

Forensic DNA phenotyping: DNA surveillance policy at the intersection of racism and sexism

Isabelle Bartram
University of Freiburg



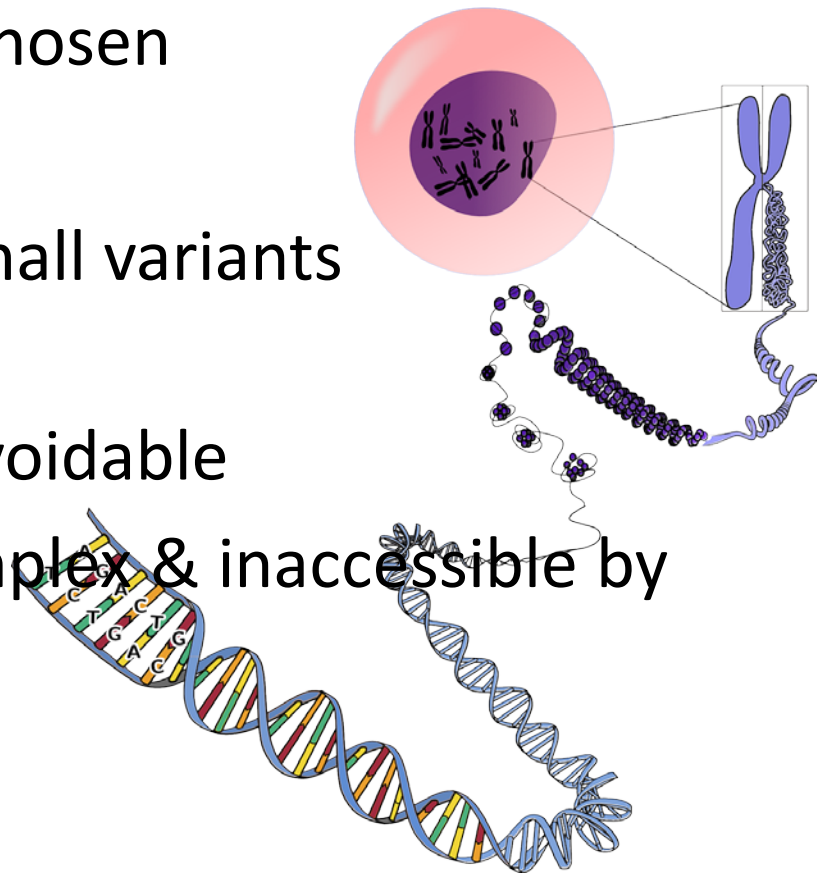
Forum Privacy | 20th of November 2019

Forensic DNA phenotyping: DNA surveillance policy at the intersection of racism and sexism

- DNA as evidence
 - Infallibility of DNA?
 - Issues of data privacy and justice
- Forensic DNA Phenotyping
 - Genetic Racial profiling
- Past & current drivers of DNA policy
 - Protection of women
 - Migration debate

DNA as evidence

- DNA – genetic material in cell nucleus
 - Unchangable, can't be chosen
 - 99,9 % identical
 - Individual patterns of small variants
 - Highly identifying
 - Shedding of DNA is unavoidable
 - Analysis technology complex & inaccessible by affected



DNA as evidence

- Especially sensitive data category in European and German data protection laws
- Same properties make DNA attractive for law enforcement authorities
- Compromise: Short Tandem Repeats (STR) – “non-coding” DNA

First technological innovation wave

- First use in 1980s in police investigations & court
- in 1990s standardization

DNA as evidence

CSI effect (from US- television series CSI: Crime Scene Investigation)

- Forensic science, especially DNA presented as powerful, fast and infallible
- High believe in DNA evidence by police
- DNA evidence is often unquestioned even by those affected

DNA as evidence

Second technological innovation wave

- National & international DNA databases
- Scope and content dependant on national context
- Increasing efforts of DNA collection, storage
 - Error in handling
 - E.g. German “Wattestübchen Affaire” 1997-2011
 - Random matching errors
 - Increasing technological sensitivity

DNA as evidence

Issues of data privacy and justice

- extraction of body cells and storage of genetic information are “far reaching and lasting infringements of the right to informational self-determination” of the person affected (Entschluss der Konferenz der Datenschutzbeauftragten des Bundes und der Länder 2003)
- “Voluntary” samples?
- Who is affected? In UK and US skewed representation of population groups
- Transparency, regulation, controls?

Forensic DNA Phenotyping

Third technological innovation wave

- Forensic DNA Phenotyping (FDP)
 - Externally visible characteristics
 - “bio-geographical ancestry” (BGA)
- 2018 PAG Bavaria: Analysis of eye, hair and skin color, age and BGA of an unknown person
- 15/11/2019 StPO: Analysis of eye, hair and skin color and age



Kayser et al. 2015

Forensic DNA Phenotyping

- What does BGA mean vs What should it mean?
- “Ethnicity”, “ancestry”, “appearance”?
- No scientific consensus on how good the analyses are
- Consensus (German experts) complex „DNA composite sketch“ not possible
- Instead of identifying individuals – construction of suspect groups (Amade M’Charek)
- Past cases: Minority characteristics useful

Forensic DNA Phenotyping

Genetic racial profiling

- Warnings of misuses of technology by civil society & minority organizations
- “attribution of the trace to a member of a minority must not lead to misuse of this fact for the purpose of racist propaganda and agitation” (BMJV 2019)
 - but no control or regulation in law



Past & current drivers of DNA policy

Protection of women

- 1998: federal police DNA database was created without legal foundation
- Same year: DNA dragnet of 16.400 men revealed murderer of two girls
- 1999: “DNA-Identitätsfeststellungsgesetz”
 - DNA can be extracted for “serious crimes”
- No broad public debate

Past & current drivers of DNA policy

- Feminist organizations in 1999:
 - Criticism of focus on rare “the foreign (or unknown) repeat offender”
 - sexual crimes as a “trojan horse” for DNA policy
- 2003: exhibitionism or “insults with a sexual motive” = serious crimes
- 2005: repetition or prognosis of repetition of small crimes = serious crimes
- Hypothesis of crime escalation: Sexual offenders start criminal career with small offences

Past & current drivers of DNA policy

- Hits in BKA database currently (31.03.2019)
- Less than 1,8% “criminal offences against physical integrity”, less than 1,8% “crimes against sexual self-determination”
- No decrease of sexual crimes
- Efficiency?

Past & current drivers of DNA policy

Migration debate

- Debate on FDP embedded in and driven by migration debate
- Murder of Maria L. in Freiburg 2016
- Flyer of a right winged sect
- Media: political correctness and outdated legislation inhibits powerful DNA tool
- Reinforced by statements of scientists and police
- Murderer was found: Afghan refugee, prompted legislative plans

Security for whom?

Current debate as intersection of sexism and racism

- Policy change built on existing public fears of threats to white German women by unknown male migrants
- Debate parallels dynamics of the “Kölner Silvesternacht” 2015
 - Reports of sexual assaults as turning point of the discussion on migration
 - Long overdue change in legislation on sex offences
 - change in German asylum law
 - Increased risk for female migrants if right to stay is connected to abuser

Security for whom?

Increased risks for migrants & people of color

- racist stereotypes amplified and reinforced by debate
- Effects of genetic racial profiling
- Marginalization by reinforcement of beliefs in biological “truths” of differences and categories inscribed into our DNA