

## Book Review: The Genetic Imaginary: DNA in the Canadian Criminal Justice System

Benecke, Mark

Postprint / Postprint

Zeitschriftenartikel / journal article

Zur Verfügung gestellt in Kooperation mit / provided in cooperation with:

[www.peerproject.eu](http://www.peerproject.eu)

### Empfohlene Zitierung / Suggested Citation:

Benecke, M. (2005). Book Review: The Genetic Imaginary: DNA in the Canadian Criminal Justice System. *Public Understanding of Science*, 14(2), 225-226. <https://doi.org/10.1177/0963662505054560>

### Nutzungsbedingungen:

Dieser Text wird unter dem "PEER Licence Agreement zur Verfügung" gestellt. Nähere Auskünfte zum PEER-Projekt finden Sie hier: <http://www.peerproject.eu> Gewährt wird ein nicht exklusives, nicht übertragbares, persönliches und beschränktes Recht auf Nutzung dieses Dokuments. Dieses Dokument ist ausschließlich für den persönlichen, nicht-kommerziellen Gebrauch bestimmt. Auf sämtlichen Kopien dieses Dokuments müssen alle Urheberrechtshinweise und sonstigen Hinweise auf gesetzlichen Schutz beibehalten werden. Sie dürfen dieses Dokument nicht in irgendeiner Weise abändern, noch dürfen Sie dieses Dokument für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, aufführen, vertreiben oder anderweitig nutzen.

Mit der Verwendung dieses Dokuments erkennen Sie die Nutzungsbedingungen an.

### Terms of use:

This document is made available under the "PEER Licence Agreement". For more information regarding the PEER-project see: <http://www.peerproject.eu> This document is solely intended for your personal, non-commercial use. All of the copies of this documents must retain all copyright information and other information regarding legal protection. You are not allowed to alter this document in any way, to copy it for public or commercial purposes, to exhibit the document in public, to perform, distribute or otherwise use the document in public.

By using this particular document, you accept the above-stated conditions of use.

## Book review

Neil Gerlach, *The Genetic Imaginary: DNA in the Canadian Criminal Justice System* (Toronto: University of Toronto Press, 2004). 350 pp. ISBN 0802085725 US\$29.95 (paperback); ISBN 0802087841 US\$65.00 (hardback).

The book by sociologist Neil Gerlach starts with a theoretical outline about possible fears of society about developments and results of biotechnologies, e.g. transgenic animals, genetically engineered food, possible demands for a right to normalcy (“new eugenics”), patenting genes, and “charismatic science.” The next section deals with the “culture of the trace” and DNA fingerprinting in terms of criminal applications and the impact on judicial proceedings. This is put into the context of an apparently widespread and, in the eyes of the author, unrealistic fear of crime in Canada. It is argued that the use of DNA in legal contexts may lead to a “surveillance society.”

DNA data banks and their impact on private vs. public sphere issues are explored in the next section. Some criminal cases in which DNA fingerprint evidence was used are examined, and the perception of objective evidence by the media is criticized (e.g., that unnoticed social structures within journalistic hierarchies may lead to misrepresentations of the actual truth). Then, the alleged “black box” of DNA databanks is opened by technical descriptions of procedures of the Canadian DNA databank. In this context, the author reports a shift of “managing DNA typing as a socio-technical network passed largely out of the hands of the courts and into the hands of the legislature.” The book closes with notes about the alleged instrumentalisation of justice, the search for links between behavior and DNA, and a possible undermining of a social justice system that leads to a technocratic one.

\*\*\*

Sometimes, the gap between the natural sciences and sociology is unnecessarily widened, as is the case in this book. Gerlach coins the term “biogovernance” to refer to DNA typing and other genetic methods becoming a regime of practice. In his opinion, this is a result of a power scheme called “social governance” that generally addresses the anxieties of people rather than addressing their actual needs.

It is okay to make such a political statement and to keep it at that level. However, Gerlach

mixes up many things that should be kept h and, in fact, are separate. For example, by mentioning the alleged cloning efforts of the Raelians right at the beginning of the book, he not only builds up anxiety himself but he also demonstrates that he is unaware of the real motives of the Raelians, as their leader openly stated in his book that their media cloning craze was basically an easy way to get into the news and to recruit new, paying members.

When it comes to the plain facts, Gerlach also tends towards generalizations, ambiguity in the use of terms, and strongly biased conclusions. Here is an example:

Obviously, a new technology does not simply move from the research laboratory directly to practical application. It must first pass through a social context of existing power relations . . . that set limits on when, where, and how it may be applied . . . Processes such as these are potentially dangerous for institutionalized authorities, because public reaction cannot be gauged with certainty. (. . .) Because of various technological, social, and legal factors that have smoothed the entry of this technology into Canada, and because of hegemonic processes of framing the meanings of DNA testing and banking within criminal justice, these technologies inspire little controversy in the public sphere, unlike some other forms of biotechnology. The consequence is expanded state power: state agents have gained the right to enter the citizen’s body.

It may be true that politics can be a dirty business, but the assumption that all Canadians can easily be misled by those in power is a little far fetched. By mixing all “biotechnologies” (and by so doing he raises the same anxiety that he criticizes), Gerlach conceals one basic fact: DNA typing (i.e., DNA fingerprinting) only produces a bar code that *does not convey anything about the body or the mind of the person from which the sample was taken*. It is neither correct nor fair to mix genetic testing (e.g., a test for an illness) and cloning with forensic DNA typing. Forensic DNA typing is an identification method based on exactly the same principle as a regular skin fingerprint. Both the skin fingerprint and forensic DNA typing will only produce an anonymous bar code pattern, while neither can tell you anything about the person’s body or mind.

However, if one disagrees in principle with *any* use of identification markers in crime cases,

the only evidence that remains would be witness accounts. It has been proven in many psychological and criminalistic tests that such accounts are highly subjective, and that they are affected by the social beliefs of the witnesses. Evidence like DNA typing, in contrast, is objective and hence more reliable.

Even better, DNA evidence can be tested again and again. If an expert lies about the objective evidence from his lab, there is a very high chance that an independent test will bring the lie to light. If worse comes to worse, an innocent person may be imprisoned because he was at the wrong place at the wrong time *and* an expert is lying in the court. As Gerlach shows in his book, DNA evidence (either re-tested, or applied for the first time, years after the trial) will not only set this person free but it will also overrule false witness statements. Since there is no objective method to re-test a witness' statement, I very much prefer the institutionalized use of DNA typing (i.e., of non-coding DNA regions) over a witness statement.

Other aspects of the book are noteworthy, e.g. José Van Dijk's ideas about our changing perceptions of DNA, which was seen first as a code (1950s), then as an independent matter (1970s), as a manager (1980s) and, today, as a complex, interactive map.

It is also interesting to read how the Canadian National DNA Database works, and how the samples are dealt with in detail. (The chapter caption reads "Techniques of Manipulation" but I am willing to turn a blind eye to this misnomer.)

Given my international work experience, I am surprised to learn that Canadians are so afraid

of non-coding DNA typing, and I wonder why that is the case. The very liberal Netherlands has passed a law that even allows typing of eye and hair color in crime cases, and in England a person's DNA sample will be added to the database if he or she commits any offense (practically starting at drinking and driving). In both countries, the expanded use of DNA typing was neither performed to produce "genetic justice" (Gerlach) nor against the will of the public. Quite to the contrary, the public was consulted and did agree. Besides, "genetic justice" is impossible because nobody will be judged solely on the basis of a genetic fingerprint. There will always have to be other significant clues that link a person to a crime, not just DNA alone. The reason is simple: if I drop a cigarette at a location that becomes a crime scene 15 minutes later, nobody in the police system will accuse me if I do not have a motive, nor potential benefits, nor any other relation to the victim or the crime scene.

I do like Gerlach's book for giving us some insights into the Canadian Database and for showing what happens in Canada's DNA typing laboratories. And it is okay that he distrusts power. Yet, I do not like that he mixes terminology, that he mostly refers to juridical and procedural problems instead of to the natural science behind it, and that he raises fears that, seen from my practical point of view, are much less of a problem than they might seem from his often abstract and political perspective.

#### **Mark Benecke**

M.Sc., Ph.D., Certified Forensic Biologist, International Forensic Research & Consulting, Cologne, Germany, e-mail: forensic@benecke.com.