

# **RESEARCH ARTICLE**

### GENETIC TENDENCY AND PENALTY APPLICATIONS.

#### Seda Ugras, Ceyda Ergil and Emel Hulya Yukseloglu.

University of Istanbul.

 Manuscript Info
 Abstract

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 MAOA-uVNTR polymorphism is thought to be associated with

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*Key words:*crime tendency, monoaminoxidase, penalty reduction. MAOA-uVNTR polymorphism is thought to be associated with childhood sexual and physical abuse and impulsivity in men. This polymorphism has been shown to be associated with low CSF 5-HIAA levels, bipolar disorder, major depression, alcoholism, impulsivity, and anti-social personality traits. In the studies conducted in the following years, the gene called monoaminoxidase (MAOA), which is widely known as a crime, is less secreted than necessary, and when maltreatment in childhood is combined, people with this gene show aggressive behavior at an older age. Furthermore, after detecting the presence of this gene in people who have antisocial characteristics at an early age, these persons can be rehabilitated at appropriate centers and preventive activities can be carried out for community rest.

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#### Introduction:-

Modern research on the genetic origin of violence began in 1978, thanks to a woman who applied to the University Hospital of Nijmegen in the Netherlands. The woman suspected that the men in her family had the same mental illness and came to the hospital to ask for help. Two of them arson, one tried to rape his own sister, another tried to kill his boss by car. Another one forced his own sister to undress by pulling a knife. Indeed, in 1962, with the family tree showing the violent offenses detailed by a disturbed family member, it turns out that this brutal violence was based on the 1870s (Goleman, 2012).

Almost a decade after she appeared in the hospital, eventually found what was wrong. A mutation has occurred on chromosome x of these men with a violent temper, which has been shown to damage the MAOA gene. Because the gene is in the X chromosome, men with only one X chromosome are more afflicted than women with two X's. Because the second X with normal functions in women can compensate for the problem. However, the woman is able to pass on this odd her son (Goleman, 2002).

The task of the MAOA enzyme is to reduce its activity by breaking down brain secretions that occur in response states such as aggression (Brunner, Nelen, Ropers & Van Oost, 1993).

The monoaminoxidase enzyme oxidizes monoamines, disrupting amine neurotransmitters such as dopamine, norepinephrine and serotonin. This protein is found in the outer membrane of the mitochondria. It is synthesized by the monoaminoxidase, or MAOA gene. It has been suggested that a change in the gene region encoding the enzyme Monoamine Oxidase (MAO) leads to violent behavior and crime. More aggressive and impulsive crime attempts in men are thought to be secondary to the MAO polymorphism. Various polymorphisms belonging to this enzyme have been described; The most common of which is the MAOA-uVNTR polymorphism. MAOA-uVNTR polymorphism

is thought to be associated with childhood sexual and physical abuse and impulsivity in men. This polymorphism has been shown to be associated with low CSF 5-HIAA levels, bipolar disorder, major depression, alcoholism, impulsivity, and anti-social personality traits (Yirmiya, Pilowsky, Tidhar, Nemanov, Altmark&Ebstein, 2002). In the studies conducted in the following years, the gene called monoaminoxidase (MAOA), which is widely known as a crime, is less secreted than necessary, and when maltreatment in childhood is combined, people with this gene show aggressive behavior at an older age (Byrd &Manuck, 2014).

## **Discussion:-**

The first use of the MAOA enzyme in a court was with "Domino's Pizza Murder". On February 7, 1991, the 25year-old Stephen Mobley took the money in the pizzeria and killed the shopkeeper. Three weeks later, he was arrested while attempting to rope a dry cleaner with the same gun. While approaching the decision stage, the lawyer wanted to be able to convert the sentence to at least life imprisonment instead of the death penalty he thought he was supposed to give, and he wanted everyone in Mobley's family to be a history of violence and to be examined genetically (Farahany, 2009).

In another case, the accused was luckier than Mobley. When Bradley Waldroup took a 22-caliber hunting rifle and landed on a large agricultural vehicle, it was a fall 2006 night in Tennessee's south-east. His divorced wife and a friend of her, Leslie Bradshaw, have just arrived to leave four of Waldroup's children home. Waldroup began to argue with an ex-wife and her friend. He acted in his gun and shot Bradshaw with eight guns. Then he used a knife to cut his head off and opened it. Then he started chasing his ex-wife with a knife and a big pal. He dragged a toe with his knife to his car's trailer. He said to his disheartened children, "Come and say goodbye to your mother," because it was the last time they would see their mother. Miraclly, the woman, managed to escape the man's hand (Baum, 2013).

Three years later, Waldroup confessed everything in court. He said to judge, he exploded with anger and was not proud of what he did (Court, 2011). Waldroup, convicted of murder, faced to face the death penalty. A group of lawyers who have been involved in legal affairs have come up with an unused, unusual approach to saving his life. They sent blood samples from Waldroup to the molecular genetic laboratoIndeed, a genetic difference was found in Waldroup's X chromosome.ries of Vanderbilt University in Nashville, and they wanted a specific gene to be looked at. A change that encodes the enzyme monoamine oxidase-A (MAOA) (Baum, 2013).

According to the report, a person with a "genetic map disorder" who carry crime gene in Italy has received a penalty for his murder. The man who killed one person has a mental health report. For this reason, a penalty reduction has been applied. The lawyer who defends the man, "My client's genes are distorted, we made this determination," he also asked for discount. The man really has the MAOA gene. So the court reduced the man's punishment by one year. As a result, the total punishment was reduced from 9 years to 6 years (Feresin, Hand, Kaplan, Sanderson, &Brumfiel, 2009).

AbdelmalekBayout, an Algerian citizen who has been living in Italy since 1993, accepted on March 10, 2007, that he killed Walter Felipe Novoa Perez by stabbing. Perez, a Colombian living in Italy, insulted his eye makeup, which was unique to Algeria according to Bayout's expression. Bayout, a Muslim, stated that he made this make-up for religious reasons. During the case, Bayout's lawyer, Tania Cattarossi, asked the court to consider that his client might be mentally ill during the murder and presented a report to the court verifying that his client has MAO-A gene. After evaluating the report, the judge Paolo AlessioVerni decided in part that Bayout's psychiatric illness was a mitigating factor and punished to 9 years and 2 months' imprisonment (Forzano, Borry, Cambon-Thomsen, Hodgson, Tibben, Vries, Van El & Cornel, 2010).

## **Results:-**

As can be seen from the examples given, the MAO-A gene, also known as the warrior gene, appears to be used as a mitigating cause in European and in American cases (Bernet, Vnencak-Jones, Farahany& Montgomery, 2007).

However, recent research findings suggest that behavioral genetics may be the next issue of the world of justice, and that mental health professionals will play a critical role in helping courts understand new evidence (Weiss, 2006). Of course, the claims that hereditary factors play a causal role in the emergence of criminal behavior are not new

(Wikin, Mednick&Schulsinger, 1977). However, the latest findings of the link between genetic susceptibility and violent crime are much more sophisticated and still show great interest in the law world (Appelbaum, 2005).

In a survey of 154 youths who were ill-treated in their childhood, it has been shown that juveniles with a wide range of crime are more aggressive, resulting in less secretion of the enzyme monoamine oxidase (MAOA), which this gene controls. In this study, researchers found that one third of people had low levels of MAOA. Therefore, there is no definite link between genetic and crime. But researchers claim that anti-social behaviors may develop in people with this enzyme if they have ill treatment in childhood (Caspi, McClay, Moffitt, Mill, Martin & Craig, 2002).

Taking the title of father of criminology with his studies, lombroso has reached the conclusion that those who commit crimes related to serious crimes, repeated robbery or theft are guilty of the crimes they have committed, the physical problems that cause them to be guilty, via inherited (Lombrosso, 1911).

However, the differences in the individuals with the same gene are also taken into consideration. Some tend to commit crime, but some do not. This is why the environmental factors are unavoidable effects on the people (Wasserman, 2004).

One of the studies on the effect of environmental factors is on Jim Fallon's work on himself. Jim Fallon is actually a neuroscientist. Jim was also working on Alzheimer's disease at the same time, trying to figure out what was going on in the minds of psychopaths by looking at his brain activities and genes, and he needed control data to compare with the results of the patients. In order to compare with the clinical samples, he persuaded his family to give blood samples and to do brain scanning. The brain scan of all of the family members was normal, except one: His brain scan! (Gelişin, 2015).

About a month later, a barbecue party shared this irony with his family, and his 88-year-old mother, Jenny, told him that perhaps he needed to do a little research on his family history and may be find some amazing information. Jim's discoveries were really shocking. Apparently, his ancestor, Thomas Cornell, was one of the worst celebrities of American history as the perpetrator of his first mother-tortured case in 1667. But the business was not limited to that. There were seven killers in the ancestors of Jim's direct genetic inheritance. This was quite worrying. Then Jim searched for more evidence. He analyzed the blood he collected for his Alzheimer's work. Jim's blood was positive for the warrior gene. MAO-A (monoamine oxidase A), known as the warrior gene, is an important influence on psychopathy. So in the end, Jimmy Fallon had all the genetic risk factors that could make him a killer. That period, geneticists had likened Jim's possession of this gene cluster to five blows (Gelişin, 2015).

According to biology, Jim was born a killer and should have been a threat to society, but he did not. Why did not all of this cause genetic predisposition? Dr. Jim Fallon was a completely genetic determinist who thought that the genes had made a big decision about how we were going to be. But brain scanning and genetic discoveries in the area have forced him to observe these rigid visions of human nature. In his personal case, he had to admit that the environmental factor was protecting him and that his parents played the biggest role in the way he raised himself. Because Jim was special for his parents, from the very beginning, from the birth. Jim's mother had made four consecutive abortions and they had not had any other children for so long time. So they showed great care to Jim. They have directed their all attention to Jim. Jim believed that these breeding conditions compensated him for the warrior gene which could drag him down (Gelişin, 2015).

As a result, criminal qualification is available as long as there is no serious mental retardation or psychotic mental illness, but given the examples in Europe and America, genetic predisposition can be used as a defense strategy to reduce punishment. Furthermore, after detecting the presence of this gene in people who have antisocial characteristics at an early age, these persons can be rehabilitated at appropriate centers and preventive activities can be carried out for community rest. The Mendota Youth Rehabilitation Center in America is an example of this (Thomas, 2013).

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