

**WHAT CREATES JUVENILE KILLERS?**  
**A CONTENT ANALYSIS OF AUSTIN SIGG AND MARY BELL**

**BY**

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**SCHOOL OF BEHAVIORAL SCIENCES**

The thesis of Joshua J. Gernes, "What Creates Juvenile Killers? A Content Analysis of Austin Sigg and Mary Bell," approved by his Committee, has been accepted and approved by the Faculty of the School of Behavioral Sciences, in partial fulfillment of the requirements for the degree of Master of Arts in Forensic Psychology.

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**DEDICATION**

This work is dedicated to my family who continually put up with me through the whole graduate school process.

Would like to thank my wife and my mother for being there pushing me every step of the way when I became discouraged and wanted to quit.

Would also like to thank my children, every time I see them it pushes me to be better and make them proud every day.

"Fairy tales do not tell children that dragons exist. Children already know that dragons exist. Fairy tales tell children that dragons can be killed."

-G.K. Chesterton

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**ABSTRACT OF THE THESIS**

What Creates Juvenile Killers?

A Content Analysis of Austin Sigg and Mary Bell

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The purpose of this study is to understand how two separate juveniles that were raised in completely dissimilar styles could both become killers. Considering CU traits and biopsychosocial factors of both subjects to see how much of each played a role. Previous research on CU traits, biopsychosocial factors, biological factors, and factors on juvenile delinquency. A document analysis was done on interviews of both subjects to determine if CU, biopsychosocial played a role in their forming of becoming a killer. The Document analysis showed significant levels of CU traits and biopsychosocial factors that contributed to both subjects becoming killers.

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## Chapter 1

### **THE PROBLEM STATEMENT**

Children who kill is fast becoming a recurring theme in society. It is slowly flooding the media now that society can be updated on a second's notice. There are cases that have made society wonder what is going on with these children. Two prime example are that of Austin Reed Sigg and Mary Bell. Both children committed heinous murders and during different decades, Sigg in 2012 and Bell in 1968. Bell and Sigg grew up with completely divergent backgrounds and in various parts of the world. Children who kill is not strictly a problem in the United States but a global problem.

#### **Problem Statement**

Why is it that children are compelled to kill? What causes these specific children to break away from society's norms and commit murder? The causes are from various aspects of the person. It can be caused from the biological, psychological, or social aspect. It can also be from all three, a biopsychosocial aspect.

**Purpose of the Study**

The purpose of the study is to find connections to biopsychosocial factors that have an influence on why children kill. This will be a case study on two of these children, 17-year old Austin Reed Sigg and 11-year old Mary Bell. This is important to give insight into the distinct factors that influenced Sigg to kill ten-year old Jessica Ridgeway, and Mary Bell to kill four-year-old Martin Brown and three-year-old Brian Howe. Knowledge gained within this case study will be able to help further research into children who kill. Seeing the differences in how both murderers were raised can lead to narrowing the question of what makes a child a murderer.

**Research Questions/Objectives**

What caused Austin Sigg to kill Jessica Ridgeway?  
What caused Mary Bell to kill Martin Brown and Brian Howe?  
It is hypothesized that biopsychosocial factors will play a significant role in this case study. It is also hypothesized that Austin Sigg had significant amounts of Callous Unemotional traits that helped play a role in his becoming a killer. It is also hypothesized that Mary Bell had significant amounts of CU traits.

**Delimitations**

This study will only cover the cases of Austin Sigg and Mary Bell. Only CU traits and biopsychosocial factors will be researched. The differences between both killer's upbringing will also be covered. This study will not cover any other cases involving juvenile homicide offenders. [this section describes what IS and IS NOT going to be covered in this study. For example, if you are going to only cover California law and not consider the other 49 states]

**Assumptions**

This study assumes that the previous research on Callous Unemotional Traits to be accurate. Research on biopsychosocial factors is also assumed to be true and accurate. Also, assumed to be true and accurate is the information on the cases being studied. [this section states which assumptions are made- can be anything from the accuracy of previous research, to website maintenance]

**Definition of Key Terms**

Callous Unemotional (CU): persistent pattern of behavior that reflects a disregard for others, and a lack of empathy and generally deficient affect.

Biopsychosocial: a model that derives an outcome from interactions between biological, psychological, and social factors.

Juvenile delinquency: conduct by a juvenile characterized by antisocial behavior that is beyond parental control and therefore subject to legal action

Antisocial behaviors: behaviors that do not fit social norms and violates the rights of others.

Affect: the external expression of emotion attached to ideas or mental representations of objects.

## Chapter 2

### **REVIEW OF THE LITERATURE**

Since the 1980's the rise in crime and rise in juvenile crime, has brought a fascination with juvenile murderers. During this time about half of the United States started being tougher on juveniles who commit murder. These juvenile violent offenders are now being tried as adults and sentenced to longer prison terms. There are many reasons why these children become more violent.

#### **Callous Unemotional Traits.**

Callous Unemotional traits (CU) and Conduct Disorder are used to describe juvenile delinquents and juvenile violent offenders. CU is defined as a persistent pattern of behavior that reflects a disregard for others, and a lack of empathy and generally deficient affect. The link between CU traits and juvenile violence is well documented and is statistically valid and reliable. When children develop an onset of psychopathy it is known as CU. Testing

of CU shows that CU are stable and persistent. Children who are low on the CU scale show normal behavior pattern, and those high in CU have persistent behavior problems that persist into adulthood. Two major components of CU are guilt and empathy, which are associated with conscience. Two juvenile psychopathy scales were tested together to see the reliability and validity of each. The Inventory of Callous Unemotional traits (ICU) and the Psychopathy Checklist Youth Version (PCL-YV) showed reliability and validity with both scales (Frick, Ray, 2015).

The Diagnostic and Statistical Manual of Mental Disorders 5<sup>th</sup> ed. (DSM5) has implemented into the criteria for Conduct Disorder (CD) a specifier for youth with substantial CU traits (APA, 2013). This specifier is those with limited prosocial emotions. In a study that was designed to test CU traits with the specifier a total of 643 adolescents who are incarcerated and between the ages of 12 and 24. This study found that one in seven (14%) of the subjects recognized substantial CU traits. This shows that even with the amount studied only a small percentage are at risk for the stable and severe antisocial behavior that is associated with CU traits (Kimonis, Fanti, Goldweber, Marsee, Frick, & Cauffman, 2014).

CU traits and biology is another recent research topic. A recent study of biology and CU traits tested to find if the amygdala contributed to CU traits and the severity of those traits. 74 adolescent participants were studied, 25 had CD and CU traits, 25 had CD but no CU traits, and 24 was a normal control group. This study addressed the significance in the fundamental functional connectivity of the basolateral amygdala (BLA) and the centromedial amygdala (CMA) networks among all three groups of participants. The results of the study showed that those with both CD and CU traits showed abnormally increased connectivity in most of the regions of the BLA. The CMA in those with CD and CU traits exhibited diminished connectivity within the ventromedial and orbitofrontal regions. The study provides good biological correlation to CU traits. This provides insight into a presumed instrument for disturbed attention-emotion connections. This could impair the smooth processing and associative learning in those with both CD and CU traits (Aghajani, Klapwijk, van der Wee, Veer, Rombouts, Boon, & Colins, 2014).



**Biopsychosocial factors.**

Per research some of the main factors in the creating of a psychopath are: child abuse, family structure, exposure to violence, and attitudes toward violence.

48 adolescents participated in a study. Each participant had been convicted of a crime before the age of 19. 27 were convicted of murder while the other 21 were convicted of burglary. Each participant was interviewed and rated on five different measures. The measures were demographic, family structure, attitudes toward violence, education, and the National Adult Reading Test. The results show that the group of murderers show a statistically significant difference in adversity. This means that within all the five measures those participants who were murderers grew up in a harsher environment. This study left out predisposing biological factors (Hill-Smith, Hugo, Huges, Fonagy, & Hartman, 2002).

186 participants took part in a study researching Traumatic Brain Injury(TBI) and adolescent offenders and risk for violence, poor mental health, and reoffending. TBI of varying degrees was found in 65% of the participants. This study shows that TBI may have

neurogenic factors that can cause problems in behavior. Some of the dysfunction could be in attention, impulsivity, executive function, and irritability (Huw Williams, Cordan, Mewse, Tonks, & Burgess, 2010).

Per Vaughn, Salas-Wright, Delisi, and Perron (2014) juveniles who have suffered a TBI are more likely to have higher rates of impulsivity and negative emotion ratings. This is still true even after accounting for sex, and other confusing errors. This study also found out that TBI was associated with victimization within the self-reports of the participants. A total of 1354 adolescents that were adjudicated of criminal offenses took the baseline survey between November 2000 and January 2003. The mean age of the participants was 16 (SD=1.14) at the time of the baseline survey. 184(13.6%) of the participants were female while the majority (1170, 86.4%) were male. The offenses of the participants ranged from crime against a person (596, 44%), property crime (339, 25%), drug offense (217, 16%), weapons offenses (135, 10%), any other offenses (54, 4%).

To the knowledge of the writers this study is the largest of its type. The results show that the participants that reported TBI are older than those that

did not report TBI ( $T=2.54$ ,  $p<0.05$ ). Participants that reported TBI were more likely to report substance abuse ( $T=3.53$ ,  $p<0.001$ ). Another significant finding was that the participants with reported TBI showed higher scores on the psychopathy scale ( $T=4.07$ ,  $p<0.001$ ) (Vaughn, Salas-Wright, Delisi, Perron, 2014).

Neurodevelopmental problems may also be a part of making a murderer. One major neurodevelopmental problem that might play a role in making a murderer is Autism Spectrum Disorder (ASD). One study that involved violent crime, psychopathy, serial killers and ASD, used previous research to see if ASD played a role in becoming violent. The search was limited to English speaking human populations. Even though it was such a large search only 400 serial or mass murderers were found since 1985. This shows that these cases are rare, but the most prominent finding is the deficiency of arduous research on serial killers and mass murders. The findings were limited because more than just peer reviewed journal articles were reviewed. Even with this limitation the study could say with significance that around 10% of the serial killers studied suffered head trauma and another 10% were on some

part of the ASD spectrum (Allely, Minnis, Thompson, Wilson, & Gillberg, 2014).

In a 2014 study brain imaging was used to see if there were any differences in grey matter between juveniles who have committed homicide, those who have committed other offenses, a control group that matched on demographic and psychometric values that were offenders, and a second control group of those who have not offended. A total of 196 participants were studied. 20 participants committed homicide, 135 were non-homicide offenders, 20 were non-homicide offenders matched by psychometrics and demographics, and 21 were not offenders. The study used voxel-based morphometry and neuroimaging to examine the participants grey matter. The results of the study showed that those participants that committed homicide had significantly lower brain weight as a whole, and in both grey and white matter than the participants that were non-homicide offenders. The participants who committed murder showed the most significant decrease in grey matter in the temporal lobe. This is the first study to examine grey matter differences in juvenile offenders to the writers' knowledge (Cope, Ermer, Gaudet, Steele, Eckhardt, Arbabshirani, & Kiehl, 2014).

### **Juvenile Delinquency**

According to Lucero, Barrett, and Jensen (2015), Adolescent delinquency has had significantly more academic attention than early childhood delinquency. Early delinquency is troublesome and could lead to a wider array of negative behaviors in adolescence and adulthood. The main individual factors that contribute to early delinquency are: race, gender, poverty, and generational status. Family factors such as growing up with a single parent and parenting stress may also contribute to early delinquency. School influences like belonging or connectedness also play a significant role in delinquency.

A study on these factors used a parent child self-report survey when the children were nine years old. 3,377 surveys were taken and a final number of 2,824 surveys could be used. The final number of surveys used was due to the surveys missing no data and the dependent variable, early delinquency. Full analysis of first sample and final sample had no significant demographic differences. Just over 50% of the participants were male, and nearly one-fifth had one or more foreign born parents. 83% of the sample were non-white, with 46% percent black, 16% Latino,

and 16% bi-racial or other. Over 40% lived with their biological or cohabitating parents, and over 33% lived under the poverty threshold. The results of the study showed that every covariate was significant ( $p < 0.01$ ) in factors that contributed to early delinquency (Lucero, Barrett, Jensen, 2015).

Juvenile delinquency is linked with a large array of negative results. These include poor social, mental, and physical health. As well as poverty, lower education levels, and recidivism. In a study by Laajasalo, et.al. (2014) where 4,588 adolescents from Finland aged 15 to 16 that are high in psychopathic traits, were studied on integrity with answers on self-report surveys. The main focus is if these juvenile delinquents will lie on the surveys to either make them look better or worse. The report used to study and psychopathy was measured with the Antisocial Process Screening Device - Self Report (APSD-SR). The results show that the participants with CU traits and narcissistic features were linked to more dishonest responses. The dishonesty was a very small sample. The conclusions show that psychopathy does not tend to influence willingness to report or the capability to report accurately.

A 21-year longitudinal study by Abijobir, et.al. (2017), on finding gender differences in delinquency after child maltreatment. This study used data from the Mater Hospital-University of Queensland Study of Pregnancy. This original study was a pre-birth cohort longitudinal study of mothers and their children. A total of 3,818 children were chosen due to having complete delinquency data at the 21<sup>st</sup> year follow up. Of the 3,818 children who were chosen 1,810 were male and 2,008 were female. The recruitment was done at the first antenatal doctor's appointment between 1981 and 1983.

This study used complete reports of childhood maltreatment from birth to age 14, and delinquency reports up to age 21. The study found that males were more likely by three times females to have higher rates of delinquency from maltreatment in an adjusted model. The non-adjusted model found that all children male or female were four to six times more likely to have higher delinquency rates than those who were not maltreated.

With the research behind CU traits it has become one of the main predictors for Conduct Disorder. In a study by Salihovic and Stattin (2017) that wanted to break down previous research even further. This study wanted to see

if CU, grandiose-manipulative, and or impulsive-irresponsible traits are significant predictors of antisocial behavior. 811 participants with a mean age of 14 were chosen from a longitudinal community study. The longitudinal community study consisted of 26,000 juveniles, for this study adolescents aged 13 to 15 were used. This made up the 811 participants.

This study found significance in predicting antisocial behavior. The significance was found with grandiose-manipulative and impulsive-irresponsible traits, no significance was found with CU. When it came to grandiose-manipulative and impulsive-irresponsible traits, they showed a significant growth with delinquency and antisocial behaviors over the course of the study. CU traits only did not show any growth in either antisocial behaviors and delinquency. This study shows the multidimensional areas of delinquency development and antisocial behaviors (Salihovic, Stattin, 2017).



### **Summary**

All the research considered for this study shows how multifaceted juvenile violent crime is especially murder. CU, grandiose-malignant, and impulsive-irresponsible traits play a significant role in psychopathy and delinquency. Present with most juvenile violent offenders is CU traits and has helped previous research to understand some of the factors that play a role creating these juveniles. Biology also plays an influential role in the building of a juvenile violent offender. Research shows that amygdala size and TBI are also factors in the building of a juvenile violent offender. The newest research found grandiose-malignant and impulsive-irresponsible traits are more significant than even CU traits on the growth of juvenile delinquency.

## Chapter 3

### **METHOD**

#### **Participants**

This is in a document analysis case study of Austin Reed Sigg and Mary Bell. The main reason for the choice of Austin Reed Sigg for this study is due to how his case does not fit previous research of juvenile homicide offenders. Sigg plead guilty in October of 2013 to 10 felonies with five sentence enhancers'. The first count was first degree murder after deliberation. The next was two counts of second degree kidnapping. Fourth was sexual assault on a child. Fifth felony count was robbery, sixth was sexual assault. The seventh and eighth counts were sexual exploitation of a child. The ninth count was another count of sexual exploitation of a child. The tenth count was attempted second degree kidnapping. Sigg was sentenced on all counts to serve life in prison plus another 86 years.

Mary Bell was chosen due to the difference in upbringing between her and Sigg. She was also 11 years old when she killed two boys aged 3 and 4.

## **Research Design**

This study will be a qualitative document analysis of archival data on both the Sigg and Bell cases. The archival data that will be reviewed on Austin Sigg are police interview videos, court documents, and interviews from family and neighbors. The archival data that will be reviewed on Mary Bell will be the book *Cries Unheard*, and archival research on the case.

## **Instruments**

Using document analysis this study will analyze documents from both the Sigg and Bell cases to find evidence that more than psychological and social aspects are the cause of both becoming killers. Police interview videos of Austin Reed Sigg will be analyzed. Sigg's confession will also be analyzed. The last instrument to analyze will be reports of family history that was reported in the media. Using the book *Cries Unheard*, Mary Bell's reports to Gitta Sereny will be analyzed. Gitta Sereny's reports on the case and interviews with the investigators will also be analyzed to get a complete picture of Bell.

**Procedure**

Read through the written materials starting with the media reports of Sigg's family history to build an idea of his upbringing. Using his upbringing to build a profile on biopsychosocial factors that could have caused him to kill Jessica Ridgeway. Second is to read Sigg's confession to see if any CU traits and biopsychosocial factors show up in the writing. The final part to the procedure is to watch the police interview videos to observe his emotional state during the interview. Observing how his facial expressions, attitudes, and affect will give more insight into why Sigg killed Jessica Ridgeway.

With the case of Mary Bell the research will come from the book *Cries Unheard, Why Children Kill: The Story of Mary Bell*. Using the case history and interviews in the book to build a profile on biopsychosocial factors that could have caused Bell to kill two toddlers. The research into the book will also look at CU traits and to see how high or low her CU traits are. Looking at her responses to interviews will show how her affect and attitude coincide with what she had done. Looking at these factors will give more insight into what made her a killer.

### **Data Analysis**

The data will be analyzed by creating a checklist to compare CU traits, grandiose-manipulative, impulsive-irresponsible, biological, and psychological aspects. With CU traits speech, emotional, and vocabulary patterns will be looked at. Both Sigg and Bell's upbringing will be analyzed to understand the differences between both and see how both would be able to commit the same style violent crime. Also on the checklist will be outside social and risk factors that could have contributed to both committing the crimes.

With regards to affect different reactions towards what Sigg and Bell had done will be looked at. How each react when being asked about the crime, during the trial, and under examination? The facial expressions of Sigg will be looked at to determine affect, while Bell's responses to the interview and how she was viewed by Gitta Sereny and how Sereny viewed her affect during the trial.

The checklist will consider the differences of how each of these juveniles had been raised. Did both come from a two-parent home? Were any of their parent's criminals? How was the family environment that each were

raised in? Knowing these factors will help to explain each of these juvenile's psychology from their upbringing.

The last part of the checklist will delve into understanding how Sigg and Bell interacted with others outside of their family. Did each have friends and were their friends prosocial? Do the outside social factors contribute to delinquency? Each part of the checklist will provide insight into how Sigg and Bell could commit murder.

## Chapter 4

**RESULTS****Callous Unemotional Traits**

CU traits were present with both subjects. Sigg and Bell showed differences in CU traits but both had traits present. The CU traits that were studied were affect, disregard for others, lack of empathy, and limited prosocial emotions.

**Lack of Affect/Disregard for Others**

Sigg shows diminished almost nonexistent affect. This is seen during the police interviews and during the trial. During the police interview he almost seems calm and trying to show some nervousness. His breathing is not labored and shows no change in expression during the whole police interview. His voice never changes pitch and is steady throughout the questioning.

During the sentencing Sigg showed no change. He sat with a blank stare straightforward. While psychologist Dr. Anna Salter was speaking, he showed glimpses of micro-expressions, and that was only contempt. When he let, these be shown it was when Dr. Salter was speaking about

his porn addiction, and how he could be a cold-hearted killer. This study wants to note that Dr. Salter never did a one on one interview with Sigg. She only viewed his interrogations and looked at his files to come up with her conclusions.

Mary's affect was a little different than Sigg's. She shows diminished affect towards the crime and to all of those involved with the case. The only outward expression of emotion was toward her mother. Mary was worried about how her mother would react, not about the crimes she committed. She would also laugh inexplicably; an example was when the casket of Brian Howe was being carried out of his home for the funeral procession she started laughing hysterically, this was noted by one of the police investigators (Sereny, 1998).

Gitta Sereny (1998) even stated that even as an adult, when discussing the crimes, Mary showed no emotion towards the children or what she had done. Another interesting fact about her emotion as an adult she was worried that her interview would make her mother look bad.



**Lack of Empathy**

Sigg and Bell show a lack of empathy. Sigg's lack of empathy can be seen during his police interview. While the police are interviewing him he is asked about Jessica and why she became his victim. Sigg's body movement slows some and he looks even more relaxed and states to the police, that she was in the wrong place at the wrong time. When he was asked about any other incident he said he was hunting and just missed his target.

Bell shows a lack of empathy when talking to investigators also. During initial interviews, she seems cold and emotionless to them when the investigators asked her what she was doing and if she had seen Brian Howe. She shows no empathy towards the death of Brian or what his family is going through. Granted Bell is only 11 years old, but she can discern between right and wrong due to her and her mother's relationship.

### **Limited Prosocial Emotions**

Sigg and Bell both show limited prosocial emotions at the time of their arrest. Sigg deflects when being interviewed about Jessica but is more willing to discuss what he did. His body language even changes when asked about hunting or his crimes. It is seen he sits up straighter in his chair and shows some eye contact with the investigator's. During the sentencing for Sigg the only emotion that is outwardly show was his crying towards how long he was being sentenced to.

Bell does not seem to understand when and how to express emotions properly. During the interview with Sereny (1998), Bell even as an adult sometimes could not express adult emotions properly and would revert to a childlike state. During the investigation in Brian's murder, when Bell was talked to she would have times where she would laugh at inappropriate times. She would explain and understand things that the investigators would ask her, some of the things a girl of 11 should not know. Even when she sounded and acted older during the interviews, there were times she would revert to childlike tendencies.

Vocal pattern differences are evident in both Bell and Sigg. When Sigg was interviewed his speech pattern showed

diminished capacity to use words in proper context. On the video of the interview Sigg states to the investigators that "I hadn't thought'n that out yet." He makes a few different mistakes with his speech and the context of it during the interview. Bell's speech patterns have different changes throughout her interviews with investigators and Sereny. She will talk and understand things that should be beyond the comprehension of an 11-year-old, but then will revert to a childlike speech pattern like that of a six-year-old.

### **Upbringing**

Sigg was raised in a one parent household with no signs of abuse. His father was basically absent from his life. Sigg's father was a white-collar criminal who had been convicted before of check fraud and other crimes. Sigg was a decent student who graduated early, then started college studying mortuary science. Neighbors and friends of Sigg said he was a wonderful, and respectful kid. During his junior year, his friends noticed a change in him. They said he was becoming more aggressive and argumentative. Sigg's mother went back to school after her divorce and the neighbors said she was not at block parties as much but

still was a loving mother and spent quality time with her children (Simpson & Fender, 2012).

Bell was raised in a two-parent household. Even though it was by all circumstances a two-parent household it was far from normal. Her step-father was away most of the time, which is when her mother would abuse and neglect her. When Mary was three her mother tried to drop her out of a 3<sup>rd</sup> story window, Mary was lucky her uncle could get to her in time to grab her ankles and pull her back in the window. Another incident in the same year Mary's mother gave Mary to a lady that was trying to adopt. Mary's mother had never met this woman before. The family was able to find the woman and bring Mary back. Years later Mary still wonders why the family did not leave her with the lady. Six months after that Mary was given iron pills by her mother and had to be taken to the hospital. Mary's mother stated for the family not to believe what Mary was saying. Mary kept telling everyone that her "mum gave me the smarties." Mary's story was corroborated later by a friend who acknowledged that she gave Mary the smarties (Sereny, 1998).

These are the tip of the iceberg that is Mary's childhood. The abuse was also sexual. The mother worked

as a prostitute, even in the home. When people came over to the house that were strangers everyone was told to say that Mary's step-father was an Uncle. Mary's mother would have her in the same room with her while she was with a john. During this time, she would even have the john's sexually assault Mary, by oral and other insertions. Also, Mary's mother and the johns would use foreign objects to penetrate her and even scar her limbs with them. All of this was going on up until the age of six (Sereny, 1998).

### **Summary**

After going through the checklist this study found that both Sigg and Bell had biopsychosocial factors which played a role in their development into killer's. The upbringing both had was completely different, yet both became killers. There were different things that happened to both but on totally different sides of the spectrum. Biology may have more to play than just psychological or social, but that would need to be researched further.

CU traits are largely present with Sigg, the checklist shows his lack of affect, empathy, and disregard for others including his victims. Bell shows CU traits as well, but not as high as Sigg. Bell shows lack of affect, empathy, and disregard for her victims. She does show some

prosocial emotions when discussing certain people, but is lacking in proper speech patterns. Sigg also shows lack of proper speech patterns.

Mary Bell had a horrible upbringing which may have led to her becoming a killer. Sigg had a decent childhood yet became a killer. The only signs of criminality in both of their pasts is Both of Bell's parents were criminals and only Sigg's father was a criminal. Sigg was raised by his mother who doted on him and his father was absent. Even though everything between them is different Sigg and Bell committed the same crime. Bell's only source of caring was her step-father who showed her love even through her trial. Her mother on the other hand only showed her abuse either sexually, emotionally, or physically.

## Chapter 5

**DISCUSSION****Conclusions**

Both Sigg and Bell show significant amounts of CU traits. Also, shown by both is biopsychosocial factors. Both show differences in how both were raised by their parents and how each changed as they became adolescents. The differences between both show that not only environment factors play a role in the development of antisocial behaviors and the building of a juvenile murderer. Biology looks like a major factor in what caused both Sigg and Bell to kill because both of their upbringings were so different. One conclusion formed was that that even though biopsychosocial factors play a role in becoming a juvenile killer there is truly something more like genetics with a key role and a break coming from a TBI or anything else to compound the traits.

Some newer questions that were raised in the literature review of this study where it comes to amygdala size in violent offenders and if the differences in the amygdala can predict violent behavior. The study that shows that grandiose-malignant and impulsive-irresponsible

traits showing significance over even CU traits.

[answer questions raised in chapter one and discuss other conclusions formed while completing the study]

### **Recommendations**

This study shows the relevant need for deeper quantitative research in juvenile murderers. What has been previously researched into juvenile delinquency and violence shows insight into factors that can lead them to become killers, but the need to know the how, what, and why still needs more research.

The relevance to this study shows that not just home violence, or abuse is the leading factor of turning a juvenile a killer. Sigg who was raised in a socially normal household still showed prominent level of CU traits, and some grandiose-malignant behaviors. Where Mary Bell was raised, she had to endure sexual, physical, and emotional abuse at the hands of her mother and the johns her mother prostituted with. Bell showed significant CU traits and impulsive-irresponsible behaviors.



**Limitations**

This study is not generalizable to the population. This is just a part of the beginning trying to delve deeper into why juveniles kill. Another limitation is that this study is only a document analysis on two people, Austin Sigg and Mary Bell. The results are only from this study's observations and other studies may find more. From this study, it only shows one perspective of these cases.

**Future Research**

In the future research on FMRI scans of juvenile murderers could lead to more insight into what causes them to kill. Newer research into juvenile violent offenders who have had what is considered a normal upbringing without any abuse indicators, will help to clarify how juveniles become violent. Furthering research into TBI and how they effect judgement and self-control within juvenile violent offenders.

**Implications**

What this research means is that there is more that is not truly known about the biological aspects of juveniles becoming killers. The future of research should delve into more genetics and biology. This research shows that two people with completely different upbringings can come to the same junction in life and become killers, which means there is more than just the psycho-social aspect. In future research the brain scans of juvenile killers should be studied to see if any trauma occurred and damaged the brain enough for he or she to become a killer. TBI could play a larger role in the creation of a juvenile killer. The previous research shows that child abuse has led to juveniles becoming killers. New research should consider child abuse as a major cause of TBI and see if the abuse damages the brain enough to cause changes in their behavior and biology.

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APPENDICES

APPENDIX A  
DOCUMENT CHECKLIST  
Document Analysis

Callous-Unemotional Traits

1. Lack of affect
  - a.
  - b.
2. Disregard for others
  - a.
  - b.
3. Lack of empathy
  - a.
  - b.
4. Limited prosocial emotions
  - a.
  - b.

Risk Factors

1. Environmental risk factors
  - a.



b.

2. Temperamental

a.

b.

Upbringing

1. Family life

a.

b.

2. School life

a.

b.

|

## APPENDIX B

## DOCUMENT CHECKLIST FILLED

## Callous-Unemotional Traits

## 1. Lack of affect

a. Sigg shows no affect toward questions of what he did. During sentencing hearing breathing was not labored and was very relaxed during testimony against him.

b. Mary's affect was odd she would laugh inexplicably. An example was when they carried Brian's casket out of the family home for the funeral she was seen by police laughing as the procession left and walked by her. She really did not show any other emotions other than when it came to her mom. The emotion she showed was fear of her.

## 2. Disregard for others

a. In over 2 hours of testimony against him by DR. Salter about how his porn addiction and his psychopathy he only has glimmers of micro-expressions rarely and the only one is contempt that shows.

b. Mary shows disregard for those she had killed but shows worry about her mother and how her mother's anger will effect Mary.

### 3. Lack of empathy

a. During discussion about what he did Sigg shows no remorse towards the action and states J. Ridgeway was in the wrong place at the wrong time.

b. During police interviews Mary had no concern for what she had done. To the interviewers, she showed only a concern for her mother beating her to death.

### 4. Limited prosocial emotions

a. Sigg shows little emotion for anything that had happened. The only emotion outwardly shown is when he cries to the knowledge he will be spending life plus 80 years in jail.

b. Bell would laugh at times where it is socially frowned upon. She would also revert to acting and speaking like a young child when questioned and her mother was brought up. She would also act and speak as if she was older than her age.

## Risk Factors

### 1. Environmental risk factors

a. Sigg was raised without abuse and in a loving household, he also had friends. One risk was his father had a criminal background.

b. Bell was raised by a prostitute and a career criminal. She grew up very poor and was forced to do unspeakable acts with her mother's johns.

## 2. Temperamental

a. Sigg has trouble using words in proper context. Example would be I hadn't thoughten that out yet.

b. Bell does not know how to properly act in certain situations. During interviews, she shows fear but only of her mother. She also speaks and has conversations that make her seem older than 11.

## Upbringing

### 1. Family life

a. Sigg was raised with his brother, by his mother who doted over her children and went back to school to be able to take of them, and to show them anything is possible. Even though his mother was busy she would make sure she had time for her children.

b. Bell was raised with her brothers and sisters, by a mother who was a prostitute and stepfather who was a

career criminal. The only person in her immediate family who showed her any love was her stepfather.

## 2. School life

a. In school Sigg was an average student who excelled in forensic science classes. He had friends and even a girlfriend. Most of the people who knew him said he was a nice and caring boy, while others said he was weird and withdrawn.

b. Not much is known about Bell and her school life.

