

Prediction of a Rise in Antisocial Personality Disorder through Cross-Generational analysis.

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Abstract:

Psychopathy, in its literal sense, is a dangerous disorder. It exhibits antisocial behavior, inclusive of rage or aggression, fantasy, etc. The current psychopath population is 1%, but this paper puts forth the probability of an increase in the current population. No individual scores a zero on the Levenson scale, and that in itself shows the innate harsh tendencies of the individual, hidden behind the social norms and good values, however, this paper shows how those could be affected and cause the individual to rank higher on the APD scale (given below), resulting in undesired antisocial behavior or the potential behavior. In this paper, we have taken the scores of the different generations (gen x, millennials and gen z) to outline the statistical change in the scores to predict an estimate. This paper, through the different variables and the statistics, deduces an increase in the APD population to be a likely one in the future to come through theoretical prediction.

Keywords: Psychopathology, Antisocial Personality Disorder, Potential.

1. Introduction:

Psychopathy is a deadly disorder which elicits undesired behavior like that of rage or aggression, fantasy or sexual promiscuity. The current psychopath population is 1%, which is 76 million people, and this paper elaborates on how there could be an increase in that number. Almost no one gets a score of zero on the Levenson Self Report Scale, which points at the innate potentiality of the undesired behavior, which could result in an increase due to the various factors at play. Antisocial Personality Disorder, as per DSM 5, is a pervasive pattern of disregard for, and the violation of, the rights of others that begins often in childhood or adolescence, which continues into adulthood. It includes the failure to conform to social norms. Robert Hare (2003), in his paper, provides a (revised) checklist that marks all the traits of a psychopath, the factors on this checklist are: Grandiose, Need for stimulation, glib and superficial charm, pathological lying, cunningness or deception, lack of remorse, impulsivity, irresponsible, many short-term relationships, sexual promiscuity. We will see how these elements that Hare provided fits with the variables presented, in order to define the problem with more accuracy. This paper states the following hypothesis: *'The probability of an increase in APD population percentage, especially psychopathic population is based on the relationship of the various variables which could have possible biological or psychological consequences.'*

2. Rise in the Potential APD in the Current Generations:

I. Variables affecting the rise

1) Psycho-biology:

- 1.1) **Neurological perspective:** Psychopathy, in recent years, has shown some potential in the neurological fields of research. James Fallon (2006) studied the brains of psychopaths in prison cells using MRI and PET scans and found a few

common traits that were shared only by those individuals who were considered as psychopaths in comparison to the non-psychopathic prisoners. The results found that the anterior rostral prefrontal cortex and the temporal lobes had significantly reduced grey matter. Similar studies conducted by other neuroscientists like Cope (2012) and Ermer (2012) gave akin results. A study by King's college (2012) concluded that the specific structural abnormality in the part of the brain associated with empathy and guilt was enough to distinguish between a normal individual and a psychopath. However, the structural abnormality isn't enough to consider an individual a psychopath, the diagnosis goes deeper with the neuroscience of that individual's sense of feeling. A 2013 (Decety *et al.*) study showed the neurological basis for the lack of empathy in psychopaths. In the study psychopaths (categorized as highly, moderately, or weakly psychopathic for the experiment), were instructed imagine pain being inflicted on oneself, the scans showed the right amygdala light up along with the somatosensory cortex and the anterior midcingulate cortex, identified as heightened pain empathy. However, when told to imagine pain inflicted on others, the ventral striatum activated, known for managing reward processing, motivation and decision making. The whole point of citing these neurological findings is to state the 'My brain made me do this!' dilemma, for if we base our understanding of a particular abnormality on the philosophy of determinism or genetic determinism in this case, the aspects that govern order would cease to exist and even change the way the neurolaw functions. The neurology behind a psychopath is obviously an important objective aspect that cannot be neglected but it cannot be considered as the basis for diagnosis of an individual with similar characteristics, it could definitely help us identify a few abnormal elements within the brain like reduction of empathy or grey matter but cannot predict or identify psychopathic behaviour, for such data alone is not sufficient to classify an individual as a psychopath. The neurological aspect has been added to this list of variables not only to help identify the distinguishable traits but also because it could possibly be passed down from one generation to another. From the neuroscientific point of view, we can elaborate on the improper functioning of the brain, not the cause, but it could be useful in studying how these traits of sadistic pleasure or impulse control could be possibly inherited.

- 1.2) **Epigenetic entropy hypothesis:** Epigenetics is an emergent field which the studies the change within an organism caused by modification of gene expression rather than alteration of the genetic code itself, which means that the organism's specific genes can be switched on and off. Nurture – environmental stimuli, or even biological mechanisms can cause these genes to switch on or off. To understand the epigenetic entropy, we have to first know about genetic entropy. Genetic entropy is 'the systematic breakdown of biological information that make life alive, which results from mutations which is basically a typographical error in the programming of life', according to John Sanford (2005). This decay of genetic information could affect the elements that decide the regulation of behaviour. Epigenetics depend on several factors, one of them being behaviour, not only yours, but of your ancestors too. According to the new findings (Kellerman, 2010) of behavioural epigenetics, traumatic experiences in our past, or in our recent ancestors' past, leave molecular scars adhering to our DNA. Our experiences, and those of our forefathers, are never gone, even if they have been forgotten. They become a part of us as a molecular residue holding fast to our genetic material. The DNA remains

the same, but psychological and behavioural tendencies are inherited. Research on inheritance on addictive behaviour in rats demonstrated that exposure to THC (the active compound in cannabis) during adolescence can prime future offspring to display signs of predisposition to heroin addiction. In a similar standard of logical deductions traits like that of sadism, abnormal narcissism, or any other trait from the dark triad, inclusive of Machiavellianism, for all these traits are based on the raw notion of desire, which can be possibly passed down as seen in the experiment of the THC exposure. The entropy of genes that regulate types of judgment related to morality, for example, according to Yager (2016) 'Oxytocin receptor polymorphisms are associated with types of moral judgment'. The switching 'off' of these due to epigenetic or an entropy could possibly show slight changes in behaviour of one generation or multiple. The odds of these are quite axiomatically low, but the possibility is worth noting. In simple words, this hypothesis believes in the possibility of an epigenetic entropy which could lead to passing of trauma or related negative traits, thus contributing to the rise in number as the generations pass, which could contribute to psychopathic traits. The aspects of nature and nurture, both play almost equal parts in determining the final outcome.

2. Neuroscience:

2.1) **Risk taking and fearlessness theory:** The one important aspect that adolescents and psychopaths have in common is 'risk taking'. Obviously, this doesn't mean that adolescents have antisocial personality disorder, but this correlation can help us identify the development of a psychopathic individual along with a possibility of providing some insight on the causal connection, in some if not all cases. Many studies have noted that since adolescents still have developing brains, they are more likely to take risks to seek stimulation, the same does not apply to psychopaths as the chances are that their brains are fully developed, however the logic behind it, i.e. taking risks to seek stimulation, remains constant in both cases. According to a paper published by Steinberg (2007), risk-taking declines between adolescence and adulthood because of changes in the brain's cognitive control system—changes which improve individuals' capacity for self-regulation. However, this may not be the case with all, there are quite a few who could possibly fixate on the stage of risk taking for stimulation, which could possibly lead to mild psychopathic tendencies. Constant risk taking can lead to desensitization and fearlessness, and even a need for a higher level of risk taking for more stimulation. A study conducted on pre-schoolers showed that the children who were fearless were more likely to be aggressive and disobedient, showing non-conformity to the prevalent norms, which could be seen in the future years unless handled with proper intervention. Aggression in children, as per a study (Robins, 1978) could lead to antisocial personality disorder. According to another study, adolescents exhibit hyperconnectivity between the amygdala and the prefrontal cortex, which results in the taking of risks, and the individual could get hooked on even after the period of development which could continue in the future. Along with that, the ventrolateral prefrontal cortex lowers levels of distress, which is more likely to be seen in adolescents when they are with their peers. However, this region makes it more likely for the individual to engage in risky behaviour during social exclusion.

2.2) **The brain and rewards:** As we already know the three major brain systems – the behavioural inhibition system (BIS), reward system and the fight/flight system. The reward system includes the dopaminergic system in the mesolimbic region, often casually called as the 'pleasure pathway', for its known role in substance abuse (Gray, 1987). An

imbalance between the BIS and the reward system may make fear and anxiety caused by the BIS seem less apparent, and the positive feelings associated with rewards more prominent (Fowles, 1988; Quay, 1993). Such seeking of stimulation can cause an individual, especially adolescents to take risky decisions which could alter their personality, their behaviour and their perspective, which could manifest itself in future in various ways like promiscuity, substance abuse, aggression, etc.

3. Parenting and Siblings:

3.1) **Parenting:** Parenting style is an important aspect that determines the personality and thought process of an individual, which is why it plays a huge role in psychoanalysis. There are different types of parenting styles like – authoritarian, authoritative, permissive and neglectful. Out of these four, quite axiomatically the ones with the most consequences which could lead to a possibility of the child displaying signs of a personality disorder are – authoritarian and neglectful.

- i. **Authoritarian:** Parents who control their children and punish them beyond the normal limits usually end up making their child feeling vulnerable and helpless, a victim. Such children often suppress their feelings which keeps building within over a period of time till the child either takes it out on himself/herself (through suicide or self-harm) or remove it on the parent responsible or on people inferior by status or their wife or children. The infamous example of this would be of Edmund Kemper, whose mother, said to be suffering from a borderline disorder, would restrict Edmund's freedom, to a point where he bludgeoned his own mother to death, decapitated her and defiled her. As gruesome as that sounds, it provides us with some insight on Ed's thoughts from a psychological perspective. The killing of his mother was a sign of retaliation, the decapitation a sign of freedom from the authoritarian reign as the head is an unconscious symbol of authority seen throughout cultures over time. Lastly the defiling of the corpse could be seen as a gesture to mock power and to establish one's own power. We could even look at the case of Ted Bundy to understand the psychological reasons. Ted's mother was a teen when he was born to her, so he was raised by his grandparents, making everyone think that his mother was his sister. Ted's grandfather had an abusive personality, and despite his habit of tormenting animals, Ted worshipped his grandfather. The abuse was so serious that his mother had to flee to protect her child. In this case, we see a similar dysfunctional and chaotic parenting style, but we see a difference between Ted and Edmund, Edmund grew furious and rebellious whereas Ted grew up with an ideal thought of his grandfather which manifested itself in later years.
- ii. **Neglectful:** Neglectful parenting would quite axiomatically lead to a disturbed child for children need love and attention as much as possible. Lack of love, as per some research, could lead to restriction of physical and psychological development, and when such of parenting style is combined with the previous point of risk taking, the matter seems to get worse as the child who is neglected seems to seek most stimulation possible by doing extremely risky things, so as to obtain the denied attention. They could be prone to aggression, self-harm, substance abuse and suicidal tendencies.

3.2) **Siblings:** There is very little research done on this matter but it seems that there could be a positive relation between sibling rivalry/jealousy and personality disorders. Luis

Garavito, for example, was a serial killer arrested for the rape and murder of many 147 boys. He had seven siblings and being the oldest child, he was given least attention which gave rise to sibling jealousy. Sibling rivalry/jealousy in itself does not make anyone a psychopath, but it can contribute to the process as seen in Garavito's case.

4. **Substance Abuse:** As per some recent studies, 1 in 20 high school students smoke marijuana regularly, 18.7% smoke cigarettes. 11% of 8th graders, 22% of 10th graders and 29% of 12th graders reported engaging in heavy episodic (binge) drinking of alcohol in a span of two weeks. Drinking, in adolescents, is related to delinquent and antisocial behaviour (Akers, 1970). In today's age, alcohol is easily available, in comparison to the past, and the leniency of parents and the influence of western culture has increased the consumption of alcohol in the current adolescents. The cultural acceptance of pubs and parties with alcohol with the necessary norm has had an impact on the statistical data of alcohol consumption. Sometimes teenagers consume alcohol due to peer pressure or influence of the media, i.e. by modelling a favourite actor or sports player. Drinking as a social norm or consumption of drugs, eventually gets substituted as a medium of escaping reality, and since it temporarily induces feelings of euphoria, the individual begins to get dependent on it, till it reaches a point of addiction. Substance abuse behaviour is related to personality, as they are more likely to become rebellious and aggressive, achieve less in school, which would explain the economic status in future (McAlister, 1979). Such aggression and constant seeking of stimulation to escape reality could contribute to antisocial personality disorder.

5. **Child Abuse and Poverty:**

5.1) **Child abuse:** Child abuse is a serious issue and can lead to a wide range of mental disorders, antisocial personality disorder being one of them. As per the reports of 2016, 7.4 million children were involved with child abuse. 74.8% of child abuse victims were neglected, (and as mentioned above under parenting styles) neglecting the child's troubles, especially trouble like abuse can mentally disturb the child, inclusive of an increase in a possibility of self-harm or suicidal tendencies. As per research, children who experience child abuse are 9 times more likely to be involved with criminal activity. Jeffrey Dahmer, a serial killer, was molested as a child, this trauma resulted in a chain reaction due to which he began to molest other boys. Dahmer reported that he was trying to 'kill his own trauma by molesting other boys'. From a psychological perspective, we realize that Dahmer's abuse made him feel vulnerable and weak, so to gain the power he felt lacking he molested the other boys, an act of defiance, an attempt to decrease his traumatic pain. There many more 'Jeffrey Dahmer's' out there who have been abused, this unfortunate series of an endless chain could affect the number of psychopathic individuals.

5.2) **Poverty:** Poverty is another serious issue that can cause not only psychological but even physiological problems. 3 billion people, i.e. 50% of people all around the world, are below the poverty line. Almost 80% of the world lives at less than 10\$ a day. 16,000 to 25,000 children die each day out of hunger, i.e. one every five seconds. 842 million people were hungry a year ago, but the number rose to 852 million (UNDP, 2014; UNICEF, 2015). Poverty can cause an individual to display psychopathic tendencies as poverty plays a huge role in determining one's personality. Luis Garavito, (mentioned earlier under 'siblings') lived in a really poor condition which caused him to fight for survival. In the 1960's, the ethnographer – Oscar Lewis, put forth the idea that lower economic status leads to aggression as it's a constant battle to satisfy the basic needs,

which can bring about the feeling of vulnerability making one fierce in an attempt to either hide the vulnerability or survive. Such aggression for survival can lead to mental disturbance like in Garavito's case.

- 6. Internet, Social Media and Narcissism:** 95% of teens in the U.S., according to one study, have a smartphone or have access to one and 45% reported of being constantly online. As per a global study (2014), research shows that 420 million people are addicted to their phones, i.e. 6% of the total population, way more than the number of psychopaths. If those many people are addicted to the internet, there is quite an axiomatic variable that keeps them hooked. The internet allows this 6%, most of them if not all, to escape from reality, a socially permitted 'drug' that doesn't need to be consumed to give the euphoric feeling or to harm. This invisible world of the internet has caused people to build this world, a world which is dangerously utopic, causing high and unrealistic expectations, causing to deviate from the current reality, like a 'meta-reality'. This meta-reality forms a chain, a strategy used by most social media companies, which causes individuals to back to it constantly. Social media and the internet can lead to some serious issues like anxiety and/or depression. This escape from reality alters the identity of the person, while on the internet people generally tend to be lenient in their speech and display rather extroverted personality, however, there is a complete change in personality when the person is met face-to-face. This notion is quite evident in games and online media where the identity of the individual is anonymous. The concept of FOMO (fear of missing out) fits quite well in this chain as this fear often leads to insecurity and to avoid that the individual tries to escape from reality by spending more time on the internet. As per a recent study (Buckels, 2018), it has been found that internet trolls are way more likely to be sadists, psychopaths and narcissists. An internet troll is a person who contributes to (online) discussions or post comments in such a way that it upsets or disrupts the conversation. This study, with a sample size of 1,200 people, tried to look at evidence for a link between trolling to 'dark tetrad', they found that people who enjoyed trolling the most scored the highest on the Dark Tetrad test. The relationship between trolling and the dark tetrad was so significant that the authors wrote in their paper: "... *the associations between sadism and GAIT (Global Assessment of Internet Trolling) scores were so strong that it might be said that online trolls are prototypical everyday sadists.*" Such trolling appeals to the reward system of such individuals as they derive pleasure from the negativity, for both trolls and sadists obtain pleasure from the distress of others, and for trolls, 'internet is their playground'. The other thing about social media is that it leads to narcissism, for example, in the dark tetrad study above, the individuals are highly concerned about their own pleasure. Due to this age of instant gratification and the constant need of portraying oneself as a perfect individual on social media, most of the adolescents these days are self-obsessed, delusional, narcissistic. The current trend of 'selfies' has not only caused loss of life through the dangerous and risky (risky behaviour mentioned above) stunts for a picture, it can lead to other psychological problems too. 82% of smartphone users between the age 18-34 reported of taking and enjoying selfies, such pleasure can lead to either narcissism or low self-esteem. The psychology behind the design of such mediums is to capture more and more people in the trend, of what is new and 'cannot be missed', in doing so, it gives birth to children who are greatly obsessed with themselves, harming their selves in the process. The sites have been so cruelly designed that it allows people with a relatively lower self esteem to hide their real self with filters that apps like Snapchat and Instagram allow, sending the message that one doesn't really look good and to fit in the current trend (to avoid fomo), they have to hide their real self behind dog filters and escape the reality. Such filters might lower one's self

esteem more, making the individual feel alone and unloved for being themselves. Dennis Nelson, a serial killer, he admitted to murdering people just so that he could get rid of the loneliness that bothered him, just to have the company of whomever he found, to replace his loneliness with another feeling. Such variables, of the internet, are not applicable to the generations before ours and thus does not have much attention yet, but it is only a matter of time before the scientific community starts relating abnormal personality to the malicious design of social media, the stir has already begun with a few papers, but not made known entirely in the way we see individuals are discouraged to engage in substance abuse.

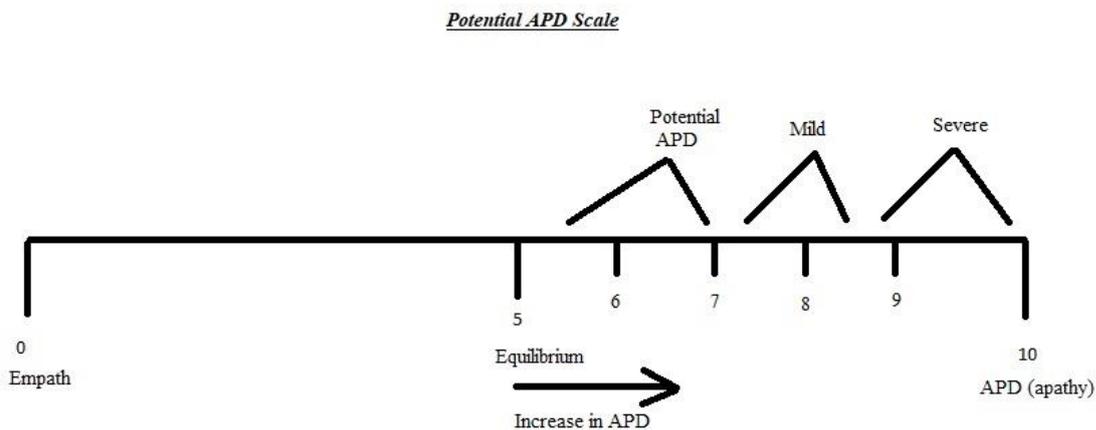
7. Tragedy (in relation to people): Tragedy is an important aspect that defines our personality, it can make a person loving, caring and more sensitive to one's and others needs, however, this can also take a dark turn. Sudden, untimely death of loved ones can cause individuals to feel rage and aggression, it can even possibly cause a confusion when it comes to morality, making it difficult to determine right and wrong. It could possibly lead to an existential crisis as Viktor Frankl elaborates in his book 'Man's Search for Meaning' (1946), the lack of meaning can cause an outburst of nihilism affecting the areas concerned with fear and analysing consequences. It could lead to depression or nightmares, or PTSD if witnessed by the individual, which in some cases could lead to the need for revenge. There is even a possible outcome in which the individual concerned is desensitized. This single variable, in itself, has a wide range of possible outcomes that can contribute to abnormal personality development. As per a survey, 3,85,000 people were killed (homicide) in 2016. Such a high rate increases the possibility of above mentioned issues manifesting itself in some way or another in individuals. Tragedy need not necessarily refer to death, it could also refer to rejection or breaking up. Ted Bundy, the infamous serial killer, used to kill women who looked like the girl who rejected him, who he dearly loved. Ted Bundy, like Ed Kemper, did some gruesome things like necrophilia and kept the corpse close to him, and as horrible as that sounds, from a psychological perspective it gives us insight on Ted's thought process. Engaging in necrophilia, triggered by the rejection of his girlfriend, quite evidently portrays not just the possible causal relation but even Ted's constant need for love, which was on such a desperate level that he kept the corpses close to him just so that he could feel loved. The most intriguing part of this is that it cannot be fixed, for tragedy (in relation to people) is inevitable. The inevitability of tragedy and the intensity, i.e. the number of people it affects, makes it the most serious issue of all in this list of variables.

8. Promiscuity and children: Promiscuity is seen often in psychopaths. As many studies suggest, psychopaths cannot maintain stable, committed relationships, the odds of the relationship failing is more than the average. Such relationships are usually based on sexual pleasure. Such cases of promiscuous relationships can possibly lead to the birth of a child/children. Since psychopaths are more likely to back out from a relationship, the child might get aborted or might live with a single parent. A child ideally needs both parents for proper development, such a shift in parenting can lead to some personality changes/development which could be different from the accepted norms. There are 70 million psychopaths right now in the world, the possibility of children being born from their promiscuity is high. Secondly, a child learns from their parent, so if a child grows in an aggressive family or such, it could possibly lead to a potential outcome. An apt example of this would be the case of Fred and Rose West. Fred and Rose West were diagnosed as psychopaths, they were a couple and had children. They had many children, whom they mistreated, few of which they killed and buried in the backyard. They would

tell their children that if they didn't obey them, they would end up like their siblings in the backyard. Their children didn't grow to become psychopaths themselves, but it affected their lives drastically, and if this was to increase, to say around 60 million parents (if we were to deduce, since we already know that they are promiscuous) treating their children in such a way, the probability of at least a few of those children turning into psychopaths seems plausible. Mae West, their daughter, told how her half-sister Anne Marie was raped by Fred as an eight-year-old - with Rose a participant in the assault. Such an environment is not suitable for children, it could affect their personality in negative ways.

II. Potential APD Scale - Revised (APDS-R)

A potential psychopath, is a person who is deviant from the current expectations that the society has of an individual, but isn't deviant enough to be declared as a psychopath, however, if not treated well, the individual could become one. When I say 'current expectations' I would like to emphasize on how the society determines right and wrong, which is different from what was believed as right and wrong in the past, and non-conformity to norms is used as a point to diagnose psychopathy.



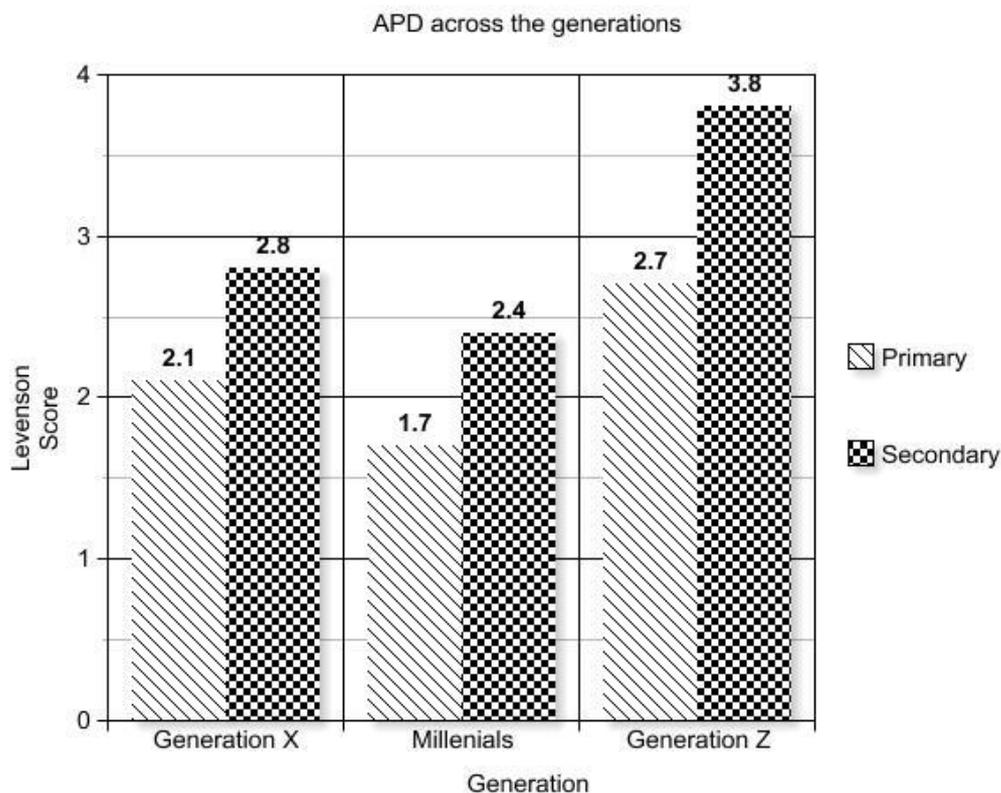
*Normal Range: 4.8 - 5.2

The scale given above roughly explains how the normal range (4.8 to 5.2) is the state of balance, the societal definition of a 'normal individual'. If we go higher on the scale, we find potential APD which explains aggressive and deviant children, it could even include children or adolescents who are mostly suicidal or indulge in self-harm. They could be children/adolescents (could even be adults, but further research is required before concluding) who come from broken homes, on the verge of a breakdown or being desensitized. If these individuals are recognized at the correct time, they could be helped. As we go higher on the scale, we see the mild and severe classes, which is mentioned in the DSM (DSM-5). The higher categories could include people like Ted Bundy and Ed Kemper, who would score maybe a 9 on the scale. When we go higher on the scale, we encounter individuals who are more likely to harm others, however when we go lower on the scale, we meet people who are

more likely to harm themselves, these are empaths who are likely to be obsessed with perfection or what others think. No one can score a 0 or 10 on this scale, for that marks the epitome of the categories.

3. Method:

For this study the Levenson Self-Report Scale was used, the questionnaire provided by the scale was given to a sample size of 35, and the results are the average of the category. The categories are – Gen X (baby boomers), Gen Y (millennials), and Gen Z (2000-2010). This data compares the scores of each generation to point at significant changes. These results cannot be assured to be accurate, for it could be subject to participant or researcher bias, or other factors, but it provides a general idea of the difference.



4. Conclusion

From this research we were able to look at the different variables that affected antisocial personality disorder as a whole, there are quite axiomatically more variables, but this paper focuses on the ones that we encounter in daily life. We cannot prove for certain that these will guarantee a psychopath, there are always exceptions, this entire paper is a priori, a deduction of the variables, however it can provide an insight on the possible future. From this research we cannot conclude that these factors will give birth to a psychopath but it can be held for further research, to learn more about this personality disorder. Although this paper depends mostly on diagnosis, the variables in the paper are in no manner meant to be considered as a diagnostic criterion, alone or clubbed with other data, till it can be concluded with further research. Every research begins with a question, this paper began with the question – ‘Is there any rational deduction behind the possibility of an increase in the antisocial personality population?’. This question has been tried to answer in the

paper, and obviously we cannot be certain of the future as far as science is concerned, but this paper has tried to deduce the possibility, trying to give it a rational stand. This paper can thus conclude that the possibility of an increase in APD population is probable, through the neurological and psychosocial variables.

*"The degree of civilization in a society can be judged by entering its prisons."
- Dostoyevsky*

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