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Parenting is undoubtedly one of life's most peculiar, unique, and challenging privileges. It is also the one operation that requires the most commitment, integrity, and accountability. It is a choice, and one that cannot be taken lightly or made without immense consideration. Unfortunately, there are situations in society today that may not allow it to be a choice for some, but for most, modern technology provides several opportunities for those who wish to become parents to fulfill their dreams, and for those who are not yet ready to buy more time. That being said, the decision to pursue life's commonly traveled path towards parenthood comes with few credible excuses to not be prepared, knowledgeable, and responsible enough to care for another human being. This is necessary because once that human being is introduced to the world, it becomes difficult to change where it came from, who it came from, and exactly how its life will carry on. No child has any control regarding their genes, their parents, their origins, and the lifestyle those factors will set them up for. There are more than seven billion people on earth; there are the painters, the builders, the writers, the businessmen, the doctors, the lawyers, and the nobodies. And then there are the criminals. All very contrasting types of people, but all with one factor in common. They all came from people who gave them their genes, their personality, their origins, over which they had no influence. Rather, they were all impacted by their environment, how and where they grew up, who raised them, who turned them into the person they became by leading them through development. All of the moments composing the journey into adulthood shape who a person becomes, and have the ability to overpower any difficulties that might have been presented by those uncontrollable genes or lineage. However, this is only accurate if such

an upbringing is constructed by those who were ready to assume the obligations of parenthood and served to raise a strong, humane, and benevolent child ready to contribute to society. Therefore, criminals, though obviously a dubious category of people whose motives may be intensely questioned, are still people whose familial and societal backgrounds cannot be discredited against the recent research blaming harmful behavior on segments of DNA.

Psychology, the study of behavior and mental processes, has pondered for years the varying degrees of impact that come from nature, or each person's hereditary factors, and nurture, the environment in which each person evolves. There is no question that nature is the first, most dominant component in the process of forming a human being. It all starts when one single cell splits through mitosis, dividing into two 'daughter' cells, who dutifully repeat the process until a very minuscule being begins to form. Each time the cells divide, they copy their DNA, encoding each of the genes so that they all may be exact replicas of each other. Once one cell has divided about forty-one times to produce two trillion identical cells, this organism becomes a baby. An innocent young human who had no control over whether they were ever to exist, let alone the precise genes that encrypted their growth into a fetus. This responsibility falls into the conscience of the parents who chose to give their genes to the fetus, knowing their genes would be replicated to form another being, genes that should be ideal, healthy, and beneficial.

Each of those genes that make up each segment of DNA composing each chromosome in each cell in the entire body of that young human serves to determine a factor. This may be where the eyebrows start to grow, how close the top lip will reach towards the nose, how big the ears will be, how long the fingers will stretch, or what color the eyes will portray. In a smaller proportion of that population of seven billion, some of those genes will encode for less common

qualities, more technical features within the body that alter how cells function and the well-being of the individual. Some may experience that special difference in a gene that triggers diabetes, others may see it in the form of obesity, arthritis, even heart disease. Regardless of the unfortunate circumstance, all of these people must learn to adapt to the situations that their disadvantageous genes generate, in the same way that one cannot really change where his or her eyebrows grow, and one cannot adjust the length of his or her fingers without a serious medical process that defies the dedicated work of the hereditary genes. Each and every characteristic that people are given by the order and organization of their DNA are untouchable, nearly unalterable. However, those encodings are merely suggestions of how the body must be—they have nothing to do with how the person they compose must act, feel, desire, or reason as a member of mankind—meaning that the genes make the figure of each person, but not the person himself. Fortunately, there is another factor to blame that influences who becomes a doctor, a scientist, a criminal, one that psychology has been focusing on lately.

Nurture, the environment that surrounds humanity, is being given increased importance as its dominance in shaping the temperament of developing people has been revealed over the decades. It uses the material provided by nature via the network of genes and patterns of proteins that encode all organisms, and transforms those beings into functional sources of output, whether that function be seen as advantageous or devastating by onlookers. In this way, criminals are simply the product of the atmosphere they have been placed in, the result of the positivity or neglect that comprised their development, the creations of the ideologies and practices of the people who raised them, or failed to raise them. Their genes may have dictated the shape of their body, the health of their regulatory systems, and the medical profiles they would hold forever,

but that DNA had no influence over the outside world which would build the personality of that person into a criminal. The blame cannot be carelessly placed on the mutations and mishaps of scientific operation within the cells of a human to suddenly be able to label all violent people as criminals because of what constitutes their genetic code. This mistake in diagnosing foul behavior cannot be made because society is too shameful to admit that itself may be the stem of the problem, or at least substantially contribute to the chaos the genes may set forth to be possible.

Criminals themselves are an interesting phenomenon within modern civilization because they represent what has not been civilized, what has failed to become one with the moral code of the times, not through a lack of physical understanding of contemporary technology, but through the absence of an acceptable moral compass. The cause of the distortion of that compass is difficult to pinpoint, because any result becomes a harsh point of a finger towards some person or some being that will not appreciate the accusation. Regardless, they all have similarities in their demeanor, in that the goal is usually to inflict a form of upset, harm, or despair on another organism, whether for revenge or solely for spite. Most criminals, particularly the most violent, have experienced involvement with derogatory mechanisms in their lives, through alcohol abuse, drug use, depression, anxiety, loneliness, or, most frequently, a combination of several related factors all leading to a degraded quality of life and a crooked conscience damaged by external complications. Some criminals may choose to use this altered mentality to steal from those they feel deserve a less generous lifestyle, others may wish to devastate the material goods which those they hate appear to treasure the most, and still others may appoint their livelihoods towards destroying the lives of others. Though not all criminals have the same goals or utilize the same

methods, they all share a common identity. They decide to attack the world around them, the people they see, the wealth they envy, the beauty they abhor, not because they are programmed by a gene to feel that way, but because the environment they are surrounded by has helped turn them into lost souls boiling with hatred, malice, and danger. Their DNA cannot set them up for failure or for poverty or injustice. Those misfortunes are held responsible by the people who choose to raise them, encircle them, and guide them in any given direction.

Although it is possible, the likelihood of any human being on this planet who has ever brought a child into the world with the hopes of producing a devious, treacherous, malignant individual who is destined for a future behind bars is remarkably minuscule. A parent would not knowingly or wishfully pass on a gene to their offspring that dooms them into a career of mischief, just as a parent who births a child with down syndrome might at first regret sharing genes that led to a mutation which will force the child to live with the disability for the remainder of its life. To accuse a parent of a disabled child is accusing him or her of a crime they could not commit, a scientific anomaly that cannot be altered; one cannot pick and choose the genes they transmit to be replicated into another brain, another body. What is born is what is born. But what every person can choose is how to raise that being to become the best they can be, no matter health limitations or mental challenges, and they can encourage them to develop into a world where they feel wanted, deserving, and capable. Admittedly, it is possible that those who become criminals may be born with disadvantageous qualities or defects in their genetic makeup that destine them for a more difficult life. They may have difficulties with serotonin production, affecting depression, or an inability to regulate the correct production of dopamine such that they have schizophrenic symptoms or bipolar tendencies. These conditions and many other possible

issues are all unfortunate and undoubtedly barriers that people must overcome, however they alone cannot determine who will become a criminal and who will not. It is the people, the environment, and the conditions that the afflicted are surrounded by that assist them in shaping their futures by either encouraging them to work through the complications to see what life still offers, or leaving them alone to suffer in their own confusion and pain. Genes cannot determine how people will cope with situations they are given, they can only determine what those situations may be. Beyond that, it is up to the person himself or herself, and his or her surroundings to fight against burdened circumstances and persevere to become productive, admirable members of society.

However, one might object here that this concept is not entirely comprehensive because there still exists a criminal gene that has been proven to increase violence in convicts today. It is true that scientists have discovered two particular segments of the genetic code that appear to influence how hostile an individual may become or could possibly explain previous aggression. The first and potentially most important gene being discussed is termed MAOA, which encodes for the enzyme monoamine oxidase A, responsible for controlling levels of dopamine and serotonin in the brain. The accuracy and maintenance of the levels of these hormones is extremely critical regarding mood swings, depression, and an individual's sensitivity. The other gene under hot debate is CDH13, or cadherin 13, which has been found in association with those who have Attention Deficit Hyperactivity Disorder and who have committed substance abuse (Hogenboom). The argument considering whether or not there is a real criminal gene became more complicated with the discovery during one particular experiment in Finland in which convicted criminals who had committed intensely violent crimes had one or both of those genes

present in their genome, but other imprisoned criminals who had committed significantly less savage actions did not have the genes ("Scientists Identify"). Although this investigation needs a substantial amount of further research before it may become a definitive diagnosis of predictable criminal activity, the evidence was convincing that the genes may determine how hostile an individual may strive to be. However, the environment such afflicted individuals are surrounded by is a much more likely, understandable, and conclusive predictor of intensity and disorder crowding dangerous people's minds. Psychologists have accepted for years that the most influential factor in shaping a child as it grows into an adult is how it is raised, the people who raise it, and the setting it is forced to observe as it learns to mature by example. The same concept applies to criminals, who were once children themselves; and even if they were not violent as adolescents, it cannot be denied that that crucial period for individual growth and understanding carries on throughout one's lifetime as humans are always progressing by learning from others. At any point in one's life, the power of observation and repetition can manipulate one's thoughts and feelings, which in turn guide the emotion and ambition behind real-life actions. All criminals, whether young or old, homicidal or simply delinquent, have grown through a phase in life, and through that phase they experienced some sort of feeling that derailed their mental state into one of chaos. The way that phase arises and the reactions it provokes is entirely guided by the situation, the people influencing it, and the impact the world has on the affected, future culprit. The environment shapes that emotion, and that emotion shapes the violence.

It is possible, of course, that the genes scientists have been considering do impact how aggressive a particular person is, but they are merely guidelines for the body, a blueprint for how

proteins, cells, neurons, and organs are supposed to behave. How the person carrying around those genes chooses to act is entirely independent of the genes themselves. That behavior is the free will of the individual-there are always options to seek help, filter out negative emotions, and to release aggression through innocuous methods in which violence is not needed to feel a sense of relief-the genes, whether present or not, provide an option regarding how to control one's self and one's life, and it is up to that person to pursue a constructive lifestyle. And this decision is made with the aid of outside influences, whether encouraging or derogatory, which shape the persona individuals construct about themselves and thus the strength or weakness they feel in being able to control their emotions and evolution. Overcome by feelings of despair, helplessness, and vulnerability, a person possessing the recently-proclaimed 'criminal genes' may indeed be overwhelmed by the behavior of the genes inside his or her body and hopelessly give up control, succumbing to the actions such genes have potential to create. If the outside world has left the individual to feel pathetic and powerless, then there will be no drive to conquer the influence of the genes and the hormones they affect, no willingness to seek help or refuge from others or via medical aid, and no energy to resist the urge for violent actions. The same concept could be applied to any person, regardless of having one of the genes or not; anyone driven by enmity, anguish, or desperation resulting from insecurity inflicted by one's environment might feel an aspiration for violence. Violence and crime do not require a gene, they require someone who has been left to feel alone and ineffectual in a monstrous world. How intensely that degrading sensation impacts the decisions and maturity of the individuals it afflicts is dependent upon how capable the environment has made people feel they are to overcome disappointment and strive to better themselves without hurting others.

History's eternal debate about the ability of nature versus nurture to impact and control the development and sophistication of man will forever be one of psychology's most tremendous and important arguments. To say that there is a criminal gene which is solely responsible for the outrageous behavior of those with the most violent record behind bars would be claiming that the outside world, be it through family, friends, employment, or recreation, has zero influence on how a person feels, acts, dreams, and performs. This is clearly preposterous. But to say that there is no possibility of a criminal gene that could help predict an individual's potential for violent behavior would be to devalue the significance of the entire human genome which has been responsible for understanding the human body for centuries. This is just as impractical. Fortunately, if there is one theory that nearly all psychologists can agree on, it is that there may be no definitive answer. Genes and the environment will always interact, just as they have been doing for millions of years. They control each other, weeding out the impuissant to form the successful and tenacious, ensuring that life will go on for as long as the planet can sustain it. Therefore, it cannot yet be certain if there truly is a criminal gene, and certainly not be used as a diagnosing device to demoralize innocent people. Until further research is conducted, the belief in a criminal gene depends on one's faith in humanity, each individual's perspective regarding whether nature or nurture should be held more responsible. There will always be criminals, there will always be a great psychological debate, and there will always be disagreement over the theory of the criminal gene. That is simply how science works.

Sources Cited

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