Big Bio-Brother is here: wanting, taking and keeping your DNA

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“DNA tells a lot of tales- all forever”

The increasing use of DNA databases has made them the subject of a number of debates, academic and non-academic. The England and Wales National DNA database (NDNAD), the largest forensic database in the world was established way back in 1995. Since then it has grown immensely in terms of the profiling it undertakes-changes in criminal legislation have widened its dragnet.

While exceptional case procedures have been prescribed for dealing with requests for the destruction/removal of DNA samples and profiles from the NDNAD, these are currently taking a bad hit from the exceptional rule which is that the destruction of samples or removal of profiles should only be exercised in exceptional cases (with no definite statement on definition or scope of these exceptional cases). This has imposed a cumbersome burden on the ‘innocent.’1 This paper will examine the issues involved and propose, inter alia, that the burden of proving that there is no exception be borne by the collector of the DNA sample/data controller in order to provide a safeguard for the rights of all those who come within the purview of the criminal justice system by chance.

The Nuffield Council on Bioethics, in its consultation paper on the ethical issues relating to the forensic use of bio-information2 raised a very vital question - whether the retention of bio-information from those not convicted of an offence was proportionate to the needs of law enforcement. This paper will also delve upon why this is not acceptable given the current state of affairs.

1. The “needs” of law enforcement

“Until August 1914, a sensible, law-abiding Englishman could pass through life and hardly notice the existence of the state, beyond the post office and the policeman.”3 This aptly sums up the state of affairs at the time as well as makes us aware of how far the policing system has progressed.

The fight against crime has progressed from “bobbies on the beat” to some of it highest scientific forms. Crime in its very scope and definition has expanded. It has crossed geographical and technical boundaries and law enforcement is as always playing catch.

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1 In the context of this paper, the term will be used to denote arrestees, detainees and volunteers.
Techniques like fingerprinting and DNA analysis play a very important part in crime investigation and resolution. These techniques are employed globally on different scales and play a significant part not just at the investigative level but have also proved vital exonerative tools in proving the innocence of persons who would otherwise be offenders in the eyes of the criminal justice system, all the while actually being the victims of gross miscarriages of justice.

2. The National DNA Database: Aims, application and functioning

The National DNA Database, the largest forensic database in the world was established in 1995 in England and Wales and since then has grown immensely in terms of the profiling it undertakes. It was recently revealed in the House of Lords debates that at the end of January 2007, there were 3.8 million persons on the NDNAD (which included 19,000 volunteers).


The NDNAD is regulated by a unit of the Home Office and its work is overseen by a Strategy Board (NDNAD Board) comprised of representatives of the Home Office, the Association of Chief Police Officers (ACPO) and the Association of Police Authorities. The Human Genetics Commission is also represented on the board. The Forensic Science Service (FSS), now a government owned company since December 2005, provides operational support to the NDNAD.

In 2002, the Human Genetics Commission (HGC) report titled “Inside information: Balancing interests in the use of personal genetic data” recommended the establishment of an independent ethics committee to approve research projects using human genetic information. This view was also reiterated by the House of Commons Technology Committee. The Home Office recently advertised for a Chair and up to 8 Members to serve as the Ethics Group of the NDNAD as part of its attempts to engender public trust and confidence in the database. Appointees will be required to commit two to three days a year to the role (with provision for additional meetings as required) – hardly sufficient time given the nature of their responsibility in terms of providing independent and ethical advice and information to the NDNAD Strategy Board on the following terms:

‘…… a) Review the appropriateness of policy and practice.
   b) Maintain high ethical standards in decision making.
   c) Protect the safety of the public in providing and storing DNA samples and profiles.

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4 There are separate DNA databases in Northern Ireland and Scotland. However, these regions also contribute to the NDNAD.
6 The Data Protection Act 1998
11 http://www.appointments.org.uk/view_vac.asp?id=1489
d) Protect the safety of law enforcement and courts stakeholders in the use of DNA-based information. It will be the discretion of the NDNAD Strategy Board to act on the advice provided.

The Home Office advocates the NDNAD as a “key police intelligence tool that helps quickly identify offenders, make earlier arrests, secure more convictions and provide critical investigative leads for police investigations”.

So how does the whole process work?

At present, DNA samples (intimate or non-intimate) can be obtained from:

a. Anyone arrested /detained for a recordable offence
b. Volunteers (with irrevocable consent)

Before 2001, any samples or profiles of those not prosecuted or acquitted had to be destroyed. The law as it presently stands permits the indefinite retention of DNA samples and the holding of profiles on the database in England and Wales. The case is not the same for Scotland which does not permit the indefinite retention of DNA samples and related information.

The evidential material that is considered suitable for DNA analysis is blood, semen, saliva, hairs, flesh, body parts, vaginal fluid, nasal secretions, urine, skin, sweat, fingerprint residue, dandruff, faeces, bone etc, with semen, blood, chewing gum and cigarette butts being the best sources.

In the case of arrestees, after fingerprinting and photographing them, their identity is established and DNA status on the Police National Computer is checked. If there is no DP (DNA profiled) or DC (DNA confirmed) marker, a DNA sample is obtained in accordance with PACE, stored, logged, documented, transferred to the force submission unit (where applicable), sent on to the supplier laboratory where the sample is analysed and a profile is submitted and loaded onto the NDNAD. Any match reports are issued to forces.

In the case of volunteers (e.g. persons sampled for elimination purposes), the following process applies. Firstly, the identity of the volunteer is verified and means used recorded. The volunteer is informed why the sample is required and means used recorded. The volunteer is informed why the sample is required and written consent is obtained for providing the sample. Separate written consent must be obtained for loading and retaining the sample on the NDNAD. The volunteer must also be informed that once permission is given, it is irrevocable and that the profile will remain on the NDNAD permanently. The sample is then taken, stored, logged, documented, transferred to the supplier laboratory where the sample is analysed. In the case that the volunteer had given consent only to the providing of the sample, the profile created is used in comparison to the case and then destroyed in accordance with Home Office Circulars. If the

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13 Non-intimate samples can be taken in certain cases with or without the person’s consent. S 63(2) of PACE 1984 provides that a non-intimate sample may be taken without co-operation or consent upon the satisfaction of certain conditions.
15 PACE was amended to this effect by the Criminal Justice and Police Act 2001.
16 Police, Public Order and Criminal Justice (Scotland) Act 2006, (asp 10)
18 id 56-57
volunteer consented to provide the sample and for the loading of the profile on the NDNAD, the profile is accordingly loaded onto the database for an indefinite period. 20

Profiles can be either full or partial. Full profiles are those that contain all DNA areas analysed and partial are those that do not have all the DNA areas analysed in them. 21

The profiles on the NDNAD are analysed using the SGM Plus (SGM+) technique. 22 Matches generated through NDNAD searches are only intimated to the forces if they are positive with caveats that warn of any limitations in the value of the match. 23

3. Exceptional procedures: Unchartered waters, uneasy sailors

On 24 April 2006, the ACPO released a document entitled “Exceptional Case Procedures for Removal of DNA, Fingerprints and PNC Records.” 24 This document while “acknowledging the responsibility of Chief Officers as Data Controllers,” states that “Chief Officers have the discretion to authorise the deletion of any specific data entry on the PNC ‘owned’ by them. They are also responsible for the authorisation of the destruction of DNA and fingerprints associated with that specific entry. It is suggested that this discretion should only be exercised in exceptional cases.” 25

The document also states that in order to achieve the consistency required that with immediate effect that the DNA and Fingerprint Retention Project (DNAFRP) would maintain a library of circumstances to be viewed as exceptional cases. These were to provide a bank of precedents to assist Chief Officers in their decision making process when considering requests to remove records. 26

The above mentioned document provides the following guidance:

Upon receipt of a request for the deletion of a PNC data entry the force concerned should ensure that sufficient detail is obtained to correctly identify the applicant i.e. full name, maiden name where applicable, sex, date of birth, place of birth, address(es), and ethnicity.

When such a request is made, an applicant may request the deletion of his/her PNC record/DNA sample and profile/fingerprints. For the purposes of this document, a request for removal of any one item shall be construed as being a request to remove all items.

A PNC check should then be made to confirm the data entry subject of the request for deletion, and any other relevant entries. It is essential to ensure that DNA and fingerprints are matched to the appropriate Arrest Summons Number on the PNC record. Samples taken on other occasions should not be deleted.

In the first instance applicants should be sent a letter informing them that the samples and associated PNC record are lawfully held and that their request for deletion/destruction is refused, unless the applicant believes the application should be regarded as exceptional. The applicant should be invited to state the grounds upon which they believe their case to be exceptional…

20 ACPO Manual, 59
21 ACPO Manual, 23
22 POST, The National DNA Database, February 2006, Number 258
23 ACPO Manual, 39
25 Authored by DCC Ian Readhead
The Chief Officer is asked to consider any response and either reply to the applicant rejecting the application for the removal of the record(s), or refer the case papers to the DNAFRP, thus ensuring that a consistent approach is adopted nationally.

The Chief Officer will receive an informed response, based on any relevant precedents held. Having regard to this information, they can then decide whether to retain or remove the record(s), and respond directly to the applicant with notification of this decision.27

Finally, the document also goes on to state that no “proactive exercise is undertaken to determine potentially exceptional cases…”

The above document, allegedly drafted to deal with the increasing number of DNA removal requests and to achieve national consistency, leaves much to be desired and is fraught with excesses.

The following objections can be raised:

First, it gives overriding and arguably unlimited control over the retention and subsequent use of the DNA sample/profile to the police force. While the above guidance may be trying to protect the police from overburdening themselves from making the wrong decisions (ones they may later come to regret from lack of foresight and ability to determine which samples would solve the insolvable crime), this does not bode well, take for example, for a volunteer who ‘consented in good faith’28 (often in a charged up atmosphere, and sometimes where choice is not an option, or as is often the case, misunderstanding or not comprehending the scope of consent) to giving a sample in their bid to cooperate and later came to decide that wanted to opt-out of being on the database after a more considered reflection on the matter. This issue has also been highlighted in a report on the surveillance society for the Information Commissioner.29

In fact the difficulty referred to above is evidenced in the case of *R v Chief Constable of South Yorkshire (ex parte S and Marper)*30. The claimants, in this case, appealed against the decision to retain their fingerprint and DNA samples after they were cleared of criminal charges making the case that the retention was a breach of Arts. 8 and 14 of the European Convention on Human Rights. The Court of Appeal upheld the decision of the administrative court. The House of Lords rejected the applicants contention that retention of their fingerprints and samples subjected them to discriminatory treatment in breach of Article 14 of the Convention and also held that the elements of legitimate aim and proportionality were present, as the increase in the database of fingerprints and samples promoted public interest by the detection and prosecution of serious crime and by exculpating the innocent.

The case was taken to the European Court of Human Rights. The European Court of Human Rights (Fourth Section), sitting on 16 January 2007 admitted the application of S and Marper against the United Kingdom, holding that there arose serious questions of fact and law the determination of which would depend on an examination of the merits of the case.31 A decision is pending.

27 http://www.acpo.police.uk/asp/policies/Data/guidance%20for%20removal%20from%20database.doc
28 Could also be read as "gave permission"
30 http://www.publications.parliament.uk/pa/ld200304/ldjudgmt/jd040722/york-1.htm
31 Application nos. 30562/04 and 30566/04 by S. and Michael Marper against the United Kingdom, ECHR Fourth Section, Decision as to the Admissibility, http://cmiskp.echr.coe.int//Ilkp197/viewhbkm.asp?action=open&table=F69A27FD8FB86142BF01C1166DEA398649&key=60832&sessionid=11891809&skin=hudoc-en&attachment=true
A more local example will highlight the problem at hand. A 14 year old child had his photograph, fingerprints and DNA swab taken when he was (mistakenly) arrested in the course of an enquiry into an assault incident. The police released him at the end of the interview when they realized that he had nothing to do with the incident. His mother requested that her son’s DNA, fingerprint and photograph be destroyed but the police declined in the first instance. It took her and her MP six months to get the matter resolved.\(^{32}\)

There are also serious concerns about whether consent given in the earlier referred to circumstances amounts to “valid” consent\(^{33}\) and whether it could truly be said that consent that could not be withdrawn was consent at all?

Secondly, the DNA removal guidance document suggests that a request for removal be refused in the first instance - this probably in the hope that a second request would not be (as) forth coming. A lot of people would tend to get disillusioned by this (as would their perception of the criminal justice system) – more so if they are making an individual request and not being propped up by a strong legal team or their local MP as evidenced above. This would enforce a misleading sense of despondency and reinforce Orwellian fears that if the state wanted your DNA it was going to take it, it would keep it, and there was nothing one could do about it. It is not clear how justifiable this state of affairs is, especially as regards volunteers and children.

Thirdly, the fact that the responsibility has been assigned to the Chief Officer of the force concerned is another worth noting. The Chief Officer is also the data controller and it is in his (the force’s) interests to retain the data. This creates a conflict of interest – there is on one hand the applicant who wants their record removed and whose interest it is in to have it so removed, and on the other there is the Chief Officer (representing the force that collected the sample) who is also the deciding party. A fairer approach would be for the request to be made to a local tribunal or judicial body who would then deal with the matter on a case by case basis thereby also setting the right precedents and making justice to be seen to be done.

Fourthly, the suggestion in the exceptional case procedures guidance document that a request to remove one record (either fingerprints, sample or profile) would be construed to be a request to remove all while laudable, as it would mean a complete erasure of record, still means that a very “strong” case would have to be put forward by the applicant. This is a daunting task given that there are no publicly visible established or clearly stated “exceptional cases” for guidance. What might have been simpler would have been not to construe a request to remove one as a request to remove all records, but to construe a request to remove one (or permit such requests) as being just that. This would however mean a greater burden at the operational, technical and administrative level to maintain the quality the remaining records (ones that were not destroyed or removed on request) in order to comply with the data protection principles 4\(^{34}\) and 7\(^{35}\).

Fifthly, the procedures elaborated in the exceptional case procedures document are highly inadequate to protect the rights of the data subject – especially because the NDNAD has and is expanding in its scope. In the House of Lords debates on 8 March 2007, the Minister of State, Home office said that the DNA database “simply collates the information achieved from crime

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\(^{32}\) P Johnston, “Mother wins battle over innocent boy’s crime record,” The Telegraph, 9 January 2006

\(^{33}\) Consent has been defined by Directive 95/46/EC and of the Council of 24 October 1995 on the protection of individuals with regard to the processing of personal data and on the free movement of such data to be “any freely given specific and informed indication of his wishes by which the data subject signifies his agreement to personal data relating to him being processed” Official Journal L 281, 23/11/1995 P. 0031 – 0050.

\(^{34}\) Personal data shall be accurate and, where necessary, kept up to date.

\(^{35}\) Appropriate technical and organisational measures shall be taken against unauthorised or unlawful processing of personal data and against accidental loss or destruction of, or damage to, personal data.
scenes and collected by officers in the process of usual criminal investigations. It is not used for any other purpose.”36 There is some evidence to show otherwise.

While it was primarily established as criminal intelligence database, there is confirmation of some function creep.37 GeneWatch UK38 made a number of Freedom of Information (FOI) requests to the NDNAD Board and unearthed the fact that under the guise of research, the following uses were also being made of the database:39

- the creation of statistics to assess the performance of the Database
- familial searching40
- searches for named individuals
- criteria based record selections
- use of DNA profiles/other information41 for research
- the use of the original DNA samples for genetic research.42

What also came to light was how stored DNA samples were being used for genetic studies without the knowledge of the sampled.43 More disturbing was the fact that one of the commercial companies that analysed some of the DNA samples for the police had retained its own “mini-database” of DNA records.44 This in its inherent nature is very much in conflict with principle 2 of the Recommendation No. R (87)15 regulating the use of personal data in the police sector45 which (adopted on 17 September 1987) states, *inter alia:*

**Principle 2 - Collection of data**

2.1. The collection of personal data for police purposes should be limited to such as is necessary for the prevention of a real danger or the suppression of a specific criminal offence. Any exception to this provision should be the subject of specific national legislation.

It is also relevant at this point to make reference to Recommendation No. R (92) 1 of the Committee of Ministers to Member States on the Use of Analysis of Deoxyribonucleic Acid (DNA) within the Framework of the Criminal Justice System.46

Section 3 in particular states:

3. Use of samples and information derived there from

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39 i.e. using the database to identify relatives of persons
40 Selected or otherwise
41 E.g. behavioural research
43 [id](http://www.coe.int/t/e/legal_affairs/legal_co-operation/combating_economic_crime/1_standard_settings/Rec_1987_15.pdf)
44 Recommendation No. R (92) 1 of the committee of ministers to member states on the use of analysis of deoxyribonucleic acid (DNA) within the framework of the criminal justice system (Adopted by the Committee of Ministers on 10 February 1992 at the 470th meeting of the Ministers’ Deputies) [http://www.mj.gov.pt/sections/pessoas-e-bens/base-de-dadosgeneticos8948/documentacao/downloadFile/attachedFile/f0/Council_of_Europe_Recommendation_No_R921_on_the_use_of_analysis_of_deoxyribonucleic_acid_DNA.pdf?nocache=1149684035.84](http://www.mj.gov.pt/sections/pessoas-e-bens/base-de-dadosgeneticos8948/documentacao/downloadFile/attachedFile/f0/Council_of_Europe_Recommendation_No_R921_on_the_use_of_analysis_of_deoxyribonucleic_acid_DNA.pdf?nocache=1149684035.84)
Samples collected for DNA analysis and the information derived from such analysis for the purpose of the investigation and prosecution of criminal offences must not be used for other purposes. However, where the individual from whom the samples have been taken so wishes, the information should be given to him…

It is clear from the above how samples and information derived within the framework of the criminal justice system should ideally be dealt with.

Sixthly, we must consider the issue of transborder exchanges of sample and profile data. The UK adopted the Interpol Charter governing the use of the DNA Gateway in 2005. This automated Gateway permits the transfers and comparison of profile data between countries. In the case that the UK signs up to the Prüm treaty, there is a great chance that the NDNAD will be open to further cross border access. While assurances have been made that control will be retained over the database, it is not clear how this control will be achieved in terms of allowing access to samples and profiles of “innocent persons” who have been profiled on the NDNAD and not been permitted to or been unsuccessful in a removal request. We must note here that the NDNAD (unlike other DNA databases in Europe and other parts of the world) is the only database in the world that allows for indefinite retention of samples and profiles.

The exceptional cases for removal of DNA need to be clearly defined – either by a legislative body or judicial tribunal and this information must be more publicly accessible for it to be an effective means of protecting the civil rights of individuals. Removal requests must be met with serious consideration and must be acquiesced to unless the Chief Officer can conclusively prove the need to retain the sample/profile. This would exert an additional cautionary element to the process. The onus must lie on the data controller to demonstrate the need for permanent retention. In the alternate, rather than the Chief Officer being responsible for dealing with the removal requests, these could be dealt with by an independent authority/tribunal.

4. Is the retention of bio-information from those not convicted of an offence justified?

A poll conducted in November 2006 revealed that 48% of interviewees disapproved of maintaining results of an individual's DNA on the national database even if the individual had not been charged with any crime or else had been acquitted - while 37% approved and a significant 15% were unsure. This not only displays an element of mistrust in public attitudes (which been by and large ignored), but also a significant uncertainty reflected perhaps in an attempt to chose between the “greater good” of fighting crime with a potent tool that often gives excellent results and a sense of losing self to the state. The heady mix of statistics and mantras of social safety and reduction of crime function as effective horse blinders at most times leave alone an era where it is fashionable to use databases of all kinds in the fight against crime and terror.

A J P Taylor said that “there is nothing more agreeable in life than to make peace with the establishment – and nothing more corrupting.” It is for this reason that we must question the so
called ‘proportionate’ need to retain (indefinitely in this case) bio-information from those not convicted of an offence.

The NDNAD Annual Report 2004-05\textsuperscript{51} shows that there is a 48% chance of a new crime scene profile matching an individual’s profile already held on the database. On the other hand, only 49% of the matches on the NDNAD lead to a crime being detected.\textsuperscript{52} Even Interpol has recognized the limited functionality of DNA in solving crimes.\textsuperscript{53} A telling commentary on the Scottish Police DNA Database has concluded that while there may be a financial case for the general retention of profiles, there is evidence that the majority of profiles retained from those not convicted deliver no significant benefit to crime investigation.\textsuperscript{54} The indefinite retention of DNA samples is not going to be the magic cauldron from which all our crime solutions will emerge. What it does do is lay open individuals to joining the “suspect elite” club.\textsuperscript{55}

5. Conclusion

There is no doubt we need the NDNAD - it has proved itself time and again. It has come to be perceived as a policing godsend.\textsuperscript{56} What we need additionally is a clear cut statement on the aims, working and the policy of the NDNAD – outlining whether it is to remain primarily a criminal intelligence tool and if so, must comply with its legislative mandates and not be allowed to expand further (especially not in terms of research or otherwise). Overall, there must be strategic regulation of the NDNAD keeping an eye on future forensic developments.\textsuperscript{57}

Alternatively, in the case that the NDNAD is to be used selectively or otherwise for purposes other its primary one, there is a strong case for redefining and re-establishing the process of collection and retention of DNA samples and related information. Consent obtained at the sample collection stage must not be the end-all; a flippant means of dispensing with legal obligations.

The exceptional case procedures, to be meaningful, need to be reassessed in the light of what has been said earlier in this paper. As suggested, the exceptional cases must be defined; the onus of demonstrating the need for permanent retention must be shifted to the data controller and such requests should ideally be dealt with by an independent authority or judicial tribunal.

If bio-policing is not to be perceived as an over arching state exercise in overt and covert surveillance and denial of an individuals right to privacy and civil liberty, there needs to be definitive and visible action to protect the NDNAD from falling prey to the excesses of databasing\textsuperscript{58}

\textsuperscript{52} NDNAD Report, at p 12
\textsuperscript{53} Interpol, DNA Gateway, http://www.interpol.int/Public/CPO/FactSheets/FS01.pdf
\textsuperscript{56} Home Office, DNA Expansion Programme 2000–2005: Reporting achievement: Forensic Science and Pathology Unit, http://police.homeoffice.gov.uk/news-and-publications/publication/operational-policing/DNAExpansion.pdf?view=Binary. This report states that the annual figures of direct DNA detections more than doubled from 8,612 in 1999/2000 to 19,873 in 2004/05 and additionally, 15732 crimes were detected in 2004/05 as a result of further investigations linked to the original case in which DNA was recovered.
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