Dragers van waarheid: normatieve aspecten van twintig jaar forensisch DNA-onderzoek in Nederland
Toom, V.H.

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ENGLISH SUMMARY

Forensic DNA profiling was introduced as ‘legal’ and ‘convincing’ evidence in Dutch courts of law in the late 1980s. Initially it was used to acquit suspects who volunteered a DNA sample, typically in the context of sex crimes. Later, after a special forensic DNA bill was passed in 1994, suspects of ‘severe’ and ‘violent’ crimes, like sexual assault and homicide, had to provide a DNA sample; if they refused, the strong arm of the law could enforce the order. In 1997, the Dutch DNA database was introduced. A DNA database compares DNA profiles automatically and constantly, and hence connects subject profiles to profiles obtained from scenes of crime. Therefore, a DNA database produces suspects for criminal investigation. The legislation was amended in 2001, enabling (investigating) judges and public prosecutors to order mandatory sampling of individuals suspected of having committed so-called ‘volume’ crimes like burglary and car theft. Subsequently, other genetic technologies were introduced to inform criminal investigations. As a result, criminal investigation and forensic genetics became closely interrelated. These transformations from DNA as evidence to DNA as an investigative lead, and its application first in ‘severe’ crimes and later also in ‘volume’ crimes, are in accord with a development that has been observed in many jurisdiction over the world, and hence is called the common trajectory (Williams & Johnson 2008: 1). In this book, I describe the Dutch trajectory of forensic DNA profiling by analyzing interactions between genetics and processes of judicial truth establishment.

Reliable truth establishment

Forensic sciences in general are prone to demanding expectations from various social and public domains (Fraser & Williams 2009: 8), and hence can become, by means of popular drama’s like Crime scene investigators and regular news reports about solved crimes, “the magic bullet solution to catching a culprit” (Roux & Robertson 2009: 574). These expectations contribute to the representation of DNA profiling as an emblematic objective and certain forensic technique (Lynch et al 2008: 2). Hence, in the preface of this book I argue that the contemporary forensic genetic discourse is one that promises reliable truth establishment through genes and genetics. Such dominant discourse orders our reality, for instance because policy makers or the public at large favor ‘solving crimes’ above the protection of ‘civil rights’. As a result of the current preference for forensic genetic technology to solve crimes over civil rights, the critical analysis presented in this book regarding forensic genetic practices foregrounds the erosion of individual civil rights, like right to an inviolable body and privacy, and general legal principles, like being held innocent until the opposite has been proven.
Introduction of argument, theory, methodology and method

In Chapter 1, I argue that as a result of more widely defined procedural powers, authorities involved in processes of establishing judicial truth are intervening in the personal life of individuals and their bodies. Hence, as a counter argument to the contemporary dominant forensic genetic discourse, I use the trope of an emerging government to be able to articulate normative aspects of forensic DNA profiling. The result of an emerging government is that more and more suspects and convicted criminals are ordered to donate DNA samples. Moreover, in an increasing number of cases, the investigative authorities are dependent on the availability of DNA samples to establish truth and justice. In other words, and here we enter the main argument of this book, individual bodies become obligatory points of passage (Callon 1986a, b) to establish judicial truth by means of forensic genetics – bodies become Carriers of Truth!

Science and technology studies, actor-network theory and material semiotics

The analysis presented in this book draws on insights developed in a social science sub-discipline often referred to as science and technology studies (STS) or science studies. Most notably, a methodological sensitivity usually called actor-network theory (hereafter: ANT; see: Latour 1993, 1999) has been the main analytic tool in this book to describe forensic DNA profiling practices in the Netherlands. ANT can not be used to either verify or falsify hypotheses and hence can not be classified as a theory. On the other hand, ANT is useful as a methodology to describe hybrid practices made up by knowledge, techniques, legal rules, protocols, human interactions etc. Therefore, ANT sometimes is called material semiotics as it includes the analysis of both humans and non-humans or subjects and objects, and the established relations between them (Haraway 1991a, 1997; Law 2009). More specifically, given the fact that this book deals with Dutch forensic genetic practices, the analysis presented here describes relations or associations between, among other things, people, knowledge, bodies, databases, competences, crimes, responsibilities, laboratories, civil rights, the Constitution, genetics, the Dutch State of Law, and biology. Individual bodies play an important role as a methodological focal point. I consider bodies as maps of power and identity (Haraway 1991b: 180). Informed by Michel Foucault’s (1984, 1989) concept of the political technology of the body, authorities involved with the establishment of judicial truth need to gain jurisdiction over individual bodies in order to produce knowledge about them. This book analyses how bodies become enacted (Mol 2002) as forensic genetic bodies (see: Toom 2010).

Method

When I started the research that finally led to the analysis presented in this book, I first made an overview of all the Dutch forensic DNA bills that had been passed. At that time, three such bills had been enacted: the 1994 Forensic
DNA Profiling Act, its amendment in 2001, and the Law on External Visible Personal Characteristics in 2003. Studying the official documentation of these bills, the minutes of the Dutch Parliament, the official publication journal of the Dutch Government regarding bills and legislation, and the letters of advice of various stakeholders, I learned that practical problems encountered in various processes of establishing judicial truth were the official starting point for these legislative arrangements. In other words, the law lagged behind on the scientific possibilities (see: Jasanoff 2008). Since I wanted to empirically research forensic DNA profiling practices in the Netherlands, and given my interest in the above described trajectory of Dutch forensic genetics, I soon realized that studying the cases mentioned in the official documents would give insight into the possibilities generated by DNA profiling and at the same time give insight into the judicial and legislative organization and restrictions of processes of judicial establishment of truth and the legal protection of individuals. I call such cases throughout this book milestone cases.

Three milestone cases (one for each law) were selected. The logical next step was to request permission of the Board of Prosecutors-General to use the criminal files of these milestone cases. This permission was granted, and the empirical analysis presented in this book is based on information in these criminal files. In the course of the research, I started to appreciate criminal files as objects where suspects, victims, juridical professionals and experts, laws and civil rights, DNA technologies and crimes, jurisprudence and technical norms come together. In other words: criminal files became my entry ticket to situations (crimes) and practices (criminal investigation) that normally remain inaccessible to a social scientist. But a criminal file is not enough for a material semiotic analysis of forensic genetic practices. Other materials that informed my research are genetic handbooks, articles and protocols; legal texts like jurisprudence, the Code of Criminal Procedure, the Constitution and the European Convention on Human Rights; social scientific, philosophical and juridical analysis of forensic DNA profiling, bodies, rights, and surveillance; and media-coverage of criminal cases and the use of forensic DNA. I also interviewed detectives, forensic scientists, policy makers and other involved in processes of judicial truth establishment. Last, but not least, I had the opportunity to do a two month internship in a Dutch laboratory for forensic DNA research (see: Toom 2009). The analyses presented in this book are based on all these sources and the insights they provided.

An evidentiary practice for severe and violent crimes
Chapter 2 is about a case of rape in 1989. After a suspect was arrested, he was asked to volunteer a DNA sample. The suspect refused to do so. Thereafter, the public prosecutor ordered that he would be searched with the aim of collecting a biological sample for DNA analysis. Given the fact that such a body search was not legally mandated, a judge subsequently deemed it illegal.
This legal verdict raised questions by, amongst others, a Member of Parliament, questioned the Minister of Justice by interpellation in 1989. This moment appeared the starting point of the Forensic DNA Profiling Act, which came into force in 1994.

One of the heavily debated issues in the early-days of forensic DNA profiling was that suspects had a right to the inviolability of the body. Another debated issue was the reliability of forensic DNA typing and evidence. Hence, before it could be politically considered to change the law to legally enable mandatory body searches for DNA profiling, the reliability of DNA typing had to be beyond doubt. The milestone case presented in Chapter 2 empirically describes these two problems – the violation of individual civil rights and the un/reliability of forensic DNA analysis – and explains how and why forensic DNA profiling practices became enacted between 1994 and 2001 as an evidentiary practice for severe and violent crimes.

**Volume crimes and criminal investigation**

Three forensic genetic technologies emerged in the second half of the 1990s, and are presented in Chapter 3. One, the so-called polymerase chain reaction (PCR) is a method to ‘copy’ DNA fragments millions of times; two, the DNA database digitally stores and constantly compares DNA profiles; and three, the so-called second generation multiplex (SGM) makes DNA analysis cheaper, faster and more efficient. As a result of these new technologies, it was no longer necessary to collect blood for DNA typing since PCR produced reliable DNA profiles from saliva. Policy makers of the Ministry of Justice had, in the meantime, drafted an amendment to adjust the law to the new forensic genetic technologies. Although it was acknowledged that taking a sample of saliva was a less severe violation of the body than taking a blood sample, the Minister of Justice was not persuaded to change the law that mandatory body searches could be issued in less severe criminal cases, like the category of volume crimes, e.g. burglary, property crimes and car theft. However, the police, the Office of Public Prosecution and the Dutch forensic institute (NFI) wanted to change this situation, as they aspired to expand forensic genetic practices to the investigation of volume crimes.

To achieve the desired situation, the above mentioned stakeholders organized a pilot project ‘DNA and burglary’ in 1998. It is this project that is described in Chapter 3. More specifically, a case will be evaluated where a suspect is matched to 16 different crime scenes by means of the DNA database. It is this project and this case that contributed importantly to the Minister of Justice’s decision to expand forensic DNA profiling to the realm of volume crimes, and hence can be considered a second milestone case, as it gives insight in the motivations and technicalities of DNA profiling applied in volume crimes and criminal investigation.
Investigating populations
A case of murder on a young female in 1999 is the starting point of a legal amendment called the Law External Visible Personal Characteristics, which came into force in 2003. The case has never been solved. What makes the case special is that the authorities involved in the process of establishing judicial truth asked a population geneticist to make a statistical prediction about the geographical descent of the unknown suspect. However, the strict interpretation of Article 138a of the Code of Criminal Procedures, which defined forensic DNA testing as exclusively comparing DNA profiles, did not allow for this genetic knowledge to be used in the process of criminal investigation.

This third milestone case described in Chapter 4 gives insight in how ‘race’ and ‘sex’ became forensic genetic objects that inform the process of criminal investigation. By describing how forensic (genetic) technologies create perpetrator identities of the unknown suspect, and how these identities are transformed into ‘interesting’ persons that need to be excluded as possible perpetrator, the analysis presented gives an account how forensic genetic knowledge interferes with what can be called investigative epistemologies (Innes 2002). This new investigative epistemology does not automatically start with the facts and circumstances of crimes, but with statistical inferences about the most likely appearance of the unknown suspect. Criminal investigation is hence about investigating populations.

Conclusions
In chapter 5, I summarize the three milestone cases and describe the complex present (Mol 2002) of four enacted forensic genetic bodies: subject bodies, tissue/ID-packages, objects with biological material from subjects, and coding DNA. It is these forensic genetic bodies that are situated at the intersection of law and genetics, and that the authorities have jurisdiction over and can create knowledge about. Therefore, enacted forensic genetic bodies are an articulation of an emerging novel form of governance; bodies have become Carriers of Truth.