

# MAZE

## Issue 2: Editorial Letter...

You are holding the second issue of School of Psychology and Neuroscience student newsletter!

The topic for this issue is Forensic Psychology. We do not have law, criminology or forensics department at St Andrews and perhaps that is partly the reason we do not get a lot of information about Forensic Psychology. Crimes and detective stories have captured our imagination for centuries and it is no surprise that a lot of the students I spoke to at the School are really interested and fascinated by the research in this field of psychology. Hopefully, this issue is going to introduce the topic and facilitate independent research. We have prepared some stories about famous serial killer cases, a quick overview of forensic psychology and its history, there are some descriptions of mental disorders that are most common in the prison population, and we have been lucky enough to talk to forensic psychologist at Dunfermline Hospital! Enjoy the issue and once again I would like to remind you that anybody who is interested in psychology is more than welcome to join our team! No special writing skills required!

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## - maze interview -

*Lynebank Hospital located in Dunfermline was opened by Princess Alexandra on the 9th May in 1969. Services in the hospital include clinical psychology and inpatient services for people with learning disabilities. I meet Dr Claire Hamill in the hospital's reception.*

*Dr Hamill works for the Forensic Community Health Team Office in Lynebank Hospital and is a trained clinical psychologists specialising in forensics.*

**Maze: How did you get involved with the Forensic Community Health Team here, in Dunfermline?**

**Claire:** I completed my training as clinical psychologist and decided to specialise in forensics. I work with offenders who have mental disorders and disabilities.

**Maze: What is it like working as a forensic psychologist?**

**Claire:** There is no particular routine that I follow. The work usually involves seeing patients and supporting staff on the wards. We often do interventions in cases of fire arson or domestic violence and try to prevent them. One of the main components of everyday activities is violence risk assessment. We analyse the offence pattern and try to determine how likely patients are to re-offend.

**Maze: What kind of experience is expected from the successful candidate applying for clinical psychology or forensic psychology training?**

**Claire:** Getting a good bachelors degree in Psychology is a first step. This will get you BPS accreditation. It is good to have some research and support work experience. Volunteering with support helplines is a very good way to get the relevant experience. The next step is to get into a good NHS programme for Clinical Psychology Doctorate. It is very competitive and you will need a good CV and experience as an assistant psychologist or research assistant in a relevant field. To succeed in Clinical Psychology the student must be proactive and take initiative. Of course, interest in the subject is desired.

**Maze: What type of disorders are most common in the offenders population?**

**Claire:** We have people with schizophrenia, who can be paranoid and have command hallucinations. However, most common are personality disorders such as antisocial, borderline and psychopathic personality disorders. We sometimes get patients with neurological problems or even developmental disorders, such as ADHD or autism.

# WHAT IS FORENSIC PSYCHOLOGY?

The practice of forensic psychology is said to have begun in 1908 when Hugo Munensterberg, APA president in 1898, published 'On the Witness Stand'; a collection of essays and articles that explored how psychology could be applied to aspects of practical life such as medicine and the legal justice system. In particular, Munensterberg looked at the various factors which affect witness testimony including the fallibility of memory and the existence of eye witness 'illusions'. Over the last century, forensic psychology has continued to evolve as a field of research and present day experts are often called upon to perform a number of tasks including clinical evaluations of suspects as well as providing consultation on legal issues. Forensic psychologists can also be called in to act as 'expert witnesses' in criminal trials and as a result, their job requires strict objectivity, sharp diagnostic ability and previous experience specialising in criminal behaviour.

There remain, however, a number of ethical and legal issues associated with forensic psychology. Specifically, forensic psychologists are criticised for working outside of their area of competence as well as for the reliability of their testimonies. Guthell & Simon (2004), for example, identified several areas with potential for bias including psychologists affected by financial incentives and attorney pressure. In addition to this, recent research into the impartiality of forensic psychologists conducted by Murrie & Boccaccini (2013) has found cause to suggest that courtroom experts' evaluations may be influenced by whether they are being paid by the defence or by the prosecution. It was found that the psychologists who believed they were hired by the prosecution tended to assign higher risk scores to offenders, while those who believed they were hired by the defence assigned lower risk scores.

This is not to disparage the expertise provided by the practice of forensic psychology. For example, when analysing a criminal case, psychologists are often able to provide invaluable insight into what they believe to be the motivations behind the crime as well as whether they think it could happen again. They have also helped to categorise criminals into the different types of offender based on patterns of behaviour. The public has been made aware of the use of criminal profiling in the justice system, whether it is on the television in *Law & Order* or in the news. It remains a relatively new practice, with some unsure as to whether to refer to it as a science or as an art, and is a key example of how psychology can be applied to different areas to useful effect.

It has long been understood that all psychological fields have their own strengths and weaknesses. Forensic psychology continues to contribute useful findings to the justice system, as well as pointing out areas that require further exploration such as jury research. To argue that humans lack the absolute ability to be wholly objective in their evaluations of others suggests that there are areas for improvement and stricter boundaries that need to set but we must not underestimate the usefulness of what we have discovered so far because of this.

## OVERVIEW

*by Lauren Williams*

# WHAT IS IT *REALLY* LIKE?

*by Natalia Fedorova*

This summer, while completing an internship at a psychiatric hospital, I was confronted by an issue that is deeply imbedded in forensic psychology. Two of the patients in the department were criminals convicted of murder. My experience was that these patients were kept under the influence of strong sedatives, making them drowsy and disoriented as well as capable of no harm. I was also surprised by the predominant feeling shown by the staff, a feeling that seemed closest to fear more than anything else. It is important to note what an extremely difficult job it is to treat someone who can, smiling from ear to ear, tell you that they are in the mental hospital for murder.

However, I did not feel as though these patients were being treated. The strong medication they were on prevented them from attending cognitive training and relaxation sessions as well as appointments with the psychologist. Likewise, they were isolated from the other patients and were not able to make friendly bonds. Thus, although their stay was probably more comfortable than being in prison, it was just as pointless. Consequently, my encounter begged the question, what happens to mentally ill convicts?

Focusing on the United States, theirs is not a happy tale, as more mentally ill patients are ending up in prisons than in facilities that meet their needs. This is a result of deinstitutionalization and the general shutting down of state run mental hospitals in the 1970's. It would appear that the pendulum has swung too far. State run mental hospitals were shut down in order to create less isolated institutes that would facilitate treatment. However, the new institutions are largely private and rare as well as not crucially linked to the justice system. Institutions such as the Coalinga State Hospital and Bridgewater State hospital still exist, but they are surrounded by controversy, horror tales of bad history and limited in terms of space. The bottom line is there are too few institutions available to deal with the on-pour of mentally ill convicts. This situation is not restricted to the United States, according to the mental health foundation, 70% of the prison population of England and Wales has two or more mental health disorders.

A possible solution is having institutions focused on mentally ill convicts where care could be specialized and facilities adapted to the conditions. However, in a time of persistent economic crisis, the social work sphere is the one to see budget cuts first and thus this is not a realistic option. It would appear that the stigma that pursues mental illness is an issue with the justice system too and cannot be easily overcome.





# WHAT makes A psychopath?

*by Kirsten Napier*

With five books and over 200 research papers to his name, Adrian Raine is best known as a leading force in the development of the field of neurocriminology. Specifically, his work looks at neurobiological and biosocial contributors to criminal and violent behaviour. In 2010, Raine and his colleagues published a paper outlining evidence of a neurodevelopmental marker associated with the development of antisocial personality disorder and psychopathy. The cavum septum pellucidum (CSP) is a space on the medial side of the frontal lobe, which forms during gestation and normally closes by six months after birth. In some cases, however, the CSP does not close completely.

This is caused by maldevelopment of other midline structures, including the hippocampus and amygdala. Participants recruited from temporary employment agencies were assessed for psychopathy, antisocial personality disorder and criminal offending using a psychopathy checklist, structured DSM-IV interview and criminal record searches respectively. Additional subtests looked at possible confounding factors such as head injury and alcohol abuse. MRI scans were then performed to measure CSP size in all participants. The findings of this study were the first to substantiate a link between limbic maldevelopment and antisocial behaviours. Individuals with CSP were found to have consistently higher levels of antisocial personality disorder, psychopathy and criminal records.

Mechanisms underlying this effect of limbic maldevelopment on criminal behaviour are not yet well understood, although it is known that the septum regulates aggression and the inhibition of behaviour and that disrupting the septal system can result in failure to form a bond with caregivers. This in turn is likely to lead to “affectionless, psychopathic-like, antisocial behaviour”. Additionally, longitudinal studies have shown prenatal malnutrition and exposure to nicotine and alcohol predict future antisocial behaviour, and it is therefore likely that this exposure can lead to limbic maldevelopment which goes on to cause psychopathy and antisocial personality disorder.

As only half of cases of limbic maldevelopment can be accounted for by environmental factors, genetic influences on antisocial personality disorder and psychopathy should be considered in further research on the effects of CSP.

Raine's most recent book, *The Anatomy of Violence: The Biological Roots of Crime*, draws on his own research combined with classic case studies to examine the role of neurodevelopment in criminal behaviour and was published in April 2013.



So over the summer I decided to get a little Psychology work experience. Around Easter time I went through the Edinburgh university staff list for psychology and ended up emailing a professor whose work I found interesting. To my delight I had a reply within 24 hours and I thought everything was sorted. However, after a couple of weeks it turned out that he didn't have anything for me to do. With exam time approaching I thought that it would be too late to get anything else, but after a very encouraging talk with my professor I decided to rally and fire out one last big round of requests. I ended up sending out around 15 emails and got several really friendly rejections. But one is all it took, and about half way through exams I finally got my yes. So I spent my summer working with a PhD student running participants through an experiment under the supervision of Professor Adam Moore. Everything was completely relaxed and I actually had a great time. The research looked at whether physical properties of a person affect their moral judgement. Participants came in for an hour and mainly just filled out computerised questionnaires. Although this didn't make my job very complicated, I felt like talking them through everything and then debriefing them at the end gave me a real insight to the kind of work that is involved in research. On top of this Professor Moore is also open to me participating in the analysis and write up of the results, which could potentially end with my name on a publication. I would recommend doing a work experience to anyone, don't think its too late or that you wont get anything because if you send out enough polite requests, someone is bound to give you something. My experience made me realise that this particular area of research probably isn't for me, but I am immensely glad I've had the opportunity to try it out and make the connections I have.

# Summer Internship Experience...

*by Lisa Felix*

Forensic profiling has been used in a variety of different areas of law enforcement over the last few decades. On a basic level it can be used to assign offenders to different categories so as to facilitate investigators in their attempts to predict future criminal behaviour. These profiles are built up through the analysis of behavioural patterns which are said to reveal crucial information about an offender's personality and in some cases, the motive behind the crime. The majority of arsonists, for example, have been found to be young males with educational or learning difficulties and for whom committing arson is an act of revenge (Rix, 1994). There are a number of famous criminal profiling cases, a few of which will be explored in this article.

# famous criminal profiling cases

*by Lisa Felix & Lauren Williams*

On December 20th, 1968, Betty Lou Jensen and David Faraday were shot on their first date in a parking lot in California. This was the first murder in a series of unsolved homicides committed by the elusive Zodiac Killer. Despite cryptic notes sent to police on a number of occasions, all of which were analysed by handwriting experts, the investigation remains unsolved to this day. A number of profiles have been drawn up since many focusing in particular on his egocentric and attention seeking behavioural traits including the adoption of the name 'Zodiac Killer'. He appeared to take pleasure in outsmarting law enforcement, forcing them to crack codes to reveal his motive and exerting control over those who were investigating him. Every letter and phone call only served to reinforce his feeling of superiority.



*Sketch of what Zodiac Killer was thought to look like*



John Wayne Gacy Jr was charged with the murder and sexual assault of more than 30 boys and young men over the period of six years between 1972 and 1978. His troubled childhood was the basis for his criminal profile; born to an alcoholic and homophobic father, Gacy Jr suffered several health problems including a heart problem and blood clot in his brain during his teenage years. He was taught to be ashamed and repress his sexual orientation and this self hatred is said to have fuelled his actions later in life.

Richard Chase or 'The Vampire Killer' gresomely murdered six people in the 1970s. His fascination with animal blood led him to be institutionalised, where he was diagnosed as a paranoid schizophrenic and put onto medication. However, upon his release his mother weaned him off his psychotropic drugs. During his trial a plea of insanity was rejected by the jury and Chase was sentenced to death. While awaiting his death penalty in prison, interviews with a psychiatrist revealed that Chase was delusional, he believed that he was being monitored by UFOs and Nazis, and later committed suicide by overdose of prescribed anti-depressants.



With at least 30 murders in the 70s, Ted Bundy is one of America's most prolific serial killers. After being caught, Bundy went through several psychiatric examinations, but no concrete impression of a mental disorder could be made. Some suggested multiple personality disorder and narcissistic personality disorder, however, the most common prognosis was bi-polar disorder. In todays light the symptom better correlate with antisocial personality disorder, i.e Bundy was a psychopath. This allowed him to charm and manipulate his victims into trusting him, and relieved him of a guilty conscious. Although he admitted to them, Bundy never accepted responsibility for his murders. He blamed his abusive grandfather, pornography, alcohol and many other aspects including the victims themselves for the source of his killing.

# DEFINITIONS *by Giedre Cepukaityte*

**Antisocial personality disorder (APD)** is characterised by antisocial behaviour and personality traits such as remorselessness, irritability, impulsivity, narcissism and disregard for feelings and rights of other people which are prominent throughout subject's life. APD is distinct from psychopathic personality disorder although they are frequently merged together. In a prison survey review published in 2002 prisoners with APD are said to account for 47 percent of all prison population, which shows the extent to which people with APD are not able to adapt to societal norms.

**Borderline personality disorder (BPD)** is characterised by a persistent pattern of mood, self-image and interpersonal relationship instability, impulsive behaviour and tendency to self-harm and even suicide. There is evidence that BPD is genetically predisposed, although environmental factors, such as child abuse, remain important. Because of a very high suicide rate of nearly 10 percent people with BPD often require hospitalisation.

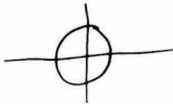
**Psychopathic personality disorder (PPD)** is characterised by a wide range of traits including artificial charm, pathological lying, manipulative behaviour, egocentricity, emotional hyporesponsive ness, lack of fear, responsibility, empathy, guilt and remorse and tendency to violate social norms. Although people with PPD are likely to engage in criminal behaviour and lead antisocial lifestyle some individuals manage to adapt and can be relatively successful.



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'Zodiac Killer' is the most fascinating and mysterious American serial killer. The story has inspired many books, documentaries and movie 'Zodiac' (2007) by David Fincher, starring Jake Gyllenhaal and Robert Downey Jr. On the left hand side you can see one of the Zodiac's codes. You can try and crack this code, but we have something easier for you! At the top you can see the code we have prepared for you to solve.

The answer key will be given in the next issue.  
Good luck!

Hint: google 'Pigpen/Freemansons cipher'

## GREAT MINDS OF PSYCHOLOGY

Hugo Munsterberg  
(1863-1916)

German-American Psychologist who was a pioneer in applied psychology. His controversial book 'On the Witness Stand' (1908) argued that eye witness reports are unreliable and that intense interrogations might trigger individual's need to please; in return, this might lead to false confessions. Some of Munsterberg's books are available at the University Library's Special Collections.

