## Introduction

In this paper, I argue that psychopathy is a result of a combination of biological and genetic factors. Psychopathy, as defined by Anderson and Kiehl (2015), is "a neuropsychiatric disorder marked by deficient emotional responses, lack of empathy, and poor behavioral controls, commonly resulting in persistent antisocial deviance and criminal behavior" (p. 1). Psychopathy~~It~~ is caused by genetic factors, including variants in receptor systems, low autonomic nervous system responses, weak connections of neural networks, and low cortisol levels. However, those factors are not active unless triggered by environmental factors, including disorganized attachment styles, reinforced omnipotence from parents, and parents' criminal history.

I support my position with the following three arguments. First, I explain that behavioral genetics are the primary evidence supporting the idea that psychopathic personality behaviors result from upbringing and hereditary (Anderson & Kiehl, 2015). Next, I demonstrate how twin studies argue that both genes and upbringing determine whether a child will grow up to be a psychopath, presented by studies conducted by Blonigen, et al. (2005). Finally, I argue that some of the psychopathy's biomarkers are already present in an individual but are triggered by environmental factors (Blair, 2015).

I also consider alternative positions that my audience may have. First, I shed light on the argument that lack of intimacy tends to cause its victims to avoid emotional relationships, which, in turn, causes reduced empathy towards others and leads to psychopathy (REF Second, I consider the argument that specific brain structures and circuits are naturally developed in a way that increases one's susceptibility to psychopathy (Anderson & Kiehl, 2015). ~~The last argument~~Finally, I consider ~~is that~~ neuroimaging research, which suggests that abnormal empathic responses are associated with decreased activity in regions in the body associated with emotional processing including the AL and amygdala (REF).

**Commented [PMM1]:** GOOD P1 😊

**Commented [PMM2]:** You might consider two sentences for each – one to introduce – one to explain). Each argument should have a reference. Make the presentation of the sentences similar in form and length for each argument.

You might also want to check the order of your arguments Why are they ordered this way – is that the most effective way?
You decide 😊

**Formatted:** Highlight

**Commented [PMM3]:** Example of any push back you will use?

Again – also consider the order

This paper is important because there has been ~~a global dispute~~much debate about how psychopathic traits and tendencies result from either biological, environmental factors, or both. My paper will help psychiatrists better deal with psychopathic tendencies from childhood before a person with harmful psychopathic traits is out in the world formulating a plan to harm people in their surroundings. This paper ~~will~~ may also help parents track their children's behavioral patterns early on to combat issues that stem from psychopaths, as most of them turn out to be convicted criminals and pathological liars with more bad than good to offer. With the knowledge of what leads to those psychopathic tendencies, authorized personnel can help those who grew up with those psychopathic traits and decrease the criminality rate significantly.

**Commented [PMM4]:** Well
THEY are professionals
So – not sure if they'll read the paper

Is there anyone else who might read this paper that WOULD learn something?

**Commented [PMM5]:** Yes – this is one group 😊

**Commented [PMM6]:** Probably also helps people with misconceptions

Suggest you end the body section with recommendations? Which you might BRIEFLY introduce here?

GREAT start! 😊

## Discussion of Sources

### Source 1

Frazier, A., Ferreira, P. A., & Gonzales, J. E. (2019). Born this way? A review of neurobiological and environmental evidence for the etiology of psychopathy. *Personality Neuroscience*, *2*, 1-16.

This journal article is a credible article written by researchers and professors in the field with multiple other relevant publications and achievements. It presents the genetic and neurobiological differences to explain their influence on the onset of psychopathy and its severity. The article aims to collect and consider etiological evidence from multiple research studies on neurobiological differences and genetic factors in psychopathy. In addition, it sets its sights on evaluating findings from other relevant biological structures to strengthen its argument. This article will help me support my argument in the paragraph about the extent to which the biological and genetic factors influence the onset of psychopathy and its severity. Furthermore, I will use it to synthesize another source about the effects of genes on the onset of psychopathy. From my perspective, I liked the article as I found it very easy to read and follow along because there was a clear outline of what is to come. Furthermore, I believe it covered many sides to consider while thinking about this topic. It will also help me while

researching as it will give me an idea of what I need to look for to strengthen my research further.

**Source 2**

Blair, R. J. R., (2013). Psychopathy: Cognitive and neural dysfunction. *Dialogues in Clinical Neuroscience, 15*, 181-90.

This article is a credible journal article written by a member of the center for Neurobehavioral research. He also has an h-index of 105 which adds to his reliability and expertise. Mainly, the article evaluates evidence from individuals with psychopathy concerning the main cognitive explanations of the condition that emphasize either a primary attention or emotion deficit. Furthermore, it analyzes evidence on the neurology of this illness by examining brain scans such as fMRIs and sMRIs and comparing them. Therefore, the article concludes that there were available precise biomarkers of psychopathy in an individual as per the brain scans of the amygdala. I will use this article to support the counter argument that genetics is the main reason for psychopathy because the precise biomarkers of psychopathy are concentrated in the amygdala. It will also help me connect neurology, biology, and psychopathy to support the counter argument mentioned previously. I found this article interesting because it was brief and right to the point, and it did not include a lot of boring statistics and tables. Finally, this article also had secondary reviews that included related information, which will also help me expand my research.

**Source 3**

Anderson, N. E. & Kiehl, K. A. (2015). Psychopathy: Developmental perspectives and their implications for treatment. *Restorative Neurology and Neuroscience*, *32*, 103-117.

This journal article is written by Anderson and Kiehl, both professors and researchers in neuroscience and psychopathy. It is considered credible as it is published in a journal, Restorative Neurology and Neuroscience, that only accounts for scholarly articles discussing neurology, plasticity, and brain neuroscience. The article examines modern-day neuropsychiatric and neuroimaging data which contributes to the brain structures affected by

psychopathy. Then, the data collected is utilized to assess comprehensive knowledge of psychopathy's development path. Therefore, it concludes that the developmental route of psychopathy appears to originate very early, having a negative influence on one's control of their reality and one's capacity to acquire appropriate social behaviors, frequently leading to patterns of antisocial misbehavior. I will use this article to support one of my counterarguments and as a source to define psychopathy. It includes information about which brain structures and pathways cause the onset of psychopathy. Therefore, it will be of great benefit as evidence to support my second counterargument where I mention the biological factors' prevalence in the onset of psychopathy. I was not too fond of this article because it is not as organized as expected. It mentions all information in various sections of the paper, making it overwhelming to readers.

Commented [PMM7]: Lucky for them I didn't review it! 😊

**Source 4**

Hicks, B. M., Carlson, M. D., Blonigen, D. M., Patrick, C. J., Iacono, W. G., & MGue, M. (2012). Psychopathic personality traits and environmental contexts: Differential correlates, gender differences, and genetic mediation. *Personality Disorders, 3,* 209-227.

This journal article is published by a renowned journal, Personality Disorders Journal, which publishes a variety of cutting-edge research on psychopathology and related personality disorders. The authors of the article include Brian M. Hicks, a professor in the Department of Psychiatry at the University of Michigan. The article acknowledges the two types of psychopathy, primary psychopathy (effective interpersonal psychopathy) and secondary psychopathy (social deviance psychopathy), and what each type is characterized by. These characteristics have been tested by examining the behaviors of a large twin sample and their responses to a Multidimensional Personality Questionnaire (MPQ). Therefore, the article concludes that there is a strong correlation between psychopathy and environmental risk factors that extend to biological and genetic links in an individual. Consequently, it associates the onset of psychopathy with both environmental and biological factors. I will use

this article to support my second argument about twin studies suggesting that genetics and upbringing determine whether individuals develop psychopathy. It will help support my claim by examining twins' behaviors with multiple tests that equip the authors with a reliable primary source of evidence for their claims. This article is notable because it uses various tests that are easy to understand by nonscientists. It also provides clear explanations and results about what had taken place in the test.

**Source 5**

Anderson, N. E. & Kiehl, K. A. (2015). Psychopathy & aggression: When paralimbic dysfunction leads to violence. *Current Topics in Behavioral Neurosciences, 17,* 369-393.

This article is published by the Current Topics in Behavioral Neurosciences Journal, which provides comprehensive discussions of the most important areas of behavioral neuroscience research written by leading global authorities. The authors of this article, including Kent A. Kiehl, a researcher in multiple renowned global research institutions, including Mind Research Network. This article assesses a distinct trait, aggression, of psychopaths in depth. It provides an immaculate description of psychopathic brain abnormalities connected to adverse behavioral outcomes, including aggression. As evidence suggests, psychopaths are equipped with reduced brain activity in regions of the brain responsible for incorporating emotional reactions into higher cognitive functions. I will use this article to support my argument that behavioral studies, including aggression studies, suggest that psychopathy results from upbringing and heredity. It will help me support my argument by providing various aspects of how psychopathy can stem from biological and environmental factors. I liked this article as it is very informative about multiple aspects of the issue. It covers a wide range of personality traits that could be relatable to the readers and examines them in terms of psychopathy.

**Source 6**

Blair, R. J. J. (2013). The neurobiology of psychopathic traits in youths. *Nature Reviews Neuroscience, 14,* 786-799.

This article is published in the Nature Reviews Journal, a part of the Nature Journal portfolio, the leading international weekly journal of science since the 1800s. It is written by R. James J. Blair, a member of the National Institute of Mental Health. This article examines the root of psychopathy under the Antisocial Personality Disorder (ASPD) spectrum. It assesses the childhood behavior of adults as it includes genetic and environmental factors which contribute to the abnormalities of neural networks in the brain. Therefore, adverse characteristics develop, interfering with daily functioning and socializing. I will use this article to support my argument about the presence of psychopathy's biomarkers in psychopathic children but being activated and enhanced by environmental factors. It will help me support my claim since it examines childhood behavior in relation to their genetic structures. I liked this article because it discusses childhood behaviors which are intriguing to me. Its sections' organization and minimum hard-to-understand tables and statistics stand out.

**Source 7**

Blonigen, D. M., Hicks, B. M., Krueger, R. F., Patrick, C. J., & Iacono, W. G. (2005). Psychopathic personality traits: Heritability and genetic overlap with internalizing and externalizing psychopathology. *Psychological Medicine, 35,* 637-648.

This article is published by Psychological Medicine, a leading global journal in the field of psychiatry, clinical psychology, and related fields. The authors of this article include Robert F. Krueger, a Hathaway Distinguished Professor of Clinical Psychology and a Distinguished McKnight University Professor in the Department of Psychology known for his research on psychopathology and personality psychopathology. The article explains a study conducted by the authors to examine the genetic and environmental factors that contribute to psychopathy. The experiment included a sample of female and male twins who were asked in questionnaires. The data collected was utilized to formulate conclusions

regarding the overlap between biology and environmental factors influencing psychopathy in individuals. I will use this article to refute my first counterargument as it mentions the power of environmental factors rather than the combination of both in the onset of psychopathy. It will help me support my argument by explaining a fair amount of biological and environmental factors of psychopathy. I liked that this article included a summary of the study, its methods, and its results at the beginning of the article. This technique is helpful as it makes it easier to read and follow as one progresses through the article.

**Commented [PMM8]: Annotated Bibliographies**
Some really excellent work here.
Now – see Chapter 10
Following the advice there for your first draft … You need to copy and paste all the relevant information to each of your arguments (or counter arguments or background or wherever it's relevant).
That is – use your responses for Question 3 to move the important information you provided in your responses to Question 2.

## Outline

**Section 1: Introduction**

Par. 1: Thesis + background for biological and environmental factors influencing the onset of psychopathy.

1. In this paper, I argue that + [psychopathy results from a combination of both biological and environmental factors].
2. What is psychopathy?
3. What are the biological causes of psychopathy?
4. What are the environmental causes of psychopathy?

Par. 2: Supporting Arguments

1. Behavioral genetics is the primary evidence supporting the idea that psychopathic personality behaviors result from upbringing and genetics.
2. Twin studies suggest that both genes and upbringing determine whether a child will grow up to be a psychopath.
3. Some of psychopathy's biomarkers are already present in an individual but are triggered by environmental factors.

Par. 3: Counter Arguments

1. Lack of intimacy tends to cause its victims to avoid emotional relationships, which, in turn, causes reduced empathy towards others and leads to psychopathy.
2. Specific brain structures and circuits are naturally developed in a way that increases one's susceptibility to psychopathy.
3. Neuroimaging research suggests that abnormal empathetic responses are associated with decreased activity in regions in the body associated with emotional processing including the AL and amygdala.

Par. 4: Importance (who cares?)

1. This paper is important because there has been a global dispute about how psychopathic traits and tendencies result from either biological, environmental factors, or both.
2. My paper will help psychiatrists better deal with psychopathic tendencies from childhood before a person with harmful psychopathic traits is out in the world formulating a plan to harm people in their surroundings.
3. If audience did not listen to my paper, psychiatrists will not be able to understand psychopaths which will potentially increase crime rates as violent psychopaths are not dealt with.

**Section 2: Body Paragraph**

Supporting Arguments

- Argument 1: Behavioral genetics is the primary evidence supporting the idea that psychopathic personality behaviors result from upbringing and genetics.
    i. What are examples of psychopathic personality behaviors?
    ii. What biological factors cause psychopathic personality behaviors?

iii. What environmental factors cause psychopathic personality behaviors?

iv. What are the conclusions of behavioral genetics regarding this topic?

- Argument 2: Twin studies suggest that both genes and upbringing determine whether a child will grow up to be a psychopath.
    i. How are twins the perfect candidate for this type of studies?
    ii. How are genes crucial for the onset of psychopathy?
    iii. What are examples of environmental factors that could be present in separated twins lives and influence the onset of psychopathy?
    iv. How are genes and environmental factors related in the case of twins.
- Argument 3: Some of psychopathy's biomarkers are already present in an individual but are triggered by environmental factors.
    i. What are some of psychopathy's biomarkers?
    ii. How do environmental factors trigger biological factors?
    iii. What are some examples of inactive genetic factors that are triggered by environmental factors?

<u>Counter Arguments</u>

- Counter Argument 1: Lack of intimacy tends to cause its victims to avoid emotional relationships, which, in turn, causes reduced empathy towards others and leads to psychopathy.
    i. What are the possible causes of lack of intimacy?
    ii. How is lack of intimacy related to avoiding relationships in the future?
    iii. How does reduced empathy stem from a lack of intimacy?
    iv. Relation between lack of intimacy in childhood and psychopathy? (Add statistics).

- Counter Argument 2: Specific brain structures and circuits naturally exist to increase one's susceptibility to psychopathy.
    i. What are brain structures in an individual that cause psychopathy?
    ii. In what state of activity and during what stage of the brain structures' existence does one's susceptibility of psychopathy increase when they have these brain structures?
    iii. How does the activity of those brain structure influence the onset of psychopathy?
- Counter Argument 3: Neuroimaging research suggests that abnormal empathic responses are associated with decreased activity in regions in the body associated with emotional processing including the AL and amygdala.
    i. What are the research studies conducted on this? Provide examples.
    ii. How are empathic responses associated with decreased activity in brain structures related to emotional responses?
    iii. How are decreased activity in those brain regions affecting one's body?

<u>Refutations/Rebuttals/Acknowledgements (RRA):</u>

1. Rebut by presenting limitations of the counter argument #1 as this cause of psychopathy is a cause that comes hand in hand with biological factors to influence the onset of psychopathy.
2. For counter argument #2, rebut by using an article which explains the power of environmental factors when it comes to the development of psychopathic traits.
3. For counterargument #3, I will provide evidence from an article by Frazier, Ferreira, & Gonzales (2019) suggesting that environmental factors are associated with the biological factors so biological

factors cannot work on its own to influence the onset of psychopathy.

**Section 3: Conclusion**

The professor said leave this for now until we have read Chapter 15.

**Commented [PMM9]:** Excellent work …
Now the real fun begins 😊
Suggest you read Ch 10 and Ch 12 straight away 😊

Body Section: Recommendations
Your body section will probably end with a series of recommendations
Be planning them

I REALLY appreciate how much time you put into that …. It was A LOT … loved it! 😊

## References

Anderson, N. E. & Kiehl, K. A. (2015). Psychopathy & aggression: When paralimbic dysfunction leads to violence. *Current Topics in Behavioral Neurosciences, 17,* 369-393. https://doi.org/10.1007/7854_2013_257

Anderson, N. E. & Kiehl, K. A. (2015). Psychopathy: Developmental perspectives and their implications for treatment. *Restorative Neurology and Neuroscience, 32,* 103-117. https://doi.org/10.3233/RNN-139001

Blair, R. J. J. (2013). The neurobiology of psychopathic traits in youths. *Nature Reviews Neuroscience, 14,* 786-799. https://doi.org/10.1038/nrn3577

Blair, R. J. R., (2013). Psychopathy: Cognitive and neural dysfunction. *Dialogues in Clinical Neuroscience, 15,* 181-90. https://doi.org/10.31887/DCNS.2013.15.2/rblair

Blonigen, D. M., Hicks, B. M., Krueger, R. F., Patrick, C. J., & Iacono, W. G. (2005). Psychopathic personality traits: Heritability and genetic overlap with internalizing and externalizing psychopathology. *Psychological Medicine, 35,* 637-648. https://doi.org/10.1017/s0033291704004180

Frazier, A., Ferreira, P. A., & Gonzales, J. E. (2019). Born this way? A review of neurobiological and environmental evidence for the etiology of psychopathy. *Personality Neuroscience, 2,* 1-16. https://doi.org/10.1017/pen.2019.7

Hare, R. D. (1996). Psychopathy and antisocial personality disorder: A case of diagnostic confusion. *Psychiatric Times, 13,* 39-40. https://www.psychiatrictimes.com/view/psychopathy-and-antisocial-personality-disorder-case-diagnostic-confusion

Hicks, B. M., Carlson, M. D., Blonigen, D. M., Patrick, C. J., Iacono, W. G., & MGue, M. (2012). Psychopathic personality traits and environmental contexts: Differential correlates, gender differences, and genetic mediation. *Personality Disorders*, *3*, 209-227. https://doi.org/10.1037/a0025084

Junewicz, A. & Billick S. B. (2021). Preempting the development of antisocial behavior and psychopathic traits. *The Journal of the American Academy of Psychiatry and The Law*, *49*, 66-76. https://europepmc.org/article/med/33408155