The Inclination to Evil and the Punishment of Crime – from the Bible to Behavioral Genetics

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ABSTRACT
The evolving field of behavioral genetics is gradually elucidating the complex interplay between genes and environment. Scientific data pertaining to the behavioral genetics of violent behavior provides a new context for an old dilemma regarding criminal responsibility and punishment: if the inclination to violent behavior is inherent in someone’s nature, how should it affect punishment for crime? Should it be considered as a mitigating or an aggravating factor? Given psychiatrists’ increasing involvement in providing testimony on behavioral genetics in the criminal justice system, this paper first provides the necessary background required for understanding how this question arises and reviews the relevant literature. Then, we address this question from the perspective of the Bible and its commentators, in the belief that their insights may enrich the contemporary discussion of this question.

INTRODUCTION
Genes play a major role in the development of both our bodies and our minds. The evolving field of behavioral genetics is gradually elucidating the complex interplay between genes and environment that contributes to the behavioral differences between individuals (1). One area of behavioral genetics that has attracted a great deal of attention is the exploration of the roots of violent behavior (2-4). Researchers hope someday to have the ability to detect accurately persons at high risk of violence and to develop effective “anti-violence” interventions for use with this population.

Although such innovative technologies appear to be beyond our reach today, the societal implications of behavioral genetics research may require our consideration much sooner than might be thought. In fact, behavioral genetics may be the next frontier for the world of criminal justice. The scientific data that suggest that the inclination to evil may be embedded – at least in part – in our genes provide a new context for an old ethical and legal question regarding criminal responsibility and punishment: if the inclination to violent behavior is inherent in someone’s nature, how should it affect punishment for crime? Should it be considered a mitigating factor that lessens the degree of punishment, or should it serve as an aggravating factor justifying a more severe sanction?

In this article we address this question from a biblical perspective, relying primarily but not exclusively on the classical rabbinic commentators. We suggest that although the context of behavioral genetics is relatively new, the question pertaining to the relationship between the inclination to evil and the punishment of crime is not. The issue is addressed in the Old Testament and discussed by its commentators; their insights may enrich the contemporary discussion of this question.

THE GENETIC CONTRIBUTION TO VIOLENT BEHAVIOR
The possibility that hereditary factors play a causal role in the genesis of criminal behavior was raised during the efflorescence of interest in genetics and heredity in the
late 19th century. Francis Galton, who dedicated much of his extensive corpus of work to issues of heredity (3), noted, “The perpetuation of the criminal class by heredity is a question difficult to grapple with on many accounts. Their vagrant habits, their illegitimate unions, and extreme untruthfulness, are among the difficulties of the investigation. It is, however, easy to show that the criminal nature tends to be inherited” (5). In 1876, Italian psychologist and physician Cesare Lombroso argued in his essay The Criminal Man that criminality is inborn, not acquired from the environment and therefore could be identified by characteristic physical traits (6, 7). Several scientifically oriented articles began to appear in the following years (8), but the empirical basis for such conclusions remained weak. In the 1960s and 1970s men who carried an extra Y chromosome – the so-called XYY syndrome – were thought to be at increased risk of violence, a subsequently disproven contention (9).

A different and more promising connection between genetic predispositions and violent crime was reported in 1993. Brunner et al. described the case of a Dutch kindred, in which several males exhibited borderline mental retardation and “abnormal behavior, including disturbed regulation of impulsive aggression” (10). They were found to have a complete absence of activity of the enzyme monoamine oxidase A (MAOA), which metabolizes several key monoamine neurotransmitters. Genetic analysis revealed that the affected men carried a mutation on their X chromosome in the gene that codes for MAOA that rendered the enzyme inactive. The authors suggested that genetic defects in neurotransmitter metabolism may affect aggressive behavior.

In 2002, another paper was published that extended the scope of the MAOA findings (11). Although complete absence of MAOA activity is extremely rare, a group of researchers postulated that reductions in activity, known to be related to mutations in the promoter region of the MAOA gene, might also increase the risk of violent and other antisocial behaviors, especially when paired with adverse environmental circumstances. Thus, as part of a major longitudinal study of a birth cohort of 1,037 children in Dunedin, New Zealand (reporting data from the most recent follow-up interviews at age 26), the researchers examined 442 males in the group for differences in the promoter region of the gene.

Exploring the interactions of the participants’ genetic endowments with their environmental circumstances, the researchers looked at the impact of maltreatment between the ages of three and 11 on later antisocial pro-
levels and intensity of aggression in response to provocation as compared to high MAO-A activity subjects. None of these mechanistic studies took into account the potential effects of environmental influences on the development of aggressive behavior, a methodological limitation that needs to be addressed in future work (6).

In spite of the ongoing uncertainty regarding the exact role of monoamines and their genetic underpinnings in aggressive and antisocial behavior (19), and the controversy regarding the current applicability of this knowledge to determinations made by the courts (20), it seems likely that with continued advances in behavioral genetics, if we cannot already do it, we will at some point be able to identify genes that, combined with environmental stimuli, predispose persons to increased rates of criminality (21). These anticipated findings will pose a challenge for the criminal justice system with regard to their implications for determining criminal culpability and punishment.

In legal systems in which some mental disorders negate culpability, commentators are already beginning to ask why genetic determinants such as low MAO-A activity should not have the same effect (20, 21). A recent review of the role of MAO-A in aggressive behavior highlighted two cases in which MAO-A levels were introduced as evidence in court and appeared to influence the verdict in favor of the defendants (6). In a case from the U.S., the defendant was charged with murder (a capital offense) of his estranged wife's friend, attempted murder of his wife, and two counts of kidnapping. The defense argued that he was both abused as a child and possessed the low activity MAO-A variant. Based on this evidence, among other considerations, the defendant was found guilty of voluntary manslaughter instead of murder. Nevertheless, he was sentenced to 32 years in prison (22). An Italian case involved a defendant who had been assaulted by a group of youths and bought a knife as a result. Spotting someone whom he thought had been one of his assailants, he followed his victim down the street and stabbed him to death. Although the defendant may have been delusional at the time of the crime, the judge deemed the evidence not strong enough to support an insanity defense. However, an Italian appeals court reduced the defendant's sentence from 9 to 8 years, on the grounds that he tested positive for a low activity variant of MAO-A, which made him genetically predisposed towards violence (23). In both cases, it is hard to estimate the exact contribution of the genetic evidence to the final legal outcome. That being said, it is remarkable that in spite of the primordial phase of scientific knowledge regarding the significance of low MAO-A activity’s impact on violent behavior, some courts have accepted such evidence and adjusted their verdicts and sentences accordingly. The difficulty linking genetic predispositions to the commission of particular criminal acts may make it difficult to demonstrate the prerequisites for a finding of non-responsibility. Thus, it seems more likely that the initial dilemmas faced by the criminal justice system in light of behavioral genetics findings will relate to sentencing rather than to excusal (21), as already appears to be the case. Indeed, an examination of the early use of behavioral genetics in court reveals that “the majority of criminal defendants to have introduced expert testimony regarding their behavioural predisposition in U.S. criminal cases have done so in an attempt to mitigate their sentence, rather than to excuse or justify criminal conduct”. Although it is clear that such evidence can have a mitigating effect (witness the Italian case noted above), it can resemble the proverbial double-edged sword. As one U.S. appellate court noted in rejecting a prisoner’s appeal from a murder conviction on the grounds that he had not had the chance to introduce evidence of his MAO-A status:

“[We find it] highly doubtful that the sentencing court would have been moved by information that Landrigan was a remorseless, violent killer because he was genetically programmed to be violent...Although Landrigan's new evidence can be called mitigating in some slight sense, it would also have shown the court that it could anticipate that he would continue to be violent...On this record, assuring the court that genetics made him the way he is could not have been very helpful.” (Landrigan v. Stewart, 272 F.3d 1221 (9th Cir. 2001))

From a theoretical as well as practical perspective, therefore, the impact that behavioral genetic data should have on punishment remains in question.

**PHILOSOPHICAL CONSIDERATIONS**

Two contrasting approaches to criminal sentencing exist in tension with each other. The retributive approach ascribes the degree of culpability and hence the extent of just punishment retrospectively. Retributivists look back at the criminal act and base their determination of appropriate sanctions on the nature of the mens rea, i.e., guilty mind, involved in the offence. When determining punishment, the retributive approach asks what kind of punishment the offender deserves, based on the extent
of the person’s responsibility for his or her actions. As a result, proponents of the retributive approach may be reluctant to find a person fully blameworthy for an action that evolved, at least in part, from powers that were beyond his or her control (e.g., due to low MAOA activity). Hence, since one cannot be blamed for having genes that, combined with early life experiences, contribute to some degree to criminal behavior, it would be unjustified to punish an offender as severely as in a case in which someone has full control over his actions. On the other hand, the utilitarian approach to sentencing is forward-looking, focusing on which punishment will be most effective in terms of preventing future crimes. For the utilitarian, the aspiration to protect society from a potentially dangerous criminal seems to be more important than the meticulous retributive effort to find the perfectly justified degree of retaliation for past criminal action. Thus, if a defendant is found to have an innate propensity to criminal behavior, whether genetic or otherwise, and there is no effective treatment for that condition, it might be reasonable from a utilitarian point of view to increase his or her sentence.

In practice, however, sentencing may rely more on different moral intuitions than reflective moral arguments. According to some scholars, real-life moral judgments are made intuitively and spontaneously according to what “feels right” (24). For example, the culpable control model posits that “relatively unconscious, spontaneous evaluations… [which] are affective reactions to the harmful event and the people involved” drive judgments of blame (25, p. 558). Under this view, in which reason is subordinate to emotion, either retributive or utilitarian rational justifications are a posteriori phenomena, functioning only as intellectual defenses for a priori, intuitive moral decisions.

Indeed, ample research suggests that people tend to have intuitive “biases” when making moral and legal decisions regarding criminal culpability (26). Factors such as offenders’ personality traits affect people’s legal intuitions regarding legal responsibility (27), and given the known positive correlations between perceived freedom and aggressiveness and attributions of responsibility and punishment of offenders (28), it is reasonable to assume that genetic information would have a similar effect on sentencing judges’ moral and legal intuitions.

The primacy of intuitive responses in moral decision making makes sense from a phylogenetic perspective. During the development of the human species, it seems probable that our distant ancestors based their “moral” decisions on their pro-social intuitions prior to being able to offer rational justifications for their choices. As Rousseau suggested, “Men would have never been better than monsters, had not nature bestowed on them a sense of compassion, to aid their reason… what is generosity, clemency or humanity but compassion applied to the weak, to the guilty, or to mankind in general?… It is this compassion that hurries us without reflection to the relief of those who are in distress…” (29). Contemporary scholars have proposed modern, empirically based versions of Rousseau’s theory, according to which our tendency to make moral judgments is innate, having evolved out of “pro-social” emotions (30). Based on these theories, it might be reasonable to assume that only as humankind’s cognitive capacities developed and language became established did reflective conceptualizations of morality and rational justifications of moral decisions appear.

### A BIBLICAL PERSPECTIVE

One of the earliest systematized moral codes can be found in the Old Testament. The Hebrew Bible’s moral philosophy cannot be reduced to a single moral theory as, for example, both deontological and utilitarian voices can be found in it (32). Similarly, since the Bible presents various justifications for punishment (such as deterrence, revenge, rehabilitation, etc.) in different cases, it would be inaccurate to ascribe to its authors a univocal theory of punishment. In fact, the multidimensional character of the Bible with regard to morality has preserved its capacity to serve as an inspirational source of reference for proponents of a range of moral views.

The contradictory nature of the Bible with regard to moral questions can be exemplified by the examination of two early biblical references to the dilemma at hand, namely whether an innate propensity to misbehavior should be considered as a mitigating or aggravating factor. A thorough exploration of the biblical approach to this dilemma is beyond the scope of this paper, therefore our inquiry will be limited to the example offered by two references pertinent to this question at the beginning of the book of Genesis.

The context in which the Bible refers to the question of the propensity to evil and punishment is woven in the story about Noah. After the Flood, the Bible suggests God’s less-than-favorable opinion regarding human nature: “the imagination of man’s heart is evil from his youth” (Genesis 8:21). The Bible ascribes to God the
Finally, it is important to note that the biblical notion of human nature as inherently evil is not a new concept. It has been a recurring theme in Western thought, from ancient Greek philosophers to modern psychologists. For example, the Greek philosopher Plato argued that the soul of a newborn child is pure and uncorrupted, but it is corrupted by the physical body and the environment. Similarly, the Jewish philosopher Maimonides argued that the soul of a newborn child is pure and uncorrupted, but it is corrupted by the physical body and the environment.

In conclusion, the biblical notion of human nature as inherently evil is a recurring theme in Western thought, and it has been a source of controversy and debate for centuries. While some scholars argue that the notion of innate evil is a useful tool for understanding human behavior, others argue that it is a flawed and inaccurate concept. Regardless of one's views on this issue, it is clear that the idea of human nature as inherently evil has had a significant impact on Western thought and continues to be a topic of discussion today.
tion and here (Genesis 8:21) he considered man’s impetus to evil as a justification for not cursing the ground. How can the same claim serve as a justification for two contradictory conclusions?”

Several answers have been suggested by the classical biblical commentators. One suggestion – consisting of only two-words - is highly relevant to our discussion. Rabbi Sa’adia Gaon (10th century) proposed that the interpretation of the word *kee* should be “*even though*” rather than “because”. The modification in the interpretation of this one word changes significantly the relationship between the inclination to evil and punishment. Instead of understanding the disposition to evil as a justification for a reduction in the severity of punishment, according to the alternate interpretation the inclination to evil should serve as an aggravating factor. There is no contradiction, according to this interpretation, between the two texts referring to God’s different mindsets. When God’s contemplates the *future* of humanity – a perspective that is characteristic of the utilitarian approach – it seems futile to demonstrate clemency. What is the benefit of mitigation if the defendant will commit the same crime in the future? It is only due to God’s mercy – not necessarily supported by a rational argument – that human beings would not be punished again with the severity of the flood.

Since the Bible was originally written in Hebrew, and translation is a hermeneutic task, it is not surprising to find that different translators hold different views pertaining to the translation of the Hebrew word *kee* (*כָּא*), and consequently offer varying perspectives regarding the relationship between the inclination to evil and its impact on punishment. According to the King James Version, the translation of the key phrase is:

…the LORD said in his heart, I will not again curse the ground any more for man’s sake; for the imagination of man’s heart is evil from his youth; neither will I again smite any more everything living, as I have done (36).

Here, in accordance with the mitigating approach, the notion that “man’s heart is evil from his youth” leads to a reduction in punishment.

On the other hand, according to the New International Version, the biblical phrase is translated as follows:

The LORD… said in his heart: “Never again will I curse the ground because of man, *even though* every inclination of his heart is evil from childhood. And never again will I destroy all living creatures, as I have done (37).

In this version, similar to Rabbi Sa’adia Gaon’s interpretation, in principle the human inclination to evil calls for an aggravating approach. However, in spite of that legitimate demand, God chooses to embrace mercy and declares that he will never again inflict a punishment as grave as the flood, no matter how sinful humans may be.

### CONCLUSIONS

We are confronting an era in which ethical and legal dilemmas inevitably will arise in parallel with the growth in our knowledge of the genetic bases of behavior. However, with regard to the impact of behavioral genetic data on criminal punishment, the core considerations are not entirely new. Whether one views genetically based propensities as mitigating or aggravating may reflect two contrasting moral intuitions regarding human misconduct. One approach is more lenient and inclines to clemency, while the other is stricter and more punitive. These two different human core dispositions likely reflect intuitive judgments, prior to reflection and apart from any intellectual justification.

The presence of these opposing perspectives is evident in the very first chapters of the Bible, where they are presented without justification as representations of the state of mind, so to speak, of God on different occasions. Each perspective was further elaborated by biblical commentators and translators over the ages. Nevertheless, even the advocates of a mitigating approach do not argue that the inclination to evil is powerful enough to totally exculpate a person from punishment.

What can be learned from the Bible's framing of the dilemma as a universal problem, pertinent to all human beings and not necessarily limited to a particular high-risk group? In addition, what could be the meaning of God Himself maintaining two contradictory opinions concerning the subject on different occasions? Perhaps the text means to convey the following message: making an accurate and fair moral judgment of others’ bad behavior is a complicated task. Nevertheless, as human beings we are constantly and intuitively engaging in moral judgments of this sort. Questions regarding the influence of the inclination to misconduct on punishment are not limited to the courts but are ubiquitous and pertinent to our everyday judgments. For example, a parent or teacher may address the same misbehavior differently when it comes from a child whose temperament is explosive and whose behavior seems uncontrollable in comparison with a child whose actions appear more deliberate. Indeed, according to a well-known American proverb (ascribed to Oliver Wendell Holmes,
Sr.), “Even a dog knows the difference between being kicked and stumbled over.”

However, there are situations in which the decision regarding the relationship between the inclination to evil and punishment is much more complex, demanding, and far-reaching. That happens when human beings are required to determine the future of another human being who has committed an offence, weighing the extent of the punishment that is called for, possibly even condemning the person to death. In such complicated cases, if as the Bible suggests, God Himself appears to vacillate between the two alternatives – it is not surprising that human beings have such a difficult time with these judgments. But perhaps bearing in mind God’s “inconsistency” concerning this subject matter reminds us that each case has its own special characteristics. Indeed, every individual is unique in terms of the interactions between his or her genes and the environment. Therefore, decisions should be made on an individualized basis and flexibility – as a cognitive capacity – must be a key component in our moral and legal decision making.

References