‘If a picture paints a thousand words …’

Ferguson, Pamela; Raitt, Fiona

Published in:
International Journal of Evidence and Proof

DOI:
10.1350/ijep.2013.17.2.422

Publication date:
2013

Document Version
Publisher's PDF, also known as Version of record

'If a picture paints a thousand words …': the development of human identification techniques in forensic anthropology and their implications for human rights in the criminal process

By Pamela R. Ferguson and*
Professor of Scots Law, School of Law, University of Dundee

*Fiona E. Raitt***
Professor of Evidence and Social Justice, School of Law, University of Dundee

Abstract Newly developed techniques in forensic anthropology offer great potential to assist in identifying, and ultimately convicting, perpetrators of serious sexual assaults, particularly those involving young children. They can also facilitate the prosecution of those who create and disseminate child

* Email: p.r.ferguson@dundee.ac.uk.
** Email: f.e.raitt@dundee.ac.uk. Our thanks are due to Professor Pete Duff, Sheriff Tom Welsh and Professor Sue Black and anonymous reviewers for their helpful comments on earlier versions of the article.

doi:10.1350/ijep.2013.17.2.422

pornography. They do, however, require that photographs be taken of suspects' hands, and sometimes their genitals. This article explores the human rights implications which arise from the intrusive procedures needed to obtain the photographs necessary for comparative purposes. It assesses police powers; the rights of suspects to privacy and bodily integrity; the privilege against compelled self-incrimination; and the right to legal advice, and addresses the question: what are the permissible limits of intrusive searches?

Keywords Human rights; Forensic anthropology; Intrusive searches; Privacy; Child sexual assault; Police powers

Consider the following scenarios:

- The police discover photographs on A's mobile phone which show a toddler being sexually assaulted. The only part of the perpetrator which is visible is one of his hands.
- The police discover images on B's computer which show the rape of a baby. The only parts of the perpetrator which are visible are his genitals.

Such crimes are difficult to prosecute; direct testimonial evidence from young children as to the perpetrators' identities can be difficult, and in the case of very young children impossible, to obtain. Digital images of abuse are often uploaded to websites and shared with others, frequently on a global scale.[1] Typically, perpetrators are members of large, sometimes worldwide, paedophile rings whose membership status depends upon the digital quality of the images they can contribute as well as the severity of the abuse.[2] It is therefore in the perpetrators' interests to provide close-up imaging of intimate bodily contact. In the context of internet child pornography, it is common for a perpetrator's hand to be visible and this may reveal distinct anatomical features and markings. Part 1 of this article describes newly developed techniques which have the potential to compare the hands and/or genitals of a suspect with digital images of a perpetrator. The contribution the techniques have already made in specific court cases is discussed, as is their potential in future cases. It also summarises some of the legal issues raised by the procedures for gathering evidence to be used in these techniques. The remaining parts of the article examine these issues in more depth: Part 2 discusses general police powers of search and examination of

1 In one recent Scottish case, police discovered nearly 125,000 indecent images of children: see *HM Advocate* v *Rennie and Others*, unreported, March 2009, discussed further below.

2 C. Money, 'Legal Responses to New Challenges in Child Protection', Conference Paper given at *Child Exploitation: Legal Responses to New Challenges in Child Protection,* University of Dundee, 2011. (Paper on file with authors.)

suspects in non-intrusive cases. Part 3 considers the more intrusive searches/examinations required by some of the new techniques, and the extent to which these conflict with the right to bodily integrity/privacy. We continue our exploration of suspects' rights by considering the privilege against compelled self-incrimination, the right to legal advice, and the protections offered by court warrants, in Part 4, and summarise our conclusions in Part 5. Our central focus is on Scots law: the science was developed by forensic anthropologists working in Scotland, and its use to date has been largely confined to Scottish criminal cases. Child sexual assault and child pornography are, however, global problems which raise issues of international application. We therefore draw comparisons with several other countries within the adversarial tradition, primarily England, Canada and the United States. The questions raised in the article are central to the meaning of a 'fair criminal process', and as such are of importance to any legal system seeking to ensure compatibility with human rights instruments.

1. Anthropological identification in a legal context

(a) The techniques

The use of photography to assist in the identification and prosecution of offenders is not new; it seems that its potential was recognised as early as the 1840s.[3] What is new, however, is that photographic images or other digital images held on computers can now be analysed using new anatomical comparison techniques. A team of anatomists and forensic anthropologists at the Centre for Anatomy and Human Identification (CAHID) has developed these techniques. Led by Professor Sue Black, the CAHID team is based at the University of Dundee, Scotland. Aside from fingerprints, hands display features that have discriminatory capacity; the pattern of the superficial veins, the pattern of knuckle skin creases and even the shape of fingernails and cuticles may be distinctive.[4] The appearance of a scar on a digital image of abuse may be matched by the team with a digital image of a scar on a suspect's hands, as may burns, freckles, age spots and many other characteristics.

Extensive research to investigate the robustness of statistical application is being undertaken. At present, however, when called as expert witnesses for the

3 C. Norris, M. McCahill and D. Wood, 'The Growth of CCTV: A Global Perspective on the International Diffusion of Video Surveillance in Publicly Accessible Space' (2004) 2 *Surveillance & Society* 110.

4 S. M. Black, 'Novel Science: Hand Identification as an Emerging Technique': Paper given at Scottish Universities Insight Institute programme, *Scots Law of Evidence—Fit for Purpose in the Digital and Global Age?* (2011); S. M. Black, X. Mallett, C. Rynn and N. Duffield, 'Forensic Hand Image Comparison as an Aid for Paedophile Investigations' (2009) 184 *Police Professional* 21.

prosecution, the testimony of the CAHID scientists does not include statistical data on the likelihood that the suspect's and perpetrator's hands are one and the same, but they can point out the many areas of similarity or difference between the two. Although the absence of evidence of statistical probability may appear to limit the inferences which may be drawn, such expert testimony has been given in a number of cases, and has been held to be both relevant and admissible.[5] These comparisons can be powerful statements of evidence especially when the features examined cross different aetiologies of origin. Their techniques allow the forensic anthropologists to eliminate a suspect if it can be demonstrated that his or her hands do not 'match' the features identified in the images of the perpetrator. Where, however, the expert is able to testify to the many and various similarities, often of different aetiology, between the two images, a jury may readily conclude that the suspect/accused and the perpetrator could be the same individual. Similar techniques are currently being developed for genital comparisons, which could be beneficial in identifying the perpetrator in our second scenario.

The CAHID methodologies have been used in several cases within the separate legal jurisdictions of the United Kingdom. In one English civil case, a family court hearing in relation to the safety of a child, the hand identification techniques were able to eliminate conclusively two of three male family members from being possible perpetrators of a sexual assault on the child within their household. This allowed the stepfather of the child to be admitted back into the family home. In the first Scottish criminal case, *HM Advocate* v *Rennie and Others*,[6] photographs showing the sexual abuse of a baby, which also captured part of the perpetrator's thumb, were compared with photographs taken by the police of the hands of a suspect, Neil Strachan. He and seven other men were prosecuted for various offences, including attempted rape, conspiracy to commit sexual assault, and the making, possessing and distributing of child pornography. Black gave evidence of 12 similarities between Strachan's right hand and the right hand of the perpetrator. She was able to demonstrate that a comparison between the suspect's own right and left hands revealed no such points of similarity. In particular, there was a congenital deformity on a lunule—the pale, half-moon-shaped area at the base of the nail—of a finger of the perpetrator's right hand. Comparison with 2,900 images of fingers held on a database at CAHID had failed to find a match, but the distinctive anomaly was present on the police photograph of Strachan's thumb,

5 These cases are described further below.

6 Unreported, March 2009, but see: 'Thumb clue in paedophile trial', BBC News, 26 March 2009, available at <http://news.bbc.co.uk/1/hi/scotland/edinburgh_and_east/7966614.stm>, accessed 25 January 2013.

allowing Black to testify that there was 'strong evidence to support the proposition' that the images were of the same finger and therefore could be from the same individual.[7] The evidence was held to be relevant and admissible, and it was for the jury as fact-finder to decide how much weight to attach to it. While that expert testimony fell short of a positive identification of Strachan as the perpetrator, it was a very important contribution to the prosecution case, which resulted in the conviction of the eight accused.[8] Two further Scottish cases have benefited from these techniques. In *HM Advocate* v *Morrison*,[9] the accused pled guilty to the rape of a baby girl, and possession of indecent images of children. Professor Black was able to provide evidence suggesting that it was possible that Morrison was the perpetrator of the abuse by comparing images of his hands with indecent photographs found on his computer. In *HM Advocate* v *Dick*,[10] Black's evidence helped to secure the conviction of the accused for sexual assaults, including rape, involving female children.

(b) The legal issues

The use of novel scientific techniques to obtain evidence from a suspect's body raises a host of legal (and ethical) issues, some empirical, others normative, relating to the permissible limits of intimate searches.[11] Our analysis of the legitimacy of these police procedures, set out below, draws first upon the position in Scots law and the relevant jurisprudence of the European Court of Human Rights (ECtHR), followed by comparisons with other common law jurisdictions. We consider the permissible limits of searches in two contexts: non-intrusive circumstances, and intrusive circumstances, and then consider the legal protections surrounding the latter. The legality of any police or prosecution action, and the extent to which force can be used to facilitate the gathering of evidence, or require a suspect to assist in providing evidence, will vary from country to country, as will the precise nature of the rights afforded to an individual at the various stages in the investigative process. However, irrespective of distinctions in terminology or

7 Ibid.

8 Two of the accused were given a sentence of life imprisonment.

9 Unreported, 2012, but see 'Paedophile David Morrison jailed for raping 14-month-old girl', BBC News, 20 January 2012, available at <http://www.bbc.co.uk/news/uk-scotland-tayside-central-16654504>, accessed 25 January 2013.

10 Unreported, 2011, but see 'Paedophile Brian Dick jailed for nine years', BBC News, 9 December 2011, available at <http://www.bbc.co.uk/news/uk-scotland-tayside-central-16111127>, accessed 25 January 2013.

11 Novel or emerging scientific techniques raise issues concerning the reliability of the science itself. An examination of these issues is beyond the scope of this article, but there is a vast literature, of which recent major contributions include: the National Academy of Sciences, *Strengthening Forensic Science in the United States: A Path Forward* (National Academies Press: 2009); Law Commission, *Expert Evidence in Criminal Proceedings in England and Wales*, Law Com. Report 325, HC 829 (TSO: London, 2011); and *Report of the Scottish Fingerprint Inquiry* (Scottish Government: Edinburgh, 2011).

substance, there are fundamental principles of a 'fair trial' based on the rule of law which are recognised and given effect to by all jurisdictions which are signatories to international human rights treaties.[12] The right to bodily integrity, to privacy, and not to be compelled to self-incriminate are important aspects of this, but these are not absolute; statutory powers or constitutional constraints often permit some encroachment upon them. In contrast to this, Article 3 of the European Convention on Human Rights (ECHR), which provides that no-one shall be subjected to torture or to inhuman or degrading treatment or punishment, *is* absolute and is not capable of encroachment.[13] In similar vein, both the Eighth Amendment to the American Constitution and s. 12 of the Canadian Charter of Rights and Freedoms provide that 'cruel and unusual punishments' may not be inflicted.[14]

2. General police powers of search and examination

Reflecting on the two scenarios we posed in the introduction, what powers do the police have to obtain suitable photographs of A's hands and B's genitals for comparison with digital images of a perpetrator? Must A and B first be detained or arrested before photographs can be taken? Do suspects need to consent to examinations or photographing? As acknowledged above, police powers vary from one jurisdiction to another, but in the European context there is a growing tendency to interpret Article 6 of the ECHR such that the entire criminal process must be fair, not merely the trial itself. Thus, there is increasing scrutiny of pre-trial procedure, as demonstrated by the decision of the ECtHR in *Salduz* v *Turkey*,[15] and the application of that case in the Scottish context in *Cadder* v *HM Advocate*.[16] The issues raised in our scenarios are most likely to arise where the police have a suspect whom they wish to search and examine, in which case their powers will be

12 These include the European Convention on Human Rights, the US Constitution and the Canadian Charter of Rights and Freedoms. The due process provisions within these instruments are discussed further below.

13 See *Gäfgen* v *Germany* (2011) 52 EHRR 1 (involving threats of torture) and S. C. Greer, 'Should Police Threats to Torture Suspects Always Be Severely Punished? Reflections on the *Gäfgen* Case' (2011) 11 *Human Rights Law Review* 67, and the authorities cited there.

14 See also the UN Convention against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment (1984), available at <http://www2.ohchr.org/english/law/cat.htm>, accessed 26 January 2013.

15 (2009) 49 EHRR 19.

16 [2010] UKSC 43. These cases are discussed further below. See also *Magee* v *United Kingdom* (2001) 31 EHRR 35 in which the ECtHR stated: 'Article 6—especially paragraph 3—may be relevant before a case is sent for trial if and so far as the fairness of the trial is likely to be seriously prejudiced by an initial failure to comply with its provisions' (at para. 41).

dependent upon the legal status of the suspect and, in particular, on whether he has been detained or arrested. In common with many countries, other than where prescribed by statute for particular offences,[17] the general powers vested in the Scottish police to search a person without consent are very limited, unless the latter has first been detained or arrested.

In our first scenario, A may well comply with a police request to hold his hands in a particular way, such that they resemble the hand shape in the photograph/image of the perpetrator, and for photographs of his hands to be taken in this pose. Strictly speaking, this procedure is an examination, rather than a search, but the implications are the same. Recent Scottish cases have held that unless the individual is a 'suspect', the police are not obliged to advise him of any right to refuse, since 'it must be perfectly obvious that the answer to [such a] request may be either yes or no'.[18] Even if an individual is in fact suspected of committing a crime, a 'search' needs to be distinguished from a request with which a person voluntarily complies.[19] No adverse inferences can be drawn from a suspect's refusal to consent. When the issue of amending the law to allow adverse inferences to be drawn was raised in 1989 by the Scottish Law Commission in relation to refusals to provide blood and other intimate samples, this was rejected by the majority of respondents to the Consultation.[20] The judiciary were notably unequivocal:

> We wholly oppose any system whereby if consent were refused any adverse inference could be drawn from the refusal of consent. This approach seems to us to be wrong in principle. The reasons which may cause any individual to refuse consent could be various and in a criminal case we consider that a conviction should depend on evidence and not on inference.[21]

This has implications for our scenarios. Asked whether he can be photographed, a person may be unsure whether there is any alternative other than to agree. However, it can be argued that any purported consent is only meaningful if its

17 See, for example, the wide power of search in the Criminal Justice and Public Order Act 1994, s. 60, the Terrorism Act 2000, s. 44 and the Misuse of Drugs Act 1971, s. 23(2). Police powers of search in England are regulated by the Police and Criminal Evidence Act 1984 (PACE), ss. 1–2.

18 *Brown* v *Glen* 1998 JC 4 at 8, *per* Lord Sutherland, distinguishing *McGovern* v *HM Advocate* 1950 JC 33 and overruling *Normand* v *Cox* 1997 SCCR 24.

19 *Devlin* v *Normand* 1992 SCCR 875. See also *Urquhart* v *Higson* 1998 GWD 18-889 (HCJ Appeal).

20 Scottish Law Commission, *Evidence: Blood Group Tests, DNA Tests and Related Matters*, Scottish Law Com. Report No. 120 (1989) para. 2.27.

21 Ibid.

implications are explained. Police in England and Wales have very similar powers to their Scottish counterparts but, notably, the English provisions are more clearly expressed.[22] In England, legislation provides that an individual who is to be searched must first be given the name of the police constable conducting the search, the objective of the search, and the grounds for proposing it.[23] As with Scots law, the police would be unable to photograph a suspect without consent, without first arresting him.

In our two scenarios, the police will most likely detain A and B. Any measure which deprives an individual of his or her liberty must be compatible with Article 5(1) of the ECHR, in order to protect the individual from 'arbitrariness'.[24] That Article provides that everyone has 'the right to liberty and security of person',[25] but included among legitimate encroachments on this is 'the lawful arrest or detention of a person effected for the purpose of bringing him before the competent legal authority on reasonable suspicion of having committed an offence'.[26] The ECtHR has defined 'reasonable suspicion' for the purposes of Article 5(1)(c): '[H]aving "reasonable suspicion" presupposes the existence of facts or information which would satisfy an objective observer that the person concerned must have committed the offence. What may be regarded as "reasonable" will however depend upon all the circumstances'.[27] The finding of photographs/images on A's phone and B's computer would constitute reasonable grounds to suspect them of having committed offences relating to child pornography,[28] or even of being the perpetrators of the acts depicted in the images.

In most common law jurisdictions, detainees can be searched by the police, and reasonable force can be used to effect this.[29] Typically, police powers of search authorise them to recover fingerprints, palm prints, saliva samples, hair samples (but not pubic hair), fingernail or toenail scrapings; and to swab the suspect in order to obtain a sample of blood, other body fluid, body tissue or other material.[30] The position in the United States is similar; in the case of *United States* v *Robinson*[31]

22 PACE, s. 54A.
23 PACE, s. 2.
24 *Bozano* v *France* (1987) 9 EHRR 297 at para. 54.
25 ECHR, Art. 5(1). All adversarial legal systems have similar provisions.
26 ECHR, Art. 5(1)(c).
27 *Fox, Campbell and Hartley* v *United Kingdom* (1991) 13 EHRR 157 at para. 32.
28 Contrary to the Civic Government (Scotland) Act 1982, ss. 52 and 52A, as amended.
29 Criminal Procedure (Scotland) Act 1995, s. 14(8).
30 Criminal Procedure (Scotland) Act 1995, s. 18(6), inserted by the Criminal Justice (Scotland) Act 2003, s. 55.
31 414 US 218 (1973).

the Supreme Court made clear that police have powers to search a suspect, so long as there was 'probable cause' justifying the arrest. In Scots law, there would seem to be little doubt then that, once detained, A could be asked to consent to the taking of the necessary photographs. Refusal would be met with the use of 'reasonable force'[32]—a term which the legislation does not define, but which may well mean considerable force, if required. Statutory police powers to search and obtain samples apply equally to a person who has been arrested and is in police custody.[33] They can be searched and examined, even if the alleged crime is not a particularly serious one.[34] In *Adair* v *McGarry*,[35] Lord Justice-Clerk Alness acknowledged the competing interests in such cases and provided a succinct summary of the police powers:

> As regards undue invasion of the personal rights of the accused, one must have a sense of proportion. Certain it is that in practice, and hitherto unchallenged, a person who is suspected of crime may be brought—with reasonable violence in the event of his resistance—to the police station, that he may be paraded for purposes of identification, that he may be stripped, and that he may be searched for any incriminating natural or artificial mark upon his person. That mark may include a birth mark or a natural deformity, a tattoo mark, or bloodstains or the like.[36]

Summarising the above, it is clear that the Scottish police have authority to take photographs of a suspect's hands following detention or arrest.

3. Police powers of search and examination in intimate circumstances: intrusive procedures, bodily integrity, dignity and privacy rights

Our second scenario raises a more difficult issue, namely the photographing of an intimate part of a suspect's anatomy. It is not clear that the Scottish legislation would permit this; the police have authority to take 'relevant external data', but to our knowledge there is no precedent within the Scottish authorities which would encompass the photographing of genitals as an acceptable procedure given its clear intrusive nature. On the contrary, the legislation provides a closed list of permitted activities, and more 'invasive' procedures such as the taking of a blood

32 Criminal Procedure (Scotland) Act 1995, s. 19B, inserted by the Crime and Punishment (Scotland) Act 1997, s. 48(2).

33 Criminal Procedure (Scotland) Act 1995, s. 18(1).

34 See *Gellatly* v *Heywood* 1997 JC 171 in which a person who had been arrested for the relatively minor crime of breach of the peace was subjected to a strip search.

35 1933 JC 72.

36 Ibid. at 80.

sample or pubic hair require a court warrant.[37] It seems to us that courts would be likely to regard such photographs as akin to an 'invasive procedure', making it a necessity to obtain a warrant to photograph intimate parts of the anatomy in order to avoid a subsequent challenge to the admissibility of any resulting photographic evidence. We will consider the warrant procedure, and offer a critique of it, later in the article, but need first to explore the more complex issues arising in our second scenario. First, we take the limits of the intrusive search a little further.

In some cases, a perpetrator's penis in a digital image may be in an erect state. If there is to be an accurate comparison made between that image and a photograph of the suspect's penis, it may be that the latter needs to be in a similarly erect state. This raises the issue of whether the police should be permitted to stimulate an erection in a suspect, for example, by the use of pornography or by administering erectile enhancing drugs such as Viagra. Our second scenario raises acutely the right to bodily integrity, and to privacy. Ought the law to sanction breaches of these rights in the public interest in the effective investigation and prosecution of serious crimes such as child sexual assault?

(a) Intrusive procedures and bodily integrity

Although the Scottish legislation does not define or distinguish between 'intrusive' and 'non-intrusive' examinations or procedures, analogies may be drawn from the common law approach to 'invasive' and 'non-invasive' searches. Invasive searches involve the entering of a suspect's body. As such, they require a court warrant and must be carried out by a medical practitioner. The leading case on how far the courts will permit invasive searches is *Hay* v *HM Advocate*.[38] A judicial warrant had been granted to allow dental impressions to be made from a youth accused of murder where the prosecution had asserted that the peculiarities of the tooth structure in his mouth were an exact fit of the shape and configuration marks of a bite on the deceased's breast, and were capable of identifying the accused as the perpetrator. On appeal against Hay's subsequent conviction for murder, the Lord Justice-General, Lord Clyde, observed that there were two conflicting considerations:

> On the one hand there is the need from the point of view of the public interest for promptitude and facility in the identification of accused persons and the discovery on their persons or on their premises of indicia either of guilt or innocence. On the other hand the liberty of

37 Criminal Procedure (Scotland) Act 1995, s. 18(8)(c).
38 1968 JC 40.

> the subject must be protected against any undue or unnecessary invasion of it.[39]

He concluded that the dental examination had been properly authorised, and the resulting evidence had been competently led at the accused's trial.[40] Although this case was decided in 1968, well before Convention rights were properly embedded in domestic law, it remains good law.

Blood samples are technically regarded by the courts as 'invasive' involving as they do a puncturing of a suspect's skin, but modern practice accepts such invasions as acceptable, in part because of their capacity to both exonerate as well as implicate; but also because the medical procedures are refined, conclusive, and less intimate than the photographs required in our second scenario. Cases such as *Adair* v *McGarry* and *Hay* v *HM Advocate* demonstrate that the Scottish courts employ the rhetoric of safeguarding suspects' bodily integrity, but in practice often find that this is outweighed by the public interest in the detection of crime.

(b) Dignity and privacy rights

We must also consider whether the right to dignity and to privacy offers a suspect an argument against the taking of intimate photographs. As noted previously, Article 3 of the ECHR provides a right to be free from, *inter alia*, degrading treatment and it might be suggested that the taking of photographs of a person's genitals without his or her consent is degrading.[41] The concept of privacy has many dimensions. It has been described as a fundamental human right recognised in the UN Declaration of Human Rights, the International Covenant on Civil and Political Rights and in many other international and regional treaties. Privacy underpins human dignity and other key values.[42] It has acquired growing significance due to technological advances with the power to conduct hidden forms of surveillance which disrupt bodily integrity by dispensing with the need to obtain consent in order to obtain personal information. For example, having one's image captured on a CCTV camera whilst travelling to work, shopping, or even at work, is

39 Ibid. at 42.

40 Ibid. at 47.

41 Examples of degrading treatment can be found in the *Taguba Report* into the mistreatment of detainees in Abu Ghraib confinement facility in Iraq. Some had been videotaped and photographed while naked, sometimes having been 'arranged' in sexually explicit poses for such photographs. Discussed in *The Road to Abu Ghraib* (report by Reed Brody, Special Counsel with Human Rights Watch, June 2004), available at <http://www.hrw.org/reports/2004/usa0604/index.htm>, accessed 25 January 2013.

42 D. Banisar and S. Davies, *Privacy and Human Rights: An International Survey of Privacy Laws and Practice*, available at <http://gilc.org/privacy/survey/intro.html>, accessed 25 January 2013.

now an unavoidable aspect of many people's lives,[43] as is the taking of passenger X-rays at airports (discussed further below).[44]

Article 8 provides a right to respect for private life, and any interference with this right requires to be 'in accordance with law'. Few Scottish criminal cases have considered this issue.[45] In the English law case of *R* v *Khan*[46] the House of Lords rejected an appeal from a convicted drug dealer who had argued that evidence against him had been obtained by the use of covert surveillance techniques, in breach of Article 8. Their Lordships held that even if there had been a breach of privacy, this did not mean that the evidence thereby obtained ought to have been declared inadmissible at Khan's trial. However, when the case reached the ECtHR, it held that the lack of clear legal regulation of the surveillance techniques employed meant that the breach of privacy had not been 'in accordance with law'.[47] The court also held that the use of evidence obtained in breach of Article 8 could infringe the right to a fair trial under Article 6, but that the fairness of the trial would need to be looked at in the round.

Breaches of the right to privacy under Article 8(2) can be justified if 'necessary in a democratic society' for, *inter alia*, the prevention of crime, or the protection of the rights and freedoms of others. The interpretation of this right, in common with so many other Convention rights, is a balancing exercise involving various factors, such as the public interest in managing crime and securing justice as well as the public interest in ensuring individuals' privacy interests. The parameters of this balancing exercise are relatively easy to state, but not necessarily so easy to determine in practice. As well as being 'necessary', breaches of Article 8 must also be 'proportionate', and the interpretation of these terms is a matter for judicial discretion.[48] In *Friedl* v *Austria* [49] the ECtHR ruled that there was no breach of Article 8 in the police taking and storing photographs of a person who was participating in a demonstration. This suggests that the taking of someone's photograph even without that person's consent is not an unwarranted breach of privacy where this is done to aid the investigation of crime.[50]

43 For an analysis of CCTV cameras and privacy rights, see N. Taylor, 'State Surveillance and the Right to Privacy' (2002) 1 *Surveillance & Society* 66.

44 See S. Kornblatt, 'Are Emerging Technologies in Airport Passenger Screening Reasonable under the Fourth Amendment?' (2007) 41 *Loyola of Los Angeles Law Review* 385.

45 But see *Birse* v *HM Advocate* 2000 JC 503, discussed further below.

46 [1996] 3 WLR 162.

47 *Khan* v *United Kingdom* (2001) 31 EHRR 1016.

48 A. Brown, *Criminal Evidence and Procedure*, 3rd edn (Avizandum: Edinburgh, 2010) 49.

49 (1995) 21 EHRR 88.

50 As to the importance of consent to any intrusive procedures while in custody, see *YF* v *Turkey* (2004) 39 EHRR 34.

(c) International comparisons

The right to privacy and bodily integrity is less developed in Scottish (and indeed English) law than in other jurisdictions. Both Canada and the United States offer ample sources of comparison, since privacy rights (and indeed the right not to be compelled to self-incriminate[51]) are embedded in their constitutions. Despite this, the expectation that privacy rights must generally yield to the public interest in law enforcement reflects decision-making in the Supreme Courts of both countries. Specific protection is provided in s. 8 of the Canadian Charter of Rights and Freedoms which states: 'Everyone has the right to be secure against unreasonable search or seizure'.[52] In *R* v *Golden*,[53] the Canadian Supreme Court split 5:4 in determining that a deeply intrusive strip search for drugs concealed by the appellant was unlawful. The majority stressed that strip searches 'represent a significant invasion of privacy and are often a humiliating, degrading and traumatic experience for individuals subject to them'.[54] In similar vein, the Fourth Amendment to the American Constitution provides: 'The right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures, shall not be violated'. The Amendment continues: 'and no Warrants shall issue, but upon probable cause, supported by Oath or affirmation, and particularly describing the place to be searched, and the persons or things to be seized'. 'Probable cause' has been defined by the Supreme Court to mean that:

> ... the facts and circumstances within the arresting officers' knowledge and of which they had reasonably trustworthy information are sufficient in themselves to warrant a man of reasonable caution in the belief that an offense has been or is being committed.[55]

American courts have upheld a variety of search procedures once a suspect has been arrested.[56] These are summarised by LaFave to include:

> the placing of the arrestee's hands under an ultraviolet lamp; examining the arrestee's arms to determine the age of burn marks; swabbing the arrestee's hands with a chemical substance; taking

51 This is discussed further below.

52 For a useful summary, see S. A. Cohen, 'Search Incident to Arrest' (1989–90) 32 Crim LQ 366.

53 [2001] 3 SCR 679, 2001 SCC 83.

54 Ibid.

55 *Brinegar* v *United States* 338 US 160 at 175–6 (1948). For a history of the warrant in the United States and England, see J. N. Lobelson, 'The Warrant Clause' (1989) 26 *American Criminal Law Review* 1433 at 1444.

56 See P. R. Shuldiner, 'Visual Rape: A Look at the Dubious Legality of Strip Searches' (1979) 13 J Marshall L Rev 273.

> scrapings from under the arrestee's fingernails; taking a small sample of hair from the arrestee's head; obtaining a urine sample from the arrestee; giving the arrestee a breathalyzer examination; swabbing the arrestee's penis; taking dental impressions from the arrestee; or taking pubic hair combings from him.[57]

The reference to the swabbing of an arrested person's penis in the above quotation illustrates that the police in the United States already have the power to undertake more invasive procedures than their Scottish counterparts. Indeed, the leading case of *Schmerber* v *California*[58] in 1966 established the principle that invasive procedures were not *per se* a contravention of the Fourth Amendment—it depended on the facts and the reasonableness of the proposed procedure weighed against the interests of the state. In *United States* v *Crowder*[59] in 1976, the defendant in a prosecution for robbery and murder had a bullet lodged in his wrist. The police and prosecution believed that he had either been shot, or had shot himself, during the commission of these offences, and that examination of the bullet in the defendant's forearm would confirm that he and the victim had been in a struggle during which the latter had been fatally shot. The Federal District Court authorised the surgical removal of the bullet, granting a warrant at a contested hearing where the defendant was represented. The procedure for removing the bullet was subsequently described as a simple operation with local anaesthetic: 'The surgery ... consisted of an incision one-quarter inch deep and one inch deep in fat immediately under the skin. Crowder lost less than five cubic centimetres of blood during the ten minute operation'.[60] Having been convicted, Crowder argued before the Court of Appeals for the District of Columbia Circuit that the bullet evidence had been unlawfully obtained. The appeal was at first granted, but the court then agreed to withdraw that opinion and have it reconsidered by an *en banc* hearing. The full bench of nine judges affirmed the conviction by a slender majority of five to four.[61]

57 See W. R. LaFave, *Search and Seizure: A Treatise on the Fourth Amendment*, 3rd edn (West Publishing: 1996) vol. 3, 132–4.

58 384 US 757, 86 S Ct 1826 (1966).

59 543 F 2d 312 (DC 1976) cert. denied, 429 US 1062 (1977).

60 *US* v *Crowder* 543 F 2d 312, 177 US App D C 165 at 168 (1976).

61 For discussion see L. R. Barron, 'Criminal Procedure—Court-Ordered, Surgical Removal of Bullet from Accused Is Not Unreasonable Search and Seizure under the Fourth Amendment Where Legal and Medical Safeguards Provide Sufficient Protection' (1976–77) 50 *Temple Law Quarterly* 164; M. B. Minton, 'Criminal Procedure: Surgical Removal of Evidence: *United States* v *Crowder*' (1976) 43 *Missouri Law Review* 133 at 138.

The reasoning of the majority in the Court of Appeals has been described by one commentator as 'irresistible',[62] but criticised by another as focused on procedure at the expense of the substantive issues raised by the Fourth Amendment.[63] This is a familiar criticism, echoed in other US judgments which have voiced concerns that surgery is an invasion of the body on an altogether different scale from that performed in a simple needle puncture to draw blood or the forced administration of an emetic.[64] Thus, a decade later, in the case of *Winston* v *Lee*,[65] the US Supreme Court refused to authorise surgery to remove a bullet wedged in the chest of a suspected armed robber. In contrast to *Crowder*, in *Winston* the bullet was lodged under the suspect's collar bone and only reachable by surgery requiring a general anaesthetic. The court found the surgical procedure unreasonable in the latter case:

> The operation sought will intrude substantially on [Lee's] protected interests. The medical risks of the operation, although apparently not extremely severe, are a subject of considerable dispute; the very uncertainty militates against finding the operation to be 'reasonable.' In addition, the intrusion on [his] privacy interests entailed by the operation can only be characterized as severe.[66]

Alan Hyde has been scathing of the American courts' failure to develop clear principles concerning the parameters of invasions of the body.[67] He criticises the jurisprudence on this issue for its 'complete nonanalysis', 'failure to offer any explanation of the basis of distinguishing cases', and use of language which he describes as 'a comical parody of a legal standard'.[68] He concludes that the explanation for the judicial reluctance to set norms in this area is self-interest—'to preserve maximum possible freedom of action for this and future courts addressing the constitutionality of intrusive bodily searches'.[69] Hyde claims the absence of clear principles increasingly allows the factual context to dominate interpretations of vague concepts such as 'reasonableness' and 'the interests of the state'. These are strong words but are borne out by empirical research which affirms that decision-making in these fundamentally 'grey' areas is both individu-

62 C. A. Iannaccone, 'Criminal Procedure—Search and Seizure—Bodily Intrusions—Substantive Interpretation of Fourth Amendment Rights' (1975–76) 50 *Tulane Law Review* 411 at 412.

63 Barron, above n. 61.

64 *Rochin* v *California* 342 US 165 (1952).

65 470 US 573 (1985).

66 Doubtless, a separate consideration supporting the court's decision was that there was sufficient other evidence without the bullet to convict (ibid. at 767).

67 A. Hyde, *Bodies of Law* (Princeton University Press: Princeton NJ, 1997).

68 Ibid. at 177.

69 Ibid.

alistic and subjective.[70] While there is nothing unusual in depicting judicial discretion as individual, its characterisation as subjective is a more worrying criticism. The, admittedly few, reported Scottish cases which have considered similar issues reflect a similar reluctance to establish boundaries and clear criteria.

(d) Conclusions

We would propose that the public interest in the investigation, detection, prosecution and prevention of serious cases of sexual assault or child pornography outweigh a suspect's rights to privacy when it comes to having his or her hands or other intimate parts of his or her anatomy, including genitals, photographed. Beyond photographs or other equivalent still images, we would argue that legislation would be required to permit deeper incursions of bodily privacy. For example, applying our proposition in the second scenario, any procedures aimed at erectile stimulation would require specific judicial oversight through a court warrant. Such warrants, together with the well-established safeguards offered by the privilege against self-incrimination, the right to legal advice prior to police interview, and destruction of evidence post acquittal[71] are capable of providing sufficient protection to suspects in instances of intimate searches, though that is not to say they could not be challenged. To test our proposition we need to explore the rigour of the current legal protections.

4. Legal protections: the privilege against self-incrimination, the right to legal advice and court warrants

As already discussed at various earlier stages in this article, the privilege against self-incrimination, the suspect's access to legal advice prior to interrogation, and the court warrant all have a role to play in protecting the suspect. Do these rights offer sufficient protection? Assuming more stringent considerations apply in the taking of more intimate/intrusive photographs, such as requiring the police to obtain a warrant, are there any limits to the type of photographs in respect of which the police can seek authority?

70 C. P. Kelehert, 'Judges as Jailers: The Dangerous Disconnect Between Courts and Corrections' (2011–2012) 45 Creighton L Rev 87; J. A. Blumenthal, M. Adya and J. Mogle, 'The Multiple Dimensions of Privacy: Testing Lay "Expectations of Privacy"' (2008–2009) 11 *University of Pennsylvania Journal of Constitutional Law* 331. See, too, the case of *Georgia* v *Randolph* 547 US 103 at 107 (2006).

71 See the Criminal Procedure (Scotland) Act 1995, s. 18(3) in relation to DNA evidence. In *S* v *United Kingdom* (2009) 48 EHRR 50 the Grand Chamber commended the Scottish approach (at paras. 109–110). For a detailed discussion of these issues, see L. Campbell, 'A Rights-based Analysis of DNA Retention: "Non-Conviction" Databases and the Liberal State' [2010] Crim LR 889.

(a) Self-incrimination

The right to a fair trial recognised by Article 6 of the ECHR has been interpreted as implying a right or privilege not to be compelled to incriminate oneself.[72] This has also been recognised by the International Covenant on Civil and Political Rights, Article 14, and the Inter-American Convention on Human Rights, Article 8. There is a vast literature on the topic, especially in the common law world, as these rights are central to adversarial criminal proceedings.[73] The presumption of innocence, the right to silence and the right not to be compelled to self-incriminate all emerge from the same conceptual base, namely a right (whether procedural, in Scotland and England, or constitutional, in the United States and Canada) not to have to bear witness against oneself when accused of committing a crime and facing prosecution.[74] The privilege against compelled self-incrimination has been described as 'a principled constraint on the ability of the State to gather and use evidence against suspects'.[75]

The ECtHR has, however, tended to distinguish between the 'right to silence' and other forms of self-incrimination. In *Saunders* v *United Kingdom*,[76] although the court referred to both the right to silence and the right not to incriminate oneself as 'generally recognised international standards which lie at the heart of the notion of a fair procedure under Article 6',[77] it nevertheless described the latter right as being 'primarily concerned with respecting the will of an accused person to remain silent'.[78] Where evidence is obtained from a suspect which has 'an existence independent of the will of the suspect such as ... documents acquired pursuant to a warrant, breath, blood and urine samples and bodily tissue for the purpose of DNA testing',[79] cases such as *Saunders* illustrate that the Strasbourg court has been less willing to find that there has been a breach of the privilege against self-incrimination or the right to a fair trial. This echoes a distinction

72 See *Funke* v *France* (1993) 16 EHRR 297.

73 Recent contributions include M. Redmayne, 'Re-thinking the Privilege against Self-incrimination' (2007) 27 OJLS 209; S. Edwards, 'The Self-incrimination Privilege in Care Proceedings and the Criminal Trial and "Shall Not be Admissible in Evidence"' (2009) 73 JCL 48; M. Strauss, 'The Sounds of Silence: Reconsidering the Right to Remain Silent under Miranda' (2009) 17 Wm & Mary Bill Rts J 733; A. Ashworth, 'Self-incrimination in European Human Rights Law—A Pregnant Pragmatism' (2008) 30 Cardozo L Rev 751.

74 This is only one definition of the concept. For discussion of the range of perspectives on this privilege, see J. K. Walker, 'A Comparative Discussion of the Privilege against Self-incrimination' (1992) 14 NYL School J Intl & Comp L 1 at 11.

75 A. Ashworth and M. Redmayne, *The Criminal Process*, 4th edn (Oxford University Press: Oxford, 2010) 415.

76 (1997) 23 EHRR 313.

77 Ibid. at para. 68.

78 Ibid.

79 Ibid. at para. 69.

which was made by the Scottish courts some years before *Saunders*. In *Lees* v *Weston*[80] Lord Justice-Clerk Ross noted:

> ... a person whose fingerprints are forcibly taken is entirely passive, and he is not compelled to do anything requiring any exercise of his own will or control of his body. Accordingly, in my opinion, to require an accused person to provide fingerprint impressions is materially different from interrogating an accused person and requiring him to answer questions. No positive action is required of a person whose fingerprints are being taken.[81]

It may, however, be the case that a distinction could be made between the taking of fingerprints, and photographing a suspect's hands while he is in a particular pose or engineering an erect penis—neither of the latter situations can readily be achieved without a degree of cooperation on the part of the suspect. As stated previously, a court has power to grant a warrant authorising such photographs. The legal position may be clear, but the normative question remains: *should* a suspect be required to cooperate in a procedure which may well incriminate him? It was suggested in *Saunders* that one purpose of the right to silence is to minimise miscarriages of justice due to unreliable confessions being made as a result of coercion or oppression.[82] It may be argued that physical evidence obtained from DNA analysis or hand comparisons is far less likely to lead to erroneous convictions, since the reliability of such evidence is rarely in doubt.

The ECtHR has not always limited the right not to self-incriminate to cases involving compelled speech. In *O'Halloran and Francis* v *United Kingdom*[83] the court stressed that the nature and degree of the compulsion used to obtain the evidence were important considerations, as were the existence of any safeguards and the use to which the evidence was likely to be put. In *Jalloh* v *Germany*[84] a suspected drug trafficker was forced to undergo an emetic to obtain evidence of the drugs he had swallowed. The ECtHR acknowledged that although the Convention did not prohibit recourse to a forcible medical intervention that would assist the investigation of an offence, 'any interference with a person's physical integrity carried out with the aim of obtaining evidence had to be the subject of rigorous

80 1989 JC 35, citing *Adair* v *McGarry* 1933 JC 72.

81 1989 JC 35 at 41.

82 *Saunders* v *United Kingdom* (1997) 23 EHRR 313 at paras. 67–68. See also J. Landau, 'The Right against Self-incrimination and the Right to Silence under Article 6' (2007) *Judicial Review* 261 at 264.

83 (2008) 46 EHRR 21.

84 (2007) 44 EHRR 32.

scrutiny'.[85] The court held Jalloh's experience to be both inhuman and degrading treatment (contrary to Article 3), and also contrary to Article 6 on the basis that the procedure breached his right not to be forced to self-incriminate.[86]

Photographing a person's genitals is arguably less of an interference with physical integrity than the forcible administration of medication to induce vomiting. As the court in *Jalloh* put it:

> ... the degree of force used in the present case differs significantly from the degree of compulsion normally required to obtain the types of material referred to in the *Saunders* case. To obtain such material, a defendant is requested to endure passively a minor interference with his physical integrity (for example when blood or hair samples or bodily tissue are taken). Even if the defendant's active participation is required, it can be seen from *Saunders* that this concerns material produced by the normal functioning of the body (such as, for example, breath, urine or voice samples). In contrast, compelling the applicant in the instant case to regurgitate the evidence sought required the forcible introduction of a tube through his nose and the administration of a substance so as to provoke a pathological reaction in his body. ... this procedure was not without risk to the applicant's health.[87]

The American courts had a similar case more than 50 years before *Jalloh*: the case of *Rochin* v *California*[88] ruled that a forced emetic procedure violated the due process clause in the US Constitution.[89] Having one's private parts photographed, or even the facilitation of an erection, are intrusive procedures; however, they do involve the 'normal functioning of the body' (albeit in the alien environment of a police station), and do not endanger a suspect's physical health. The administration of pharmaceutical drugs, such as Viagra, may be a different matter. No doctor would administer a pharmaceutical drug for non-therapeutic purposes to an individual

85 Ibid. at para. 76.

86 Compare with *Rochin* v *California* 342 US 165 (1952) where a forced emetic procedure was held to be unconstitutional and a violation of the due process clause in the Fourteenth Amendment. This case is discussed further below.

87 (2007) 44 EHRR 32 at para. 114.

88 342 US 165 (1952).

89 The Fourteenth Amendment to the US Constitution states, *inter alia*: 'No State shall make or enforce any law which shall abridge the privileges or immunities of citizens of the United States; nor shall any State deprive any person of life, liberty, or property, without due process of law; nor deny to any person within its jurisdiction the equal protection of the laws.'

who did not consent to this. *Jalloh* is a salutary reminder that there is a limit to what the state can do in its acquisition of physical evidence.

The Scottish courts have wrestled with the issue of self-incrimination and physical evidence obtained from the body of a suspect, albeit in cases involving less intrusive procedures. In relation to medical examinations, in *Forrester* v *HM Advocate*,[90] a police surgeon had examined a suspect's hand in order to compare a wound on one of his fingers with a damaged glove which had been found near the crime scene. The leading of this evidence was objected to at trial on the basis that the hand examination was carried out without the accused's consent and without him being informed that any results might be used in evidence. It was also argued that the suspect ought to have been advised that he was not compelled to submit to the examination, that he was entitled to be examined by a doctor of his own choosing, and that he should have been afforded facilities for summoning his own doctor.[91] Lord Justice-General Cooper rejected these arguments, holding that 'it would be an unjustifiable interference with the detection and investigation of crime if we were to lend any support to any of the suggestions which underlie it'.[92]

In *Wilson* v *Milne*[93] the court stated that 'it is obviously in the interest of justice and of the accused himself that the blood found on the accused's boots and the blood found on the clothing of the victim, should either be reconciled or distinguished'. While it may be in the accused's interests if the two are distinguished, if it is indeed the victim's blood on the accused's boots this is unlikely to benefit the accused.

In *HM Advocate* v *Milford*[94] the prosecution sought a warrant to obtain a blood sample from a person suspected of rape. In rejecting the defence argument that the accused should not be expected to self-incriminate, Sheriff Macphail said:

> The taking of a blood sample ... seems to me, in the exceptionally grave circumstances of this case, to be a reasonable and necessary step in the interests of justice, and I am inclined to the view that the arguments that an invasion of bodily integrity is involved and that the accused is being obliged to supply evidence against himself are not strong enough to succeed in this case, having regard to the gravity of the crime under investigation and the necessity for the ascertainment

90 1952 JC 28.
91 Ibid. at 32.
92 Ibid. at 34.
93 1975 SLT (notes) 26.
94 1973 SLT 12.

> of the truth. I am satisfied that the circumstances justify me in granting the warrant, which I consider neither too wide nor too oppressive. I shall accordingly grant the warrant.[95]

Most people would have no difficulty in accepting the court's reasoning in *Milford.* This characterisation of the taking of blood as a 'comparatively innocuous process'[96] would also claim wide public support. However, Sheriff Macphail also observed that it was unrealistic to suppose that further successful applications for invasions of personal liberty were likely to follow were the warrant to be granted in that case.[97] This precisely (if unwittingly) anticipated the issues that need to be addressed in the digital age. As argued above, there are now much more sophisticated methods of infringing bodily integrity without resort to physical invasion. Advances in technology permit us to extract stem cells and DNA, conduct scans and MRIs of the whole body, and gather significant information from brain imagery, let alone use forensic anthropological and anatomical techniques to include or exclude perpetrators by photographing their intimate anatomy.[98]

(b) Access to legal advice

The extent to which a suspect has access to legal advice may impact upon their right not to be compelled to self-incriminate. For example, in Canada, the Charter provides that 'everyone has the right *on arrest or detention* to retain and instruct counsel without delay and to be informed of that right'.[99] In England, a person who has been arrested and is being held in custody has a right 'to consult a solicitor privately *at any time*'.[100] In Scotland, post *Cadder* v *HM Advocate*,[101] a suspect has a right to a private consultation with a solicitor '*before any questioning* of the suspect by a constable begins', and 'at any other time *during such questioning*'.[102] Thus, it is the decision to interview the suspect which triggers the right to legal assistance.

95 Ibid. at 13.
96 Ibid.
97 Ibid.
98 For a rare example of a case in which the Scottish courts refused to grant a warrant, see *McGlennan* v *Kelly* 1989 JC 120, where the prosecution sought a warrant to take a sample of pubic hair two years after the initial arrest.
99 Section 10(b) of the Charter, emphasis added. See also *R* v *Clarkson* (1986) 25 CCC (3d) 207, 50 CR (3d) 289.
100 PACE, s. 53, emphasis added.
101 2010 SLT 1125, [2010] 1 WLR 2601.
102 Criminal Procedure (Scotland) Act 1995, s. 15A(3), as inserted by the Criminal Procedure (Legal Assistance, Detention and Appeals) (Scotland) Act 2010, s. 1(4), emphases added.

If Scottish police ask only one question ('can we photograph your hands?'), does this amount to 'questioning', triggering the requirement to advise the suspect of his right to legal advice? The legislation introduced post-*Cadder* specifies that the right to legal advice does not apply to the questioning of a suspect to obtain information which suspects are legally required to provide, namely their name, address, date and place of birth, and nationality.[103] It might be thought that the explicit exemption from the right to legal assistance prior to answering questions designed to obtain these details means that any other type of questioning *will* trigger the right to legal advice. English law has some authority on this issue. In the case of *Absalom* 'questioning' was defined as '*a series of questions* directed by the police to a suspect with a view to obtaining admissions on which proceedings can be founded'.[104] If Scots law were to take an approach similar to *Absalom*, it might seem that asking one question concerning cooperation would not amount to 'questioning', and the right to legal assistance may not then be applicable. However, Addison has queried the approach taken in that case, arguing that 'one damning reply to a seemingly innocuous question' ought to be enough to trigger protections for suspects, such as legal assistance.[105] This is an important issue for our second scenario. The issue could arise if a suspect consents to photography, but argues at his trial that the evidence from the photographs ought to be treated as inadmissible, since he was denied his right to legal assistance prior to having to decide whether or not to consent. The approach a court takes to this may depend on how it views the right to legal assistance. If it is considered to be a safeguard designed to prevent miscarriages of justice based on false confessions, police coercion or even brutality leading to confessions (truthful or otherwise), then there may be no right to legal advice where the police ask but one question in order to determine whether the suspect is willing to cooperate. However, given that the whole purpose of seeking consent is to secure the informed permission of a suspect, without resort to tricks, deception or misunderstanding, it is submitted that even a single question which is designed to elicit agreement to examination or search procedures should qualify as a 'trigger' and entitle the suspect to legal advice. Furthermore, unless the request for photography made reference to its context, i.e. its potential as incriminating identification evidence, it could be argued that this constitutes 'trickery' and is therefore inimical to a fair criminal process. After all, a request to photograph hands is clearly purposeful and a preliminary to a process whereby forensic hand recognition techniques could be deployed to establish identification of the suspect as a possible perpetrator

103 Criminal Procedure (Scotland) Act 1995, s. 15A(9).

104 *R* v *Absalom* [1988] Crim LR 748, emphasis added. See also *R* v *Foster* [1987] Crim LR 821.

105 Letter, P. Addison, 'PACE: the Definition of "interview"' [1989] Crim LR 606.

or, equally, evidence that might eliminate the suspect from police inquiries. It is disingenuous to treat such a request as a procedural formality when it carries such substantial implications for the suspect. On the basis that 'every picture tells a story', a single photograph may implicate to the same extent as a series of questions. If advances in technology facilitate the circumvention of the traditional rights available to suspects, such as against compelled self-incrimination, it behoves us to assess the wider impact of these new technologies on the protections for suspects and their right to a fair trial. It may well be that ultimately society would be satisfied with the current allocation of rights and protections but we must at least address these as legitimate concerns, with all the 'slippery slope' arguments that naturally attach to such developments.

In *Cadder*, the Supreme Court applied the case of *Salduz* v *Turkey*[106] in which the Grand Chamber of the ECtHR emphasised the importance of protecting the accused 'against abusive coercion on the part of the authorities'.[107] However, Lord Hope in *Cadder* took a broader approach; having cited the dictum in *Salduz* on the need to prevent abusive coercion, he added:

> There is perhaps an indication here that the primary concern of the Grand Chamber was to eliminate the risk of ill-treatment or other forms of physical or psychological pressure as a means of coercing the detainee to incriminate himself. If that was the aim, it might have been thought that the use of techniques such as tape-recording [of police interviews] would meet the need to monitor the need for fairness and that, as cases where there are real grounds for suspecting that abusive methods were used can be dealt with appropriately by the trial judge under Scots procedure, there would be no reason to doubt the essential fairness of the Scottish system. But the way the Grand Chamber then went on to express itself removes the possibility of resorting to such an analysis.[108]

He then quoted from elsewhere in the *Salduz* ruling, to the effect that when incriminating statements made during police questioning without access to legal advice are then used to obtain a conviction, the 'rights of the defence will in principle be irretrievably prejudiced'.[109] Lord Hope concluded that the ECtHR had

106 (2009) 49 EHRR 19.
107 Ibid. at para. 53.
108 2010 SLT 1125 at [34].
109 Ibid. at [35], quoting from *Salduz* v *Turkey* (2009) 49 EHRR 19 at para. 55.

treated the presence of a lawyer during police questioning as being 'necessary to ensure respect for the right of the detainee *not to incriminate himself*'.[110] If the right to legal assistance during police questioning is indeed based on a desire to ensure that suspects do not unwittingly self-incriminate, it follows that it would be appropriate for that right to extend to consulting a lawyer as to the wisdom (or otherwise) of consenting to the photographing of their hands. It could be argued that being asked to consent to a procedure without the implications of that procedure being properly explained to a suspect is a form of unfairness which ought not to be condoned by the courts. In the Canadian case of *R* v *Ross*,[111] the court stressed:

> The right to counsel ... means that, once an accused or detained person has asserted that right, the police cannot, in any way, compel a detainee or accused person to make a decision or participate in a process which could ultimately have an adverse effect in the conduct of an eventual trial until that person has had a reasonable opportunity to exercise that right.[112]

The above analysis suggests that provided consent has been obtained transparently or 'cooperation' has been gained with the aid of a court warrant, it seems unlikely that the privilege against self-incrimination could be interpreted as a bar to the taking of photographs, even photographs of an intimate nature. However, to ensure that the implications of consent were fully understood, we submit that suspects should have a right to legal advice before being asked to consent to photography. The forced administration of pharmaceutical drugs such as Viagra is a different matter. In addition to an Article 8 infringement, Article 3, the right to be free from torture, inhuman and degrading treatment, imposes important limitations on the collection of evidence from the body of a suspect. The need for the police to first obtain a court warrant to administer drugs, especially in a non-therapeutic context, would in our view be essential in Scotland and most common law jurisdictions would very likely take a similar approach. But how effective are warrants in safeguarding human rights?

110 Ibid., emphasis added. Lord Hope referred variously to 'the law against self-incrimination' at [33] and 'the right of the detainee not to incriminate himself' at [35], while both Lords Hope and Rodger spoke of 'the implied right of an accused person ... not to incriminate himself' at [43] (Lord Hope), and [67] and [70] (Lord Rodger). Lord Brown called it 'the principle against self-incrimination' (at [108]).

111 (1989) 46 CCC (3d) 129, 67 CR (3d) 209.

112 (1989) 67 CR (3d) 209 at 218, *per* Lamer J.

(c) Court warrants

There is no doubt that, across the common law world, warrants which are appropriately obtained and implemented give procedural legitimacy to the actions of the police authorities. In general terms, they often function as a judicial 'permit' for the use of reasonable force and for actions that would otherwise be unlawful. There is an extensive literature on aspects of warrants that are frequently contested, such as the reasonableness of force or, where action without a warrant is taken, the urgency of the situation as a justification for proceeding without a warrant, where one would normally be required.[113] For present purposes, the warrant is of interest in regard to its role in constraining the actions of the police in the steps they can take to recover admissible evidence through intrusive or invasive procedures. What are the limits of such procedures if a warrant is to comply with the ECHR provisions on privacy or the equivalent constitutional rights pertaining in North America? Analogies with the United States and Canada give us a rich seam of case law. In both these jurisdictions, the police can search a person as part of the arrest process—this is to safeguard the officers' safety and to prevent the destruction of evidence—but other searches generally require a warrant.[114] In both countries, searches conducted without a warrant are regarded as *ipso facto* unreasonable and in breach of the Fourth Amendment/s. 8 of the Canadian Charter, respectively.[115] In the United States the requirement for a warrant has been described as serving a 'high function':

> Absent some grave emergency, the Fourth Amendment has interposed a magistrate between the citizen and the police.... The right of privacy was deemed too precious to entrust to the discretion of those whose job is the detection of crime and the arrest of criminals.[116]

The Scottish case of *Cameron* v *Cottam*[117] provides a recent illustration of the importance the courts place on the need for judicial supervision of police powers to

113 For example, W. Stuntz, 'Warrants and Fourth Amendment Remedies' (1991) 77 *Virginia Law Review* 881; S. Sharpe, 'Search Warrants: Process Protection or Process Validation?' (1999) 3 E&P 101; R. Austin, 'The New Powers of Arrest: Plus Ça Change: More of the Same or Major Change?' [2007] Crim LR 459.

114 *Chimel* v *California* 395 US 752 (1969); *R* v *Golden* [2001] 3 SCR 679, 2001 SCC 83.

115 See *Katz* v *United States* 389 US 347 (1967); *Hunter* v *Southam Inc* (1984) 14 CCC (3d) 97, 41 CR (3d) 97. Exceptions do, however, apply in both jurisdictions, such as in an emergency.

116 *McDonald* v *United States* 335 US 451 at 455–6 (1948). See also *Johnson* v *United States* 333 US 10, 68 S Ct 367 (1968): 'The point of the Fourth Amendment, which often is not grasped by zealous police officers, is not that it denies law enforcement the support of the usual inferences which reasonable men draw from evidence. Its protection consists in requiring that those inferences be drawn by a neutral and detached magistrate instead of being judged by the officer engaged in the often competitive enterprise of ferreting out crime' (ibid. at 13–14).

117 [2012] HCJAC 19, 2012 SLT 173.

gather evidence. This concerned an amendment made to the legislation governing the granting of pre-trial bail.[118] Bail is generally granted in Scotland subject to a list of 'standard conditions' which include requirements that the accused appears at trial and pre-trial court hearings, and that he does not commit an offence while on bail or interfere with witnesses.[119] Prior to the amendment, the court hearing the bail application had discretion to add further conditions to ensure that the standard conditions were observed. It also had discretion over whether to make it an additional condition that the accused make himself available to participate in an identification parade or other procedure 'enabling any print, impression or sample to be taken from him'.[120] The amended legislation made this part of the standard conditions, such that the accused's participation became required whenever he was 'reasonably instructed by a constable to do so'.[121] The appellant argued that in making this an obligatory part of every bail order, the legislation was incompatible with the right to liberty and security of the person, safeguarded by the ECHR. The Appeal Court noted that under the previous law, the taking of prints, impressions or samples from an accused person following arrest had required the police to first obtain a warrant from the courts. Lord Eassie criticised the legislation for having removed 'all elements of judicial discretion and supervision of the question whether the particular accused may be required to submit to evidence gathering or other investigatory procedures as a counterpart for his obtaining pre-trial liberty', and concluded that this was 'incompatible with the rights secured to the citizen by Article 5 ECHR'.[122]

What if a warrant is obtained, authorising the taking of photographs, and possibly also the administration of stimulant drugs, but the suspect refuses to comply with its requirements? As previously noted, reasonable force can be used against the suspect, but in a case such as our second scenario, it is difficult to see how any useful photographs could realistically be obtained without the suspect's cooperation. In the Scottish case of *Vaughan* v *Griffiths*[123] the appellant was charged that he had refused:

> ... to submit to an internal search in terms of a lawful search warrant ... to allow him to be conveyed to [a specified hospital] and there to be examined for the presence of drugs controlled by the Misuse of Drugs

118 Criminal Justice and Licensing (Scotland) Act 2010, s. 58.
119 For details of other standard conditions, see the Criminal Procedure (Scotland) Act 1995, s. 24(5)(a)–(ca).
120 Criminal Procedure (Scotland) Act 1995, s. 24(4)(b)(ii).
121 Criminal Procedure (Scotland) Act 1995, s. 24(5)(cb).
122 *Cameron* v *Cottam* [2012] HCJAC 19 at [19].
123 2004 SCCR 537.

> Act 1971, by an authorised medical practitioner and this he did with intent to defeat the ends of justice and did attempt to defeat the ends of justice.

There was evidence from the police that no doctor would be prepared to examine someone who had been forced to submit to the examination. This is correct: guidance from the British Medical Association advises doctors that, even if a warrant authorises a search or examination, they should not proceed with this if the suspect does not consent.[124] In the *Vaughan* case, faced with his refusal, the police did not attempt to force the suspect to go to the hospital specified in the warrant. Quashing the conviction, the Appeal Court held that the appellant should have been taken to the hospital so that his determination not to cooperate 'could be put to the test'. The court was of the view that the doctors may have been able to determine whether he had indeed swallowed drugs by means of an X-ray, which 'might not have been objectionable to the appellant since its order of invasion of the body was so much less than the other suggested means of examination'.[125] It was fatal to the conviction that his refusal of cooperation was not tested.

The requirement in many jurisdictions that intrusive examinations and searches need to be authorised by a warrant, issued by a court, provides an important safeguard for suspects. However, the *ex parte* nature of the warrant procedure in Scotland can be criticised particularly in light of developments in the interpretation of the ECHR which emphasise the fairness of the criminal process as a whole, rather than merely the trial itself. The *Vaughan* case is noteworthy for the fact that there was no suggestion from the court that refusal to comply with a warrant was not a competent basis for a charge of attempting to defeat the ends of justice. The potentially serious consequences for a suspect of such a refusal lends further weight to the argument that suspects ought generally to be afforded an opportunity to contest the granting of the warrant.

5. Conclusions

Modern technology shifts the debate on the boundaries of bodily invasion and its privacy implications beyond traditional forms such as surgery and emetics. While these new technologies do not involve physical penetration of the body, they nonetheless impact on bodily integrity and privacy rights. Arguably the impact is even greater because the person 'invaded' may have no awareness of the

124 See now *Recommendations for Healthcare Professionals Asked to Perform Intimate Body Searches: Guidance for Doctors from the British Medical Association and the Faculty of Forensic and Legal Medicine* (BMA: July 2010) para. 4.2.

125 2004 SCCR 537 at 540.

invasion; an analogy can be made with the use of remote thermal imaging to gather intelligence.[126] The use of 'backscatter' X-rays at airports has been mentioned above. These images reveal not only weapons, explosives and concealed drugs, but also 'rolls of fat, the size of breasts and genitals, and catheter tubes'.[127] They have been described as providing images 'of near-pornographic quality' tantamount to 'a black and white strip search'.[128] One author who has explored whether the use of such X-ray devices in the United States breaches the Fourth Amendment has concluded that much will depend on whether the making of the images is judged to be 'unreasonable'. Given the perceived dangers from terrorism in air travel, their use may well be held to be reasonable. In *Schmerber* v *California*,[129] referred to previously, the Supreme Court ruled that the proper function of the Fourth Amendment was as a constraint 'not against all intrusions as such, but against intrusions which are not justified in the circumstances, or which are made in an improper manner'.[130] If making such images is indeed an acceptable part of airline security, then it could be argued that the taking of a photograph of a suspect—even of an intimate part of that suspect—will be far easier to justify. After all, the great majority of those who are routinely scanned at airports will not have been suspected of committing any crime, unlike A and B in our scenarios. However, airport passengers can avoid the whole-body imaging process by choosing not to fly. The options of a person who has been detained by the police are far more limited.

Although privacy is an undeveloped concept in Scots law, if the issue were to come before the Scottish courts, it can be anticipated that a warrant would be needed before the police could take intimate photographs of a suspect. It seems likely that such a warrant would be granted as reasonable and proportionate, given the public interest in securing evidence of serious criminal offences. Photographs of genitalia certainly cross boundaries of personal privacy, but they are not intrusive in the way that courts have tended to interpret the concept. They need not involve physical contact (unless some positioning is required to create a 'match' with digital images) and they cause no physical pain or suffering. However, without the consent of the suspect, such procedures, more so any steps taken to stimulate an erection, for example by the use of pornography or by administering erectile

126 R. Purdy, 'The Heat Is On' (2006) 156 New LJ 834.

127 S. Kornblatt, 'Are Emerging Technologies in Airport Passenger Screening Reasonable under the Fourth Amendment?' (2007) 41 *Loyola of Los Angeles Law Review* 385 at 390.

128 F. Reed, 'Scanner virtually disrobes passengers', *Washington Times*, 21 May 2003, available at <http://www.washingtontimes.com/news/2003/may/21/20030521-094809-8963r/>, accessed 26 January 2013, cited in S. Kornblatt, above at n. 127.

129 384 US 757, 86 S Ct 1826 (1966).

130 Ibid.

enhancing drugs, must, we submit, cross the threshold of constituting degrading and inhuman treatment in terms of Article 3. Even if legislation was enacted to permit state-sanctioned bodily interference in this way, it would be bound to be challenged as an infringement of human rights.

The new identification techniques which we have described are immensely valuable; they have enormous potential to bring the perpetrators of serious sexual offences to justice. This must not be lost sight of in discussing the possible human rights dimensions of acquiring the photographs necessitated by these techniques. The issues discussed in this article have outlined some of the human rights issues associated with forensic anatomical identification techniques. Debates elsewhere in the common law world suggest we are only scratching the surface of the scale of the implications for society of emerging technologies. For example, Donohue argues that current mainstream biometric technologies with implications for individual liberty and privacy rights include facial recognition, iris scanning, fingerprinting, and audio signatures.[131] She also cautions that this is the tip of the iceberg, and she asks: 'What happens when we move into future modalities, such as gait technologies, hormone sniffing, and other signature detection technologies?'[132]

The opinion we expressed in respect of the potential impact of the right to legal advice is a reasoned argument as to what the limits of encroachment on bodily integrity parameters currently are, and what they ought to be. It is arguable that the right to a fair trial, and in particular the right to legal advice—newly recognised in Scotland—could be interpreted as encompassing the right to such advice prior to a suspect deciding whether or not to cooperate in the taking of potentially incriminating photographs. We also suggest that the procedure for the granting of warrants in situations lacking in urgency requires to be reconsidered; in our view, the intrusive nature of the photographs in our second scenario mandates the right of suspects, and their legal advisers, to be heard in any decision over the granting of such a warrant.

Our conclusions are that if jurisdictions wish to be confident that they have robust procedures for conducting intimate searches and examinations and obtaining photographs of intimate parts of the anatomy, they will need to ensure that their warrant processes are ECHR-compliant or otherwise constitutionally sound, and

131 L. Donohue, 'Technological Leap, Statutory Gap, and Constitutional Abyss: Remote Biometric Identification Comes of Age' (2012) 97 Minn L Rev 1, Georgetown Public Law and Legal Theory Research Paper No. 12-123, available at <http://papers.ssrn.com/sol3/results.cfm?RequestTimeout=50000000>, accessed 8 February 2013.

132 Ibid. at 63.

that access to legal advice is available prior to a suspect consenting to any intimate photographs. In the event of a suspect failing to cooperate thereafter, a prosecution for attempting to defeat the ends of justice might be feasible, but would be jeopardised if *informed* consent had not been sought. While it is unlikely that the taking of intimate photographs would amount to a breach of the right to privacy, guaranteed by Article 8, forcing a suspect to submit to methods of erectile stimulation appears to us to represent a degree of compulsion that is incompatible with Article 3.

Given the international reputation of the CAHID team, and of Professor Black in particular, it is only a matter of time before their expertise is called upon in jurisdictions beyond those of the United Kingdom.[133] Their identification methods may well be replicated by forensic anthropologists in other countries, whose prosecutors and defence counsel will then have to grapple with some of the issues explored in this article. We have analysed some implications of the evidence-gathering processes from the perspective of Scottish law, but other jurisdictions are urged to do likewise, both to ensure that suspects' human rights are upheld where applicable, and that failure to attend to these rights does not jeopardise the successful prosecution of future cases.

133 CAHID already collaborates with INTERPOL and several European partners: see <http://www.lifesci.dundee.ac.uk/news/2010/07/30/cahid-european-collaboration-develop-global-disaster-victim-identification-database>, accessed 26 January 2013.