

FOR YOUR information

Behavioural genetics and law

SHEIKH HAFIZUR RAHMAN KARZON

INQUISITIVENESS of human being to know the mysteries of human physiology has led to the tremendous development of genetic science. Scientists predict that 21st century will be the century of biological science. The outcome of Human Genome Project has largely uncovered the mysteries of our genetic code providing remarkable new insight into the unique human characteristics, which operates at the molecular level. Discoveries in genetics will touch every sphere of human life. New discoveries will impact legal doctrines related to privacy, free will, responsibility, autonomy, non-discrimination and societal opportunities. Judges, lawyers, legislators, researchers, human rights activists -- all the people of different countries related to law and associated with justice system should be ready to encounter the future challenges ensuing from genetic development. Ongoing research on genetics and its findings brought many questions before us, in particular it has major bearing on criminal behaviour and criminal justice system. How will law respond to new discoveries in genetics? To what extent the relation between genetics and behaviour affect legal doctrines related to privacy, autonomy, non-discrimination and societal opportunities? What will happen to the concepts of individual responsibility and free will? If any individual commits crime due to genetically inherited traits, how his/her responsibility will be determined? How she/he will be punished? Should s/he be punished or should they be treated like insane persons without having any criminal responsibility?

Scientific and popular focus on genes and behaviour are increasing which have ignited the resurgence of behavioural genetic determinism. The core concept of genetic determinism is that it is the major determining factor of human behaviour. This has grave social, legal and ethical consequences. Mark A. Rothstein, Professor and Director of the Health Law and Policy Institute at the University of Houston Law Centre, has discussed the effects of genetics on many areas of law, including employment, insurance, commercial transactions, civil litigation and privacy. He has discussed five general principles of law that help frame the issues of behavioural genetics and law.

Unitary Standard of Legal Duty

The lawfulness of an individual's conduct is determined with reference to the standard behaviour of a reasonable person both in civil and criminal cases. The activities of plaintiff and defendant are evaluated in terms of whether that conforms to the standard of a reasonably prudent person under similar circumstances. Whether a person of average rationality could have done the same thing that is testified with the help of unitary 'reasonable person' standard. Originally it was 'reasonable man' standard and it was first applied to negligence law in England in the middle of the nineteenth century. Very soon the legal system of United States adopted the concept. The gender-neutral "reasonable person" came into use by the beginning of the twentieth century. In reasonable person standard the required conduct of the individual and the outcomes of cases are more predictable. This unitary and objective standard allows individuals to have reasonable expectations of the behaviour of others.

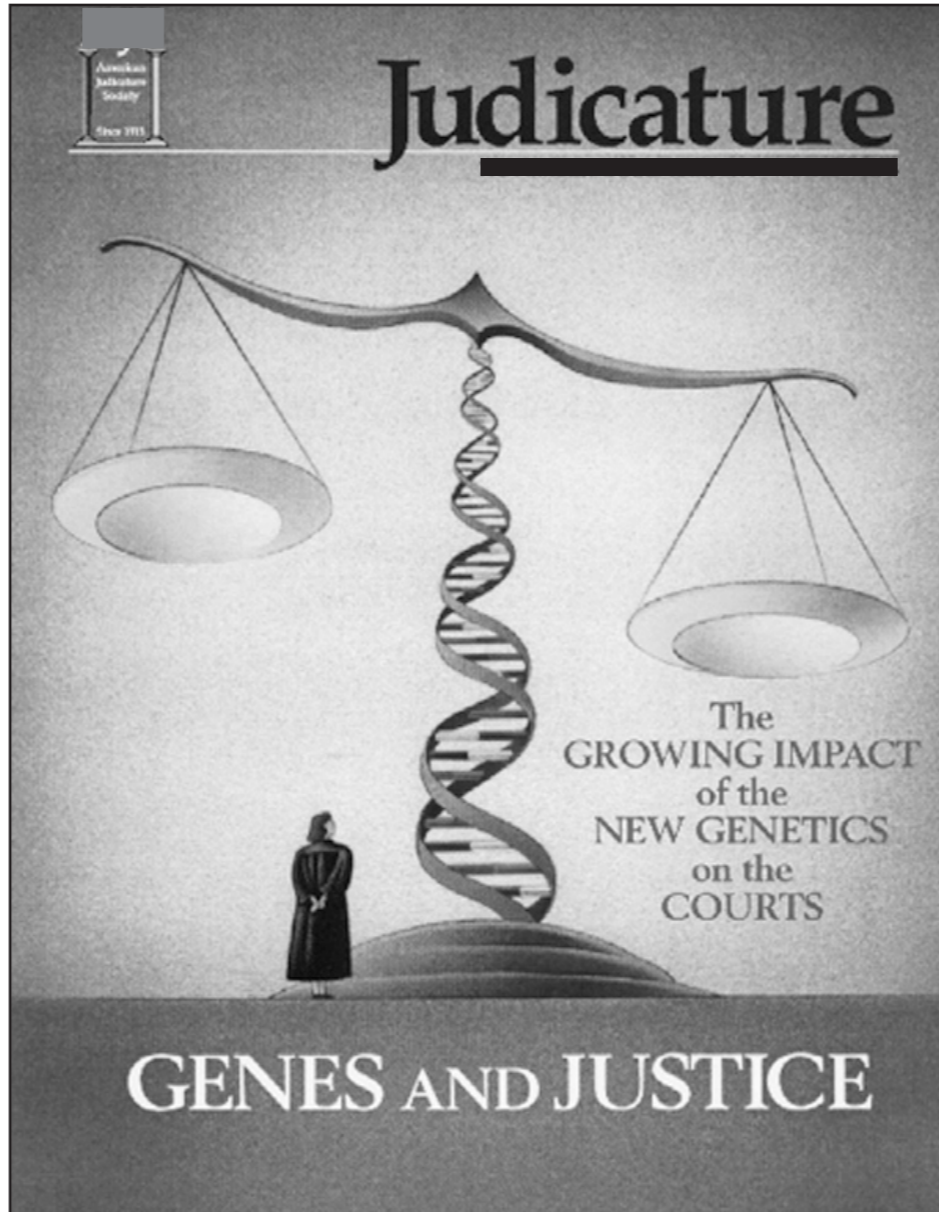
In criminal law criminal negligence is defined with reference to a reasonable person.

A murder may be committed in a moment of passion. Reasonable person standard, then, will be applied to determine whether a moment of passion can cause a murder. If so, the charge of murder is reduced to voluntary manslaughter.

The precise cognitive, physical, or behavioural abilities of the individuals in any given legal proceeding is impossible to determine. It is inherent in the application of the reasonable person standard. In spite of this established legal principle, if precise evaluation of individual's characteristics were possible. If in a civil or criminal proceeding an expert witness on behavioural genetics were prepared to testify about inherent capability of a specific individual. Would this matter? Should it? According to Dan Brock, a philosopher, "If a person's genetic structure is a principal cause of behaviour and that genetic structure is completely beyond the individual's control, can an individual justifiably be held responsible for the resultant behaviour?" A significant change in the law's view of the bounds of individual conduct would be made, if the unitary standard were replaced with a more subjective standard.

Impact of behavioural genetics on adversary system

Adversary system is characterised by partisan



presentation of the evidence, a passive judge, a neutral jury and a structured trial format. Under this system the truth is not determined by the lawyers, but by the judge or jury. Lawyers' role is to be zealous advocacy on behalf of their clients. Presentation of exact evidence and cross-examination of witnesses

finally uncover the truth. The advocates of both sides put forward all possible arguments on behalf of their clients. Professional ethics require the lawyers to be zealous advocates. Lawyer is not there to promote the cause of the client, s/he should utilise the legal procedure for the fullest benefit of the client. Lawyers are

expected to give every possible argument, no matter how weak it may be, in favour of their client, particularly in criminal cases. Defendants are given even wider leeway in submitting mitigating evidence during sentencing phase of a criminal case. "Zealous advocacy" principle in criminal cases put forward innovative scientific assertions. In 12 US cases mothers were accused of murdering their infants and post-partum psychosis was argued as defence. The women received light sentences or were found not guilty because of insanity in most of the cases, although it is not clear what weight, if any, was given to the defence. Post traumatic stress syndrome and premenstrual syndrome were also argued as defence. Sometimes in some notorious killings because of innovative scientific assertions the convicted got lesser sentence which raised severe criticism.

In civil cases, such as personal injury litigation, plaintiffs encounter difficult time as they cannot prove whether the injury was caused by the unlawful act of the defendant. Because of innovative scientific discoveries "junk science" or "liability science" has emerged. Scientific experts have pushed the frontiers of scientific thinking in favour of defendants. They assert, for instance, that a particular environmental exposure, pharmaceutical product, or medical device resulted in a particular injury to the plaintiff. "Because of the adversary system, it is virtually certain that parties in both criminal and civil cases will assert behavioural genetic arguments well before there is general support for such views in the scientific community. These arguments are particularly appealing in criminal cases because they can be used to prove that defendant was compelled to commit the act by uncontrollable genetic factors."

Challenges for the Judges

Adversary system encourages lawyer's zealous advocacy, which further encourages the lawyers to utilise unproven scientific theories in their clients' favour. The next important question is how will judges [and juries] consider this evidence. From the available data it is clear that both judges [and juries] are ill-prepared to evaluate the validity of novel scientific assertions. And the juries have a tendency to give much credence to arguments based on novel scientific discoveries. Regarding scientific evidence the initial problem is faced by the lawyers as they

have to persuade the court to view the evidence as admissible. This question was once settled in US in 1923 in Frye v. United States. In this influential case the court held that scientific evidence is admissible if it is generally accepted as valid by the scientific community. The Frye-test lasted for 70 years, until it was replaced in 1993 by a Supreme Court decision in Daubert v. Merrell Dow Pharmaceuticals, Inc. The court held that Frye principle was inconsistent with Federal Rules of Evidence. Under the Federal Rules, judges cannot defer to the scientific community's acceptance of the evidence in question. To determine the reliability and probative value of the evidence judges are needed to make an independent judgement. Judges must determine "whether the reasoning or methodology underlying the testimony is scientifically valid." This is composed of four factors: (1) whether the theory or techniques can be or have been tested; (2) the extent to which there has been peer review and publication of the theory or techniques; (3) the known or potential error rate and the existence and maintenance of standards controlling the technique's operation; and (4) the general acceptance of the methodology or technique in the scientific community."

In spite of disagreement among judges and scholars, Daubert principle, at least in theory, made it easier to get scientific evidence admissible into court. But for trial court judges undoubtedly Daubert made things more difficult. State and federal court administrators have started programmes of scientific education and publication of manuals on scientific evidence to increase the scientific acumen of judges.

Lawyers under the adversary system require to introduce insufficiently tested scientific evidence. Judges, who do not have scientific expertise, must decide whether methodology and theories have a valid scientific basis. Courts are increasingly admitting novel scientific evidence and juries often give great credence to scientific evidence. Behavioural genetic information certainly fit this pattern

Concluding part of the story will be published on the issue of December 31, 2005.

The author is Assistant Professor, Department of Law, University of Dhaka.

HUMAN RIGHTS advocacy



Abused and neglected, millions of children have become virtually invisible

HUNDREDS of millions of children are suffering from severe exploitation and discrimination and have become virtually invisible to the world, UNICEF said in a major report that explores the causes of exclusion and the abuses children experience. The agency said that millions of children disappear from view when trafficked or forced to work in domestic servitude. Other children, such as street children, live in plain sight but are excluded from fundamental services and protections. Not only do these children endure abuse, most are shut out from school, healthcare and other vital services they need to grow and thrive.

The State of the World's Children 2006

Excluded and Invisible is a sweeping assessment of the world's most vulnerable children, whose rights to a safe and healthy childhood are exceptionally difficult to protect. These children are growing up beyond the reach of development campaigns and are often invisible in everything from public debate and legislation, to statistics and news stories.

Without focused attention, millions of children will remain trapped and forgotten in childhoods of neglect and abuse, with devastating consequences for their long-term well-being and the development of nations. The report argues that any society with an interest in the welfare of its children and its own future must not allow this to happen.

Meeting the Millennium Development Goals depends on reaching vulnerable children throughout the developing world" said UNICEF Executive Director Ann M. Veneman, launching the report in London. "There cannot be lasting progress if we continue to overlook the children most in need - the poorest and most vulnerable, the

exploited and the abused."

Why children become invisible

In the past, UNICEF has reported extensively on how poverty, HIV/AIDS and armed conflict are undermining childhood itself. Excluded and Invisible details how these factors, as well as weak governance and discrimination, deprive children of protection from abuse and exploitation, and exclude them from school, healthcare and other essential services at alarming rates.

The report finds that children who lack vital services are more vulnerable to exploitation because they have less information on how to protect themselves, and fewer economic alternatives. Children who are caught in armed conflict, for example, are routinely subjected to rape and other forms of sexual violence. It is these children alone and defenseless who are being ignored.

The report argues that children in four circumstances are most likely to become invisible and forgotten:

Children without a formal identity

Every year, over half of all births in the developing world (excluding China) go unregistered, denying more than 50 million children a basic birthright: recognition as a citizen. Children who are not registered at birth do not appear in official statistics and are not acknowledged as members of their society. Without a registered identity, children are not guaranteed an education, good healthcare, and other basic services that impact their childhood and future. For example, unregistered children are denied a place in school when birth certificates are required to gain access. Simply put, children who do not have a formal identity are not counted, and they are not taken into account.

Children without parental care



Millions of orphans, street children, and children in detention are growing up without the loving care and protection of their parents or a family environment. Children caught in these circumstances are often not treated as children at all.

An estimated 143 million children in the developing world - 1 in every 13 children - have suffered the death of at least one parent. For children in deep poverty the loss of even one parent, especially a mother, can take a lasting toll on their health, and education.

Globally, tens of millions of children spend a large portion of their lives on the streets, where they are exposed to all forms of abuse and exploitation. More than 1 million children live in

detention, the vast majority awaiting trial for minor offences. Many of these children suffer gross neglect, violence, and trauma.

Children in adult roles

The report argues that children who are forced into adult roles too early miss crucial stages of childhood development. Hundreds of thousands of children are caught up in armed conflict as combatants, messengers, porters, cooks, and sex slaves for armed groups. In many cases they have been forcibly abducted. In spite of laws against early marriage in many countries, over 80 million girls across the developing world will be married before they turn 18 many far younger. An estimated 171 million children are working

in hazardous conditions and with dangerous machinery, including in factories, mines and agriculture.

Children who are exploited

Shut away by their abusers and held back from school and essential services, children who are the victims of exploitation are arguably among the most invisible. Their lives and numbers are virtually impossible to track. Some 8.4 million children work in the worst forms of child labour, including prostitution and debt bondage, where children are exploited in slave-like conditions to pay off a debt. Nearly 2 million children are used in the commercial sex trade, where they routinely face sexual and physical violence.

Every year, it is estimated that millions of children are trafficked into underground and illegal worlds where they are forced into dangerous and degrading forms of work, including prostitution.

A vast but unknown number of children are exploited as domestic servants in private homes. Many are banned entirely from going to school, suffer physical abuse and are underfed or overworked.

The report also asserts that children who live in 'fragile states' countries that are unable or unwilling to provide basic services for their children are virtually invisible. Discrimination on the basis of gender, ethnicity or disability also factors into the exclusion of children. For example, discrimination shuts millions of girls out of school and blocks critical services for children from ethnic minorities and indigenous groups. An estimated 150 million children live with disabilities globally, many without opportunities for education, healthcare, and nurturing support because of routine discrimination.

Meeting our commitments to children

The State of the World's Children argues that the world must go beyond current development efforts to ensure that the most vulnerable children are not left behind.

Governments bear primary responsibility for reaching out to these children, and must step up their efforts in four key areas: Research, monitoring and reporting; Systems to record and report on the nature and extent of abuses against children; and essential to reaching excluded and invisible children.

Legislation: National laws must match international commitments to children, and legislation that fosters discrimination must be changed or abolished. Laws to prosecute those who harm children must be consistently enforced. For example, weak law enforcement perpetuates the

climate of impunity that surrounds the rape of children.

Financing and capacity-building: Child-focused budgets and the strengthening of institutions that serve children must complement laws and research.

Programmes: Reform is urgently required in many countries and communities to remove entry barriers for children who are excluded from essential services, for example, eliminating the requirement of a birth certificate to attend school.

The report also outlines concrete actions that can be taken by civil society, the private sector, donors and the media to help prevent children from falling between the cracks. These and other efforts by people and organizations at all levels of society help to build a protective environment for children one that protects children from abuse in the same way that immunisation and adequate nutrition protect them from disease.

Governments, families and communities must do more to prevent abuse and exploitation from happening in the first place and to protect children who fall victim to abuse.

Laws that hold perpetrators of crimes against children accountable must be implemented and vigorously enforced; attitudes, traditions and practices that are harmful to children must be challenged; and children themselves must get the information and life skills they need to protect themselves.

"Those who harm children rob them of opportunities to grow up safe, healthy and with dignity," Veneman said. "To ensure that children are protected, the abuse and exploitation of children must be brought to light and those who violate children brought to justice."

Source: UNICEF.