer who has taken the interview will give us a blow-

> by-blow account of what has been said in the interview before the examination, so that will lead us into what areas we will want to go into. In [cut for anonymity] the doctor will also take a history from the victim, from the complainer, a full history, we don't do that for two reasons, why? One, because it upsets the victim quite a bit, and two, it also raises some dubiety in her mind… that the police didn't believe them, so they are going over the evidence to make sure they do not trip over or make any mistakes (Dr. B, male, Constabulary 2).

Dr. B's remarks are echoed in a textbook chapter, "Sexual Assault Examination" (Rogers and Newton 2000), in *A Physician's Guide to Clinical Forensic Medicine* (Stark 2000). In that chapter, not only do the authors acknowledge that having to repeat the account might potentially distress the complainer further, but they also suggest that repeated accounts could result in varied and conflicting statements which might place the complainer's case in jeopardy:

> If the complainant has already provided the details of the allegation to another professional, e.g., police officer, it is not necessary for them to repeat the details to a forensic practitioner. Indeed Hicks notes that the attempts to obtain too detailed a history of the incident from the complainant may jeopardize the case at trial because at the time of the medical examination the patient may be disturbed and, consequently, the details of the incident might be confused and conflict with subsequent statements (Rogers and Newton 2000: 41).

The FME, therefore, relies upon the accompanying officer for information regarding the complainer's version of events, and also (as Dr. B hints at with his "what areas we will want to go into") the samples and other evidence that will be required. FME concerns about the account provided by the police officer can be summarised by two problems: 1) it could be that the accompanying officer was not the one who performed the interview, or perhaps performed the interview but did not ask the full complement of questions; and 2) it is difficult for the FME to be sure of how to proceed in the case that the accompanying officer and/or the FME believe that the account they have received is partial. I will turn to each problem individually.

With regards to the first problem (that of the accompanying officer attending without the requisite information), Dr. C expressed the problem most clearly:

> What the ideal scenario is then is the officer who has taken the statement or interviewed the woman must be there. NOW I GET REALLY ON MY

> HIGH HORSE ABOUT THIS,[127] I throw my toys out of the pram on this one, at the police sometimes, because there is nothing WORSE than "Oh I just got given the job doc, I was just to bring her here", well that's not good enough. Somebody has spent four hours taking a statement from this woman, I need that information, because I then have to ask her all kinds of questions… Ideally you have the officer who has taken the initial statement etc. etc. what I'll then do is get a narration from them, some of which will appear in my report, some of which won't "So-and-so went out and had six vodka and cokes and couldn't remember and then she remembered this" and so you get the whole narration of the evening *vis-à-vis* what the complainer has said to the police. Obviously that starts to focus your mind on what's happened, what I'm thinking about here, obviously there's been this, that, whatever… where's the locus of this? Is it someone who's known, she's been in the flat anyway, that reduces the, you know, hairs are going to be there anyway, you're thinking without being aware (Dr. C, female, Constabulary 2).

The problem of complainers being accompanied to the forensic medical examination by an officer who has not been a member of the interviewing team has been limited by the introduction, in some constabularies, of specialist SOLOs, who have been specially trained to interview vulnerable witnesses and complainers, and whose role is to liaise with and support the complainer through the early stages of the investigatory process; likewise, specialist sexual assault divisions (like the Amethyst sexual offences team in Lothian and Borders), who only work upon sexual offence cases, have been trained in what the police consider "best practice" when dealing with the peculiarities of sexual assault cases, and their officers also liaise with the complainer throughout the investigatory period. Both strategies (SOLOs and specialist divisions) have limited the likelihood of complainers being accompanied by an officer who is not acquainted with the details of the case; however, as Dr. C (who works in a constabulary where one of these strategies has been implemented) continues to say:

> sometimes it'll still happen, I would say it's a lot better, but it still happens, you still get somebody literally got a sheet saying "can you take x to the medical" (Dr. C, female, Constabulary 2).

These specially trained officers have reduced the necessity for FMEs to question complainers directly about alleged attacks; however, there are still occasions when the accompanying officer cannot provide the full complement of information, and in

[127] Capitals signify the respondent's raising of voice for emphasis.

these cases the FME is either required to ask about the content of the assault themselves, or, as with Dr. G, ask that the accompanying officer return to the complainer and gather the relevant information.

> Yeah and I will say, they [accompanying officer] will say look there was penile-oral intercourse was attempted, penile-vaginal intercourse was took place, penile-anal intercourse was not. If they tell me that, I do not wish to pry. If however, I wish to know when did they last have intercourse, "Oh I haven't asked that", "Then would you like to ask and then come back to me?" If it is a young girl, has she ever had intercourse before, has she had, you have to ask indelicate questions, has she had a boyfriend who has performed digital stimulation, we have to ascertain that because we have to know whether anything has been in her vaginal orifice; I've got to know whether she uses external sanitary towels or whether she uses tampons, so I would prefer a female police officer to have all that information, if not I say go and get it (Dr. G, male, Constabulary 3).

In this hypothetical example, Dr. G states that while the accompanying officer has supplied the rudimentary elements of the assault (which types of assault were attempted and which were successful), they have not supplied all of the necessary information, and so Dr. G has asked the officer to return to the complainer to retrieve the extra information. For the FME, asking direct questions of the complainer and requesting that the accompanying officer ask supplementary questions are two workable strategies for negotiating the problem of securing an account; however, neither strategy solves the second problem, i.e. ensuring that the account they have generated before the examination covers the totality of the attack.

As already alluded to in some of the supplied quotations, as soon as an FME has received an account, they start deciding what samples will be of potential benefit. Such decision-making based solely upon the account does cause a significant problem; as one SOLO put it:

> In addition to that you often find that once you've had contact with a SOLO as a victim, they realise they are going on to a medical examination, you must realise that not everyone tells the police the truth, then you get the feel that this is going to happen and it is really not a good thing to go through as you could probably imagine, then you may get a different version of events as well (SOLO A, female, Constabulary 1).

Choosing where to sample on the basis of the complainer's account (including the types of sexual acts that are said to have been attempted or successful) can be problematic. The complainer may only provide a partial account – for instance

"[a]lso I think you'll find the victims of oral sex, if you don't ask they won't tell, not because of anything, because they are shy" (Dr. A, female, Constabulary 1) – which can result in samples not being taken, the result being that potential corroboratory or incriminating evidence is missed. This could also mean that the FME does not examine areas where the complainer has said that no contact was made, resulting in medical complications.

> [T]hat is so important and sometimes what happens with anal is that it goes into a spasm the injuries can go right up and you can't see so that is why it is better to take [swabs] and we've been caught out (Dr. A, female, Constabulary 1).

As I explained in the previous chapter, forensic scientists have suggested that FMEs solve the problem of missing samples by performing "Total Collection Strategies", thereby avoiding the uncertainty produced by partial accounts. FMEs follow the logic of this argument, and in fact do take the full range of samples when the complainer is unable to provide an account due to being unconscious or intoxicated: "there are times when full samples are required as the complainant may not have remembered accurately due to sedation or distress" (Dr. M, male, Constabulary 3).

> If someone says to me "I was so drunk I can't remember" or "I was drugged, I can't remember" then I would automatically, not just examine or take specimens from there and that is whether she says yes or no because that is so important (Dr. A, female, Constabulary 1).

> Most cases if you are in any doubt you take it [sample] because you're a one-stop shop, you don't have the opportunity to go back, you can't go back 5 days and said I should have actually taken your pubic hair, or something like that. So there is a slight blunderbuss, less than scientific approach on occasion. Interestingly I must take this up with the lab again, again I don't know if this, it's an issue with people who are less experienced, but sometimes happens, you only get, well, you only get so much of the story perhaps at the initial time and what has happened in a couple of cases, a dozen is that two or three days later someone will say "well he anally penetrated me as well" okay, well that shouldn't affect anything because I personally will always ask the complainer quietly, when I've got a bit of confidence, they've relaxed, I'll ask "did anything else happen that you haven't mentioned?" so you don't get caught out (Dr. C, female, Constabulary 2).

These quotations demonstrate the logic that prevails on the occasions that FMEs feel it is appropriate to perform a "Total Collection Strategy": this can happen either when the complainer is unable to provide an account of the examination due to

intoxication, or when the FME is doubtful that the account is complete due to "sedation or distress". Dr. C's quotation is interesting, as it demonstrates (in cases where the complainer has been able to provide an account) how she asks additional "quiet questions" during the examination in order to tease out other elements of the assault that may not have been given to the police. Dr. C continues:

> You're doing all that but certainly taking samples as you go and certainly chatting and that's the time you can start asking, behind the curtain the slightly more and often, I do not know what others have said to you, certainly I've done hundreds and thousands of these now, you often get a really good rapport… And I will specifically say did anything happen, did anything happen orally, your back passage, in a kind of understanding, and sometimes, you know, they will say "Actually, uh yeah" and of course they felt embarrassed, and sometimes it's a male homosexual assault and so there's all that dynamic (Dr. C, female, Constabulary 2).

Other FMEs also stated that they employed "quiet questions" to ascertain the fullness of the account from the complainer.

> Regardless of what they've said , even though what the police have asked, we ask our own questions, medical questions of health and pain, any bleeding, any injuries they are complaining of and often sometimes when they are in such a distressed state they won't tell you about the injuries, you notice anything "Oh my goodness there's a bruise there" "Oh is there" and I've seen umpteen cases where the girl is bleeding and she couldn't tell because she is so frightened and she stood up and the police officer said "Oh my God, there is blood" and it was the police that told me she was bleeding and the girl just stood there looking (Dr. A, female, Constabulary 1).

> I never ask about the incident and we ask diagnost[ic] - medical questions; medical history, pregnancy, um - anti-conceptive medication, um pre-existing diseases diabetes, epilepsy, drugs, alcohol, but never about the assault.
>
> Me: *Never specifics, or are you in pain, discomfort those kinds of medical questions?*
>
> Of course, but it's not done as an interview before, usually but during the examination, to hide the questions a little bit. It's better to hide it, to include it in the entire examination process. So when you are going to take the samples from down below you can easily ask "do you feel uncomfortable? Is there something I should be aware of? Do you feel pain?" So just include it in the whole examination process (Dr. D male, Constabulary 2 interviewer speech in italics).

While contemporary statements about "best practice" specify that FMEs should avoid asking the complainer directly about the incident, FMEs find that it is sometimes necessary, in order to ensure that they have collected all the relevant

evidence. There is always uncertainty over the fullness of the account, so if the examining FME does not ask these extra questions and instead bases their sampling decisions purely upon the account given via the accompanying police officer, there is the potential for important evidence to be missed, as well as future medical complications. To convince themselves that the account is near enough complete, FMEs ask "quiet questions" of the complainer once they have developed a sufficient level of rapport. The answers to these questions, which are posed as purely medical, give the FME a better idea of the nature of the alleged attack, the types of evidence that will still be needed, and hence the locations that they should swab and examine; in addition, it provides a basis for further pertinent questions, and gives an idea of the therapeutic treatments required, etc. Asking "quiet questions" gives the FME the confidence that they will not make substantial omissions without having to go to the lengths of collecting all samples. FMEs generally wish to avoid collecting unnecessary samples for two reasons: the dignity of the complainer, and the fiscal issue. I will address these matters in the following two sections.

6.2.2 Genital Sampling and the Complainer's Dignity

Having gathered an account, the FME next decides which samples are appropriate on the basis of that account; they customise their sampling strategy to that which has the likelihood of generating the greatest quantity of evidence while limiting the distress to the complainer:

> YES and the circumstances and the circumstances may vary from case to case and it's the, I think that's the main problem and you can only be a good pathologist or forensic medical examiner when you can hmm, assess the case, the actual case and make the appropriate decisions that's, that's the secret [it']s not I have my guidelines, I go according to my guidelines, no it's not like this, I HATE THIS, I hate everything that has to do with bureaucracy: fold it, punch it, file it away…it depends on the case, when you have a female victim, totally upset you can easily victimise her for the second time, or for the third time; so interview by the police is the second rape, examination is the third rape and referral to the GUM clinic is the fourth rape, so every time, it's again and again and again. I think we have to focus on the benefit to the victim, if the victim says no we have to respect it (Dr. D, male, Constabulary 2).

FMEs are wary of taking unnecessary swabs, particularly if they are to be taken from areas which could embarrass or further upset the complainer. Most notably, the FMEs I interviewed mentioned that they consider anal and oral sampling to be highly

upsetting, and that they actively attempt to limit the collection of such swabs. The FME decides whether anal or oral[128] swabs are required based upon the complainer's account; if the complainer states that there was anal and/or oral contact then they will swab, but if the complainer is adamant that those forms of assault were not attempted then FMEs will not sample those areas.

> I'm involved with some introductory training to the CID officers and I'll explain to them that you should only take samples, you should only undertake, how's best to say this, only undertake procedure, unless there is a valid reason and you're going to get um, an appropriate end result. If a complainer, normally female, the vast number are female, if she says quite clearly and categorically that he's been nowhere near her back passage, nothing has been near her back passage, then there is no way I'm going to examine somebody's back passage, because I'm not going to humiliate them further and I make that quite clear although it says on the *pro forma* from forensic science, "anal swabs", I won't do anal swabs unless there's good reason for it, uh, some people may think that is inappropriate but I make it clear when I'm doing the introductory, if the complainer has been so intoxicated or under the influence of a drug and they don't know what has happened to them, if they have no recollection whatsoever, then it is my responsibility to have a look just to make sure, but if they say to me "Definitely not" then we'll not take the samples (Dr. G, male, Constabulary 3).

Here, Dr. G is echoing a number of his colleagues by arguing that if the complainer is unaware of what has taken place, then it is his "responsibility" to perform a complete examination and collect all samples; however, when the complainer has provided an account to the police, and has maybe been asked some "quiet questions" by the FME to determine whether other acts have taken place, and the FME is happy to accept that anal and/or oral contact was not made, then those areas will not be examined or sampled, as the FME does not wish to upset the complainer any more than they believe necessary.[129]

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[128] It is not the case in clinical forensic medicine, as it is in other aspects of the criminal investigatory process (see for example Police, Public Order and Criminal Justice (Scotland) Act 2006), that a buccal swab will be taken for an elimination or identification DNA sample. This is because of the potential for suspect DNA to be present within the mouth:

> Now the reason for not taking the elimination sample as a buccal DNA in that scenario is oral sex, if there has been any oral contamination by the suspect in the mouth it could still be there, therefore you want blood (Dr. C, female, Constabulary 2).

[129] In a similar vein, if the complainer's account states (and the FME is convinced) that only oral penetration was attempted/successful, they will not perform vaginal/anal examinations.

6.2.3 Non-Genital Sampling and Other Trace Material Collection

> It's a question of per individual case, you work out what you need to keep, what you have in the kit is anything you require to take all you may wish to take, but for example, in certain instances, you may wish to swab certain parts of the skin, in other instances you do not. In certain instances you may wish to scrape the nails and in others you don't, in some instances you may want to take the hair, it's a question per individual case and tailoring your taking of evidence, trace evidence in relation to a particular case, what you know of it, what you found on examination, and uh, taking as much as you can (Dr. B, male, Constabulary 2).

In addition to the collection of genital samples, FMEs are expected to collect any other trace material that could provide corroboratory or incriminating evidence. As mentioned in the previous chapter (and echoed in Dr. B's quotation here), the FMEK contains instruments and documents that outline a broad spectrum of potential samples, and the FME decides which of those samples could potentially provide corroboratory evidence, based on a combination of the account of the assault and the physical attributes of the complainer. To illustrate this point, doctors often mentioned the decision to swab under the fingernails to search for the suspect's skin or blood cells. Many FMEs explained that they would not take this sample if either the complainer did not state that she scratched him, or the appearance of the fingernails were such that they did not indicate that trace material could be found; this judgement was based upon whether nails were long or short and the amount of dirt embedded within.

> Nails again, unless she's scratched or has long nails then I don't think, [Constabulary 1] men seem to bite their nails, so they're so sharp, so if there was anything but dirt then yes I would, but if they hadn't not so much then they were clean. We have to use a little bit of you know, rather than going through the complete routine, use a little bit of common sense on these things as well (Dr. A, female, Constabulary 1).

> T-t-they depends on the case, we don't do it [taking fingernail swabs] in every case. If you don't have nails like I don't, it's no use swabbing them. If the girl says "I never touched him, I never scraped him or scratched him" you are giving the lab work that costs money, in terms of equipment, reagent, personnel and you are wasting their time. Now we can't have that (Dr. B, male, Constabulary 2).

Dr. B's quotation makes it quite clear that FMEs' decision-making regarding sampling is not only based on whether there is the potential for evidence to be

discovered, but also on the related issue of the economics of labour. FMEs appear to make decisions about which samples to collect based upon a cost-benefit analysis: whilst taking all samples and collecting all trace material may ensure that no potential evidence is missed, it does add a significant burden to the budget of either the police or the COPFS,[130] and puts pressure upon the laboratory to analyse all the samples that are sent to them. FMEs, being aware of this, strive to work efficiently, gathering as much evidence as possible in the smallest number of samples. "[T]here's no point in cluttering their [forensic science laboratory] fridges with 300 samples that they don't need" (Dr. C, female, Constabulary 2).

To address the efficiency problem, FMEs have developed a selection of strategies; one shared by most of the FMEs interviewed was the use of clothing. As part of the examination, the doctor is expected to look for and swab any foreign material found upon the body; this could be material (for example, fibres from the locus) found in a wound or injury, or the result of sexual practices (for example, saliva from the biting or sucking of breasts, or semen from ejaculation onto the upper torso) that could be of benefit to the investigation. While taking an individual swab for each of these signs of trace material would certainly be of use, it would result in a significant future workload for the laboratory, and, in all likelihood, would only serve to reproduce the same information that would be found upon the clothing that the victim was wearing at the time of the assault. To limit the workload of the lab, therefore, FMEs rely on clothing as a substitute for upper torso sampling.[131]

> You have to balance that [swabbing the upper torso] against the work that has to be done in the lab. So you have to use the lab to the best of resources. We could swab the whole body as we do with a post-mortem in a murder, in a murder every bit of the body is swabbed, but can't do that with a living person, the lab would not be able to cope. We have to narrow, okay our, and remember there's the clothing still, and the best way, the best swabs of skin are the clothing because the saliva, any other secretions, the clothing is going to soak them up. If someone's been grabbed by clothing, there's skin there, so clothing is much more useful (Dr. B, male, Constabulary 2).

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[130] The decision over which body is responsible for paying the cost of the forensic scientific analyses is based upon whether a suspect has been "detected" or not. If the police are still searching for a suspect, or do not have enough evidence to lay a formal charge, it is their responsibility to pay for the analyses.

[131] Assuming the assault is relatively recent the police would have already received the clothing either via retrieval from the complainer's home, or because she had brought the clothes to the police herself. If the complainer is still wearing the clothes in which she was assaulted, these would be removed in a routine fashion on a brown sheet; see Chapter Five.

Another FME commented:

> And the same thing, as you said, the upper torso, bite marks, the swabs that you take for saliva, even if they are not washed with soap and water, that would remain even on the clothes that you are wearing and taken off, it is still there so you can take from that (Dr. A, female, Constabulary 1).

As clothing retains identifying material (even, if we are to believe Dr. A, after it has been washed), taking further upper-torso samples would be repetition of work and duplication of material. With the aim of limiting the future work of the laboratory, FMEs believe that clothing (if available) serves as a surrogate for the multiple swabs that the FME would be required to take for all observed trace material observed upon the body. Of course, if clothing is not available then the taking of these swabs becomes imperative. FMEs, therefore, make a cost-benefit judgement about which non-intimate samples have the greatest potential for producing incriminating and corroboratory evidence, and only collect those that they feel will be useful to the investigation.

The final factor involved in an FME's decision to reduce the number (and type) of samples concerns the length of time that occurs between the alleged assault and the examination; this, of course, affects the potential to gather useful evidence, and it is to this issue that I turn next.

6.2.4 Time Since Alleged Assault

The authors of the FFLM sampling guideline place considerable significance on the length of time that has passed between the alleged assault and the examination. As mentioned in the previous chapter, such importance has been placed on the timescale because clinical forensic medical studies have investigated and reported the prevalence/degradation rates of different trace materials upon bodily surfaces, and so the time parameters in which it is possible to collect trace material which will be of use have been specified. Such empirical results form an evidence-base upon which (it is hoped) FMEs will draw when deciding whether or not a sample is appropriate. Dr. A, while very aware of these reported timescales, was nevertheless highly sceptical of their relevance.

> Um, for vaginal examination, ten days is reported [meaning that extracted DNA can still be useful] depending on whether they've had a bath or shower, if they shower you can still get something, bath you obviously lose more,

> again, the ideal thing is less than 24 hours, up to 72 hours you are still going to get after that, every hour you delay you are going to get less and less, but still the chances are, and after about 5 days I would say not just taking high vaginal swabs you'd have to take endo-cervical swabs… and for the anus is about 5 days, but the reality is that bowel movements within 2 days you are going to lose, same thing with the mouth, they [guidelines] say 2 days but the reality is 6 hours because body produces saliva (Dr. A, female, Constabulary 1).

Dr. A problematises the timescales explicated in the guidance documents by stating that both bodily functions and any bathing by the complainer after the assault will result in a loss of material, and so although the clinical evidence suggests that material would still be present for up to ten days after an assault, in reality it would be lost. Dr. A did not make clear the exact manner in which she incorporated such scepticism about timescales into her actual decision-making; nevertheless, it is not outside the realms of possibility that she would reduce sampling in the case of a greater length of time between the alleged assault and the examination. A similar argument was put forward by Dr. D, which I will explain shortly; however, I would first like to comment on Dr. D's rather interesting attitude towards timescales. Given what Dr. A says about the importance of hours and that "every hour you delay you are going to get less and less", it is indeed remarkable that Dr. D believes that in some cases it is preferable to wait until the next day to perform the examination.

> Yes the process is that I check, when it's during the night time whether it is urgent or not, whether the situation of the victim, it should, the main process must be focused on the victim for the benefit of the victim and when the victim is not in a situation for an examination during the night time, I would do it during the daytime, because when there's no shower, no bath, there's no danger for loss of evidence. Um depends on, depends again on the situation, and again the night time is not the best time for examination due to the [body's] own internal rhythm (Dr. D, male, Constabulary 2).

It is clear from this quotation that Dr. D prefers that the complainer not be examined during the night out of a duty of care and compassionate attitude to the complainer; however, if it is decided that the complainer will not be examined until the following day, then they are asked to refrain from cleaning themselves, and as Roberts (1984) pointed out in *The New Police Surgeon: Rape*, "this [cleaning] is one of the first things a woman wants to do when she's been raped" (Roberts 1984: 78). There seems to be some disagreement between Dr. D and reported "best practice" over the

best interests of the complainer, and I think a great deal of this stems from Dr. D's perception of the exact time that complainers tend to report. Dr. D believes it is not often the case that complainers report within "a couple of days" of the alleged assault; instead he claims that the report and the subsequent forensic medical examination usually take place some time afterwards.

> I think if it is later than one week, it doesn't make sense to take all the samples but um semen might be present even after one week so it depends a little bit. It is now, according to the guidelines, all the samples should be done, but it is rare that we see victims after a couple of days, it's rare, but then I think I'd like to reduce because I can only do and propose what I am convinced of, and if it doesn't make sense why upset the victim again (Dr. D, male, Constabulary 2).

There are a number of points I wish to draw out of this quotation, beginning with a continuation of the previous point; as Dr. D appears to assume that the majority of cases will report outside of the window within which useful samples will be available, then it follows that it is unnecessary for them to be examined at night. In cases where the complainer has reported shortly after the alleged attack (and so there is a good probability that there will be recoverable useful evidence), Dr. D does say that it is important to collect the samples as soon as possible: "but when it's urgent, um I would make contact, then we would meet at four perhaps, four o'clock in the morning" (Dr. D, male, Constabulary 2). Dr. D does not dismiss the necessity of performing examinations or taking samples at night; he will make a decision on the urgency of the examination on the basis of the length of time since the alleged assault and the perceived value in taking immediate samples. If the case is deemed urgent, i.e. if the alleged assault took place within a number of hours, or a few days, he will meet the complainer during the night; if it is not, he will put off the examination until the next day.

The other point raised by Dr. D's quotation concerns his decision about the particular samples that should be collected. We can see his strategy from the start of the quotation: "I think if it is later than one week, it doesn't make sense to take all the samples". As I hypothesised with the quotation from Dr. A, it appears that it is generally taken for granted that while (as Dr. A stated) prevalence studies have discovered that semen can still be found for up to ten days, the likelihood is that such material would not actually be present, and so Dr. D would decide not to take the

sample in such a case. As he says, "I can only do and propose what I am convinced of"; i.e. he only takes samples that he is convinced are likely to produce useful evidence. Interestingly, he takes such a stance out of a duty of care to the complainer; if he is not convinced that samples will be of use, then there is little reason to perform another invasive act upon the victim. While most FMEs share this victim-centric approach, it is certainly not universal; a different FME, Dr. B, from the same constabulary, said the following:

> A swab costs tuppence, so we take it and throw it away if we don't need it, so we tend to err on the side of caution. If it's a week, five days over, we'll still carry out an examination and sometimes we're surprised to find that some things [trace material] remained. *So we don't time-bar the examination* (Dr. B, male, Constabulary 2, emphasis added).

It is difficult to say whether it would be the case that Dr. B would continue to take genital samples if the intervening period between the alleged assault and examination were over a week, and so there may not be as much difference between the statements of Dr. B and Dr. D as there appears to be at first glance, but Dr. B does certainly suggest that they do not "time-bar the examination", preferring to take samples regardless of whether he is convinced useful material will be present or not. This expressed method on the part of Dr. B introduces an element of uncertainty regarding the uniformity of FME practice, as usually it appears that FMEs make their sampling decisions on the basis of their own experience of material degradation and out of a duty of care to the complainer; however, as I have already alluded, there is an extent to which the differences between Dr. B and Dr. D could solely be a matter of emphasis, based upon length of time; I will return to this in Section 6.3.2.3 below.

The previous sections have expounded FME accounts and justifications of the ways in which they gather evidence during the forensic medical examination. It is clear that FMEs only perform a "Total Collection Strategy" when there is significant uncertainty over the events of the alleged assault, i.e. when the complainer cannot remember (due to intoxication, for example) what has taken place. Generally, FMEs tailor their sampling strategy to the particular case being examined, on the basis of the complainer's account. While there is always some uncertainty about the fullness of the account, FMEs convince themselves of this fullness by asking "quiet questions" of the complainer and make their decisions accordingly. Such decisions

appear to be based upon three factors: 1) the dignity of the complainer (the FME will try to avoid taking samples from areas where there is said to have been no contact); 2) the future workload (if it is possible to get useful evidence from another source such as clothing, then extra bodily samples may not be taken); and 3) the length of time since the attack (a decision is made about whether a certain sample has the potential to provide useful evidence on the basis of the likelihood of the material having degraded). By making these decisions, FMEs are able to reduce the number of samples that they need to take, thereby helping to limit both the indignity to the complainer and the amount of work needed at the laboratory. All of this goes to show that while there have been attempts to routinise and standardise FME examinations of sexual assault complainers, FMEs still rely heavily upon their own discretion and experience in determining what is best practice in each particular case. This, of course, does not run counter to the sampling guidelines or protocols of the "working party", which make it quite clear that FMEs are to decide for themselves which samples are relevant to each case, but are instead to consider them as *aides memoires*.

> I personally see it [*pro forma*] as an *aide memoire* on occasion, because no matter how many of these you've done, there's always something you forget to ask, you know, and I don't often forget with the victims, I more often tend to forget with the suspects to ask when did you last have a bath, so I find it quite useful often in that set-up rather than the victims, I don't know why… But for me it's an *aide memoire*, I think the primary information is for the forensic labs, but obviously it is a source of information for me that I've been forced to write down and very useful for me when I have come to compile my report because I have taken their height and weight and noted the other bits and bobs that are relevant (Dr. C, female, Constabulary 2).

There is something of a quandary here, therefore: on the one hand, it is clear from the evidence presented that the guidance documents and protocols do not determine practice; however, those artefacts (guidance documents, protocols, etc.) do actually represent an articulation of that practice, and FMEs do state that they employ them (the evidence collection forms in particular) as *aides memoires*. Given this quandary, how can we explain FME practice in relation to these guidance documents? In the next section I will provide two explanations for the relationship between practitioners, guidance documents, kits and practice; one is expressed in the work of Deborah Parnis and Janice Du Mont, while the other explanation is my own.

To sum up my interpretation briefly: there is a community of FMEs who have developed shared practices for decision-making which are explicated to a certain extent within the documents and the kit; however, although FMEs have access to such protocols, they do not actually determine their practice. In fact, the guidelines are underdetermined, and the FME requires the conventions of their community in order to know the correct way to follow them. Before outlining the minutiae of my argument, I will first discuss Parnis and Du Mont's interpretation.

6.3 Evidence Collection as Rule-Following

6.3.1 The "Dual-Role" Thesis

As mentioned in Chapter One, Du Mont and Parnis (2000, 2001) and Parnis and Du Mont (2002, 2006)[132] were the first to perform a systematic review of the SAEK employed in Ontario, Canada, since its inception in the late 1970s. Developed and established in similar circumstances to the Metropolitan Kit (see Chapter Five), the SAEK was introduced with the intention to standardise the medical examination of sexual assault complainers (Parnis and Du Mont 2002). As the SAEK was developed with the same intention as the Metropolitan Kit, its contents were (and still are) highly similar (see Du Mont and Parnis 2001 and Parnis and Du Mont 2002 for a breakdown of the SAEK's contents) and were produced with a similar agenda: "the SAEK was implemented with the belief that 'if prescribed procedures [were] followed, it [would] be less likely that the acceptability of [such] evidence [would] be questioned in court'" (Provincial Secretariat of Justice, Ontario cited in Du Mont and Parnis 2001: 69). However, as Parnis and Du Mont's quotation continues, "we have begun to discern that the professionals who administer the kit may not consistently follow the guidelines set out in the protocol" (Du Mont and Parnis 2001: 69-70). Conducting two survey-based studies (consisting of questionnaires and qualitative interviews including focus groups) with FMEs, Sexual Assault Nurse Examiners (hereafter "SANEs") and forensic nurses[133], Parnis and Du Mont

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[132] As in Chapter One, I will continue the convention of using Parnis and Du Mont to signify both the 2002 and 2006 publications, as well as the Du Mont and Parnis publications, unless citing from a specific publication.

[133] SANEs are specially trained nurses who can conduct sexual assault examinations without the aid of a doctor. While these practitioners have been successfully incorporated into clinical forensic medical work in the United States, Australia and Canada, their introduction into the United Kingdom is still at

discovered that practitioners did not conform to the guidance outlined in the SAEK. For instance:

> The kit guidelines include instructions that the evidence collection "should be directed by the history of the assault," and explicitly delineate the questions to be asked of the victim (e.g., "Was last previous intercourse within one week prior to the assault?"; "[Were] any marks left on the assailant, e.g. by biting, scratching, kicking, etc.?) and that the specified are to be taken in a particular manner (e.g., collect URINE for drug and alcohol analysis and place approximately 10 ml. URINE in container 3-1": "Take ORAL SWAB [thoroughly rubbing along gum and teeth margin] using swab 2-A1, place swab in tube 2-A1") (Parnis and Du Mont 2002: 848).

Regarding the first instruction, i.e. "determine the appropriate samples based upon the complainer's account", Parnis and Du Mont found in their first (smaller scale) study that 40 per cent of the sample reported that they adhered to this instruction "all of the time", with 11 per cent stating that they "never" based sample collection upon the account and 21 per cent reporting that they used the account "some of the time" (Du Mont and Parnis 2001). Furthermore, in the second (larger) study, FMEs were asked:

> "How often would you say that you deviate from the standard criteria in the kit (e.g., requested samples or specimens are not collected, additional samples are taken)?", of those 143 professionals who responded, 84% of doctors, 80% of SANEs, and 65% of nurses stated "all, most, or some of the time" (Parnis and Du Mont 2006: 84).

Parnis and Du Mont's finding that FMEs do not rigidly follow the directives outlined in guidance documents certainly concurs with my own findings; however, our analysis of the data does differ somewhat (although there is also much that is consistent). For the remainder of this section I will review Parnis and Du Mont's argument before outlining my own.

Parnis and Du Mont draw upon the work of Kathleen Kelly (1996, 1998) and Stephen Savage (1997) to explain their data. Kelly and Savage argue that police doctors exist in a state of role-conflict during the medical examination (evidence of

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an elementary phase, with only some SARCs choosing to employ SANEs. The United Kingdom Home Office commissioned a report into the feasibility and usefulness of SANEs; see Regan et al. 2004. Likewise, forensic nurses are nurses who have received more training than most of their counterparts and so are allowed to help out in sexual assault examinations in some jurisdictions, but are not able to perform examinations single-handed unlike SANEs. Neither SANEs nor Forensic Nurses are used in Scotland at present.

which is embedded in the profession's past title, the "police doctor" or "police surgeon"). On the one hand, the "doctor" is supposed to play a medical role, tending to the therapeutic needs of the complainer and ensuring the patient's confidentiality. On the other hand, the "police" aspect serves to remind that the examination is more than just a therapeutic consultation: the doctor is there to gather evidence, and so must conduct their work in a disinterested manner, collecting any material relevant to the investigation, whether or not it is harmful to the complainer, and whether or not the information is confidential. Although they only provide limited empirical evidence themselves, Kelly et al. and Savage et al. do suggest that this dichotomy of the therapeutic and the forensic are incompatible, and Savage et al. (1997) suggests that such an intractable dichotomy serves to provide an explanation for the various problematic interactions victims have reported in the past: police doctors, they argue, are too close to the police and therefore emphasise the forensic over the therapeutic.

Parnis and Du Mont use the "dual role" thesis but turn Savage's finding upon its head: using qualitative evidence, they argue that rather than being too close to the police, forensic practitioners are more concerned with the therapeutic aspect and ensuring the dignity of the complainer. I will present some of the evidence that Parnis and Du Mont use here:

> I find that… to do a proper job for the client, I have to be unbiased and I have to be very factual in what I say [in court], but then we go to treating them… you're going from one role to the other in minutes (SANE Parnis & Du Mont 2006: 83).
>
> So basically, because she comes in for sexual assault, I'm biased because I believe her. And I mean, I'm a medical professional and, you say you've got chest pain, I don't say "come on now, do you really?"… So you know, yeah, I'm expert, but I'm this completely biased schmuck…. And we go on and on about how… we are to be objective. I mean the consciousness around the department about how we are objective (SANE Parnis & Du Mont 2006: 83).
>
> My concern with documentation is that remembering nurses and physicians are not investigators and… the sexual assault history form, there's questions there that really are going to be repeated by the investigating officers that I really don't think are the roles of nurses and physicians (SANE Parnis & Du Mont 2006: 83).

The role-conflict hinted at by Kelly and Savage is keenly expressed in these quotations, with the last quotation outlining the difficulties that practitioners have

with performing the full examination: certain aspects may prove detrimental to the complainer in future (see Parnis and Du Mont 2006 for many more such quotations). Parnis and Du Mont argue that the forensic-medical dual role is actually inscribed onto the kit itself, as it contains both evidence collection and therapeutic elements. Practitioners, they suggest, are actively resisting the strict forensic (evidence-gathering) meaning enshrined within the kit and are instead resituating both the kit and the examination of the complainer more broadly along the evidence-gathering and therapeutic axis.

> It appears then that, beyond the standardized practices adhered to by the health professionals, interpretative activity is exhibited in the forms of resistance to, and reconstruction of, some of the governing meanings circumscribed by this forensic technology (Parnis and Du Mont 2006: 85).

Choosing not to collect certain samples or ask certain questions that the protocol notes as appropriate, therefore, constitutes an act of resistance to the inherent evidence collection meaning ascribed to the kit. Deviation from the strict dictates of the kit out of a concern for the complainer brings the meaning of the kit closer to the victim-centred medical end of the forensic-medical spectrum. Given this, Parnis and Du Mont do not interpret deviation from the kit as a deviant act, but rather a victim-centred, therapeutic one.

Parnis and Du Mont provide a very powerful argument for why FMEs do not follow the instructions provided in guidance documents to the strictest extent: while the protocols provide a good approximation of the work that is needed during the forensic medical examination, they also hint at the dual role that FMEs are expected to negotiate. By choosing to omit (or in certain cases add) samples and questions, FMEs are actively situating their own position within the therapeutic/forensic dichotomy. My own fieldwork certainly provided evidence of FMEs choosing not to collect samples out of a duty of care for the complainer, and so Parnis and Du Mont's argument could go some way towards explaining my data. However, I find their argument to be too individualistic. In the following section I will provide a more collectivist explanation for the FME discretion that both I and Parnis and Du Mont observed.

6.3.2 A Finitist Explanation for Evidence Collection

Before moving on to explicate my own interpretation of my data, I should make clear that there is much upon which I agree with Parnis and Du Mont. Firstly, I am highly sympathetic to their overarching project of improving sexual assault examinations for both women and men, and secondly, I am certainly of the opinion that technological artefacts do, in fact, have politics (Winner 1986) and as such are ascribed meanings by communities of practitioners via use that can ultimately be reconfigured (Schyfter 2009). Thirdly, my findings certainly agree – not only with Parnis and Du Mont, but also with Kelly et al. and Savage et al. – that FMEs exist in a role-conflict between evidence-gathering and the therapeutic; Section 6.2.2 provided many examples of practitioners explaining their omission of samples in terms of the best interests of the complainer. However, I believe that the dichotomy is too simplistic and should be explained in a more complex manner. Sections 6.2.3 and 6.2.4 provided numerous examples of the omission of samples by practitioners in the interest of minimising the potential work of others in the investigatory process; such a finding does not fit neatly with the evidence-gathering/medical dichotomy, as it has the potential to minimise the likelihood of gathering corroboratory evidence, while also not necessarily being in the best interests of the complainer. Nevertheless, the key consideration remains: FMEs exist in a complex of tensions which have to be negotiated during every medical examination. The major point of departure between my analysis and Parnis and Du Mont's lies in the act of interpretation; while I am unsure of the extent to which the authors would find such a reading of their work accurate, they appear to claim that practitioners are required to negotiate the tensions individually, i.e. interpret how to employ the kit (by deciding which samples and questions should be omitted/added) for each particular case, based upon both the history of the case and an unspecified quantity (as has already been mentioned, an FME's decision on whether or not to base the examination upon the account is a judgement in itself). Following the logic of Parnis and Du Mont's argument, this x-factor would appear to be the subjectivities of the practitioner themselves (their level of experience, their previous experience/habits, their training, their attitude to

complainers in general, etc.)[134], as they determine the way in which an individual practitioner chooses the omissions/additions. While I certainly agree that it is the individual FME, who in the final analysis, makes decisions about the conduct of an examination, I suggest that in doing so they are drawing upon an existing collective practice. I will expand upon this statement next.

It is my contention that in order to negotiate the tensions already outlined, FMEs have developed a set of practices that are shared amongst the community and which determine the occasions where it is appropriate to take certain samples. Such shared practices are collectively distributed to practitioners during training: the trainee, knowledgeable of the guideline-determined forms of work from reading textbooks and guidelines, observes the ways in which their trainer diverges from such guided practice during the early stages of shadowing, and is furthermore corrected by the trainer whenever unnecessary samples are taken during the second phase of shadowing (however, such shared practices should not be considered as fixed practice norms, but are instead far more fluid; I will expand upon this shortly). By the end of the training process, the trainee will have developed a classificatory schema based upon the communally-held conception of the appropriate samples to take for certain types of cases (genital injury, anal injury, reported within three days, reported within five days, when clothes have been found, when clothes have not, when showered, when bathed, etc.). Having become a competent examiner, the FME makes use of this schema when presented with a new case, and draws an analogy between cases that they have previously observed (during training or afterwards) and the one in front of them, asking themselves which samples were taken the last time that they witnessed this type of case. With this method, they classify the case as (for example) a vaginal-penile assault, reported within five days (such details would, of course, have come from the account), in which the complainer does not appear to have material under her fingernails or in her head or pubic hair (such details as the amount of material under the fingernails or in the hair would only be surmisable via observation and the community-accepted parameters that determine what counts as non-existent or insignificant material). Having classified a case, they would then

[134] It should be noted that these bracketed subjectivities are my own inferences and not expressed by Parnis and Du Mont. Some of these also appear in my explanation.

collect a collectively-accepted list of evidence.[135] This brief account provides an explanation for the ways in which FMEs determine which samples to collect, questions to ask, etc. when performing a forensic medical examination; it is also consistent with FMEs' own accounts of the development of best practice (for example, "best practice is taught from those with experience and expertise" (Dr. M, male, Constabulary 3)). FMEs have developed a set of strategies for negotiating the therapeutic/evidence-gathering tension, including the economy of work tension, and these are shared by the community of practitioners. It is these shared practices that determine FMEs' decision-making when it comes to sampling. This explanation rests on a number of assumptions, and so to support my explanation for the rest of this section I will explore these questions:

1. Are there examples of shared practices? This is the most obvious question, pertaining to a claim that FMEs have a shared practice; is there evidence of such collective practice?
2. How do practices come to be shared? I have already alluded to the training element, but in order to address collective practice fully without resorting to an overly simplistic explanation, I need to engage with this issue further, particularly with respect to the ways in which practices become shared amongst constabularies.
3. How can practitioner/constabulary differences be explained? There are examples of differences in practice amongst practitioners both inter- and intra- constabulary; how does the claim that FMEs are a collective sit with that fact?
4. What role do guidelines, kits and protocols play if practice is determined by collective action? This is more of a tangential question, but relates to the broader argument of how we can explain FME practice with respect to guidelines, and so requires an answer.

I will start by outlining some examples of shared practice.

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[135] This explanation was heavily inspired by Barry Barnes' discussion of practice as collective action (2000, 2001).

6.3.2.1 Shared FME Practices

At the most basic level, one way of uncovering the collective nature of FME practice is to focus upon the language they employ to describe their work.

> Regardless of what they've said, even though what the police have said, *we* ask our own questions, of medical questions of health and… any pain any bleeding, any injuries (Dr. A, female, Constabulary 1, emphasis added).

> [B]ecause *we* examine them behind a screen, *we* might ask more searching questions as to the, what might have happened the mechanism or penetration or uh, the modes of penetration or whether there was ejaculation, or how the injuries might have occurred. Certainly *we*, if *we* see any injuries like a bruise or an abrasion *we'll* say "oh, there's a bruise how do you think that might have happened?" And *I'll* quote and *I'll* write down exactly how they said that had happened (Dr. F, male, Constabulary 2, emphasis added).

> If a complainer, normally female, the vast number are female, if she says quite clearly and categorically that he's been nowhere near her back passage, nothing has been near her back passage, then there is no way *I'm* going to examine somebody's back passage, because *I'm* not going to humiliate them further and *I* make that quite clear although it says on the *pro-forma* from forensic science anal swabs, *I* won't do anal swabs unless there's good reason for it, uh, some people may think that is inappropriate but *I* make it clear when *I'm* doing the introductory, if the complainer has been so intoxicated or under the influence of a drug and they don't know what has happened to them, if they have no recollection whatsoever, then it is my responsibility to have a look just to make sure, but if they say to me "definitely not" then *we'll* not take the samples (Dr. G, male, Constabulary 3, emphasis added).

These quotations, chosen from many, demonstrate how practitioners switch between the first-person singular ("I") and the first-person plural ("we") in order to describe their practice. Not only are the practitioners describing the ways in which they perform examinations individually, but also the way in which they are performed by the collective of FMEs. These practitioners, therefore, are justifying their individual practice in terms of the known shared practices held by the community. By themselves, these quotations are quite weak as evidence of a shared practice; however, when coupled with some of the evidence presented in the earlier sections the argument becomes more convincing. For the sake of space, I will not describe all the aspects of shared practice that I mentioned earlier; instead, I will take three of the examples described above and demonstrate why I believe these to be shared

practices. Two of the examples concern the use of clothing and the collection of fingernails; the third, the collection of an account.[136]

Section 6.2.3 addressed the economic tension FMEs face when performing the examination; while they are at pains to collect as much material as possible in the attempt to increase the likelihood of generating corroborative evidence, they are also acutely aware of both the financial and time limitations placed upon others in the criminal justice process. To this end, they limit sample collection, not only out of a duty of care for the complainer, but also with the aim of efficiency (i.e. limiting duplication of material that will produce the same evidence – for example, saliva upon the upper torso). One of the strategies to improve efficiency mentioned by FMEs was the retrieval of samples (by the scientists) from clothing.[137] As clothing soaks up material from the body, the use of clothing for the generation of biological material provides the same evidence as the sampling of the upper torso, thereby, in the FMEs' minds, providing unnecessary duplication of work for the laboratory. I used quotations in Sections 6.2.3 from three FMEs (Dr. A, Constabulary 1 and Drs. B and C from Constabulary 2), providing justifications for the decision not to swab the upper torso, and moreover used quotations from Dr. A and Dr. B to demonstrate the use of clothing as a surrogate for the upper torso swabs. What I wish to make clear at this stage is the shared nature of these quotations and their geographically diverse aspect. Different practitioners in diverse constabularies are making the same decisions, based upon the same reasons. Likewise, Drs. A and B were also in agreement on the decision of whether or not to collect fingernail samples, arguing that if the fingernails are short, or if there is no observable material (other than dirt) under the fingernails, or if the complainer claims not to have touched the perpetrator with their hands, then it is not necessary to collect fingernail samples, as this will provide the laboratory with work that is unlikely to be of value. It is clear then that Drs. A and B, working in different constabularies, have the same practices and justifications for their work, but what about other FMEs?

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[136] The reader is of course invited to revisit the earlier sections to look for more illustrations of collective practice, based upon the examples that I have provided.

[137] The FMEs themselves do not remove material from the clothing, but instead freeze the entire article, allowing scientists to swab areas where material is observed and perform analysis.

To try and provide more conclusive evidence of a shared practice, I will turn to the collection of the account. As I mentioned in Section 6.2.1, it is increasingly considered "best practice" for the practitioner not to attempt to gain an account from the complainer, as it may differ from the initial statements taken by the SOLO or during the formal interview with the SIO, and thereby prove detrimental to the complainer's case at a later date. Moreover, the complainer may become more distressed at the thought that she has been distrusted and the investigators are attempting to test her account, or at being forced to re-live the experience. However, from their experience, FMEs are of the opinion that the accounts provided by SOLOs are usually partial (as the complainer has not provided the entire account to the SOLO), and as the account partially determines FME sampling decisions, the practitioners must find another way to confirm the fullness of the account. Every practitioner interviewed said that they asked "quiet questions" of the complainer during the course of the examination (see Section 6.2.1, and also Dr. A and Dr. F above in this section, for some examples of quiet questions), that may (at face value) appear to be normal clinical medical questions that any doctor might ask during any form of medical, but also suffice to deduce the fullness of the account from the complainer. Even Dr. G, who as I mentioned in Section 6.2.1 used the accompanying officer to gather more information from the complainer, said:

> If however, during the course of the examination I have to ask something, I try not to ask it, but if I need further clarification then I will ask. So we try not to be over-intrusive in our questioning (Dr. G, male, Constabulary 3).

Dr. G's quotation displays the interesting relationship between the first-person singular and the first-person plural with which I commenced this sub-section. Taken together, the linguistic evidence and the shared choices and justifications provide more than a hint, in my view, towards the collective nature of FME practice. It is not enough, however, merely to show areas where such practice is the same; an explanation is also required for the process by which these practices come to be shared. This is the focus of the next sub-section.

6.3.2.2 The Sharing of Practice

I have already alluded to the way in which a trainee observes her trainer and thereby becomes cognisant of some of the community-accepted diversions from the

guidelines, and pointed out that these are crystallised during the latter part of the training process when the trainee is performing examinations herself, shadowed by the trainer. During this latter phase, the trainee either collects the samples and is latterly corrected by their trainer, or the trainee and trainer together decide (before the arrival of the complainer) which samples are to be collected. Either way, it is through this process that trainees are taught to classify cases in the communally-accepted manner and collect the communally-accepted samples. It is not the case, however, that practitioners are just following a norm that they were taught during their training; the shared practice is far more fluid than that analysis would indicate. What the trainer is actually disseminating is the shared "best practice" of the community at one particular time, and it is open to change over time. The way in which these practices change is the focus of this sub-section.

The two most obvious changes to FME practice that I observed during the fieldwork were the introduction of kits into practice in the mid-1980s and the introduction of the double-swab sampling technique (Sweet et al. 1997). It is clear that with both of these interventions, the community of FMEs accepted them as beneficial (see, for example, Rogers and Newton (2006) with regard to the double-swab technique) and so these became part of the community's ideas of "best practice". This process needs to be considered in more detail, however; in both cases an outside agency (in these cases forensic science) introduced an intervention, and because it does not necessarily follow that an intervention is always an innovation, the community of FMEs had to assess its benefits. In both cases the adjudication arrived in the form of the relevant professional association making clear within the pages of their publications (*The Police Surgeon: Rape* and the *Journal of Clinical Forensic Medicine* respectively) that they supported such interventions. As expressed in Chapter Three, FMEs are highly encouraged to keep up-to-date with the literature and so would alter their individual practice in light of these announcements. While these examples demonstrate the community nature of FMEs, subsumed by a professional association and following the communally-agreed instructions described in published journals, they do not necessarily address small-scale local amendments to practice.

It is clear from the data presented in both this and other chapters that practitioners working in the same constabulary follow a similar practice. This is partly because of training, with senior practitioners in a constabulary disseminating their practices (themselves partially learnt from experienced practitioners) to the trainees. However, as demonstrated with the classifying of injuries, it is always possible that new cases can problematise existing classificatory schema, and moreover practitioners themselves improve their techniques through performance (gaining further experience), and may find more efficient strategies for attaining certain sample types (for instance, knowing the situations in which there will not be useful material under the fingernails) or for asking further questions of the complainer without causing upset. In what way, though, are these changes shared within the constabulary? There are various interactive mechanisms by which such changes are passed on: some constabularies have shared offices where FMEs can interact and discuss their cases with one another, others have frequent peer-review processes where work is collectively evaluated, and as I mentioned in Chapter Three, some constabularies hold collective meetings to discuss the nature of work and potential "best practice" improvements. Moreover, while I generally found very little evidence (apart from training situations) in my interviews, practitioners in some constabularies did express that they performed double-doctor examinations. Most practitioners, even those within constabularies which allegedly performed these forms of examination, argued that they were only conducted in cases where the assault showed evidence of extreme violence.

> [I]t [double-doctoring] is very useful when you do get the, thankfully rarer, seriously injured, multiply injured person coming in which is very time-consuming, and again, you don't want to be taken up, this is a distressed person, you want to get the examination done. So if someone else is scribing and doing everything that really speeds things along quite well (Dr. C, female, Constabulary 2).

Although double-doctoring is generally rare, this does present another situation where practices can be shared amongst practitioners in the same constabulary. While it is highly likely that the practice of both would be quite similar anyway, the process

of performing the examination would resolve any slight differences in their decision-making and would also inform both their future practices.[138]

There are plenty of mechanisms by which intra-constabulary practice can become homogenised, but this still leaves the problem of the less interactive process of inter-constabulary shared practice. This too can be explained in terms of interaction; while for the sake of anonymity I am unable to quote from the exact cases, it is certainly true that the level of FME movement in Scotland is high. Practitioners in most constabularies mentioned first working with or being trained by one particular examiner, from whom they learnt how to perform examinations. After this initial time working in that one constabulary, the trained FMEs then moved on to conduct work in other constabularies, developing their own training programmes and peer-review processes based upon their previous training. This provides an explanation for why the majority of FME practice in Scotland is similar: it all diffused from one constabulary, indeed, from the work of one practitioner. However, as described previously, there is considerable scope for intra-constabulary changes in practice due to complex cases or minimal improvements; given this, can it still be argued that a shared inter-constabulary practice exists? FMEs are very aware of the minutiae of the work going on in other constabularies. In certain constabularies, it has become the custom that as part of peer-review, or if the police are unsure about a particular practitioner's findings, a practitioner from another constabulary will be asked to review the report.

> [S]ometimes, in a one doctor system, and they are slightly unhappy about the doctor for one reason or another, what they do is get a more senior doctor to read the papers and to give a report (Dr. B, male, Constabulary 2).

> On occasion the fiscal in various regions has received the report from the police surgeon who has perhaps been a little circumspect as to what the significance of the findings are and perhaps contact myself as the more experienced police surgeon in [cut for anonymity]… the fiscals will ask myself, they will ask [cut for anonymity], um I'm not sure if [cut for anonymity] do it but I know that [cut for anonymity] do for paediatrics but I know the fiscal do have a responsibility and should seek advice if the medical, the initial medical report is uncertain or unclear (Dr. G, male, Constabulary 3).

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[138] Martin Kusch (1999) has labelled a similar process the "way of the multiple, local consensus".

In some cases, under the instruction of the fiscal, experienced FMEs from other constabularies will be invited to review the reports of practitioners. As part of the review, details of the evidence collection process will be evaluated, providing those performing the review with knowledge of how evidence is collected in other constabularies. A potential result of this process might be criticism of any divergent practices from those performed in the reviewer's own constabulary, leading to alterations within the reviewed practitioner's constabulary to become more in keeping with the reviewer's practice.[139] For example, in a slightly different context (that of a practitioner performing a review of a case file as an independent examiner introduced by the defence[140]), O'Keefe (2008) criticised an FME from another constabulary for not using a speculum during the examination of the complainer's vagina. While this, in itself, is not explicit evidence that practitioners are aware of inter-constabulary sampling decision-making, it does demonstrate that FMEs from various constabularies know a substantial amount about the content of each other's work. Furthermore, the O'Keefe example also exemplifies the role of the adversarial process in sharing the knowledge and practices of multiple FMEs, with FMEs in other constabularies reviewing the reports of their contemporaries elsewhere. Such inter-constabulary reviews not only lead to changes in the practices of individual FMEs, but also make them aware of the procedures of other constabularies. Such knowledge is not always beneficial, however, and can lead to misconceptions.

6.3.2.3 Evidence of Differences in Practice

While sections in both the current chapter and the previous chapters have provided evidence of much similarity in practice, there has also been some evidence of differences. If the argument is to be made that there exists a shared practice amongst FMEs, it is necessary to explain such differences in practice here. Of the evidence

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[139] The reader may argue here that this is too unidirectional; surely the reviewer may believe that practices in the reviewed constabulary may also be beneficial and thus introduce them into their own work. While this could certainly happen I believe it to be unlikely because of the status of those conducting the reviews; they are generally highly experienced practitioners reviewing case files of less experienced practitioners or (as Dr. B's quotation indicates) FMEs with whom the police are "unhappy". Given this, it is likely that the reviewer will be picking up practices from the reviewed.

[140] An argument could be made that as the practitioner was working as an independent medical examiner (i.e. for the defence), there is little similarity between the case of a fiscal inviting an FME from another constabulary to review the report, and an independent examiner. However, they are both reviewing the procedures and findings, and therefore I would argue that there is very little difference.

that I have presented, the practitioner who expressed the most anomalous discourse was Dr. B. In this chapter, I have mentioned that he stated that he did not "time-bar the examination" in contrast to other members of his constabulary (an intra-constabulary difference), and also claimed that in a different constabulary, accounts were gathered directly from the complainer (an inter-constabulary difference). I will deal with each of these differences in turn. First the intra-constabulary difference; to repeat the quotation in question:

> A swab costs tuppence, so we take it and throw it away if we don't need it, so we tend to err on the side of caution. If it's a week, five days over, we'll still carry out an examination and sometimes we're surprised to find that some things [trace material] remained. *So we don't time-bar the examination* (Dr. B, male, Constabulary 2, emphasis added).

It is clear that unlike his colleagues, Dr. B does not choose to time-bar his sample collection. It is difficult to know the level of legitimacy with which to grant this statement as it does run contrary to some of Dr. B's other statements; however, I should take him at his word. If Dr. B's practice does differ from that of others, is it still appropriate to argue for a shared practice? I believe it is, not only does it help to explain what I actually mean by a shared practice, but it also helps to reinforce a broader finitist principle. I will start with the latter: as should now be clear, the essence of finitism concerns the drawing of inferences from past cases to new ones. In the quotation above, it is clear that Dr. B previously took samples after a week had elapsed, and forensic scientific analysis still discovered trace material. To this end, he has continued to perform this practice, as for him, his prior collection of cases leads him to infer that this will be beneficial. Idiosyncratic practice such as this is a basic principle of finitism; practitioners, drawing upon different past experiences/cases and different skill levels, will each differ to some extent in their practice. Furthermore (as I have already mentioned in relation to the way that practices change), FMEs are very aware of their colleagues' latest practices, and choose which to assimilate and which to ignore; to this end, practitioners' work does not necessarily need to universal in order for a collective practice to exist, and given a finitist understanding it is difficult to see how this universal practice could become a reality. As Barnes makes clear:

> Shared practices are the accomplishments of competent members of collectives. They are accomplishments readily achieved by, and routinely to

> be expected of members acting together, but they nonetheless have to be generated on every occasion, by agents concerned all the time to retain coordination and alignment with each other to bring them about. Although they are routine at the collective level, they are not routine at the individual level. This is why there is point in referring to a practice as the shared possession of a collective. (There is a sense, of course, in which the shared practice imputed here is a reification, derived from performances all accomplished slightly differently in varying conditions and circumstances; but it is a useful reification and a harmless one, akin to such useful notions as 'skill,' for example, at the individual level) (Barnes 2001: 24/25).

It does not matter, therefore, if practices are actually identical, as long as practitioners' intent is to perform examinations in a similar manner to their contemporaries (for which there is significant evidence; for example, the identical justifications given by FMEs).

Dr. B's other controversial statement was:

> [T]here are two ways of getting the account of the incident, the one way we use in [cut for anonymity] is the police officer who has taken the interview will give us a blow-by-blow account of what has been said in the interview before the examination, so that will lead us into what areas we will want to go into. In [cut for anonymity] the doctor will also take a history from the victim, from the complainer, a full history…. (Dr. B, male, Constabulary 2)

When I visited the constabulary in question I found that such a practice was not, in fact, in use, and that instead the FMEs in that constabulary used the account provided by the SOLO and asked additional "quiet questions" in a similar way to other constabularies. So does this finding undermine the overall argument, given that Dr. B was, in fact, unaware of the practices of a neighbouring constabulary? Again, I would argue that this is not the case; instead, it could potentially support the argument. It is likely that at some point in the past the constabulary that Dr. B mentions had requested an additional account from the complainer before performing the examination. Dr. B is a highly experienced examiner, who acted not only as an independent forensic expert, but also as a case reviewer for the fiscal office, in situations described by both Dr. B and Dr. G above; to this end, he regularly reviewed the case files of practitioners in the constabulary in question (alongside others) and had a strong grasp of their practices. It may be the case that at some recent point, the constabulary changed their account-generating practice, bringing it more in line with the practices of the other constabularies. I would argue that Dr. B

is perhaps yet to become aware of such a change, but, through the processes already described, will soon learn of it. The important point to take away from this, however, is that the practice in the constabulary mentioned may have changed to a similar custom as that performed in the other constabularies, demonstrating that practices from one constabulary can extend to others.

It should also be noted, however, that as I mentioned above, not all interventions and amendments to practice are necessarily innovations, and some may not be considered beneficial in practice. The processes that I have discussed (in terms of providing the ability to share new practices) also provide a space for the FME community to limit and police its collective practice. As made clear in the previous chapter, FME authority can be easily put under pressure if it is thought that FMEs are not collecting all relevant evidence, and a decision on the part of an FME not to collect certain samples, ask certain questions, or (as in the O'Keefe example above) use the appropriate tools during observation can undermine the authority of the FME collective over their own discretion to discern appropriate practices (resulting in, for example, pressure placed on FMEs by forensic scientists to perform the "Total Collection Strategy" in response to repeated evidential omissions). During local meetings, peer-review processes or even double-doctored examinations, practices can be shared but also prohibited if members of the community (particularly authoritative members) see them as potentially damaging to either the complainer or the authority of the FME community. Of course, as I discussed above, it is not the case that the practice of all FMEs is identical; due to their variant experience, slight differences will be observable, both inter and intra-constabulary. However, the important point to note is that all practitioners work with the knowledge of the appropriate practices in certain circumstances, as shared by their local community and the FME community in general, and endeavour to make decisions that they believe will be deemed appropriate by the rest of the community. To this end, while there is significant scope for differences in practice between FMEs (a result of their varied individual experiences), practices with the potential to cause significant harm to either the complainer or the authority and discretionary powers of FMEs are not likely to be conducted; this is a result of the active self-policing performed by the community.

6.3.2.4 Shared Practice and Protocols

The previous three sections laid down the basis upon which I claim that FMEs perform medical examinations of penetrative sexual assault complainers by drawing upon a set of shared practices. The shared practices have been developed in response to the tensions that both Parnis and Du Mont and I identify, but are not static, and new practices can emerge due to scientific research (the double-swab technique) or because of practitioner innovation (use of clothing, asking "quiet questions" for example). As practices are not fixed, FMEs have to be aware of each other's work, collectively identify the practices that constitute an improvement, and either introduce such practices into their own work or ignore them.[141] Given that FMEs frequently incorporate aspects of some practices and ignore others, the work of two practitioners is never identical, if only because of the subjectivities of each case. However, there is significant evidence to make the claim that FMEs base their practice upon a very similar set of ideas or propositions. With the basis laid for an argument that FME decision-making is determined by a collectively-held practice, the question must be raised as to the role that guidelines and kits play in clinical forensic medical work.

As was made clear in Chapter Five, the FMEK was originally introduced as a response to considerable criticism aimed at police doctors. The kit was considered to solve these problems by containing the full complement of instruments necessary for performing a wide range of forensic medical examinations, and a set of guidance notes (including a reporting form) which were meant to inform how the examination was conducted, while at the same time avoiding tying the officer's hand. I argued in Chapter Five that the introduction of the kit served to resolve a "legitimation crisis" in forensic medicine; here, I wish to expand upon this finding, and on my other argument that the development of guidelines was a response to broader medico-legal shifts, by providing further explanations for the roles that guidelines and kits play. Essentially, guidance documents and artefacts serve two functions: they provide hints as to the work that is still to be conducted (see the various references FMEs make to the notion of the kit as an *aide memoire*); and they are a useful tool with which to

[141] See Bloor (2002) for a discussion of how communities determine normativity.

describe and legitimate FME work to others. I will elaborate upon both these points below.

Both Parnis and Du Mont's and my own data make it clear that FMEs do not follow guidance documents to the letter; however, it is also the case that in many examinations, the work is broadly consistent with what is outlined in the guidelines (for example, genital samples will probably not be taken if the account suggests that no contact was made in that area; and certain questions are routinely asked, about medical history or recent alcohol intake for instance). Hence, it is not the case that FMEs always deviate from or always follow the guidelines; an explanation of the relationship between guidelines and practice requires significantly greater nuance. Following my argument that there exists a pre-existing shared practice amongst FMEs, I suggest that the guidelines and the kit constitute a codification of that shared practice, outlining the full breadth of samples that it is possible to take, but with the proviso that not all samples will be necessary in every case, and that the individual FME should make decisions about each particular sample. As Dr. D states, "[w]e have the guidelines to take all swabs and all the samples in each case, but it doesn't make sense in each case" (Dr. D, male, Constabulary 2). To this end, the guidelines and the kit serve as an approximation of the collective practice (it is important to remember that the professional associations were involved in compiling the kits) and so can help FMEs in their performance of the medical examination by reminding them of the samples that they have not taken. In effect, FMEs are required to make a decision on whether or not any of the samples specified by the kit or the guideline are necessary. This is not to say that these artefacts determine practice; on the contrary, this decision is based upon that which the practitioner performing the examination believes that her peers would consider appropriate. But the guidelines do serve to make explicit the decisions made by the FME when conducting an examination. So although FME practice commonly conforms with guidance documents, this should not be taken as evidence that the documents and kit determine the work; rather the guidelines set out a version of how an examination could be conducted, but the individual FME must always classify the case and

determine which samples are required based upon the needs of the complainer and (more importantly) the accepted practices of the community.[142]

On the one hand, then, guidelines represent a codification of the practices of the community, albeit with the acceptance that most cases will not require all the strict procedures set out within: the FME must interpret what is appropriate (the artefacts are necessarily underdetermined). Why, then, produce them at all? As discussed in Chapter Five, a major factor of the EBM movement was the push to make medical practice more "rational, more uniform, and more efficient" (Berg 1997: 4), and the introduction of the kit and guidance documents in the 1980s and the expansion of those documents (partially under the rubric of EBM) in the late 1990s/early 2000s could readily be seen as advancing that aim. Both the documents and the kits act as a resource that practitioners can draw upon in order to explain the content of their work to others within the investigatory process and beyond. For example, during two of my interviews, the interviewees proceeded to open up a kit and explain their practice in terms of the evidence collection form. This section from Dr. A is typical of both those interviews.

> First you introduce yourself, tell them exactly what is involved and then, see that they have consented, when I ask for the consent [walks to desk] I have a certain way of telling them, the police will have filled them in on background, who I am, what I am doing, everything and then there is a certain I get consent for examinations, specimens, photographs, report, everything, if they do not consent, I haven't done this because I have taken for granted that they have but if they don't you can't take any of this. [Respondent points to section of form] In the nature of rape examination (cut for anonymity) history given by the police

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[142] Such an analysis is in many ways consistent with much of the work on rules conducted in STS. Concepts such as "workarounds" (Star 1985), "tinkering" (Timmermans and Berg 1997, 2003), or even "tacit knowledge" (Collins 1975, 1981, 2001) are employed to demonstrate that in cases where actors claim to be following rules or guidelines, their actions are always underdetermined by the rules or guidelines, and the actor is required to draw upon something other than the rule itself in order to know the correct way to follow the rule. The gap is usually filled by recourse to the agreed practices of the community (Bloor 2002). My study is somewhat different, as FMEs do not generally admit to being rule-followers; and in fact, as Section 6.1 demonstrated, are sometimes openly hostile to rules and guidelines. Nevertheless, this study appears to result in similar findings to those introduced above, albeit with the factor that FMEs do not employ the rhetoric of rule-following. On being introduced to a new case, the FME is required to classify it and determine which questions to ask and what samples to take based upon the collectively-agreed practices of the community. This appears to be the same practice as those described by Timmermans and Berg and Star, although without the reliance upon the discourse of rules, which, in the long run, are there to legitimate whatever course of action the practitioner deems as appropriate: they are generally always capable of finding a rule to justify and legitimate their behaviour (Bloor 2002).

Me: *That is by the police, so you do not ask the victim for an assault history, no?* No, and I would put the address here and when I do the report it's always care of the police, so the victim's address, in my report it never appears, and um history given by victim or accused, and then we ask general (Dr. A, female, Constabulary 1 interviewer speech in italics)

In this quotation, Dr. A is using the material in the kit (particularly the reporting form of an actual case) to explain to me how she performs the examination. In addition to serving a descriptive function, however, guidelines and kits also represent a strategy that FMEs can make use of in order to defend themselves against critical attacks (as discussed in Chapter Five). The construction of kits in the 1980s served two important purposes: first, the standardisation of the instruments in the kit meant that police doctors at least had all the materials necessary for performing an examination, and secondly (and more importantly), it legitimated existing police doctor practice. The kits did not, in themselves, ensure that practices would be changed; the police doctors still had to determine which samples were appropriate, and in effect the *status quo* remained. Likewise, the development of guidance documents did not alter practice; rather, it legitimated FME practice against the contemporary trend for EBM: the existence of the documents demonstrated to others outside the community that their work was based on evidence and guided by decision-support tools. It is clear that guidelines, protocols and kits, while of some help to FMEs as a reminder of the samples that have not been taken during medical examinations, have a far more important role: they are a resource for FMEs to legitimate themselves, and thereby the evidence they produce, against critical attack and within a culture that places great importance upon routine and objectivity.

Summary

This chapter has investigated FME attitudes to guidelines and the ways in which they are employed in FME work. Parnis and Du Mont's findings, as well as my own, showed that FMEs are highly ambivalent to guidelines and protocols, which results in differences between the actual work of FMEs and that outlined in guidance documents (although there is also notable overlap between FME work and the guidelines). To this end, I follow Parnis and Du Mont's argument that guidelines and protocols essentially underdetermine practice, and FMEs are therefore required to interpret the rules flexibly, depending on the case in question. Where Parnis and

Du Mont and I differ is the issue of what FMEs draw upon in making that flexible interpretation. Parnis and Du Mont argue that the individual examiner renegotiates the meaning of the kit, playing down the need to collect evidence and prioritising the need to take care of the complainer; the kit is interpreted this way out of a duty of care to the complainer. While I agree with the assessment that FMEs exist in a role-conflict between evidence-gathering and the therapeutic aspect, I am also of the opinion that this is only one of the conflicts that the practitioner has to negotiate; there is another tension between full evidence collection and efficiency. To negotiate these conflicts, FMEs have developed shared strategies in the form of collectively-held practices. Such practices are taught to the trainee FME, and during the course of their career, they will encounter cases that problematise these taught practices and will be required to amend them. (Of course, such innovation may also be the result of improvements in the skill of the examiner, or because of external influences such as scientific innovation or criticism.) With time, other members of the constabulary become aware of the change in practice and choose, as a collective, whether or not to amend their practice; the same may also happen at the inter-constabulary level. The important point here, though, is that the decisions made by an individual FME about a particular case draw upon an existing collective resource, the shared practice, in order to determine the appropriate samples or questions. Taking this view, the protocol does not represent an externally-imposed attempt to discipline FMEs' evidence collection practices. Rather, it is a resource that not only allows the FME to check that they have collected all the appropriate evidence (an *aide memoire*) but also provides them with cover from attacks from outsiders, and allows them to explain their work.

If guidelines cannot fully determine practice, what function do they have? I have already demonstrated that guidelines provide FMEs with a resource to explain their work to others, while also providing legitimacy for their actions; the notion that their work is guided by guidelines invests their judgements with the authority of the professional community, which, of course, is highly beneficial in the provision of expert testimony. Moreover, the guidelines and kits remind practitioners of certain questions and samples that may still be required, while still allowing FMEs to decide whether or not they are appropriate. The process of guideline construction is also

beneficial to the authority and community of FMEs; in an effort to draw up new guidelines, the FFLM is commissioning new research in its new publication, *The Journal of Forensic and Legal Medicine*, which reports new cases, and so (from a finitist point of view, at least) disseminates new exemplars that practitioners can add to their own cognitive frameworks. Moreover, the consensus conferences, commissioned to develop and evaluate new kits and guidelines, provide spaces for the community of FMEs to discuss and evaluate the novel practices being employed by practitioners, and decide which should be considered "best practice" (and added to the guidance documents) and which (if any) may bring the community of FMEs into disrepute, and should therefore be constrained.

Guidelines and other standardised artefacts, therefore, are not only valuable in that they help grant authority to the work of FMEs and thereby the evidence they produce, but also in that they provide spaces for FMEs to develop new research providing new exemplars and to discuss the nature of practice. However, they should not be granted too much importance; in any discipline, the following of rules is not a result of the rules themselves, but rather the appropriate actions determined by a community.

> But a move to rules or standards, however objective, is not a move away from people at all, but *toward* them; for the sense that there is a correct way of taking a rule on in any given case is a collective accomplishment of persons. (Barnes 2000: 135)

In the final analysis, the guidance documents do not constrain FME practice, but instead present an outline of how that practice could be performed, providing FMEs with an *aide memoire* of all the potential samples and questions and prompting them to evaluate whether or not that evidence is required. In making that decision, FMEs draw upon the community's agreed praxis, and so their authority ultimately derives from the fact (as with injury interpretation) that FMEs have formed a consensus on the appropriate ways in which to conduct examinations. While the guidelines serve the purpose of explaining FME work to other actors in the criminal justice process, it is FMEs' almost complete avoidance of disagreement with one another about evidence collection (a result of their collective practice and policing of that practice) that maintains the authority of FME procedural evidence collection.

7. Consent and the "Neutral Report"

The previous chapters have focused on the way that FMEs perform medical examinations, and the way that they manage their claims-making and evidence-gathering strategies in order to improve the likelihood that their evidence will not be contested in court. This chapter will present one final strategy: the framing of evidence by FMEs in relation to whether or not the injury evidence signifies non-consensual intercourse. One of the chief aims of the medical examination of rape and sexual assault complainers is to recover evidence that either corroborates the complainer's account (Kelly and Regan 2003), or suggests that the allegation is a fabrication - for example, evidence resulting in an inference that the complainer is delusional or has invented the allegation.

> We're also there to be independent, to say this person appears delusional, she claims she has been gang-raped by six people and it becomes obvious that they are ill and you have to make a decision about that (Dr. G, male, Constabulary 3).

To this end, after constructing a morphological account, the FME has the option to draw a final inference: whether that account is consistent with or contradictory to the complainer's version of events. If the complainer is reporting a complaint of rape, this inference revolves chiefly around whether or not the morphological account constitutes evidence that sexual intercourse was consensual. FMEs urge considerable caution in making such a claim, resulting in the frequent production of "neutral reports". The "neutral report" neither corroborates nor refutes the complainer's allegation, and constitutes the norm in forensic medical examinations; a SOLO I interviewed claimed that such a report was the result in approximately nine out of ten cases:

> Nine times out of ten it [the FME's report] would come back inconclusive [neutral]. There may be some obvious injuries externally, but you often find that even internally the doctor cannot say at that point in time if there has definitely been forced sexual intercourse (SOLO A, female, Constabulary 1).

This account was also backed up by FME evidence, some of which I will provide shortly. In the following sections, I will explain why FMEs choose to produce neutral reports. I will draw particular attention to the uncertainty surrounding

injuries and non-consent, and introduce the argument that the production of the "neutral report" is linked to FMEs' concern for their own credibility: the neutral report, I will argue, is a vital tool for maintaining FME authority, as it reinforces the perceived unanimity of the community of FMEs. I will also argue that the neutral report serves to construct boundaries between medicine and the law, which reinforce FME authority over areas they consider medical, while manoeuvring the concept of consent towards the legal field. I will conclude by outlining a number of implications of the continued use of neutral reports in rape cases, most notably the possibility that it unintentionally undermines both FMEs' and others' (rape crisis lobbyists, for example) attempts to limit the strong mythic relationship in the minds of jurors and prosecutors between a "real rape" and significant signs of injury. I will begin this analysis by explaining the difficulties inherent in the attempt to infer consent from injuries (or the lack of them).

7.1 Constructing Neutral Reports

While the need for evidence of "overcoming the will" of a rape victim by means of force, threat of force, or intoxication was removed from the law of rape by the *Lord Advocate's Reference* (see Chapter One), jurors are still generally under the impression that evidence of injury and force is necessary in order to determine that an act of sexual intercourse constituted rape.

> I think we need to educate not just "Joe Bloggs" the public to say what rape usually means, [they think] you've been kicked, dragged into some bushes and you've got to have all these things, the woman should be crying, she should be beaten up black and blue and all the clothes, and you forget that there is someone holding a knife to your throat, or your kids are sleeping next door, are you just going to say "Do your business and go and leave my children alone" you know, that's, and those are the women that are affected years down the line and people forget, and I want to convey, the public should realise that, just no injuries does not mean no to this thing (Dr. A, female, Constabulary 1).

Dr. A's account of the popular understanding of rape points to a number of "rape myths" that are widely embedded throughout society. Importantly (as I will explain in the following section, where I will expand upon "rape myths", particularly the idea of "real rape"), such beliefs represent a fundamental misunderstanding of the nature (and legal definition) of rape; they predispose juries to see injuries as evidence of

non-consensual sex, and the absence of injuries as evidence of consent. Clinical forensic medical research and FMEs' own experiences lead them to believe that such a strict dichotomy is problematic, and so they tailor their reports in order to avoid perpetuating such myths. However, the way that their evidence is used in court means that such efforts may be self-defeating. In this section, I will explore some of the literature surrounding the relationship between injuries and consent, and FMEs' own accounts of the problem of rape myths.

7.1.1 Interpreting Absence of Injury

It is wrong to believe that all rape complainers present with injuries. Clinical forensic medical studies have recently emphasised the fact that the absence of injuries does not signify a false allegation, and FMEs frequently repeat the slogan "It's normal to be normal" (Adams et al. 1994). Originally coined within the context of paediatric sexual examinations, and frequently employed in recent discussions of adult sexual examinations, it means that due to various reasons (for instance, the assault was historic, and/or other forms of force were employed such as verbal threats, and/or the bodily responses associated with sexual contact resulted in lack of injuries (Levin & Berlo 2004)[143]), injuries are not a guaranteed result of non-consensual sex. To this end, even if the morphological account does not signify any sign of assault, FMEs are loath to undermine a case by labelling it a false allegation, as their own experiences and research make them aware that there are many reasons for such findings.

> I can only say as it is, that there is no evidence of recent injuries, but that absence of injuries does not exclude anything. That is what I usually say and that is what I can say. So you can't say more when there are no bruises, or no injuries, you cannot do any reconstruction… BUT according to experience there might have been threatening with a knife or something, without causing injures, but that's rape as well. That would be rape as well, but that's a question to the court, that's not a medical question, I can only draw medical

[143] Levin and Berlo reviewed both case reports and the clinical forensic medical literature for examples of involuntary genital manifestations of sexual arousal (which they define as "vaginal/clitoral blood engorgement and vaginal lubrication for women, penile tumescence or erection in men" (Levin & Berlo 2004: 82)), and also gathered anecdotal reports from clinicians and a nurse therapist. While very little was discovered in the case and academic literature, the anecdotal reports suggested that involuntary sexual arousal and even orgasm was more common than previously reported. This information helps to explain why some complainers report without presenting genital injury, as genital injury in females is understood as being the result of a lack of lubrication. See *Infra* 148.

> conclusions… This does not rule out that there have been other mechanisms, but that's just on the borderline between medical and legal. (Dr. D, male, Constabulary 2)[144]

This is a preliminary reason for FMEs' construction of neutral reports: forensic medical studies and FME experience have highlighted that a lack of injuries does not necessarily signify non-consensual sexual intercourse. Such uncertainty over the significance of limited or lack of signs of injury leaves FMEs with no option but to avoid making a definite conclusion as to whether the morphological account supports or refutes the complainer's allegation of rape, and hence produce a "neutral report". However, while FMEs have become more nuanced in their awareness of what a lack of injuries can represent, broader cultural understandings of rape have yet to change; this is a result of several highly entrenched societal "rape myths" (Harris and Grace 1999, Kelly 2005, Temkin 2005, Withey 2007, Temkin and Krahé 2008).

The chief "rape myth" is that of the "real rape" scenario. The "real rape" involves an unsuspecting woman being attacked by a stranger, in an outdoor location at night, with the stranger employing force or a threat of force (with the use of a weapon), and the victim offering active resistance. After the attack, the "real rape" myth suggests that the victim appears highly traumatised by the experience and reports immediately to the police (Temkin and Krahé 2008). While this "real rape" scenario is widely accepted,[145] it only represents a small proportion of reported rapes. Figures from the British Crime Surveys (hereafter "BCS") of 2004/5 (Finney 2006) and 2005/6 (Coleman et al. 2007) demonstrated that a constant 11 per cent of the women who answered that they had been seriously sexually assaulted since the age of 16 had been the victim of a stranger rape.[146] Findings such as this indicate that the

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[144] Dr. D here raises the interesting dialectic between legal and medical questions. This is a primary justification for FMEs' construction of neutral reports, and as such, I will address this in detail shortly.

[145] See Temkin and Krahé (2008) for a survey of the wide-ranging literature concerning rape myth acceptance.

[146] In the 2004/5 British Crime Survey, 59% of serious sexual assault victims had been the victim of an "intimate" (partner or family member), and 41% the victim of an acquaintance. Likewise, the 2005/6 survey discovered that 58% had been the victims of "intimates", and 40% acquaintances (statistics do not add up to 100% due to multiple assaults). It should be noted that there are some methodological difficulties with the collection of the BCS statistics, concerning under-reporting in particular; see for example Temkin (2005). Nevertheless, even with the methodological problems, the BCS statistics are consistent with Harris and Grace's (1999) earlier attrition rate study, which discovered that 12% of the police case files investigated constituted stranger assaults, while 43% constituted intimates and 45% acquaintances. It should also be noted that both the BCS and the Harris and Grace studies are concerned with the English and Welsh jurisdiction. Scotland has instituted its

stranger assault represents a minority of cases, and as such, assuming that form of attack as the paradigm obfuscates matters and, importantly, creates false expectations.

The violent nature of the "real rape" provides the perfect situation for severe and multiple injuries. That the victim is then meant to rush to report the assault would also result in the injuries being fresh, and so (with the exception of bruises) readily identifiable and recordable. The "real rape" scenario, therefore, perpetuates the belief that violent injuries are a guaranteed result of an actual rape, while absence of injuries indicates that rape cannot have occurred. To this end, juries tend to determine whether or not consent was offered to sexual intercourse by the complainer from signs of injury (MacKinnon 1989). FMEs are well aware of this problem:

> Putting that ["it's normal to be normal"] across in court is problematic because people still think, whether it is an adult sexual assault with no injuries, or a child, JURIES WANT INJURIES; for them to believe they really want to see something. That is the bottom line. (Dr. C, female Constabulary 2)

Such juror beliefs are reinforced by the criminal justice process; because cases concerning injury are more likely to be successful than cases without (a result of jurors being more likely to convict in cases displaying injuries – see also the study by Bright and Goodman-Delahunty mentioned in Chapter Four), procurators fiscal are more likely to progress cases with injuries through the criminal justice process than those without. Such a finding was illustrated by one of Harris and Grace's interview respondents in their attrition study conducted in England:

> I showed them [SIO] my bruises right… and do you know what they said, 'your bruises are not good enough'. I went 'well what do you mean my bruises are not good enough, I've just been raped for God's sake, you don't talk to me like that' – 'your bruises ain't good enough you've got no case.' (Complainant cited in Harris and Grace 1999: 21)

There appears to be what can only be described as a "vicious circle" here: jurors expect "real rape" victims to report with signs of significant injury, and that expectation is corroborated by procurators fiscal in that cases demonstrating

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own crime survey, the Scottish Crime and Victimisation Survey; however, the published data is not as detailed for that study as for the BCS.

significant injury are more likely to progress to a trial than cases, like that of Harris and Grace's respondent, where bruises were not considered "good enough" to merit a prosecution.

> The significant positive associations of documented injury with charge filing and conviction... is an important step in confirming the value of injury documentation in the forensic examination of sexual assault victims… Our finding that severe injury is positively associated with conviction is also consistent with some of the few previous studies examining this issue. This is not surprising given that more than half of the cases proceeding through the criminal justice system involve an assailant known previously to the victim, which is likely to make corroboration of nonconsent through injury documentation a common issue at trial (McGregor et. al 2002: 645).

McGregor et al.'s (1999, 2002) findings (from their studies of the use of injury evidence in Canada) likewise emphasise that cases demonstrating significant evidence of injury are more likely to result in convictions and progress through the criminal justice process than cases that do not. In an attempt to counter such rape mythologies, FMEs advocate that the problems with determining consent from injuries should be explicated to all involved within the criminal justice process whenever possible; for example, White and McLean (2006) suggest that FMEs explain to the police, prosecutors and the court that injuries are not always present after a sexual assault, and it should not be perceived that there is an automatic relationship between injuries and rape.

This section has explained that complainers do not always present with signs of injury, but also that FMEs are aware that such a finding does not, in itself, undermine the validity of the complainer's allegation. In these cases, they produce a "neutral report" in order to make clear that lack of injuries does not signify lack of consent to a criminal justice process that prefers injury.

> Police it's a bit difficult, they want all the injuries, "Ah great", and you think "Oh no please don't say that" but for them that's great as they can do court. (Dr. A, female, Constabulary 1)

FMEs also face problems when presented with morphological accounts that contain significant evidence of injury.

7.1.2 Interpreting Injuries

As with cases where there are few or no signs of injury, FMEs suffer from uncertainty as to the kinds of claims they can make when there is significant

evidence of injury. Again, clinical forensic medical research (particularly Norvell et al. 1984, which reported that most forms of sexual intercourse may produce injury) and FMEs' own experiences emphasise that although injuries signify signs of force, it does not follow that they also signify absence of consent. To this end, FMEs choose to limit their claims-making to the inferences that make up the morphological account alone, even in cases of significant injury, as further inferences, such as an FME's claim that a particular morphological account represents evidence of non-consensual intercourse, could easily be contradicted by others and explained as the result of "vigorous consensual sex". This conundrum has been further problematised recently with the assimilation of colposcopy into forensic medical examinations.

Some FMEs and clinical forensic medical researchers argue that the improved observation provided by colposcopy may have the potential to help define a collection of injuries that could discriminate between consensual and non-consensual sexual intercourse.

> The facility with the colposcope that we have got there, although one of our number doesn't like it very much, although I, I think it's a fantastic machine and the clarity and the pictures you get are fantastic you know, and you will really see stuff that you probably wouldn't have seen before. The issue arises ultimately, and this is still a problem, with research into that and… but there is an issue about validity of these results, because what you are actually seeing is common, is it not common, where is your standardised group of consensual intercourse, all of that stuff. Obviously, if we see an injury it is relevant, it corroborates that there has been penetrative sexual contact, whether it is consensual or not though, of course, that is up for debate (Dr. C, female, Constabulary 2).

The research to which Dr. C is referring is found within the two controversial studies by Laura Slaughter: "Colposcopy to establish physical findings in rape victims" (Slaughter and Brown 1992), and the follow-up, "Patterns of genital injury in female sexual assault victims" (Slaughter et. al 1997).[147] In the first of these studies, Slaughter conducted colposcopy upon 131 women who had reported rape within 48 hours of the alleged assault. Slaughter reported finding injuries in 87 per cent of that sample, in contrast to previous studies using other techniques (notably the nuclear stain "Toludine Blue") which enabled injury detection in less than 60 per cent of cases. Slaughter used this finding to promote the routine use of colposcopy within

[147] Hereafter "Patterns".

sexual assault examinations. However, her recommendation was vehemently challenged by other medical examiners: in the first instance, for emphasising genital injuries, which could generate the misconception that the absence of such injury represented a false allegation (Patel et. al 1993, McGregor et. al 1999, McGregor et. al 2002); and secondly, because while it is true that colposcopy use would increase the number of injuries observed, there was still no way to ascertain whether or not those injuries signified non-consent (Bowyer and Dalton 1997, Lincoln 2001).

Slaughter et al. attempted to address this question of the relationship between injuries and consent in their follow-up study, "Patterns of genital injury in female sexual assault victims". The objective of "Patterns" was to ascertain whether or not Slaughter et al. (using the colposcope) could identify a particular injury or collection of injuries specific to non-consensual sexual intercourse. To that end, they reviewed the colposcopic recordings of 311 victims of sexual assault, and compared them with findings in 75 women who were colposcopically examined 24 hours after what was judged to have been consensual sexual intercourse (a problematic judgement: see below). The study concluded that genital injury was only identifiable in a small number (11 per cent) of the consensual intercourse sample, whilst injury was commonplace amongst the victim sample (89 per cent). Slaughter et al. concluded: "Although coital injury seems to be associated with insertion of the penis, its prevalence is significantly associated with a history of non-consensual intercourse" (Slaughter at. al 1997: 615). The authors also believed that they had identified a mechanism for explaining genital injury (forceful insertion of the penis), since the location and type of injuries was found to be similar across the non-consensual cohort. Slaughter et al. were cautious in drawing hard-and-fast conclusions about consent from their findings, declaring that "Further investigation is needed to determine whether there is a finding or group of findings that can distinguish non-consensual and consensual activity" (Slaughter at. al 1997: 615).[148] On the other

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[148] A textbook published the same year as "Patterns", to which Laura Slaughter was a contributing editor, was far more forthright with its explanation.

> The posterior fourchette, labia minora, hymen, and fossa navicularis are the most common sites of injury in penile vaginal penetration (Slaughter, 1997). Injury at these sites suggests that the lack of the human physiological response to sexual stimulation plays a significant role. In the victim, there is a lack of pelvic tilt and partner assistance with insertion, lack of lubrication, and relaxation. Lack of pelvic tilt and partner assistance with insertion combined with forced intromission results in injury, especially at the posterior fourchette, labia minora,

hand, they repeated their recommendation that the colposcope should be routinely used as part of "best practice" for generating forensic evidence in sexual assault cases.

"Patterns" did not really achieve its aims, as it did not find a collection of injuries that discriminated consensual from non-consensual sexual intercourse in a definitive manner. In fact, it might equally well be seen as reinforcing the findings of Norvell et al. that it is not unusual for there to be injuries after consensual intercourse,[149] although this outcome of their work might itself be merely a result of their methodology. One of the significant findings in "Patterns" is the 11 per cent of the group classed as having had consensual intercourse who were found to have injuries. However, there is a serious difficulty with Slaughter's methodology in this respect. The final allocation of individuals to the "sexual assault" and "consensual sexual intercourse" group occurred only after rape complainants' allegations had been corroborated (or not). Consequently, in the case of a rape claim, if there existed substantiating evidence for sexual assault, the case would be added to the victim cohort. But if an account was not corroborated, then the complainant (who had originally been colposcopically examined as a victim) would be re-categorised within the consensual sexual intercourse group. All of the women who originally registered a complaint of rape would have received a colposcopic exam (which may have displayed evidence of injury), but in some cases, when the results of the exam

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> hymen, and fossa navicularis. Lack of increased lubrication causes abrasion or lacerations with the friction of the opposing forces at the labia minora and hymen, since these parts are pulled inward with the penetrating object. Vaginal lacerations and ecchymosis result from the lack of lubrication of the penetrating force. However lubrication alone, such as menstrual blood, does not protect the external nor internal genitalia from injury during non-consensual contact. Lack of cooperation and relaxation creates a less flexible surface against which the offending object forces itself, causing more blunt force trauma such as ecchymosis and swelling. (Girardin et al 1997: 23)

[149] This analysis is similar to Catherine MacKinnon's (1989) approach to the law of rape. MacKinnon points out that every penetrative sexual act involves a degree of force, and therefore the "problem remains what it has always been: telling the difference" (MacKinnon 1989: 174), i.e. discriminating between sex and rape. My analysis differs from MacKinnon's, however; her work stems from the methodological starting point that because of ongoing structural inequalities between men and women, all contemporary sexual practices are to some extent violent (and, therefore, there is little difference between sex and rape), whereas I disagree with this standpoint and believe that sexual acts differ significantly in meaning from acts of rape. While I agree that both contain elements of force, and that rape is not necessarily always violent, in a sexual act both parties mutually agree to engage in intercourse; in an act of rape, this is not the case. This difference is important, because MacKinnon's conception of sexual intercourse tacitly accepts that men are dominant while women are passive, and that women "allow" men to have sex with them, or not in the case of rape. Like Nicola Lacey (1998), I dismiss this position and understand sex as an act with joint agency between participants.

were coupled with the remainder of the police's investigatory evidence, the quantity of evidence was deemed insufficient and the complaint was not corroborated. As a result, some of the cases located within the consensual category may have been inappropriately classified.[150] The implication of this is that a large proportion of the 11 per cent of those judged to have had consensual sex could represent women who had, in fact, been sexually assaulted, but whose cases resulted in insufficient corroboratory evidence to substantiate the allegation. On the other hand, it is also possible that the 11 per cent exemplify the previous findings that most forms of sexual intercourse can produce injuries.

FMEs are aware of the problematic nature of Slaughter's findings:

> I think increasing knowledge, in particular Laura Slaughter's paper, although not particularly a good one as it reintroduces people who have been re-categorised, but I think now, it's common sense in fact, that you will get mild injury in consensual [sexual] acts, particularly when using a colposcope, that's really what you'd expect, so that, that's fine. You then get into a situation where the experience comes in "Well I accept what you are saying, that you can get minor injury after a consensual act, but this is rather more extensive than what you'd expect with that." But if you make a comment like that you will have to be able to justify, it is no good saying instinctively that is the case, you have to say this is my experience [cut for anonymity] (Dr. E, male, Constabulary 3).

While Dr. E appears to argue that such a differentiation is not particularly difficult, such classifications can be easily challenged. Consequently – as is clear from this discourse with an imaginary interlocutor – in the act of making such claims the FME would have to mobilise significant authority (for example experience) in order for the claim to be accepted. It is always possible for such claims to be contradicted by other FMEs, or undermined during cross-examination, with the argument that the injuries are in fact the result of "vigorous consensual sex".

As a result of the continued uncertainty over the inferences that can legitimately be made from signs of injuries, and the potential for claims relating to consent to be undermined during testimony, FMEs agree that "best practice"

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[150] The consensual category was made up of 19 volunteers who had replied to an advertisement, 48 women who had originally made a complaint of rape, 6 minors and 2 who were examined at routine post-sexual assault follow-up visits. It is clear that more than two-thirds of the consensual category were made up of women who had initially reported being raped.

involves limiting their claims to the morphological account, even though prosecutors would prefer that they make stronger claims (and indeed pressure them to do so).

> There's pressure on them [FMEs] to over-egg the pudding, in terms of, if you find some evidence you are in a way pushed, and some people take the bait I'm afraid, pushed to say that this is of more significance than it actually is, that it represents consent, although in your heart of heart, hand on heart you cannot say it is so. There has to be a certain amount of emotional detachment. Now some people are bending under the pressure and, as I say over-egging the pudding, so they are pushing a bit too much, and to try and be helpful to the prosecution perhaps people are maybe expressing opinions which cannot be validated 100 per cent, maybe 90 per cent valid, pretty good but not 100 per cent (Dr. B, male, Constabulary 2).[151]

It is clear from Dr. B's quotation that FMEs who do draw inferences about consent from a particular injury or collection of injuries are considered to be "over-egging the pudding" and making claims that can be disputed. Another FME was even more scathing about peers who made claims about consent:

> Some doctors will do the examination… and not put an opinion at all, that is not uncommon. In fact that is probably more appropriate than saying the clinical evidence, the doctor will say, "the tear at the posterior fourchette indicates forceful penile-vaginal penetration." That in itself is not too bad, but then they say "the tear at the posterior fourchette, the bruises, the abrasions are such and such that this is an indication, or supports the complainer's statement of rape." When you see something like that it's absolutely shocking, simply as doctors it is not our remit to say whether someone's been raped or not (Dr. G, male, Constabulary 3).

The "safe" FME, therefore, does not draw conclusions about consent; it is clear from the quotations of Drs. B and F that FMEs, collectively, are critical of their colleagues who do draw conclusions (probably because, as I have demonstrated in the previous chapters, signs of disunity can undermine the collective authority of the FME community). The norm, even in cases with significant evidence of injury, is to produce a neutral report: a report that neither confirms nor refutes the complainer's allegation of rape. This ensures that the FME's evidence is not contradicted during the trial. "Minimal evidence is presented, giving your opinion on the findings that you have. That is all you can base your opinion on" (Dr. H, male, Constabulary 3).

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[151] I will discuss the relationship between the FME and other prosecutors in relation to the "neutral report" shortly.

7.2 The Politics of Neutral Reports

I have flagged up the way that the complex relationship between injuries and consent makes it difficult for FMEs to draw conclusions about the veracity of a complainer's allegation, and explained how they produce neutral reports in order to ensure that their evidence cannot be contradicted in any future trial. In this section, I will expand upon this original finding, exploring the way that FMEs use the neutral report to construct a medico-legal boundary and thereby ensure that their evidence is not undermined during the trial, as well as the way that they use the neutral report to position themselves as independent practitioners in the adversarial criminal justice process. I will begin with the medico-legal boundary.

7.2.1 Medico-Legal Boundary

FMEs believe that their expertise centres on knowledge of the body, and injuries in particular. When requested to make decisions about consent, they are asked to address the mental issue of whether or not the complainer gave her consent for sexual intercourse.[152] FMEs argued that such a judgement was outwith the scope of their expertise, and that they were unequipped to answer such legal questions.

> Well at the end of the day, I don't go out of my way to construct a neutral report, I put together a report and reflect on what is in that. I will go over the pattern of injuries and if there is a suggestion that some of these injuries fit with the story of assault then I'll say that these injuries are in keeping with the history of the assault. When it comes to an allegation of rape, this is a very specific allegation isn't it; penetration, vaginal penetration without consent. *It is not for me to say whether consent was given or not*. So basically most of our, you'll probably find most of our reports neither confirm [n]or refute the allegation and assault is a very different crime to rape. (Dr. F, male, Constabulary 2, emphasis added)

> It is not up to me to say whether she opened the door, did she allow him, did she go on a date with him, I don't know that, and maybe there has been whatever, they were together, something went wrong, that's up to the court to decide. (Dr. A, female, Constabulary 1)

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[152] I am aware that this is an over-simplification, and that sexual intercourse with a victim who has not made the mental decision to offer consent does not constitute the entirety of the "wrong of rape", only the *actus reus.* The wrong of rape requires a "legally blameworthy state of mind", or *mens rea*, in addition to the *actus reus* (Gane and Stoddart 2003: 26). Therefore, in terms of rape, it is not enough for the victim to deny consent for the act; the suspect also has to be aware that the victim does not consent, or to be reckless to this fact. However, as the FME has even less ability to assess whether or not the suspect was aware or reckless to a lack of consent than to assess whether consent was offered, I will not address this point here.

As is clear from these quotations, FMEs state that there are questions for which they are able to provide answers (the type of the injuries, their cause, etc.) which are medical, i.e. within the area of their own expertise. In contrast, there are other questions that they are asked to address, concerning whether or not the injuries are consistent with the complainer's allegation of rape, for which FMEs do not feel comfortable providing answers, and these they label as legal questions for the court to decide. In producing a neutral report, FMEs limit their claims to those covered by their sphere of expertise. While there is an extent to which such a dualism is legally enshrined, particularly in relation to the "actual issue" rule,[153] it appears that such a dichotomy is more a construction of FMEs than the law of evidence. As I made clear in Chapter Four, FMEs make numerous judgements about injuries, but, on the whole, view such inferences as sufficiently secure (by which I mean collectively agreed) for inclusion in the morphological account, and thereby treated as medical matters. The potential for disagreement means that, according to FMEs, consent constitutes a legal matter and not a medical one: would this divide still exist if, for example, Slaughter et al. had been able to deduce a particular set of injuries that distinguished consent? As I have already made clear, FMEs are quite happy to make judgements about some controversial questions such as severity or force. Likewise, as highlighted by Dr. B's quotation earlier, prosecutors are pressuring FMEs to make stronger inferences about consent; would this be the case if it was prohibited by the law of evidence? It is FMEs themselves who determine that it would be inappropriate to draw conclusions as to whether or not the morphological account is consistent with the complainer's allegation, for the reasons that I explored in the previous section (i.e. it would result in disagreement and contradiction); this is a form of boundary-work (Gieryn 1983, 1999).

FMEs' construction of the medico-legal boundary, and the related construction of the neutral report itself (based upon such a boundary), I label an act of boundary-work, as it serves an important rhetorical function. As I have made

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[153] The "actual issue" is the question that the court has been convened to answer, and as such, any expert evidence submitted to the court is prohibited from addressing this specifically (Chalmers 2006); however, Chalmers accepts that Scottish courts have been quite lax in policing the "actual evidence" rule and frequently allow experts to present evidence on the "actual issue" or something very similar.

clear, the distinction itself appears arbitrary; however, its placement has a significant implication. Dr. F's definition of a neutral report was one that "neither confirm[ed] [n]or refute[ed] the allegation"; FMEs were unable to draw conclusions, as the question was one of consent (and therefore outside their area of expertise). The construction of consent as a legal issue means that it is not the responsibility of FMEs to determine whether or not consent was provided, and by maintaining that boundary, their evidence is delimited (along with any future cross-examination) to aspects upon which there is general agreement within the FME community (i.e. issues labelled as medical by FMEs). Limiting evidence to aspects upon which FMEs share a consensus, of course, serves to facilitate their appearance as credible, expert providers of incontrovertible evidence for the court.

7.2.2 Boundary Between Neutral Expertise and Evidence for the Prosecution

When FMEs talked about the neutral report, they used the phrase in two different but related ways: first, the term neutral report has the meaning that I discussed in the previous section (i.e. neither confirming nor denying key aspects of the complainer's account); secondly, it is used by FMEs to express another set of professional boundaries, i.e. it is a neutral report in that it supports neither the party on whose behalf they may be testifying nor the opposition, and thus demarcates the FME as independent from said parties. "A neutral examination neither supports the prosecution or the defence. It is a neutral report" (Dr. B, male, Constabulary 2). While it certainly follows that the first meaning of the neutral report, discussed in the last section, does map onto the secondary meaning of neutral pertaining to the adversarial dynamics of the courtroom (if the evidence does not support or refute, it follows that the report is also of little benefit to either the prosecution or defence), there is something very different about this second use of neutral from the first. While the first meaning of neutral emphasised and constructed the parameters of forensic medical expertise, this secondary meaning represents an attempt by FMEs to appear independent, rather than partisan to either of the parties at trial. FMEs are acutely aware of the potential for their testimony to be interpreted as prosecution- or conviction- minded (Jones 1994).

> We're there, to a certain extent, to see if there's an, if the clinical evidence supports the allegation, or if the clinical evidence does not support the evidence, or indeed if the clinical evidence contradicts, very often it can be absolutely contradictory. What, again, we go in with an open mind, we're there to provide a service, we're not there to, we're there to assist the investigation, and if necessary to assist the prosecution, but we're not there to assist in the process of conviction. We're there to provide evidence that will ultimately go to assist the investigation, the prosecution and perhaps even the court judgement, BUT WE'RE NOT THERE TO GET A CONVICTION. So we've always got to keep an open mind, frequently the doctors can't say anything… you can say that the clinical findings neither support nor refute the allegation, and that is entirely appropriate (Dr. G, male, Constabulary 3).

This quotation includes a conflation of both meanings of neutral: in the last sentence, Dr. G states that it is appropriate to write an inconclusive report, but not because of uncertainty surrounding consent; instead, this statement is made within the context of the relationship between the prosecution and the FME. FMEs, it appears, have extended the use of "neutral report" from meaning simply "neither supporting nor refuting the complainer's account" to describing their own position and relationships within the adversarial dynamic of the courtroom. As such, the production of a neutral report does not merely signify a boundary drawn between questions of the law and questions of pathology, but also one situated between FMEs and the prosecution. For instance, there were numerous instances during my interviews where FMEs informed me of cases where the defence had put it to them during cross-examination (to paraphrase), "Of course you'd say that, you work for the prosecution." As these examples involved recent or ongoing cases, I have not transcribed the details in order to protect anonymity. Nevertheless, it is clear that FMEs have cause for concern about being labelled prosecution-minded, as this could result in their evidence being undermined as partisan; therefore, they choose to write neutral reports (a report that benefits neither the prosecution nor the defence) and so position themselves as independent of both parties. Here, again, the construction of the neutral report signifies an act of boundary-work, maintaining a boundary between FMEs and prosecutors, and impressing upon the court that FMEs are impartial, objective experts.

7.2.3 Implications of the Neutral Report

It is clear from both uses of the term "neutral report" that FMEs are very much aware of the future trial when preparing their report, and that this colours the report's eventual content. A singular focus on the pathology produces unanimity amongst FMEs and avoids potential deconstructive questions concerning legal matters (consent in particular); at the same time, a neutral report positions the FME as a disinterested and nonpartisan player in the adversarial arena of the courtroom. Neutral reports, therefore, are very useful for sustaining the expert appearance of FMEs. Paradoxically, it is exactly this boundary construction that proceeds to make FMEs' evidence irrelevant to certain key questions in rape cases. The very fact that neutral reports are constructed in such a way as to ensure that they are uncontroversial also means that they do not pose problems for either the prosecution or defence before trial; moreover, because the evidence does not bear upon the issue that the court has been convened to address (the question of whether or not sexual intercourse was consensual), it does not aid the court in its legal fact-finding. As the neutral report is not contentious (and does not address matters concerning consent), it is likely to be accepted by both the prosecution and the defence and hence not called to court under Sections 256 and 257 of The Criminal Procedure (Scotland) Act 1995. In effect, FMEs are excluding themselves and their evidence from trials.[154]

> [W]hat they say is that there is nothing much to be gained by bringing, so they sometimes go and ask the defence they say "well there is nothing in this, do you want to agree on that" so if they both agree to that then it helps neither of them because you could say it could have happened or it couldn't have happened, so who's it benefiting, nobody, you know, so that's fine, so they'll argue on something different, so if it's a smart defence they're going to say "okay it's a consent issue" what can I do? So then that's fine, but before, but they have to agree to that (Dr. A, female, Constabulary 1).

FMEs, therefore, are making a trade-off between evidential significance (the ability to make useful claims for the court) and the maintenance of their epistemic authority (ensuring that FMEs' claims remain credible), and while it certainly lends itself to

[154] When asked, FMEs generally agreed that they were cited to court for approximately one out of every three cases they examined. They were never made aware of the reason for not being cited; it is possible that the complainer had withdrawn the complaint, or that the case had been diverted for another reason, but an agreement on the part of both parties in the Preliminary Diet that there is no dispute over the forensic medical evidence is certainly another potential reason for the non-citation of FMEs.

the legitimisation of expert work and evidence, the neutral report diminishes the utility of that evidence. As the neutral report is non-contentious and benefits neither party, it is of little use to legal fact-finding. As already discussed, the current construction of consent as a legal question means that it lies beyond the boundaries of clinical forensic medicine, and so the court must rely on other forms of evidence in order to address whether or not an act of sexual intercourse constituted rape.

Summary

This chapter has focused upon the neutral report, which is the preferred response of FMEs to questions relating to the relationship between the morphological account in a case and the complainer's allegation that she was raped. As rape cases hinge on consent, FMEs are expected to address whether or not the evidence is suggestive of consent or non-consent. Clinical forensic medicine and FMEs' experience both make it clear that such a determination is inherently problematic and open to contradiction in court, and so FMEs choose to avoid drawing such a conclusion, instead producing a neutral report. This bolsters FME authority in two interesting ways: first, it constructs boundaries between the medical aspects of FME work (inferences surrounding injury type, cause, and severity) and the legal aspects, where community agreement has yet to coalesce. Consent, therefore, is a legal matter, because FMEs have not reached consensus on a way to achieve such an inference. However, by limiting their claims and findings to those that they consider medical, FMEs reinforce their authority over such issues, while also excluding legal matters. The second manner by which FME authority is bolstered by the neutral report is the avoidance of a conclusion: they support neither party in the adversarial arena, and can therefore claim to be independent from the prosecution (by whom FMEs are both paid and called to trial). The neutral report, therefore, serves to construct a boundary between the FME and the prosecution, as the evidence does not benefit the latter.

The upshot of these strategies, however, is that FME evidence becomes irrelevant to courtroom fact-finding. The facets of the neutral report that benefit FMEs' expertise (the fact that the evidence is uncontroversial and cannot be undermined) can also result in the evidence not being called to court. If the evidence neither supports nor undermines the argument of either the prosecution or defence, they choose to agree upon the evidence in a Preliminary Diet, and so the FME is not

required to present evidence. Essentially, therefore, FMEs are gaining epistemic authority and expertise at the cost of evidential significance, and by doing so, are actually excluding themselves from the trial. However, it is doubtful that this situation will change: if FMEs were to make less cautious reports, then it would be highly likely that such evidence would be contradicted or deconstructed as partisan upon the stand, undermining the expert status of the FME and thereby defusing any potential benefit to legal fact-finding that could be produced by the bolder claims.

> Medical examiners practise self-restraint not primarily because of a higher professional duty, but because they know they will be hammered in court… [M]edical examiners tend to be conservative practitioners, anticipating courtroom interrogations before finalizing their report (Timmermans 2006: 153/4)

The benefit of this process to FMEs is obvious, but there may be an extent to which such cautious strategies could, in fact, be disadvantaging them in the long run, and problematising the success of rape cases. I do not see FMEs losing their position as providers of expert knowledge in rape cases. Although changes to the law of rape invoked by the *Reference* mean that FME evidence is less probative in the majority of cases than in the pre-*Reference* period (i.e. prior to the *Reference*, while FMEs still did not provide evidence upon consent, their evidence of force was relevant to legal decision-making on other questions; I will return to this point shortly), they are established within the criminal justice process and so cannot be easily removed. Moreover, they still have a considerable function: they produce corroborating evidence for a number of the "crucial facts" in a case (such as the question of whether there was sexual intercourse, although they cannot corroborate the complainer's allegation of rape), and therefore still have relevance. Moreover, they are also able to provide evidence of force, which (although it does not necessarily constitute a complaint of rape) has considerable persuasive power in the minds of jurors; and it is with this finding and some of its implications that I will conclude this chapter.

It is important to reiterate that although the *Reference* expanded the definition of rape to all cases of non-consensual sexual intercourse as opposed to only those with evidence of "overcoming the will", jurors still tend to determine consent from evidence of force. As a result, it is likely that prosecutors will still draw upon FME

evidence in cases where that evidence signifies substantial evidence of physical force, even though the FME themselves may have produced a neutral report, as the evidence of force has persuasive power (see the Bright and Goodman-Delahunty study I cited in Chapter Four). However, this poses problems for the professed intention of FMEs (and others) to undermine the mythical relationship in the minds of "triers-of-fact" between injuries, force and consent. As mentioned above, prosecutors still choose to progress cases with the greatest chance of success through the criminal justice process; with "success" appearing to connote cases that fit with stereotypical descriptions of rape cases. The constant repetition of such a belief in trials will only serve to reinforce the belief, not undermine it. This is coupled with the fact that FMEs will only be called to give evidence in cases where there are signs of physical force; they will not be called to give evidence in the small number of cases without evidence of force that do progress through the criminal justice process, as their evidence is irrelevant (the neutral report does not provide probative evidence for the court's decision-making) to what then becomes the key issue, namely consent. As such, they will not have the opportunity to present the argument that injuries are not a guaranteed result of non-consensual intercourse. The result is that the contemporary state of affairs makes it highly difficult for FMEs to undermine popular assumptions about rape, and could actually reinforce them further: the way in which FMEs' evidence is being employed, where they only present in cases with the greatest prospects of achieving a conviction (partly because there is significant evidence of force), could lend support to the myth that force is a prerequisite for "real rape".

In the above paragraph, I have moved the focus of attention from FMEs towards prosecutors, and made the claim that prosecutorial decision-making and the forwarding of cases not only fit with popular attitudes about rape, but also reinforce such myths. Is there anything FMEs can do about this? As mentioned, they have made attempts to regain their claim-making power over consent, by conducting studies with the aim to uncover non-consensual sexual injuries (I have already discussed Slaughter's study, and will mention others in the concluding chapter). Such a finding would shift the boundary of medicine and the law, as FMEs would be able to draw inferences about consent and so place it within the medical boundary,

but at what cost? As is clear from Slaughter's methodology, the decision as to whether a research subject in a study is a "victim" or not relies heavily upon legal decision-making, which in turn relies heavily upon prosecutor narrative construction, and its persuasive power (Duff 1999). As already mentioned, such narratives are already formed around certain types of assaults that fit with shared public attitudes about rape, and so any clinical study that draws upon a legal outcome will ultimately reproduce the assumptions inherent in legal fact-finding. The "rape injury", therefore, would only serve to fetishise injuries and reinforce stereotypical attitudes towards rape. In light of this, there is currently little that FMEs can do to undermine mythologies about rape, other than construct neutral reports with the inherent assumption that absence of consent cannot be inferred from injuries (or consent from an absence of injuries). In other words, FMEs' strategy of boundary-work, while limiting their own role in the criminal justice process, is probably the best thing that they can do for complainers.

8. Conclusion: Incontrovertible Evidence and its Consequences

This thesis investigated the way that FMEs construct, manage, discipline and police their claims-making (at both individual practitioner and community-wide levels) in order to ensure that their claims, as well as the claims of others within the criminal justice process (particularly forensic scientists), are considered as factual, or at least credible and incontrovertible. One of the most significant methods by which FME evidence attains credibility and authority is the limiting of claims in order to demonstrate unanimity amongst the community of FMEs (in turn granting the claims that they do make, and thereby their evidence, the status of incontrovertible fact). In this concluding chapter, I will repeat the key findings of the previous chapters, outline the ways in which FMEs construct their evidence as credible and authoritative based upon the unanimity of opinion amongst the community of FMEs, and explain how an awareness of the types of claims and practices of their peers gives the individual FME the confidence to produce evidence that they consider unlikely to be contradicted in the courtroom. I will conclude by providing some preliminary ideas that may help to address the attrition rate problem (albeit at the expense of the professional authority of FMEs).

8.1 Developing, Constraining and Sustaining a Shared Perception and Praxis

During a period of intense training, FMEs are taught both the way to classify cases and the kinds of classifications and practices considered appropriate by the community of FMEs. In Chapter Three, I explored the FME training process in a focused study of the teaching of injury interpretation (of course, the training process involves other aspects of learning as well, such as the appropriate questions to ask and the correct samples to take). Trainee FMEs shadow an experienced FME, who is considered to be a good example by the rest of the FME community. During shadowing, the trainer performs actual examinations in front of the trainee, and points out any injuries or phenomena that the trainee has yet to experience, explaining the nature and significance of the injury. The trainee accepts the trainer's statement without question, constructing a mental assemblage of observed injuries

and the community-agreed inferences relating to those injuries. This process is further reinforced by the employment of textbooks, which contain pictures of real cases and labels outlining the classification of injuries, providing another authoritative resource and further examples to add to the trainee's cognitive collection. This first part of the shadowing process lays the foundation for the development of a shared way of seeing, as FMEs are taught not only the community-agreed definitions for certain injuries, but also the agreed inferences that can be made from those injuries.

During the second part of training, the roles are reversed, with the trainer shadowing the trainee. During this period, the trainee can be understood to be performing a set of exercises, physically working through the forensic medical examination (collecting samples, asking questions, identifying injuries and drawing inferences), with the trainer correcting their practice after the examination if the neophyte is not performing in a manner consistent with that of the rest of the FME community. A parallel can be drawn with the trainee's use of textbook exercises: the textbook provides exemplar cases for the trainee to evaluate, from which they are required to draw conclusions and then compare their answers to those provided in the textbook. A correct answer means that the trainee has provided an answer in keeping with that provided in the textbook. Likewise, during shadowing, if the trainee conducts the examination correctly, it is because they conduct it in the same manner as would their trainer. The relationship between correctness and "in keeping" with the remainder of the community (or, as Wittgenstein said, "as we do it" (Wittgenstein 1968: 145)) is demonstrated by the community's understanding of practitioner "competence" or "safety". A "safe" examiner (generally used in relation to the passing of the DMJ, taken three years after the FME has been considered "competent" by their trainer) is one who gathers evidence in the same manner as the rest of the community (they draw the same conclusions, ask the same questions, etc.). It is clear, therefore, that the act of training serves to inculcate the trainee into the paradigm of the FME community. Such a process is vital for the maintenance of authority of FME evidence, as the assertion that all FMEs perform in a similar manner and would interpret injuries in the same way adds considerable credibility to their evidence; it allows them to claim that their judgements on injuries are not

merely judgements, but instead incontrovertible fact. It is not the case, however, that unanimity amongst FME classification follows naturally from FMEs' regulated training; the real world can significantly undermine and alter the classificatory schema developed during training.

Chapter Four focused on the way that FMEs interpret injuries during their independent practice. The chapter set out a "meaning finitist" explanation for the way that injuries are classified by FMEs (my analysis of training was also heavily influenced by Kuhn and SSK), emphasising the importance of previously observed cases and the drawing of analogies between old cases and new ones. As such, a classification of (for example) an injury consists of a generalisation from a previously observed injury or collection of injuries (chosen as having the greatest "similarity relation" with the new example), as well as the inference made about those earlier injuries (definition, potential cause, etc.) to the new case. As classifications rely upon previously observed cases, it is always possible for new cases to problematise the existing schema, for example: 1) the injury could be similar to two previously observed injuries whose causes were classified differently; and 2) the new injury may not have a similarity relation with any of the practitioner's previous cases. This can cause a significant problem for an FME; if a claim is made in these moments of uncertainty, their evidence has the potential to be contradicted, and may therefore undermine the community's claims to produce incontrovertible evidence. To this end, in the situations outlined, FMEs choose either to limit their claims-making or invite a colleague to draw an inference about the case observed. In the first case (the similarity between the new case and two previous cases), the FME can limit their claim to the type of injury only and avoid providing a cause, which lessens the potential for contradiction upon the stand and so upholds the FME's claim that they are providing factual evidence for the court. Asking a colleague to provide a judgement offers a similar collective response.

These two strategies constitute basic methods by which FMEs can maintain the authority of their claims. Questions concerning cause (and to some extent injury type) require some interpretation, and while FMEs maintain that their claims are not opinion but instead fact due to their collective acceptance, such classifications are inferences based on their previous examples of cases. Another example of potential

for a claim to be undermined concerns the step from individual bruises to a "morphological account", i.e. the FME's own version of events concerning the alleged attack, based upon the physical evidence. One of the main claims that FMEs make with regard to the "morphological account" is the severity, or amount of force, necessary to produce observed injuries. As with all of these classifications, the classification of severity is based upon a judgement of similarity between a previous case (set of cases) and the new one, and so the FME's previous classifications will inform the new classification. To this end, there may be substantial disagreement amongst practitioners about severity (the same is also true with regards to injury type and cause), as differing FMEs' differing sets of past cases may result in divergent claims. Nevertheless, FMEs have found means to generate unanimity, or at least limit demonstrations of disunity. The use of the colposcope and the digital recording provides the defence expert with the same mediated view of the ano-genital area as that of her colleague performing the forensic medical examination. This offers the potential for the defence expert to agree with the findings of the other FME, as the two practitioners view the same colposcopic pictures, and may interpret them in the same way given their shared ways of seeing; in addition, the viewing of the recording by the defence expert is already filtered through the prosecution expert's report. Such "virtual witnessing" enables the potential development of consensus around the ano-genital findings before the trial starts. Similarly, FMEs are currently pressuring the COPFS to ensure that defence experts' reports are disclosed to prosecution FMEs in good time before the trial (although the defence is not required to disclose any of its evidence), and to precognosce prosecution FMEs. Both strategies provide the prosecution FME with potential alternative interpretations of the evidence, and give time and space to explore these other interpretations so that they can then explain any divergences between prosecution and defence experts, mending the potential breaches to the perception of FMEs as a unanimous collective who provide incontrovertible evidence.

The credibility of FME claims, therefore, derives from their ability to demonstrate consensus; any public shows of disunity or disagreement can result in the undermining of that credibility, and so FMEs are at pains to limit its potential. In addition to ensuring that all practitioners are trained to see injuries in a particular

way, resulting in a shared classificatory schema, FMEs also create ways to negotiate the problems thrown up by the difficulties of inferential classification. All of these practices serve to ensure that FMEs' claims regarding injuries (their morphological accounts) are generally unquestioned. These strategies do not represent the only ways in which FMEs maintain credibility, however; there is another very important mechanism for generating unanimity, the "neutral report", and I will refer to that shortly. First, however, I will mention a similar analysis that can also be brought to bear on the introduction and use of guidelines.

The manner in which police doctors performed forensic medical examinations was highly criticised in the late 1970s and early 1980s, resulting in significant undermining of their evidence. In an attempt to resurrect their credibility, police doctors introduced a standardised kit which, it was hoped, would add a level of routine into the medical examination that had not been there previously. The kit and guidelines were later updated when changes to legal and medical cultures (particularly the appropriation of the Evidence-Based movement) meant that FMEs needed an evidence-base to explain their decision-making if they wished their evidence to remain authoritative. While the introduction of these artefacts did have some influence on the way in which forensic medical examinations were performed (particularly the introduction of the kits in the 1980s, which undoubtedly did add more routine into the examination than existed previously), their usefulness did not derive from their potential to alter practice, but rather from the fact that they served as a resource that police doctors and FMEs could draw upon in order to explain and legitimate their work. Guidelines and other documents, in addition to granting the medical examination an aura of objectivity by setting out a list of rules for practitioners to follow during the conduct of the examination (this is particularly important, given the rise in EBM and Evidence-Based Policy), also help FMEs to explain their work to other actors in court.

As the kits and accompanying documents are a useful means of legitimating their work and communicating it to others, it follows that they must be (to some extent) representative of that work, although it is clear from interviews with FMEs that the kits do not determine their practice. They explained to me that guidelines and forms served as *aides memoires*, leading them to question whether or not

gathering particular forms of evidence as yet uncollected was necessary or appropriate; appropriateness being a determination based upon the conventions of the forensic medical community. During training, FMEs are taught such conventions, particularly the correct way to classify cases and the samples and questions believed necessary by the community of FMEs. To this end, this determination is the equivalent of the correct inference to make when classifying injuries. While guidelines are to some extent a codification of this shared practice (which is why they can constitute an *aide memoire*), they set out all the procedures that should be followed by FMEs, and therefore all the evidence that should be collected – a Total Collection Strategy. Such a procedure is very rarely deemed appropriate (as this could harm the complainer, or be considered inefficient). As such, FMEs interpret the case and gather the evidence that they believe would be considered appropriate by other FMEs. It should not be taken from this, however, that FMEs base their decision-making upon a set of static norms disseminated during training; FMEs who work in the same constabulary may develop novel ways of generating evidence, and so FME decisions are based upon changing norms, as they evolve in constabularies and nationwide through the development of practice. Some of these new practices may be the result of complex cases (as with the observation of a previously unseen injury): new cases may make it difficult to determine the necessary samples, and so new practices may be necessary in order to determine the appropriate evidence to gather. Meanwhile, in cases where the complainer cannot provide an account of the alleged assault, or the account is believed to be partial by FMEs, a Total Sample Collection is performed, gathering all available evidence to ensure that none is missed; in effect, this is the equivalent of making a limited statement about an injury.

The collection of procedural evidence can be understood in the same manner as classifications of injuries: while FMEs maintain discretion over the samples collected, the questions asked, etc., the possibility exists that they may be criticised for failing to collect all relevant evidence; not only would this challenge the credibility of FMEs, but also, in the case of trace material, the authority of forensic scientific evidence. In an attempt to limit such deconstructive claims, FMEs now produce kits with accompanying guidance documents that list all of the samples that FMEs should collect and explain when they should be collected. These documents

serve the rhetorical purpose of explaining and legitimating FME work to non-FMEs. However, FMEs do not follow these documents to the letter, but instead abide by a collectively agreed set of practices (which they have attempted to codify within the guidelines); as such, FMEs determine the appropriateness of a procedure upon the basis of whether or not it would be agreed upon by their peers. The authority and credibility of FMEs' evidence collection is thus assured (even though they are potentially missing some forms of evidence), as they are demonstrating consensus with each other about those collection processes.

There is one other method by which FMEs limit their claims-making in order to ensure unanimity amongst the community of practitioners, and that is the construction of "neutral reports". While FMEs are mostly happy to construct "morphological accounts", they do not have enough confidence to make the next inferential claim that the "morphological account" corroborates a complaint of rape. Changes to the law of rape in Scotland have served to nullify the role of force, leaving sexual intercourse without consent as the *actus reus* of rape. While there have been attempts, through clinical forensic medical research, to uncover a set of injuries that fit the pattern of non-consensual intercourse (Teixeira 1980, Slaughter and Brown 1991, Rogers 1996, Slaughter et al. 1997, Riggs et al. 2000, Lincoln 2001, McGregor et al. 2002, Grossin et al. 2003, Palmer et al. 2004, Hilden et al. 2005, White and McLean 2006),[155] it is currently the case that the relationship between injury and consent is uncertain. To this end, FMEs exercise caution with regard to conclusions about consent, as their own constructions of consent propose it to be a legal question, not a medical one, and also because if they were to draw a conclusion about whether the morphological account proved or disproved consent, it would be considered highly contentious and could be easily contradicted. As such, any FME who does draw conclusions about a case, particularly conclusions that corroborate the complainer's allegation, can be criticised by the rest of the FME community for over-reaching or "over-egging the pudding". Therefore, the norm within forensic medicine at the moment is to produce "neutral reports", a report that focuses purely upon the pathology (the "morphological account") that would be

[155] Whether the finding of a particular injury or collection of injuries would be beneficial or merely serve as an exclusory mechanism for certain claims will have to be seen (that is, if a particular kind of injury is ever found, which is in itself doubtful).

agreed on by all FMEs (thereby also maintaining both the credibility of the "morphological account" and FMEs' epistemic authority over pathology), and neither supports nor refutes the complainer's allegation (thus demonstrating and reinforcing FMEs' disinterestedness, as they are not supporting either party).

While the "neutral report" is of significant benefit to FMEs' claims to authority and the provision of incontrovertible evidence, it does undermine the usefulness of that evidence. As the forensic medical evidence is uncontroversial and benefits neither side, it is likely that it will be dismissed from the trial under Sections 256 and 257 of The Criminal Procedure (Scotland) Act 1995. A problematic side-effect of this procedure is that it may result in FMEs only providing expert evidence in cases where there is considerable evidence of force. As I made clear towards the end of the last chapter, the prosecution tend only to progress cases that are consistent with stereotypes and myths regarding rape through the criminal justice process; cases with strong evidence of physical force are more likely to make it to trial. To this end, FME evidence is led by the prosecution in cases with significant signs of physical force due to its persuasive power, even though the FME is likely to have produced a neutral report. The fact that the majority of rape cases presented at trial demonstrate significant evidence of force is likely to reinforce in the minds of jurors the mythical relationship between rape and force. Moreover, in the minority of cases that make it to trial but lack evidence of physical force, it is highly unlikely that FME evidence will be led, as it does not directly address the actual issue before the court, meaning that they are not granted the opportunity to present evidence that injuries are not a guaranteed result of rape. Due to these unfortunate contemporary circumstances, it appears that FMEs face an uphill struggle in achieving their agenda of undermining the "real rape" myth. To conclude, I will propose a number of strategies that could go some way towards undermining the "real rape" myth and improving the conviction rate; controversially, such strategies do require the ceding of significant professional authority from FMEs to other experts and actors in the criminal justice process.

8.2 Forensic Medical Paralysis and Some Preliminary Recommendations

This thesis has investigated the way that FMEs produce incontrovertible evidence: they promote a shared vision and praxis, managed and maintained by training, self-regulation, and most importantly the limiting of statements and conclusions so as to avoid over-reaching or demonstrating to non-FMEs any disharmony amongst practitioners. Such practices maintain the assertion that FME claims are not judgements or opinions but rather facts, as they are agreed upon by all FMEs. The "neutral report", however, demonstrates that the cost of such authority is evidential significance, meaning that (more often than not) FMEs will not be called to provide evidence, as the forensic medical evidence does not corroborate or undermine the complainer's case. FMEs, therefore, appear to be in a state of paralysis; their concern with maintaining their authority and credibility limits their value to the criminal justice process, as they are unable to present evidence which either corroborates or undermines the allegation. Moreover, I would argue that by continuing to employ the neutral report, FMEs are unintentionally reinforcing stereotypical beliefs about the relationship between injuries and "real rape". In this concluding section, I will address the provocative question of whether or not FMEs' paralysis spells the end of clinical forensic medical evidence in rape cases (i.e. whether or not they are ceding jurisdiction around legitimate claims-making in such cases) by investigating some of the solutions that have been advocated in an attempt to improve the conviction rate in rape cases more broadly. I will commence by briefly reiterating a number of topics that I mentioned earlier: bolder FME claims and the identification of specific "rape injuries".

Given, as I have argued, that the production of "neutral reports" limits the evidential significance of FME claims-making to the court, and thereby also diminishes the FME's potential to educate prosecutors and jurors about the insignificance of injury evidence, the simplest means by which this paralysis could be resolved would be the emboldening of their claims. The drawing of conclusions about the veracity of the complainer's allegation would mean, of course, that the evidence produced would support a particular side in the adversarial contest, and would certainly improve FMEs' chances of being called to trial, but at what cost? The evidence would be contradicted or undermined upon the stand, meaning that any

benefit produced by stronger claims-making would be neutralised during testimony. As this thesis has made clear, FMEs collectively are loath to allow this. However, they have not prohibited the conduct of new research in order to enable such stronger claims at some point in the future. Senior members of the FFLM recently wrote:

> The dangers of over interpreting the presence or absence of genital injury are primarily twofold. When over interpretation is exposed in court it can do serious damage to the Crown Prosecution's case resulting in guilty persons going free; conversely, if unchallenged, over interpretation can also lead to wrongful convictions. However, there is also the less obvious risk that the fear of over interpretation may either discourage doctors from giving any opinion evidence at all or encourage them to under interpret the evidence, both of which are just as likely to have an adverse influence on the outcome of a trial. This unsatisfactory state of affairs is unlikely to be fully addressed until further good quality research, concentrating in particular on the comparative frequency and types of injury seen after consensual and non-consensual intercourse, provides doctors with the confidence and knowledge to properly advise the courts. (Norfolk and White 2006: 160/1)

The community of FMEs are actively searching for a specific rape injury or injuries that could adequately discriminate between consensual and non-consensual intercourse. As mentioned in Chapter Seven, while such a finding would reposition the boundary of consent within the medical sphere and therefore allow FMEs to make legitimate claims about the veracity of the allegation, it would do so at considerable cost. As Patel et al. (1993) made clear, investigations into the discovery of "rape injuries" only add further reason to dismiss allegations that do not fit the mould. To this end, some members of the forensic medical community consider them anathema, and so the discovery of a specific discriminating injury is likely to cause a significant controversy amongst the community. The strengthening of their claims-making via the discovery of specific types of injury, therefore, could do more damage to the forensic medical community than perceived good.

Would improved legal training provide a solution? This is an area that certainly requires further investigation; while I cannot see how it would help to resolve the problem of neutral reports and the attrition rate *per se*, I do believe that the syllabus of the DFM, and maybe even aspects of the shadowing process, need to be reviewed. Throughout the interviews it was clear that FMEs had very different ideas about the definition of the legal requirement of corroboration (some FMEs believed that they needed to be observed by a colleague or a police officer during

examinations, when The Criminal Procedure (Scotland) Act 1995 section 281 makes special provision for forensic evidence not requiring corroboration), and this does not appear to be addressed in the DFM syllabus (Worshipful Society of Apothecaries 2007a). As FME evidence has the potential to be vital for the corroboration of the complainer's account, it is surprising that FMEs' knowledge of corroboration was so limited. Further research into exactly what is taught (and, more importantly, what is omitted) in the DFM is required. Similarly, little mention is made of the provision of courtroom testimony in the training. While the DFM syllabus aims to provide the student with knowledge of the parties in the trial and the roles that they play, it does not provide the trainee with any firsthand experience of the courtroom and the provision of expert testimony. The FFLM's recent recommendations on training (Dott 2007) reiterate the importance of knowledge of the courtroom, and make clear that trainees should view trials during the shadowing period, but given the importance granted to experiential learning that I discovered to be part and parcel of FME training, it is intriguing to find that no mock-trial interviews are employed during shadowing to provide the trainee with the actual physical experience of undergoing cross-examination. As I say, while I do not believe that either of these practices would single-handedly resolve some of the problems that I have mentioned during the thesis, the training processes of FMEs should be looked at again to investigate whether or not practices such as mock-cross examination would be of benefit to the provision and construction of FME evidence.

It would, of course, be wrong of me to say that FMEs have not been aware of the problems I have highlighted or made amendments to their training and practice in light of attrition rate studies and their own research into rape myths; in fact, as I have frequently mentioned, they have been at the forefront of trying to communicate to other parties the insignificance of injuries. Such advocacy was a part of the motivation for precognition meetings.[156] As already mentioned in Chapter Seven, White and McLean (2006) impressed upon FMEs that they had a duty to explain to prosecutors and jurors that conclusions about the veracity of a rape case could not be made solely upon injury evidence; in the same year, the Forensic Advisory Sub-

[156] I mentioned a further motivation in Chapter Four: the ability to hear alternate interpretations of evidence before the trial.

Group of the COPFS recommended that precognitions took place in all cases (whether or not the evidence was consistent with the Crown's case). During a precognition, the FME has the opportunity to explain the content and context of their evidence to a member of the prosecution team, and therefore a space is provided in order to stress the point that injury evidence is not as powerful as rape stereotypes suggest it to be.

While precognitions sound like a highly useful strategy for battling the vicious circle that I hinted at in Chapter Seven, in that educating prosecutors about the significance (or lack) of the evidence provided by FMEs makes it more likely that cases with little or no injuries will progress through the criminal justice process, it still needs to be seen whether or not this will happen in practice. According to Christie and Moody (1999), Precognition Agents are often brought in to conduct precognitions, and so those who actually make the decisions over which cases will progress through the courts may not be receiving the information that FMEs are trying to disseminate. Likewise, it is clear that the concept of injury evidence being highly beneficial is deeply entrenched in the minds of prosecutors; for instance, the same report that advocated precognition also added the following:

> Our analysis of cases revealed that the likelihood of conviction increases where there is medical or forensic evidence independent of the victim. Accordingly we [COPFS] considered means of maximising opportunities to obtain expert evidence supportive of the victim's account (COPFS 2006: 16).

Such a statement leads one to question the extent to which FMEs have the ability during precognition to alter prosecutors' perceptions about the significance of injury evidence. Research is needed to investigate whether or not any changes have occurred in the types of cases that have progressed through the criminal justice process in Scotland since 2006. If precognition has made any difference, there should be more cases proceeding to court with little or no injuries than there were before. If the types of cases are still the same, then although one could not say precognition has failed, it could be said that the vicious circle culture is still endemic, with prosecutors forwarding cases that fit with rape stereotypes.

Would it be possible to break the stereotype, then, and change the types of cases that are considered "winnable"? As I have said, it is currently the case that prosecutors forward cases that are consistent with rape myths as they are more likely

to achieve a conviction; if it were the case that more non-stereotypical cases achieved convictions, this could, in theory, alter the kinds of cases forwarded by prosecutors. One suggested way of achieving this is the presentation of "General Expert Evidence". Introduced in the (English) Home Office's consultation paper *Convicting Rapists and Protecting Victims – Justice for Victims of Rape*, general expert evidence

> will explain to jurors and judges that… apparently problematic features of a person's evidence are common and should not necessarily lead to the conclusion that the victim/witness is lying or unreliable. The court will be informed of the acknowledged psychological reactions that can occur after a prolonged relationship of abuse and/or after a deeply traumatic event. Such reactions can affect a victim's ability to give a coherent, consistent account of their experiences and cause behaviour which, to an onlooker, is puzzling as it does not match the expectation as to how 'genuine' victims act or react (Home Office 2006: 16)

Based upon generalised social science data, the general expert evidence provides jurors with "an accurate social and psychological context in which to evaluate behaviour that might otherwise be found incomprehensible or counterintuitive" (Ellison and Munro 2009: 365). To use the Home Office's own example, as previously mentioned, the "real rape" myth states that the complainer will report the rape straight away, and so jurors are often doubtful (and often persuaded by the defence) that the complainer is credible as it is believed that they have had time to invent an allegation. The general expert evidence would inform the court that "it is not unusual for a rape victim to delay reporting and an expert would provide alternative explanations that the jury could consider" (Home Office 2006: 16). As is clear in this example, the general expert evidence does not relate to the specifics of the case in question, but rather provides evidence about rape victims more generally; it is then up to the jury to determine whether or not such characteristics are relevant to the particulars of the case upon which they are deciding.

Ellison and Munro (2009) have conducted mock-jury trials to investigate the impact that such general expert evidence can have on jury deliberations and case outcomes. Importantly, as part of their general expert evidence, they also included victim "freezing" (i.e. a lack of resistance on the part of the victim brought on by shock), and therefore the greater likelihood of little or no injuries being produced. While Ellison and Munro's jurors found the general expert evidence to be of value in relation to questions of delayed reporting and a complainant's calm demeanour upon

the witness stand, significantly altering jurors' decision-making, it had no noticeable impact on decisions relating to injury and lack of resistance.

> In regard to non-resistance, and in contrast to the previous two variables, we were unable to identify any discernable shift in the way jurors responded to the complainant's claim to have 'frozen' in shock after initially attempting to push the defendant away and telling him to leave her alone (Ellison and Munro 2009: 371).

As an explanation for their finding they stated:

> It is possible that expectations of force, injury and resistance are just so deeply engrained within the popular imagination that attempts to disavow jurors of them through education within the rape trial are likely to meet with limited success (Ellison and Munro 2009: 376)

Not only do Ellison and Munro's findings question the validity of general expert evidence with respect to injury evidence, they also provide a further challenge to the perceived benefits of prosecution precognitions. If such expectations, as mentioned by Ellison and Munro, are so ingrained, would conversations with prosecutors serve the purpose for which the Forensic Advisory Sub-Group hope? On the other hand, while Ellison and Munro's findings are somewhat pessimistic, we should not dismiss them altogether; the findings did demonstrate substantial changes in juror attitude and understanding in terms of the first two myths. More mock-jury studies are needed with different scripts outlining "It's normal to be normal" in order to investigate whether or not there is any means by which we can challenge the entrenched injury myth. Given this, it is unfortunate that the COPFS have already dismissed general expert evidence as a potential strategy in Scotland.

In their 2006 COPFS report, it is noted that a powerful form of corroborating evidence is complainer distress. Demonstrable distress, either at the time of the alleged incident, or sometime after, can be used to corroborate non-consensual sexual intercourse. The provision of general expert evidence stating that distress on the part of the complainer is not guaranteed post-assault problematises distress as a form of corroboration, and therefore the COPFS have chosen not to incorporate it as best practice.

> [A] considerable body of case law has developed around findings of distress corroborating lack of consent, particularly in relation to rape. Distress exhibited even some time after the event has been accepted by the courts… This has allowed convictions to be obtained in cases where there has been no

> other independent evidence to support the victim's account. Since prosecutors in Scotland need to rely on distress evidence to provide corroboration of a lack of consent they are faced with a dilemma in that expert evidence may suggest that the absence of distress can be a normal reaction on the part of adult rape victims. However, those cases in which some further explanation about counter-intuitive behaviours of this kind might be beneficial are likely to be cases where there is insufficient evidence to prosecute. Unless there is an eyewitness, an admission of rape, or strong medical or forensic evidence, distress evidence may be pivotal in securing sufficient evidence. We suspect that use of [general] expert evidence – particularly in relation to adult witnesses – might have wider application in jurisdictions where there is no requirement of corroboration. There are limitations, in our view, on the use of [general] expert evidence in relation to adult rape victims (COPFS 2006: 135)

In order to maintain distress as corroboration for an aspect of the *actus reus* of rape, the COPFS have declined the use of general expert evidence.[157] While I applaud the sentiment, it is possible that this decision needs to be reviewed and more research conducted in order to attain a sense of the number of cases that would be damaged by general expert evidence.

Interestingly, general expert evidence could be considered an interesting move in the conflict over jurisdiction of claims-making in rape cases. As already mentioned, general expert evidence is drawn from legal and social scientific data and as such could be considered part of a larger attempt to wrestle professional authority from the medical profession over the making of expert claims regarding the victim. While there is currently little data to assess such a claim, it is possible that a Light-esque[158] redressing of the balance is occurring, from medical dominance to a professional domain shared with socio-legal experts. One way in which this appears to be playing out is with the calls for more specialised FMEs. Since the criticisms of the late 1970s/1980s, social scientists and legal researchers (alongside victims' groups) have been calling for specialist rape and sexual offence police doctors. This was initially framed around the sex of the police doctor, with a desire to limit the conduct of examinations to female doctors (or at least provide a choice for the complainer). Nowadays, with the development of specialist sexual assault police divisions (see for example Amethyst in Lothian and Borders) or specialist police

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[157] Chalmers actually argues that distress could not only corroborate the *actus reus* but could actually be used to corroborate *mens rea* as well (Chalmers 2004).
[158] *Supra* 111.

officers (SOLOs), and the increasing specialisation of prosecutors (particularly Solemn Legal Managers and Advocates Depute) there is a drive towards the establishment of specialist sexual offence FMEs who would only perform and provide evidence in sexual offence cases. Such a policy is most clearly advocated in the development of SARCs, where there are a team of dedicated, female FMEs who only perform sexual assault examinations. Only one SARC has opened in Scotland: the pilot project of The Arch in Glasgow, which was introduced by the Scottish Executive in conjunction with Greater Glasgow Police. No research on The Arch has yet been published and so it is yet to be seen whether the pilot has been a success; however, the FMEs with whom I have discussed the project have been far from complimentary. In order to maintain anonymity, I will not provide direct quotations, but those working within the constabulary informed me that The Arch was not achieving its aims. A potential justification for such negativity could be that The Arch was imposed upon the FME community by outsiders, who promoted specialist female FMEs. Such a position is generally anathema to FMEs, as demonstrated by an FME working in another constabulary who was having difficulty recruiting:

> "Provided it's one evening a week", and once thing, and once "I prefer not to do the weekend", or and, "we'll only do the rape examinations, not everything else", well, these areas are not that big, it's a, in places like London where there's so many of this thing, you can afford to say, "I'll only do sexual assault and nothing else." And the one nice thing that I like the job for in Scotland is you have diverse - there's so many different things. You see custodies, you see the accused, you see the victims, we see children, see for road traffic act, so many things, that is given. I love the fact that the variety there, and that, that would keep me going so I think I would feel very isolated if I just did one thing. Not isolated is the word, I think too highly specialised and wouldn't be doing justice because you are only seeing one side of the story and you are going to get biased. By seeing both sides, by seeing both these things you do get, try and encourage the same doctor to see both accused and victim (Dr. A, female, Constabulary 1).

While Dr. A's statement is a little hard to follow, it is made somewhat clearer if it is compared to the police doctor Davis's statement made in 1985 with the first wave of criticism of police doctors:

> The women's organisations have complained that the number of women doctors available to examine rape victims who do not wish to be examined by a male doctor is insufficient. Accepting this, the Metropolitan Police are

> recruiting women doctors solely to attend to female victims of sexual crime and it is said that they will receive "appropriate" training. The Association of Police Surgeons has always discouraged the recruitment of women doctors only for this purpose, since it takes the view that doctors who may be called upon to examine the victims of any assault, sexual or otherwise, should have the benefit of full forensic training (Davis 1985: 13).

Both Davis and Dr. A appear to be saying that for an FME to perform their job appropriately and avoid becoming biased, they need to be trained and investigate all aspects of forensic medical work, not only the sexual offence area. Another experienced FME, Dr. E, made a similar comment in relation to the introduction of nurses into forensic medical work:

> Yeah I, I, I think it's important to do that, the other worry if you have nurses doing things, okay it's repetitive seeing a lot of detainees in custody where they are complaining about withdrawal symptoms; you go through a, you take a history of the complaint, you take a detailed medical history in particular about drug usage and you do a detailed comprehensive assessment with things like pulse, temperature, check the pupil size and eye movements, so you have all that documented there and again you've got to know when people are generally withdrawing from drugs and needed something for that, and of course the spin-off benefit from that is that if you are aware of the effects of different substances, when you are doing a sexual assault examination you know clinically whether the appearance whether they are under the influence of a drug or not. So you should not compartmentalise, if it is a road traffic accident, fitness to be interviewed or sexual assault, the expertise you use in other areas can be easily used in the sexual assault examination (Dr. E, male, Constabulary 3).

It is clear that FMEs believe that they should not specialise in sexual offence work alone as they will lose certain skills and experience, but they may not have a choice in future. As I have already mentioned, the rest of the criminal justice process is leaning towards specialisation in order to help improve the conviction rate in rape cases, and so it is likely that FMEs, given that they currently find it very difficult to make claims about rape, will be asked to specialise in a similar manner. The decision to implement The Arch, and the resulting research findings, will be highly enlightening as to what extent specialism and political and legal imposition will have on forensic medical evidence and rape cases in general.

In order to protect their own authority, FMEs produce neutral reports, but in doing so they inadvertently limit their evidential significance. This dichotomy will, I suggest, limit FMEs' jurisdiction over claims-making in rape and penetrative sexual

assault. While I do not envisage a time when FMEs will not be performing medical examinations, it is likely that in future the aim of the medical examination will be to collect forensic samples, corroborate sexual intercourse, and take care of the therapeutic needs of the complainer. The uncertainty surrounding injury evidence, and the broader cultural education of both prosecutors and the public about the inherent limitations of injury evidence, could (and in fact should) serve to limit the role of FMEs to that of the "technician", collecting material for the scientist to analyse.[159] While there is currently no silver bullet for the attrition rate problem (all the strategies I have mentioned having their drawbacks), it is clear that greater education of prosecutors and the public about the insignificance of injury evidence is required. To this end, practices such as general expert evidence and precognitions should be taken very seriously, and require further evaluation of their implementation. This should be conducted alongside projects such as Carol Withey's "Schools Project" (Withey 2007), in which Withey visited schools in order to explain the law of rape to 14-15 year olds. Only via education will conviction rates alter and the vicious circle finally come to an end. In such a process, it is likely that FMEs will lose their professional dominance over legitimate expert evidence, with psychologists and social scientists finding that their "general evidence" holds more weight than the clinical forensic medical; is this necessarily a desired outcome? If the removal of injury evidence results in more "non-stereotypical" cases being forwarded to court and resulting in convictions, then undoubtedly yes.

[159] This finding is similar to Stefan Timmermans' finding in terms of forensic pathologists, another forensic group in a precarious jurisdictional position (Timmermans 2006).

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Appendices

- Appendix 1: Data Collection
    - Template investigation letters to FMEs, Chief Constables and the Crown Agent;
    - Response on behalf of Crown Agent;
    - Research Agenda website;
    - Consent from NHS Central Office for Research Ethics Committee;
    - Template post-interview contract.
- Appendix 2: Metropolitan Kit
    - Sexual Assault Examination Form.
- Appendix 3: The Working Party's Template Artefacts
    - *Pro-forma* for post-pubertal female and male forensic sexual assault examinations;
    - Guidelines for the collection of samples.
- Appendix 4: An actual FMEK used in practice
    - Photographs of aspects of a constabulary's FMEK;
    - The constabulary's forms and body diagrams.

Appendix 1 Data Collection:

- Template Invitation Letters (FMEs, Chief Constables, and Crown Agent);
- Response on behalf of the Crown Agent;
- Research Agenda Website;
- Consent from NHS Central Office for Research Ethics Committee;
- Template Post-Interview Contract

Template Invitation Letter for FMEs

9th October 2006

University insignia and contact details

Email: g.rees-3@sms.ed.ac.uk

FMEs Name and Address

Re: Research interviews concerning forensic evidence in cases of sexual assault

Dear Dr. X,

I am a PhD student at the University of Edinburgh (Science Studies Unit) researching how forensic evidence is collected and employed by prosecution agencies (police and advocates depute/procurator fiscals) for sexual assault and rape cases. Most notably I am interested in collection procedures and how forensic evidence is utilised in decision-making (for example, whether a particular prosecution continues to trial). I intend to speak to numerous Forensic Medical Examiners throughout Scotland in different force areas and have been given your name by some of your colleagues in Edinburgh, notably Prof. Anthony Busuttil at the Medical School, University of Edinburgh.

Essentially, I am interested in talking to you about three elements of your work as a Forensic Physician:

- Your experiences of conducting forensic medical examinations on sexual assault victims; how you decide which tests are necessary (or where to focus observation) and how you document the examination.
- Your experiences of training; i.e. how it was conducted, what forms of specialist FME training were required etc. This is related to the recent *Crown Office and Procurator Fiscal Service' Review of the Investigation and Prosecution of Sexual Offences in Scotland's* finding that there is a necessity for increased training and accreditation of forensic examiners. Thus I wish to get an idea of the current provision of training for forensic examiners.
- Your experiences interacting with other investigation personnel. I am interested in your role as an FME in helping piece together the events and the case for the prosecution.

Investigating these aspects of your role as FME will enable me to draw some conclusions as to the nature of forensic examinations in Scotland. These conclusions will be linked to the results of other interviews and will then enable me to make wider comments on the role and use of forensic evidence in the criminal justice system. Further information regarding the study can be found at:

http://www.ssu.ssc.ed.ac.uk/pg/current_pgs.html#gr

http://homepages.ed.ac.uk/s0450844/Research_Agenda.html

Furthermore, my supervisor: Dr Ivan Crozier (icrozier@staffmail.ed.ac.uk) would be more than happy to answer any further queries.

Looking forward to hearing from you.

Gethin Rees

Template Invitation Letter for Chief Constables

11th April 2007

University Insignia and Contact Details

Email: g.rees-3@sms.ed.ac.uk

Chief Constable Name and Address

Re: Research interviews concerning forensic evidence in cases of sexual assault

Dear Chief Constable X,

I am a second year PhD student at the University of Edinburgh (Science Studies Unit) researching how forensic evidence is collected and employed by prosecution agencies (police and advocates depute/procurators fiscal) for sexual assault and rape cases. Most notably I am interested in collection procedures and how forensic evidence is utilised in decision-making. I am writing to ask permission to interview Senior Investigating Officers and Sexual Offence Liaison Officers about their training and the work they conduct regarding sexual assault investigations. This is the second phase of my research, the first being interviewing forensic medical examiners (FMEs) about their work. During the first phase I was fortunate enough to

speak to Dr. Hiremath who suggested I contacted you to ask permission to speak to officers in Fife.

Essentially I am interested in talking about three elements of police work in rape and sexual assault investigations:

- How forensic evidence is employed in the police decision-making process.
- What training do investigators of sexual assaults receive, not only in terms of care of the victim but in relation to forensic medical information.
- How the police interact with other members of the investigation process; the FMEs and members of the Crown Office.

I am aware that much of what I wish to discuss has already been covered in some depth in the recent *Crown Office and Procurator Fiscal Service' Review of the Investigation and Prosecution of Sexual Offences in Scotland*, however, placing further emphasis on forensic medicine, which was not within the remit of the Crown Offices investigation, should enlighten a number of the points made within that report.

Further information regarding this study can be found at:

http://www.ssu.ssc.ed.ac.uk/pg/current_pgs.html#gr

http://homepages.ed.ac.uk/s0450844/Research_Agenda.html

Furthermore, my supervisor: Dr Ivan Crozier (icrozier@staffmail.ed.ac.uk) would be more than happy to answer any further queries.

Looking forward to hearing from you.

Gethin Rees

Letter to Crown Agent

Telephone: 0131 650 4261
Email: g.rees-3@sms.ed.ac.uk

27th September 2006

To: X
Crown Agent,
Crown Office,
25 Chambers Street,
Edinburgh,
EH1 1LA

Re: Research interviews concerning forensic evidence in cases of sexual assault

Dear X,

I am a PhD student at the University of Edinburgh (Science Studies Unit) researching the collection and employment of forensic evidence by Scottish prosecution agencies (police and procurators fiscal) in cases of sexual assault and rape. I am primarily interested in the decision-making processes surrounding this forensic evidence (for example, whether a particular prosecution proceeds to trial, and the role played by forensic evidence in this procedure). It is my intention to speak with a number of Forensic Medical Examiners and prosecutors involved in rape and sexual assault

cases throughout Scotland. To this end, I am writing to you for permission to conduct brief interviews with advocates depute/procurators fiscal at their convenience about the decisions their make whilst prosecuting a case.

Essentially, I am interested in talking to procurators about three elements of their work:

- The processes by which prosecutors decide how to 'mark' a case
- The involvement of forensic evidence in determining the marking of the case
    - Related to this, the sufficiency of evidence required and the preferred types of forensic evidence to be drawn upon.
- Prosecutors previous experiences of forensic evidence in sexual assault cases and interactions with forensic medical examiners as a part of this process.

Investigating these aspects of the work of prosecutors will enable me to draw conclusions as to the nature and use of forensic evidence in the criminal justice system in Scotland. These conclusions will be linked to the results of other interviews with other parties involved in the investigation and prosecution of sexual assaults (i.e. the police and Forensic Medical Examiners). After conducting these interviews I will be able to analyse the role and use of forensic evidence in the criminal justice system. This subsequent analysis should then produce some procedural recommendations for the investigation of rape and sexual assaults, particularly in relation to how forensic evidence is collected and utilised. Such recommendations could then be appropriated and employed alongside the recent recommendations produced by the Crown Office and Procurator Fiscal Service Review of the Investigation and Prosecution of Sexual Offences in Scotland.

My position can be verified and further information about the study including further details on the proposed interview programme can be found at:
http://www.ssu.ssc.ed.ac.uk/pg/current_pgs.html#gr
http://homepages.ed.ac.uk/s0450844/Research_Agenda.html
and also my supervisor: Dr Ivan Crozier (University of Edinburgh) would be more than happy to answer any further queries about me you may have.

I look forward to hearing from you on this matter.

Yours sincerely,

Gethin Rees

CROWN OFFICE AND PROCURATOR FISCAL SERVICE

Business and Policy
Development Division

Crown Office
25 Chambers Street
Edinburgh EH1 1LA

Telephone: 0131 247 2686
Fax: 0131 247 2650
Rutland DX: 540310 Edin 37

http://www.crownoffice.gov.uk

Gethin Rees
Science Studies Unit
Department of Sociology
The University of Edinburgh
21 Buccleuch Place
EDINBURGH
EH8 9LN

Your ref: «Yourref»
Our ref: «Ourref»

8th December 2006

Dear Mr Rees

RESEARCH INTERVIEWS CONCERNING FORENSIC EVIDENCE IN CASES OF SEXUAL ASSAULT

Thank you for your recent letter. Although dated 9 September 2006, unfortunately it did not reach this office until 13 November. I would like to reply on behalf of the Crown Agent.

I note you are researching the collection and use of forensic evidence in cases of sexual assault and rape. There is a single prosecution agency in Scotland, Crown Office and the Procurator Fiscal Service (COPFS), but you are correct to say that the police and Forensic Medical Examiners will be involved in the collection of this type of evidence.

You are interested firstly in the processes by which prosecutors mark cases. In considering the action to be taken in relation to reports of crime, the prosecutor must take account of both legal and public interest considerations. These criteria are set out in detail in the COPFS Prosecution Code which is publicly available on our website. Evidential considerations centre on the question of sufficiency – whether there is corroborated evidence of all essential facts - and include an assessment of admissibility, credibility and reliability of evidence.

Forensic evidence can play an important part in proof of sexual assault and rape, particularly in helping establish the identity of the perpetrator, his or her presence at the locus, and the commission of the specific offence. There are no "preferred" types of forensic evidence – what physical evidence the Forensic Medical Examiners can recover, and what findings Forensic Scientists can make, will depend on the facts and circumstances of each case.

You specifically ask permission to interview advocate deputes and procurators fiscal about the decisions they make while prosecuting a case. Beyond what I have just set out as the guiding principles of case marking, and the significance of forensic evidence, I do not think it would be appropriate to hold such interviews. It would be inappropriate for individual prosecutors to discuss their experiences in particular sexual assault cases, or their operational decisions in relation to forensic evidence, for an exercise of this kind. Guidance to prosecutors on the investigation and

prosecution of sexual offences is developed by senior lawyers in the department in consultation with relevant criminal justice partners. We have close established links with the police, Forensic Medical Examiners and Forensic Scientists which inform prosecution policy and practice.

I'm sorry I am unable to accede to your request for interviews but I hope this is otherwise of some assistance.

Yours sincerely,

Alison Di Rollo

Alison Di Rollo
Head of Operational Policy

Science Studies Unit

Beyond Witnessing: an upstream study of forensic medicine within the legal system

Research Agenda

This study aims to investigate how forensic evidence is collected and employed by prosecution agencies (police and prosecutors) in their efforts to secure convictions. This aim has developed from a noticeable void within the existing Science and Technology Studies (STS) literature regarding the relationship between science and law. Previous STS researchers have almost exclusively focused upon the trial in their attempts to understand the relationship between science and law. Recent legal research however, has outlined, that only a very small percentage of cases actually make it to the courtroom (Duff et al. 2004) and therefore to only observe science-law interactions in the courtroom somewhat over-represents one section of a multi-faceted system. This research has at its root the aim of rectifying this gap; I will investigate how forensic science and medicine – disciplines that have developed with the purpose of offering scientific support to the legal system – conduct their everyday work. I will also examine how forensic scientists'/examiners' work is later turned into evidence by other members of the criminal justice system.

To focus this rather broad study, I have limited the research to only investigating how sexual assault prosecutions are conducted. This focus stems from the considerable amount of concern being expressed about the conviction rates of rape complaints by legal, forensic, government, media and feminist sources. All agree that the current system of prosecutions for sexual assaults requires evaluation. More specifically, that so many rape and sexual assault complaints get diverted away from trial at numerous stages in the criminal justice process compels an examination of how evidence is utilised in the decisions of prosecution construction (Harris and Grace observed that in their sample of 483 recorded rape complaints, only 21% were tried).

To examine how forensic evidence is collected and included within case construction, I intend to interview Forensic Medical Examiners (FMEs), Forensic Biologists, Police Officers, Advocates Depute and Procurators Fiscal about their work. Largely, I will be focusing on:

1. The standardisation of existing forensic examinations and the recording of data from the examinations.

- Part of this aspect of my investigation will consider the decisions made and tools used by both FMEs and Forensic Biologists.

2. The current levels and contents of training programmes for FMEs.
   - This focus is a product of the recent Crown Office report into the investigation of sexual assaults, which concluded more training was needed for FMEs.

3. The process by which the reports and other forms of evidence forwarded by FMEs are later utilised by prosecutors in the construction of a case?
   - Related to this issue, I will consider the interactions between FMEs and prosecutors.

These issues summarise the main research questions of the study. It is hoped that by answering these questions, and from my background in Science and Technology Studies, I will be able to offer a useful evaluation of the current state of sexual assault prosecution, focusing particularly on the relationship between the medical practitioners and the prosecutors. This relationship was overlooked by the recent Crown Office report.

Where the interviews themselves are concerned, I am employing the standard social science practice of qualitative data-collection or: open-ended interviews. To this end the interviews will be conducted initially face-to-face with a standardised interview schedule (a set of open-ended questions that will enable the interview respondent to answer in-depth about their work) and later via e-mail communication for any further questions I may have, or any clarification that may be required. It is my intention that the initial face-to-face interview will take approximately an hour and a half, and the following e-mail period to continue until May as needed. Once the research is conducted I will then use the interview data to write my PhD, and would be more than happy to send you a copy of the work, or any other documents/reports that may result from the study, for comment before publication. I can assure you that I will remove all identifying characteristics in any published document.

I look forward to hearing from you.

Gethin Rees

Bibliography

Duff, A. Farmer, L. Marshall, S. Tadros, V. (2004) *The Trial on Trial Volume 1: Truth and Due Process* (Oregon: Hart Publishing)

Harris, J. Grace, S. (1999) *A Question of Evidence? Investigating and Prosecuting Rape in the 1990s* (London: Home Office)

Date: Thu, 16 Nov 2006 11:32:03 +0000 [16/11/2006 11:32:03 BST]
From: Walter Hunter <Walter.Hunter@lhb.scot.nhs.uk>
To: G Rees <s0450844@sms.ed.ac.uk>
Subject: Re: Query regarding NHS REC approval

Mr Rees

The Committee's Chairman has had an opportunity to consider the outline of your project.

Professor Lees considers that that your project is not one that is required to be ethically reviewed under the terms of the Governance Arrangements for Research Ethics Committees in the UK.

Walter Hunter
Committee Co-ordinator
MREC for Scotland Committee A
Tel: 0131 536 9026

Template Post-Interview Contract

7th March 2007

University Insignia and Contact Details

Email: g.rees-3@sms.ed.ac.uk

Re: Research interviews concerning forensic evidence in cases of sexual assault

I, Dr. X, agree that comments made during the course of the previous interview **can** be used by Mr. Gethin Rees in the course of his research and any academic publications that may ensue. I understand that **all** identifying details will be removed from the transcript of the interview and that Mr. Gethin Rees alone will ever listen to the recording which will eventually be deleted at the close of the project.

Please delete where appropriate:

- I do/do not wish to receive a completed copy of the transcript.
- I do/do not wish to receive an advanced copy of any documents that will be published which use excerpts from the interview.

Signed	Signed
_____	_____
Dr. X	Mr. Gethin Rees

Appendix 2 Metropolitan Kit:

- Sexual Assault Examination Form

FORM 8331

SEXUAL OFFENCES FORM

To be submitted to the Laboratory with the Lab. Form in all cases (1 per person).

PART I: INFORMATION REQUESTED FROM THE MEDICAL EXAMINATION

Name.....Male/Female: Victim/Suspect

Date and time of offence.....Date and time of examination.....

Contraceptive: None/Sheath/Pill/Other (specify).....

Lubricant used: No/Yes (type if known).....

Bleeding: None/Menstrual/Injury to.....

Is/is not suffering from VD/other infectious disease (specify).....

Has/has not washed/bathed since offence.....

Buggery victim has/has not defecated since offence.....

Male has/has not been vasectomised, date.....

Date and time of latest previous intercourse if within two weeks.....

Contraceptive used: Yes/No. Type.....

Other comments e.g. drugs on prescription, given alcohol/drugs re. offence.....

.....

.....

.....

PART II: SAMPLES AND STORAGE

Persons being examined should stand on a large sheet of clean paper while undressing and any fallen debris should be collected.

		Tick if taken
BLOOD AND SALIVA	Both should be taken from victims and suspects: 2–10ml. in 1oz. universal container, blood plain (clotted).	Blood ☐ Saliva ☐
SWABS (Include unused swab as control)	Use only plain, dry, sterile cotton wool swabs with tubes: no others are suitable.	
	Mouth—1 swab	Mouth ☐
	Vaginal —maximum of 3 (external, low and high internal).	Vag Ext. ☐ Low Int. ☐ High Int. ☐
	Anal —1 external and 1 internal.	Anal Ext. ☐ Anal Int. ☐
	Penile —for vaginal material (if within 2 days of offence), 1 external, preferably from coronal sulcus: 1 external if faeces visible or lubricant suspected. Urethral swabs are useless.	Penile ☐
HAIRS (Head and Pubic)	Take combings and pulled/cut sample (at least 25 hairs): pack in polythene bags.	Head ☐ Pubic ☐
FINGERNAIL SAMPLES	Take only if circumstances suggest blood or fibres present: cuttings or scrapings using 1 cocktail/orange stick per nail: pack in polythene bags.	Left ☐ Right ☐
OTHER SAMPLES	(specify)	

If sanitary towel/tampon was used after the offence it should be submitted.
Slides, examination gloves and vaginal aspirates are not required.

Completed by .....

STORAGE

Samples must not be stored in a refrigerator used for food.
Store BLOOD SAMPLES in a refrigerator (do not freeze).
Place SALIVA SAMPLES in a freezer (ice box) as soon as possible.
Swabs should be put in a freezer (ice box)
Place dried clothing and shoes in brown paper bags.
If the clothing is damp or wet place in an open polythene bag and bring to the Laboratory as soon as possible.

M.P.82(E)

FIGURE 74

Appendix 3 The Working Party's Template Artefacts:

- *Pro-Forma* for Post-Pubertal Female and Male Forensic Sexual Assault Examinations;
- Guidelines for the Collection of Specimens

Complainants Name: **Date:**

PRO FORMA FOR POST-PUBERTAL FEMALE AND MALE FORENSIC SEXUAL ASSAULT EXAMINATION

Note: This form has been designed for use by Forensic Physicians (also known as Forensic Medical Examiners or Sexual Offence Examiners). It is provided to assist the examining doctor in the assessment of an adult complainant of sexual assault. It is to be regarded as an aide-memoire and it is therefore not necessary for all parts of the proforma to be completed. On completion this form is the personal property of the examining doctor. **This form should not be used for the examination of suspects (use Fitness for Detention Pro forma).**

1. EXAMINATION DETAILS

Location:……Date of examination:……

Time of arrival:……Time examination commenced:……

2. DOCTOR DETAILS

Name of forensic physician:……

Other doctors (if present):……

3. POLICE DETAILS

Name & no. of attending police officer:……

Name of investigating officer:……

4. OTHERS PRESENT

Social worker/care worker:……Base:……

Others (relationship to examinee):……

5. PATIENT DETAILS

Name:……

Date of birth:……Age:……Gender: Female/Male

Ethnicity:……Religion:……

Marital status:……Lives with:……

Occupation:……

Prepared by Dr Jeanne Herring and Dr Debbi J Rogers on behalf of the
Education and Research Committee of The Association of Forensic Physicians December 2005

Complainants Name: **Date:**

6. CONSENT TO HISTORY, EXAMINATION AND REPORT

I ..... consent to a forensic examination, as explained to me by Dr.....

I understand that the forensic examination will include (delete if not applicable):

a) Full medical history and complete examination;
b) Collection of forensic and/or medical specimens;
c) Taking of notes, photographs/videos/digital images for record and evidential purposes;
d) Consent for the use of anonymised photographs/videos/digital images for further opinions, peer review and teaching;
e) I understand and agree that the doctor(s) may provide a statement/report for the police, social services, paediatric services and the patient's GP (delete any not acceptable);
f) I understand and agree that a copy of the medical notes may be given to professionals involved in the case (e.g. police or lawyers) and may be used in a court;
g) I understand and agree that the doctor(s) may share the medical notes and/or photographs with other medical experts involved in the case. I have been told that any sensitive photographs, videos and/or digital images will be stored securely and only be made available to other non-medical persons on the order of a judge.

I have been advised that I may halt the examination at any time.

Signed.....Date.....
(young person may sign if Gillick competent)

If verbal consent Signature & Name of Witness.....

Prepared by Dr Jeanne Herring and Dr Debbi J Rogers on behalf of the
Education and Research Committee of The Association of Forensic Physicians December 2005

Complainants Name: **Date:**

7. REASON FOR REFERRAL

Briefing taken from:.....Contact details:.....

Names of persons present during briefing:.....

Location of assault(s):.....

History of events (continue overleaf if necessary):.....

.....

.....

.....

.....

.....

Penis to mouth?	YES/NO
Mouth to genitalia?	YES/NO
Penis to anus?	YES/NO
Penis to vulva/ vagina?	YES/NO: (details).....
Ejaculation?	YES/NO: (details, including sites).....
Object to vulva/vagina/anus?	YES/NO: (details).....
Kissing/licking/biting/sucking/spitting?	YES/NO: (details, including sites).....

Injuries? (details).....

.....

.....

Ano-genital bleeding?	YES/NO: (details).....
Weapon used?	YES/NO: (details).....
Damage to clothing?	YES/NO: (details).....

Last contact with alleged assailants(s):.....

Confirmation/additions from patient (verbatim & recorded contemporaneously):

.....

.....

.....

Prepared by Dr Jeanne Herring and Dr Debbi J Rogers on behalf of the
Education and Research Committee of The Association of Forensic Physicians December 2005

Complainants Name: **Date:**

8. DRUG AND ALCOHOL USE IN RELATION TO ASSAULT

Was alcohol consumed? | No | Yes | Not Known |

If yes please specify: | Prior | During | After | Offence

Start of drinking:.....End of drinking:.....

Quantity and type of beverage consumed:.....

.....

.....

Have any illicit drugs been used/administered to the subject within 4 days of the examination?

| No | Yes | Not Known |

If yes please specify: | Prior | During | After | Offence

Give details:.....

.....

.....

Are any other substances suspected of having been used/administered that could be relevant to the offence?

| No | Yes | Not Known |

If yes please specify: | Prior | During | After | Offence

Give details:.....

.....

.....

If applicable - drugs/alcohol history:.....

.....

.....

Prepared by Dr Jeanne Herring and Dr Debbi J Rogers on behalf of the
Education and Research Committee of The Association of Forensic Physicians December 2005

Complainants Name: **Date:**

9. POST ASSAULT - Ask If Relevant

Eaten: YES/NO

Drank: YES/NO

Passed urine: YES/NO (*note time*)

Bowels open: YES/NO

Wiped/washed: YES/NO (specify site and disposal of e.g. cloth/tissue)

Changed clothes: YES/NO (*specify*)

Self harm: YES/NO (*sites*)

Complaints of pain/soreness/bleeding post assault: YES/NO

Details:.....

Brushed teeth/gums/dentures (*circle*):

Mouth wash/spray used (*circle*):

Washed/bathed/showered/douched (*circle)*:

Changed tampon/pad/sponge/diaphragm (*circle*):

Forensic samples taken before examination started:

Details:.....

By whom taken:.....

10. MEDICAL HISTORY

Past medical/surgical history/hospital admissions/visits to A&E &/or GP:

.....

.....

.....

Major psychiatric diagnoses:.....

Learning difficulties:.....

Suicidal:.....

Prepared by Dr Jeanne Herring and Dr Debbi J Rogers on behalf of the
Education and Research Committee of The Association of Forensic Physicians December 2005

Complainants Name: **Date:**

11. DIRECT QUESTIONS – Only Ask If Applicable To Incident

Females – current contraception?.....

PROVIDE EMERGENCY CONTRACEPTION IF REQUIRED

Allergies?.....

	Since Assault(s)	Prior To Assault	Details:
Urinary tract infection:			
Vaginal discharge:			
Diarrhoea:			
Constipation:			
Genital/anal injury:			
Anal bleeding/itching:			
Genital/anal surgery:			
Vaginal bleeding:			
Faecal incontinence:			
Urinary incontinence:			
Skin diseases:			
Soreness in genital area:			
Abdominal pain:			
MENSTRUAL HISTORY: applicable/not applicable			
Age at onset: Frequency: Duration: Regularity:			LMP: Sanitary towels/tampons: Pregnancies: ?Any children: ?Mode of delivery:
Prescribed medication?			
Any other medication?			

Prepared by Dr Jeanne Herring and Dr Debbi J Rogers on behalf of the
Education and Research Committee of The Association of Forensic Physicians December 2005

12. SEXUAL HISTORY (Note Who Was Present When Taken)

SI prior to assault in last 10 days: YES/NO If yes, note date:.....

If yes, was condom used: YES/NO/NK

If yes, was lubricant used (*note type*): YES/NO/NK

SI post assault: YES/NO

If relevant clarify types of intercourse in last 10 days only:

.....

.....

.....

13. GENERAL EXAMINATION

Name(s) of persons present:.....

Weight (kgs):	Height (cm):

General appearance (hygiene):.....

Skin colour:.....

Hair colour:.....

Demeanour/behaviour:.....

Pre-existing physical problems (*note type*):.....

.....

.....

.....

.....

Prepared by Dr Jeanne Herring and Dr Debbi J Rogers on behalf of the
Education and Research Committee of The Association of Forensic Physicians December 2005

Complainants Name: **Date:**

Head to Toe Survey inc. measurements, colour, shape, site, type of injury etc.

Use AFP body diagrams when appropriate - document negative findings

		Examined	Injuries	See Body Chart
Scalp/hair:		Y/N	Y/N	
Face:		Y/N	Y/N	
Eyes:		Y/N	Y/N	
Ears:		Y/N	Y/N	
Lips:		Y/N	Y/N	
Inside mouth/palate:		Y/N	Y/N	
Teeth:		Y/N	Y/N	
Neck:		Y/N	Y/N	
Back:		Y/N	Y/ N	
Buttocks:		Y/N	Y/N	
Arms:	R	Y/N	Y/N	
	L	Y/N	Y/N	
Hands/wrists:	R	Y/N	Y/N	
	L	Y/N	Y/N	
Fingers/nails:	R	Y/N	Y/N	note if cut/broken/false
	L	Y/N	Y/N	
Front of chest:		Y/N	Y/N	
Breasts:		Y/N	Y/N	
Abdomen:		Y/N	Y/N	
Legs:	R	Y/N	Y/N	
	L	Y/N	Y/N	
Feet/ankles/soles:	R	Y/N	Y/N	
	L	Y/N	Y/N	
Additional details: e.g. jewellery, injection sites, self harm				

Prepared by Dr Jeanne Herring and Dr Debbi J Rogers on behalf of the
Education and Research Committee of The Association of Forensic Physicians December 2005

Complainants Name: **Date:**

14. SYSTEMS EXAMINATION (If Relevant)

CVS

Pulse rate/character:.....BP:.....

Heart sounds:.....

Other findings:.....

RS

Trachea/air entry/percussion note etc:.....

Breath sounds:.....PEFR (if indicated):.....

Abdomen

L.K.K.S:.....

Tenderness/masses:.....

Bowel sounds:.....

Diagram (if indicated):

CNS

Pupil size and reactions:.....

Eye movement/nystagmus:.....

Conjunctiva:.....

Conscious level:.....

Balance/co-ordination:.....

Reflexes:.....

Prepared by Dr Jeanne Herring and Dr Debbi J Rogers on behalf of the
Education and Research Committee of The Association of Forensic Physicians December 2005

Complainants Name: **Date:**

15. GENITAL EXAMINATION - tick as indicated

☐ Extra lighting ☐ Colposcope ☐ Additional magnification

Position used: Separation: YES/NO Traction: YES/NO

Supine: YES/NO Left lateral: YES/NO

Details of female genital findings

Thighs:

Pubic area:

Pubic hair:
(shaved? cut?)

Labia majora:

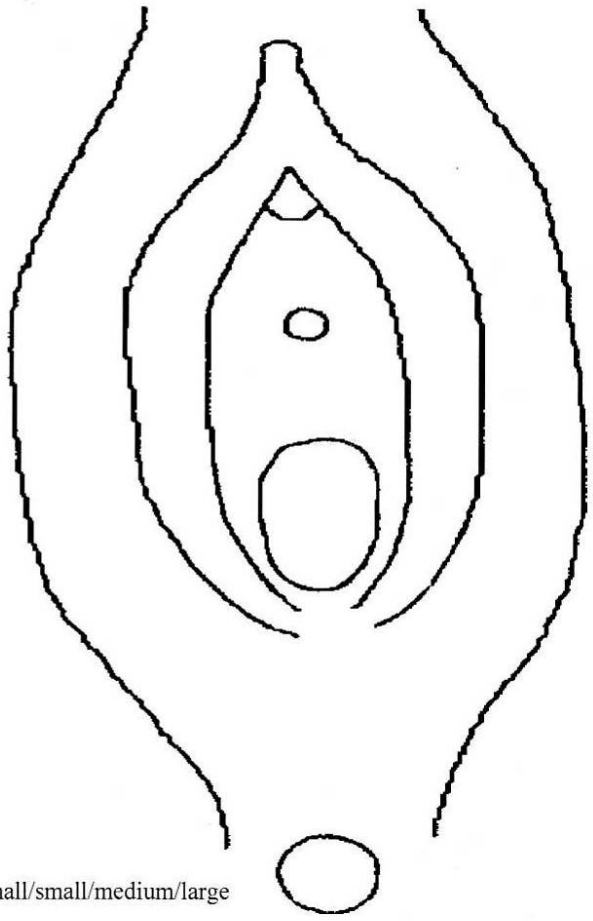
Labia minora:

Fourchette:

Fossa navicularis:

Vestibule:

Hymen:



Internal findings (if applicable):

Vaginal wall:

Cervix:

Size of speculum if used: extra-small/small/medium/large

Foley catheter used: YES/NO

Sterile water used: YES/NO Lubricant used: YES/NO type:

Prepared by Dr Jeanne Herring and Dr Debbi J Rogers on behalf of the
Education and Research Committee of The Association of Forensic Physicians December 2005

Complainants Name: **Date:**

Details of male genital findings

Thighs:

Pubic area:

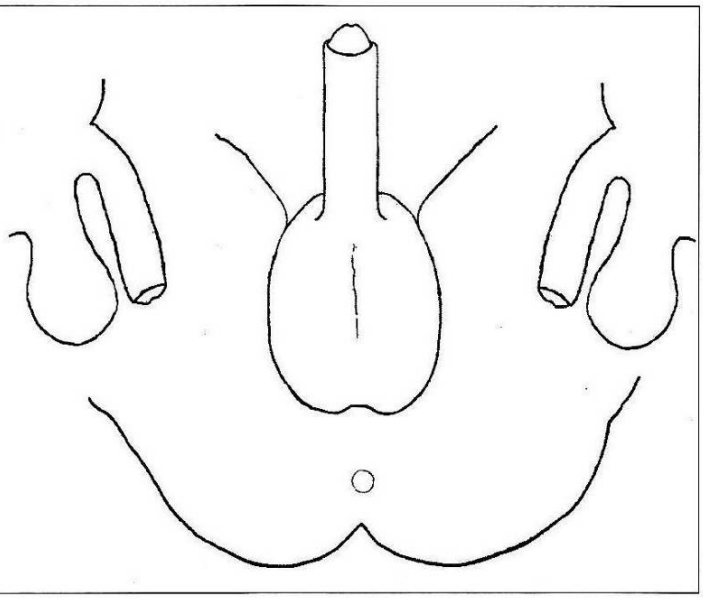
Pubic hair:

Scrotum:

Testes:

Penis:

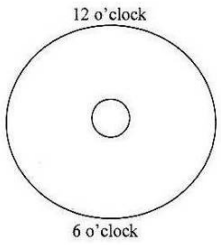
Foreskin:



Details of anal findings

Natal fold:

Perianal/anal margin:



Internal findings:

Proctoscope if used : size and type:

Sterile water used: YES/NO Lubricant used: YES/NO type:

Prepared by Dr Jeanne Herring and Dr Debbi J Rogers on behalf of the
Education and Research Committee of The Association of Forensic Physicians December 2005

Complainants Name: **Date:**

16. FORENSIC SAMPLES (If Scenesafe Form Or Similar Not Used)

Identification Number	Description of Sample	Moistened Yes/No	Time Taken

To whom handed:.....

Date and time samples handed over:.....

17. MEDICAL SAMPLES

List any samples obtained:

.....

.....

.....

18. PHOTOGRAPHS

List any photographs/videos obtained:

.....

.....

.....

Prepared by Dr Jeanne Herring and Dr Debbi J Rogers on behalf of the
Education and Research Committee of The Association of Forensic Physicians December 2005

Complainants Name: **Date:**

19. AFTER CARE

	YES	NO	DETAILS
Emergency contraception given/referral for IUD **If not given please explain why not (forensic physicians must have access to Levonelle®)**	☐	☐	
Antibiotics given **(NB if patient on COC advise extra precautions for duration of antibiotics and 7 days after)**	☐	☐	
Other medication given e.g. Hepatitis B, PEP starter pack	☐	☐	
GUM referral	☐	☐	
Permission to telephone/write to GP?	☐	☐	
Referral to GP?	☐	☐	GP details
Referral to other support services?	☐	☐	
Post sexual assault leaflet given?	☐	☐	
Advice given to patient &/carer	☐	☐	

.....

Time examination concluded:.....

Time notes concluded:.....

Conclusions/advice given to police/social care services:

.....

.....

Prepared by Dr Jeanne Herring and Dr Debbi J Rogers on behalf of the Education and Research Committee of The Association of Forensic Physicians December 2005

The Forensic Science Service

NPIA National Policing Improvement Agency

ACPO

LGC Forensics
Setting standards in forensic science

Faculty of Forensic and Legal Medicine

Guidelines for good practice

Guidelines for the collection of specimens

April 2007 (review date October 2007 – check www.fflm.ac.uk for latest update)

SAMPLE TYPE	REASON FOR ANALYSIS	METHOD OF SAMPLING	PACKING AND STORAGE
	The forensic physician must decide which samples are relevant to a particular case.		
Mouth swabs (2)	Detection of semen if oral penetration within 2 days. ***First mouth sample***	Mouth collection kit Rub one dry swab all around the inside of mouth, including over and under the tongue, all sides of the teeth and gums and inside of cheeks. Dentures and dental fixtures should also be swabbed. Repeat with second dry swab. Label the swabs to indicate the order in which they were obtained e.g. DJR1-**A** and DJR1-**B**.	Plain sterile swab returned immediately to appropriate swab sleeve/tube and placed in a tamper evident bag. **Swabs from the same site can be packaged in a single tamper evident bag.** **Freeze**
Mouth rinse	Detection of semen if oral penetration within 2 days. ***Second mouth sample***	**Mouth collection kit** Rinse mouth with sterile water and retain washings in polypot. Patient must wear gloves whilst handling polypot.	Polypot placed in tamper evident bag with empty water vial. **Freeze**
Skin swabs (min 2 per relevant area)	Detection of body fluids, cellular material and lubricant.	**Swab collection kit** Drip 3-4 drops of sterile water onto a swab and gently roll it over the relevant area of skin, immediately roll second dry swab over the same area. If skin is moist prior to sampling both swabs should be dry. Sample with more than two swabs if staining remains visible after initial sampling (repeating wet/dry cycle if skin dry). Label the swabs to indicate the order in which they were obtained e.g. DJR4-**A** and DJR4-**B**.	Plain sterile swab returned immediately to appropriate swab sleeve/tube and placed in tamper evident bag. **Freeze**
Control skin swab	Recovery of background DNA.	Drip 3-4 drops of sterile distilled water onto an unused swab and gently roll it over an adjacent unstained area of skin. If multiple areas of skin are sampled then the area of skin between the shoulder blades can be utilised. Wet and dry swabs should be collected from the control skin area.	Plain sterile swab returned immediately to appropriate swab sleeve/tube and placed in tamper evident bag. **Freeze**
Control moistened swab (1)	Control for swab batch and water. **Obtain whenever swab kit is used.**	When all swabs have been obtained, drip 3-4 drops of the residual sterile water onto an unused swab.	Plain sterile swab returned immediately to appropriate swab sleeve/tube and placed, in a tamper evident bag **Freeze**
Head hair	**A.** Detection of body fluids, e.g. semen. **B.** Removal of foreign particles, e.g. glass. **C.** Removal of foreign hairs or fibres. **D.** Control sample for microscopic hair comparison, take from all suspects; obtain from complainants where relevant e.g. unknown assailant. **E.** Detection of ingested drugs.	**Hair collection kit/Head hair collection kit** **A.** Cut or swab relevant area. If hair is dry use wet swab then dry swab (see skin). **B.** Remove visible foreign particles with disposable forceps and collect in paper drape and/or comb hair over paper drape. **C.** Tape head using low tack adhesive tape. Place tape on sheet of acetate*. **D.** Cut a representative sample of 10-20 hairs close to the skin. **E.** Follow instructions in specific kit from specialist laboratory – should not be used until 4-6 weeks post ingestion. *obtain these items from Crime Scene Investigator	Place each type of sample in separate tamper evident bag (include scissors, forceps and/or comb in the bag if any of them have been used to sample hair). **Biological samples should be frozen. Non-biological samples e.g. glass fragments can be placed in a dry store.**
Pubic hair	**A.** Detection of body fluids e.g. semen. **B.** Removal of foreign hairs or fibres. **C.** Control sample for microscopic hair comparison, take from all suspects; obtain from complainants where relevant e.g. unknown assailant.	**Hair collection kit/Pubic Hair collection kit** **A.** Cut or swab relevant area. If hair is dry use wet swab then dry swab (see skin). **This should be done before combing.** **B.** Comb hair and collect debris on paper. **C.** Cut a representative sample of 10-20 hairs close to the skin.	As for swabs or place in tamper evident bag. **Freeze**

Guidelines for the collection of specimens

SAMPLE TYPE	REASON FOR ANALYSIS	METHOD OF SAMPLING	PACKING AND STORAGE
	The forensic physician must decide which samples are relevant to a particular case.		
Vulval swabs (2)	Detection of body fluids if: • vaginal intercourse within 7 days* or; • anal intercourse* within 3 days or; • ejaculation onto vulva/perineum. ***First female genital sample***	**Swab collection kit** Rub one dry swab over the vulva and perineum. Repeat with second dry swab. If vulval skin (or visible stain) appears dry prior to sampling the first swab should be moist. Sample with more than two swabs if staining remains visible after initial sampling (repeating wet/dry cycle if skin dry). Label the swabs to indicate the order in which they were obtained.	Plain sterile swab returned immediately to appropriate swab sleeve/tube and placed in a tamper evident bag. **Freeze**
Low vaginal swabs (2)	Detection of body fluids if: • vaginal intercourse within 7 days* (3 days if patient is pre-pubertal) or; • anal intercourse* within 3 days. ***Second female genital sample***	**Swab collection kit** Insert a dry swab approximately 3-5 cm into the vagina. Use gentle rotational movements to sample the lower half/third the vagina. Repeat with second dry swab. If the vaginal skin is markedly dry the first swab can be moistened with sterile water (see skin). Label the swabs to indicate the order in which they were obtained.	As above
High vaginal swabs (2)	Detection of body fluids if: • vaginal intercourse within 7 days* or; • anal intercourse* within 3 days. ***Third female genital sample***	**Swab collection kit** Pass a lubricated** single use speculum. Rub two dry swabs, one at a time, over the skin of the unsampled upper two thirds/half of the vagina, making sure the fornices are sampled. **If it is not possible to pass a speculum attempt to obtain two 'vaginal swabs' instead.** Label the swabs to indicate the order in which they were obtained.	As above Retain or swab the speculum.
Endocervical swabs (2)	Detection of body fluids if: • vaginal intercourse* more than 48 hrs earlier but within 7 days or; • anal intercourse* more than 48 hrs earlier but within 3 days. ***Final female genital sample (post-pubertal only)***	**Swab collection kit** With the speculum in place use two dry swabs, one at a time, to sample the endocervix.Label the swabs to indicate the order in which they were obtained.	As above
Penile swabs **Coronal sulcus (2)** **Glans (2)** **Shaft (2)**	Detection of body fluids if intercourse within 2 days.	**Swab collection kit** **Coronal sulcus** – Drip 3-4 drops of sterile water onto a swab, retract the foreskin (if present), and gently roll the swab around the coronal sulcus, immediately roll second dry swab over the same area. **Glans** – Drip 3-4 drops of sterile water onto a swab and gently roll it over the skin of the glans, immediately roll second dry swab over the same area. Sample with more than two swabs if staining remains visible after initial sampling (repeating wet/dry cycle). **Shaft** – Drip 3-4 drops of sterile water onto a swab and gently roll it over the skin of the shaft, immediately roll second dry swab over the same area. **Retain the gloves used during this component of the examination and package in separate tamper evident bag.** Label the swabs to indicate the order in which they were obtained.	As above
Perianal swabs (2)	Detection of body fluids if intercourse* within 3 days. ***First anal sample***	**Swab collection kit** Drip 3-4 drops of sterile water onto a swab and gently roll it over the perianal skin in an area of 3cm radius from the anus, immediately roll second dry swab over the same area. If skin is moist both swabs should be dry. Recover on more than two swabs if staining remains visible after initial sampling (repeating wet/dry cycle if skin dry). Label the swabs to indicate the order in which they were obtained.	Plain sterile swab returned immediately to appropriate swab sleeve/tube and placed in a tamper evident bag. **Freeze**
Anal canal swabs (2)	Detection of body fluids if anal intercourse* within 3 days. ***Second anal sample***	**Swab collection kit** Drip 3-4 drops of sterile water onto a swab and insert it 2-3cm through the anal orifice. Use gentle rotational movements to sample the anal canal. Thereafter, the process is repeated with a **second dry swab**. Label the swabs to indicate the order in which they were obtained.	As above

Guidelines for the collection of specimens

SAMPLE TYPE	REASON FOR ANALYSIS		METHOD OF SAMPLING	PACKING AND STORAGE
	The forensic physician must decide which samples are relevant to a particular case.			
Rectal swabs (2)	Detection of body fluids if anal intercourse* within 3 days. ***Third anal sample***		**Swab collection kit** Pass a lubricated** proctoscope at least 3-4 cm into the anus, remove the obturator and sample the mucosa of lower rectum using two dry swabs. The average anal canal is about 3 cm long in the adult (range 1.4-3.8 cm in males and 1.0-3.2 cm in females). The mucosa of the upper anal canal is a deep purple colour, which readily distinguishes it from the red/pink mucosa of the lower rectum. **If it is not possible to pass a proctoscope try to obtain two 'anal canal/rectum' swabs.**	As above Retain or swab the proctoscope.
Fingernails	Recovery of trace evidence (e.g. body fluid, possible fibres) or connection with fingernail broken at scene (if the circumstances suggest this as a possibility).		**Fingernail collection kit and Swab collection kit for water and swabs if not in the fingernail kit** Clip the fingernails of one hand at a time, over a paper drape and package separately. In addition to this swab under the fingernails, on the surface of the nails and around the cuticles. If the fingernails are too short or clipping is unacceptable obtain swabs only. The first swab should be moistened, the second dry. If comparison with fragment nail is required broken nail must be cut.	Place in tamper evident bag. **Freeze**
Buccal scrapes (2)	Reference sample for DNA profiling.		**Volunteer DNA kit** Take one buccal scrape from the inside each cheek at least 20 mins after patient has had a drink, food or a cigarette(in cases involving oral sex between persons of the same gender, take an additional sample at least 2 days after incident).	Place in plastic tubes then into a tamper evident bag. **Freeze**
Condoms	Detection of body fluids and seminal fluid, if used during intercourse.		**Condom collection kit** Secure the open end of condom with freezer clip or knot. Place in plastic container.	Place plastic container/pot in tamper evident bag. **Freeze**
Ground sheet/ Couch cover	To identify foreign particles which may fall from clothing or body during examination.		**Clothing collection kit** Stand examinee on ground sheet when undressing.	Place separately in paper bags and seal. **Store dry**
Sanitary towels/ Tampons	Detection of body fluids, e.g. semen, if in situ or after vaginal intercourse.		Retain intact	Place in plastic container then into a tamper evident bag. **Freeze**
Blood preserved (sodium fluoride & potassium oxalate)	Analysis for alcohol, drugs (drugs of abuse & medicinal) and volatiles/solvents.	**NB:** Request blood and urine in **every** case where the incident was less than 3 days prior to the examination. If the incident occurred between 3 and 4 days only a urine specimen is required. If in doubt, consult the Laboratory for advice.	**Blood collection kit** Take 10mls blood and put into blood container – do not over or under fill. Invert several times to mix the preservative. **NB:** If **volatiles** are suspected (i.e. solvent abuse) then a portion of the blood sample must be taken into a Road Traffic Act (RTA) style vial with septum and aluminium cap (this vial is not supplied in the kit). The RTA vial must be filled approximately half full and the remaining blood placed in the container supplied.	Place glass container inside Securitainer and then place in tamper evident bag. **Refrigerate**
Urine preserved (sodium fluoride)	Analysis for alcohol and drugs (drugs of abuse & medicinal).		**Urine collection kit** Urine is passed into a collection vessel and approximately 20mls decanted into the urine container (fill to line; do not exceed). Screw cap on firmly. Invert several times. (Do not remove preservative tablet). **NB:** Obtain two urine samples if the incident has occurred in the preceding 24 hours. The first is collected as soon as practicable after the incident (may be obtained using an Early Evidence Kit) and the second sample should be the next urination after the first sample (ideally within an hour of the first if possible). Both specimens can be taken prior to full medical examination. Urine collection from complainants does not need to be witnessed.	Place glass container inside Securitainer and then place in tamper evident bag. **Refrigerate**

*Obtain even if condom purported to have been used

**Pedicat® or KY® Lubricating Jelly

Feedback and comments to Dr Debbi Rogers djrogers@doctors.org.uk
Chair of the Forensic Science Committee of the Faculty of Forensic and Legal Medicine

Appendix 4 An Actual FMEK Used in Practice:

- Photographs of Aspects of a Constabulary's FMEK;
- Constabulary's Forms including Body Diagrams

Fig. 1 FMEK wrapped up in bag

Fig. 2 Blood Collection Module with Gloves

Fig. 3 Swab Collection Module

Fig. 4 Swabs

Fig. 5 Hair Collection Module

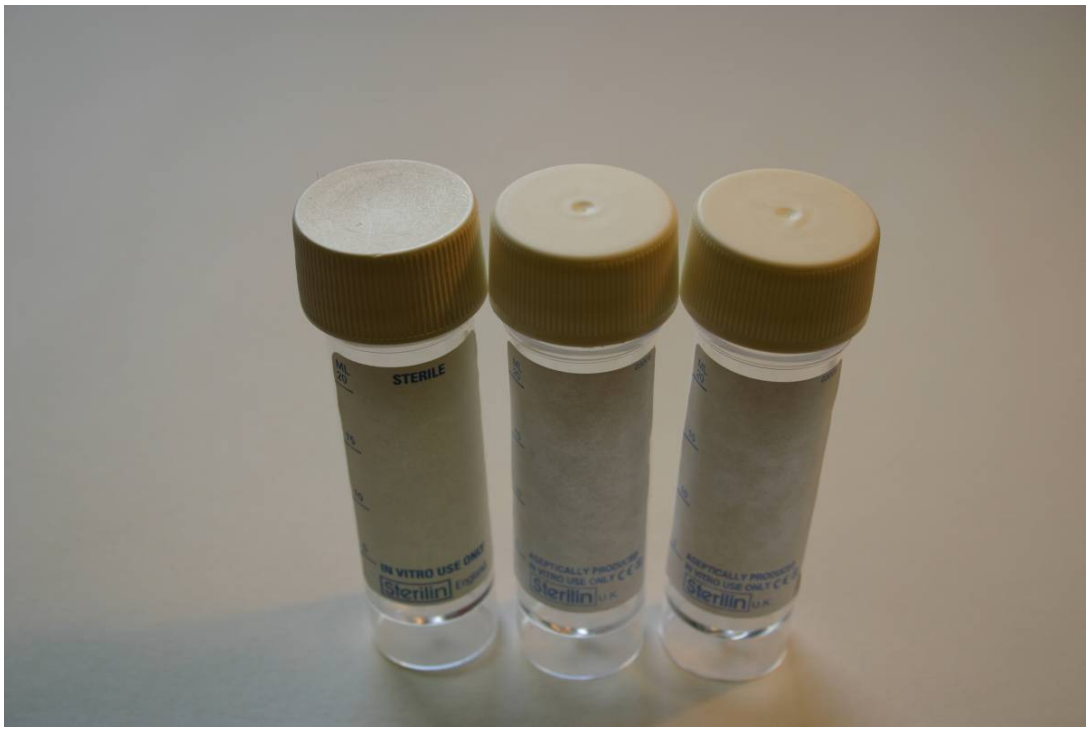


Fig. 6 Phials for holding blood or urine samples

SEXUAL OFFENCE EXAMINATION
Please read Guidance Notes before commencing examination and completing form.

Lab.Ref.No.

Name & Address of Doctor

PART 1 - INFORMATION REQUIRED FROM EXAMINATION

Name of Victim/Suspect: Sex:

Age: Date of Birth: Height: Weight:

Date & time of alleged incident:

Nature of alleged offence: vaginal/anal/oral/other

Date & time of examination:

Place of examination:

Officer / other persons present:

G.P. Name:
Address:

Victim (female adult) - Specific Information
Washed since offence: YES/NO Bathed since offence: YES/NO
Bleeding: None Menstrual Traumatic
If traumatic, details:

Barrier Contraceptive used during offence: NO/Condom/Spermicide
Lubricant used: YES/NO

Date & time of previous sexual intercourse within last 10 days:

Partner:
Barrier Contraceptive used: NO/Condom/Spermicide:
Lubricant used: YES/NO
Washed since intercourse: YES/NO Bathed since intercourse: YES/NO

Menstrual history: L.M.P:
Menarche: Menses: / days
Contraception: YES/NO If YES, type:

Vaginal discharge:
Pregnancy history: Para + Last pregnancy:

Victim (child/male) - Specific Information
Washed since offence: YES/NO Bathed since offence: YES/NO
Bleeding: None Traumatic
If traumatic, details:

Lubricant used: YES/NO

Suspect/accused - Specific Information
Washed since incident: YES/NO Bathed since offence: YES/NO
Male vasectomised: YES/NO/UNKNOWN If YES, date:
Date & time of previous sexual intercourse within last 10 days:

Partner:
Washed since intercourse: YES/NO Bathed since intercourse: YES/NO

Remarks (if any):
xc4 (9/95)

Child: Male: Injuries – specify:

Female: Menarche: Menstrual cycle:

LMP: Injuries – specify:

RECENT SEXUAL ACTIVITY (Within 10 days)

Date and time of other intercourse / / hrs. Partner:

Contraception Used: If Yes then specify:

Washed since intercourse:

Lubricant Used:

Bathed since intercourse:

Remarks (if any)

ALCOHOL

Date & Time of last alcohol consumption: / / Hrs.
Date & Time of last drug consumption: / / Hrs.
Date & Time of last medication: / / Hrs.

Notes:

PART 2 - SAMPLES COLLECTED

Lab.Ref.No.

Date:
Donor of specimens:

		NUMBER	
SWABS: Vaginal	Internal	☐	
	External	☐	
Anal	Internal	☐	
	External	☐	
* Penile/Oral		☐	
HAIR:	Scalp Combed	☐	
	Scalp Cut	☐	
	Scalp Plucked	☐	
	Pubic Combed	☐	
	Pubic Cut	☐	
	Pubic Plucked	☐	
SALIVA:		☐	
BLOOD:	Serology	☐	
	Alcohol	☐	Date & time:
	* DNA/Drugs	☐	
	Finger Prick Sample	☐	
* NAIL SCRAPINGS/ CUTTINGS	Right	☐	
	Left	☐	

* OTHER SPECIMENS:

* (Specify)

Top Copies - Forensic Laboratory
Middle Copies - Police Surgeon
Bottom Copies - Police

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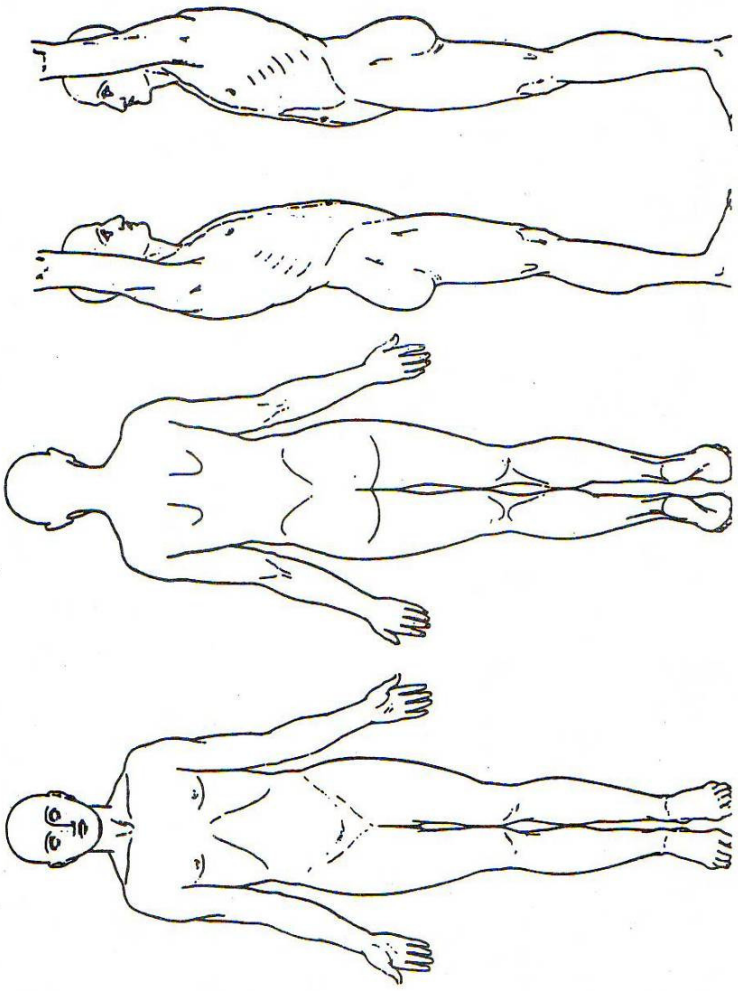
PART 3 - WOUNDS AND INJURIES

Lab.Ref.No.

Date:
Donor of specimens:



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