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Issue 2

PsychOut

The Importance of Being Musical



Presenting
The Brand New Staff
Section Featuring
Maggie Snowling



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Editors Letter:

Freshers! Welcome to the second issue of PsychOut, PsychSoc's student magazine!! We hope you are enjoying term and are recovered from Freshers Week! In this issue we talk savants, pigeons and ping pong, musical babies, angry chimps and the seven tips to happiness! If you want to get involved or have any suggestions (good or bad!) then email us at psychout@yusu.org and don't forget to join us on Facebook!!

Also any references cited in this issue can be found at on the PreCognition website.

Enjoy!

The PsychOut Team

Meet the Team

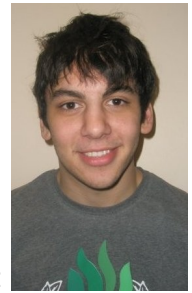
I'd like to introduce you to our amazing team of writers for this issue and also to thank them for all their hard work!!
If you'd like to get involved in the next issue of PsychOut and see your name (and face) up in lights then drop me a email at psychout@yusu.org or search for our Facebook group!!



Grace Rice
Editor



Adele Goman



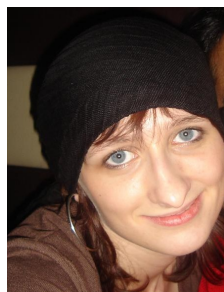
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Cassie Barton



Alex Knight



Features

This is our features section; where large topics in Psychology will be discussed! If you'd like to see a topic in here which isn't, let us know either by Facebook message or by email: psychout@yusu.org

How to grow up properly

By Cassie Barton

You're a student, and the rest of your life is looming large and scary. Wouldn't it be nice to know that there's a set formula for happiness in adult life, distilled out of the experience of hundreds of others?

The Harvard Study of Adult Development has been following its 275 participants since 1937, in what has become the world's longest-lasting longitudinal study. In an effort to identify the "familial, childhood and psychological variables" that affect happy and healthy aging, participants have sat through an extensive range of medical exams, psychological tests and interviews.

Participants come from one of two projects: the Grant men are all Harvard graduates who began the study while they were students, while the Glueck men grew up in inner-city Boston, some of them former juvenile delinquents. Though the men started out as fairly similar within their groups, the study encompasses a huge range of life outcomes. One Grant par-

ticipant died an alcoholic at 64, another is still going and "[wouldn't] want to change anything" about the way he's lived his life. Another was John F. Kennedy. What the study aims to find out is what choices and actions went into these outcomes, and how much of the men's happiness was written in their genes and childhoods.

George Valliant, current head of the study, claims to have found seven major factors for a successful life. The more of these boxes you tick at 50, the more likely you are to be "happy-well" aged 80. Some are straightforward, relating to physical health: exercise regularly, don't smoke (though strangely enough, the study's research into smoking habits broadened at around the same time it was being funded by a major tobacco company!), don't drink too much, maintain a healthy weight. All fairly obvious, and all, most people would agree, easier said than done.



The Grant Study men all graduated from Harvard in the 1930s

When social factors come into play: the impoverished members of the Glueck study were 50% more likely to become alcoholics than the Harvard graduates. A good education was also another of Valliant's important factors, however this was much harder for Glueck's subjects to obtain. Forming close relationships, and ideally having a good marriage, is another factor and is now a major focus of the study.



John F Kennedy was a prominent member of the study

The final, seventh factor relates to the way we respond to trouble when it occurs. Valliant talks about this in terms of "defence mechanisms". First characterized by Anna Freud, defence mechanisms are a way of looking at how the mind defends itself against uncomfortable realities.

There's a sliding scale of different adaptations, some of which are unhealthy: from "psychotic" mechanisms such as paranoia and megalomania to "neurotic" adaptations such as repression (inability to acknowledge a conflict). At the top of the adaptation scale are "mature" mechanisms, such as altruism and humour, which are better for your mental health. The good news is that the study found mature defence mechanisms to be much more common in participants as they grew older – so you could be a repressed,



Participants' happiness was studied from their youth right up until old age

paranoid mess at twenty and still be shrugging off your problems with ease given a few decades to grow up in.

How much a life of happiness can be accounted for by a few rules like Valliant's is still up for debate, just as it's always been. But the study has still proved its worth over the years, providing data for research topics from alcoholism to relationships to post-traumatic stress after combat.

Researchers are now looking in a new direction. Participants are undergoing genetic tests and neuroimaging techniques in order to shed light on how our biology affects our behaviour, something that was hardly possible back in 1937.

But whether or you think eventual happiness comes from our life choices or our genes, Valliant's seven factors sound like advice worth following. Don't smoke. Don't become an alcoholic. Exercise, and keep a healthy weight. Get an education (if you're reading this, you're probably already on to that one), and a good relationship. And above all, keep your unconscious defence mechanisms healthy – easy. Just as it did for the Grant and Glueck study members, only time will tell how well all that works.

Savant Syndrome: The key of the myth to unlocking neural processing?

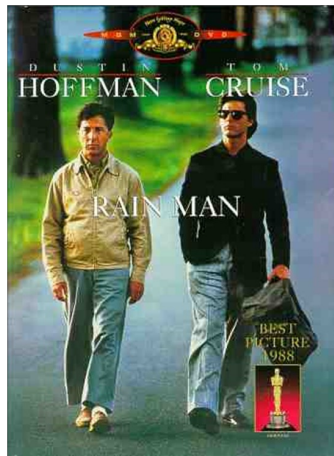
By Alex Knight

Those with savant syndrome, formerly idiot or autistic savants, are a group of rare individuals who possess incredible aptitude in extremely specific abilities. Recently these individuals have received widespread media attention, probably as a result of the media's portrayal of these individuals, for example Raymond Babbit, played by Dustin Hoffman in the cult classic, Rain Man. However, it would appear the occurrence of these individuals has a long-standing but perhaps disregarded place in both history and science.

The first reported case of an individual who possessed savant abilities was Jedediah Buxton who was referred to as a "lightning calculator with an extraordinary memory" (Mortiz, 1783). One later reported case was of Thomas Fuller who was asked once, "How many seconds a man had lived when he was 70 years, 17 days and 12 hours old?" Fuller was able to give the correct answer of 2,210,500,800, even correcting for the 17 leap years experienced, in simply 90 seconds (Scripture, 1891).

As more people with savant syndrome are discovered (often during childhood), those studying the phenomenon are beginning to notice common trends. One of the most important breakthroughs was being able to classify three levels of savant skill. The lowest level of skill is said to be individuals who have "splinter skills" which are obsessions (often intense memory) for subjects such as music, maps and trivia. These are then superseded by "talented savants" and "prodigious savants", of which there are only reported to be 50 in the world (Treffert, 2009).

The term "idiot savant" was phased out as it held the misconception that those with savant syndrome were considered severely mentally retarded. Although some cases supported this (IQs of below 25), nearly all reported individuals have an IQ over 40 and there are large deviations (Treffert, 2009). "Autistic savant" soon replaced it but this was also at fault. Firstly, the generally accepted number of children with both savant syndrome and autism is around 10%; established based on findings from Rimland (1978) who investigated savant abilities in 5400 children with autism (identifying 531 savant children). This research rebuffed the common myth that all children with autism possess savant abilities. On the other side of the coin, however, research has also shown not all individuals with savant syndrome have autism. It is estimated around 50% of those with savant abilities have autism, the other 50% have mental retardation (Saloviita, Ruusila and Ruusila, 2000), or have suffered serious brain injury.



Rain Man brought savant syndrome to the attention of a wider audience

Psychologists have inferred that a significant majority of savant abilities fall in to four common categories, and possibly two further common categories are being identified. The most common savant ability (Rimland, 1978) is music, expressed through composing and performing. The most publicised case of a musical savant is that of Raghav Sachar who can play twenty-two varying instruments, and began learning the harmonica aged 4. The second most common artistic skills remain most prevalent, with drawing and sculpting abilities often manifested as an ability to draw from memory.

One example is artist Stephen Wiltshire, who after one hour panoramic helicopter rides across cities, can then draw accurately from memory (often taking a number of days) what he viewed.



Stephen Wiltshire's abilities have been featured in a Channel 4 documentary

Other notable skills held by those with savant syndrome are calendrical calculation (exceptional mathematical ability surrounding dates), lightning calculation (ability to rapidly complete complex mathematical problems) and poly-glot (the ability to speak fluently many languages, learnt in a short space of time). Less common abilities, such as super-sensitive senses and exceptional estimation abilities (for both time and space) have been reported.

Despite the emergence of a number of theories attempting to explain savant syndrome, none fully account for the phenomenon. Most centre on abnormally good memory, with particular theories emphasising importance of eidetic memory, commonly referred to as photographic memory. One fictional, but popular case of a savant individual with an eidetic memory is Dr. Spencer Reid in the CBS drama "Criminal Minds". Reid, diagnosed as an autistic, claims to be able to read 20,000 words per minute, contributing to his status as a genius with an IQ of 187. This form of memory often leads him to be able to decipher codes and recall important details to capture serial killers. Mishkin, Malamut and Bachevalier (1984) believe eidetic memory may be "unconscious" or "automatic", but those with savant syndrome have been able to consciously retrieve information from this store.



Although Reid is considered a genius, a high IQ is not synonymous with savants

Although both the fictional case of Dr Reid, and the true-life case of Stephen Wiltshire rely on eidetic memory to form savant skills, research has suggested not all savants have eidetic memory.

One current theory, leans away from cognition and looks at the role of neurophysiology in savant syndrome. There is, at this time, a strong basis of evidence suggesting savant skills may be a result of over-compensation in the right hemisphere of the brain. DeLong (1999), for instance, found decreased 5-HT synthesis in the left hemisphere of autistic patients compared to the right (possibly accounting for increased right hemisphere brain activity). Despite this, some savant skills, notably music-related, rely on the left hemisphere (Rimland and Fein, 1988).

Snyder and Mitchell (1999), however, have formed a theory which can perhaps explain both aspects of savant syndrome. Their research, focusing on increasing abilities of those considered to have "splinter skills", found use of rTMS to temporarily halt left hemisphere functioning led to significant increases in skill level. Therefore, eidetic memory may be accessible, but individuals with normal brain functioning may not be able to access it due to processing demands of the left hemisphere (which take cognitive priority).

Despite all the research in to this fascinating phenomenon, even specialists in the area do not believe a successful theory (explaining the prevalence of all of those with savant syndrome) will be formulated any time soon, although all agree that recent advances in neuro-imaging techniques will assist in answering important questions.

The Sense of Music

By Hannah Belcher

By the age of two a child will have heard over a thousand hours of music, which equates to around a third of the child's waking life in the presence of some kind of music (Winston, 2005). It is everywhere, on the television, in shops, in waiting rooms; in fact it would be hard to find a place where music was completely absent. But our ability to perceive music starts long before we are even born; whilst still in the womb the unborn foetus can recognise music from the external world.

In tests conducted after birth, newborns responded more positively to music they had heard repeatedly whilst in the womb and to 'womb music' itself. Although still too young to fully comprehend a piece or to form a preference for Britney Spears over Lady Gaga, the foetus is better at picking up catchy songs such as television theme tunes. From an early age children begin to show preferences, when tested at the age of one the majority of boys preferred loud rock whilst girls preferred softer music. Although at first this appears to be the beginnings of a classic gender stereotype, these differences are thought to be due the female baby's more acute sense of hearing and ability to hear quieter sounds.

Music has become so ingrained in our everyday existence from such an early age it is almost impossible to con-

template a world without it. But how exactly did the early Homo Sapiens start to create music, and more importantly for what reason?



Ready to Rock? Young males show a preference for louder, rockier music

Like pretty much all the great mysteries of human behaviour, psychologists have no definitive answer, just a whole load of contradicting theories! All that is known is that music played a significant role in our prehistoric ancestor's lives, as can be seen by the Palaeolithic cave paintings illustrating dancing and music and flutes made of bone. It is thought that these were the very beginnings of the Homo Sapiens creation of music, occurring at around 50,000BP and known now as 'primitive music' (Storr, 1992).

Many have compared this primitive music to that of bird song, used to advertise territory, warn others of danger and as a sexual invitation. Darwin firmly believed that our use of music is routed in evolution, and that it preceded speech as an early mating call. Humans more than likely sang before they spoke, and possibly even danced before they walked (Blacking, 1976).



"This music really does nothing for me"

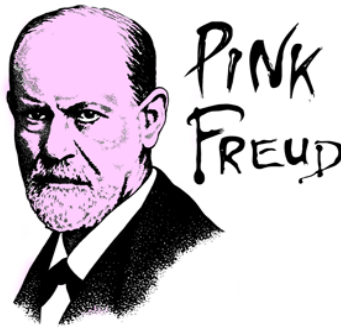
It is believed that both speech and music descended from a common origin, a primitive need to communicate emotional needs.

As Homo sapiens advanced this merged into two separate acts; speaking and language for rational thought, and song and music for metaphorical thought.

Since the Darwin era many evolutionary psychologists have looked in particular at how monkeys create and respond to music, for example in Gelad Monkeys music is the language of emotional and physiological arousal, much like humans. An equally convincing theory of the origins of human music behaviour comes from developmental psychologists, who believe that babies develop their musical behaviour from their babbles, used as a means of communication between infant and mother. Psychologist Howard Gardner noted how babies often react to music in the womb and how infants do not respond to words but instead to the rhythm, pitch, intensity and timbre of the mother's voice.

Whatever its true origins it is clear that music has a profound effect on us. But if we created music as a means to communicate before we developed speech, then why do we still find it to be such a significant aspect of our lives? Freud, keen never to let us down, has provided us with yet another spectacular theory. He believed that all forms of art and literature were used as a means to escape from reality, or if you speak Freudian, a sublimation of an unsatisfied libido. This theory supports the view that music develops from babies babble, and says that music is therefore a form of regression. Freud found music to be more important to his neurotic patients who he also described as being more "creative" types.

He believed that such people have diffi-



Never one to miss out on the fun, for Freud music is an escape mechanism

culty dealing with sensory input from the external world, and thus need to create order in some other way. In terms of music being a 'sublimation of an unsatisfied libido', he compared music to an orgasm; intense emotional arousal, followed by a desire for physical movement, followed by feelings of peace, then finally complete relaxation. Other more mundane theories on the significance of music are that it unites us with a shared experience, hence the popularity of live gigs and music festivals, and that humans use music as a means to create order out of chaos.

Physiologically music is more like a drug, and it is possible we are simply addicted to its mood enhancing effects. In Anthony Storr's book 'Music and the Mind' (1992) he describes how there is a closer relation between hearing and emotional arousal than seeing, and also how beneficial this arousal can be to someone suffering from depression. Research in the last few decades has tried to pin down the precise effects, and for some time now specific music has been used to purposefully alter our moods. For instance research found that when supermarkets played slow music customers walked around more slowly (Milliman, 1982), and that when played classical music customers were more inclined to buy expensive wine (Areni and Kim, 1993).



Music is used in a consumer environment to influence shoppers

The list of such studies is endless but the message is always the same, music has a profound effect on us and without it our lives would be

incredibly dull.

Ever Thought Of Working With Children? Try A.T.E!

By Angela Kirby

Active Training and Education (ATE) is a non profit organisation that runs activity holidays for groups of children. It was set up by Chris Green 50 years ago, and since then has evolved from *Colony Holidays* to *Sing For Pleasure* and, since 1996, ATE. 'Superweeks' are typically based in boarding schools sur-



"Superweeks" are often based out in the countryside

rounded by miles of beautiful countryside. The centres offer home-cooked food, group dormitories, access to fields, streams and wildlife, ornate buildings and often swimming pools.

By nature of being volunteers, 'Monitors' - often students, previously trained for 8 days - really care about the scheme. With one for each group of children, monitors offer limitless enthusiasm, ideas and encouragement to children. 'Travel days' mean that parents don't have to worry about transport: monitors make trips to various cities to gather children and escort them to the centres. Frequent whole-group activities, such as swimming, challenges, singing and firelight stories, allow children to make friends with many others outside their groups.

Time is filled with songs, games, puzzles, dressing up, day trips, handicrafts and anything else that can be conjured up. Mobile phones are collected in, which, over many years, has shown to encourage socialising and reduce homesickness. It's a massive boost of independence for many, as they spend a week living away from home. It's also a break from everyday life- allowing children to try many new things, and meet people from different

backgrounds, with no preconceptions.

There are many beneficial aspects of Superweeks that might not be realised by the children. Regular, home-cooked meals are something that they might not receive at home, alongside the confidence, communication skills and consideration brought by living with other children. Children also get support from adults who are neither family nor teachers, and a chance for increased physical activity. It is very common that children will return year after year, and many monitors are 'ex-children' who didn't want to give up ATE.

As a monitor who trained over Easter and has since completed an 8-day Superweek and a 10-day Performing Arts Superweek, I have found both experiences overwhelmingly rewarding. I experienced mornings of 'dormitory inspection songs', nights of "Please read to us again!"



Students working with children during "Superweeks" in 2009

and some amazing fancy-dress and acting on the parts of both children and staff. I felt 8 little girls' immense pride when a combined effort of toilet-roll mummies, gargling music, tower-building and blindfolded sandwich-making led to a brilliant score in one night's game. It's not really possible to explain the magic of ATE, but I'm trying, because things like this need advertising.

Visit www.ate.org.uk for more information, and to find out how you can get involved with ATE.

Unlucky For Some

By Grace Rice

In popular culture, 72% of people believe in some form of good luck, whether it be lucky charms or specific rituals performed before important events. Walking under ladders,



letting black cats cross your path and the number thirteen are also just some of the widely believed unlucky superstitions.

The lucky number 13 originated from 13 people being around the table at Christ's Last Supper

Psychologists have investigated these superstitions and the results are probably not that surprising, below is a summary of just some of

the research; which encompass black cats, the lottery and whether counting adverts is affected by your own good luck.

Levin conducted a simple experiment where a black (or white) cat crossed participants paths, their luck was assessed before and after the crossing using a coin tossing exercise. The results indicated that neither the black or white cat had an effect on participants luck. Similarly Peckham and colleagues tested whether living at Number 13 affected peoples good fortune. Dwellers from Number 13's all over the country were asked to rate whether their luck had been affected by moving into the supposedly unlucky houses; results indicated that only one in ten agreed that their luck had altered and what's more, in a follow up Peckham found that *house prices* on Number 13 houses were lower as a result of the common superstition, as 40% of people were resistant to buying them.

Professor Richard Wiseman specialises in studying the Psychology Of Luck; he believes that Luck is no more than being able to spot hidden opportunities which people who are

more superstitious may miss. To test this theory Wiseman devised a clever experiment, in which participants were asked to count the number of adverts within a broadsheet newspaper. Simple! Although what Wiseman didn't tell his participants was that there were two whole page adverts that would have been of great interest to participants, the first was "WIN £100 BY TELLING THE EXPERIMENTER YOU HAVE SEEN THIS" and the second was "STOP COUNTING, THERE ARE 52 ADVERTS HERE". And here's the interesting bit, those

people who previously classified themselves as 'lucky' were more likely than the 'unlucky' people to spot these adverts!



Being lucky is about as helpful as Derren Brown when it comes to the lottery

Perhaps the luckiest event in the world is winning the National Lottery. Smith and colleagues examined self-proclaimed lucky and unlucky participants lottery numbers and found that certain numbers were preferred by lucky people (1, 7, 17, 29, 37 and 44).

So armed with these supposedly 'lucky numbers', Smith should have been able to win a life changing amount of money right? Well not really, when they ran these numbers against that weeks draw, none of the numbers matched up. So in short being lucky doesn't help you to win the lottery- sorry!

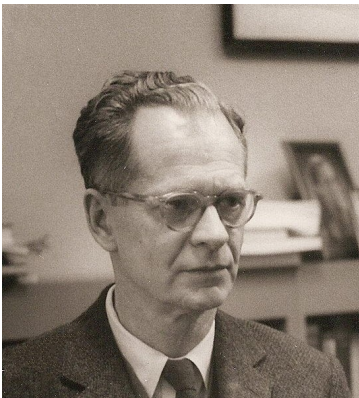
So in the end, being lucky doesn't really help an awful lot, whereas maybe being a little more open minded may help as you are more likely to spot opportunities!!



Welcome to our Classical Psychology section; in this section early theorists and practices within Psychology will be discussed because we don't want to forget where it all began!!

On Pigeons, Missiles and Utopia

By Ivan Alvarez



Burrhus Frederic Skinner (1904 – 1990) is considered one of the most influential figures in psychology as we know it today. And yet little we know about the ventures of this curious man from Pennsylvania who gave us

radical behaviorism, *Walden II* and a half a century of controversy for the behavioral sciences.

Skinner, originally set out to become a writer of fiction in his early years, quickly gave up his literary intentions to pursue a psychology degree at Harvard where he turned to academia (Boeree, 2006). Known to most by virtue of his eponymous box, Skinner worked extensively on operant conditioning coining terms such as schedule of reinforcement, rate of response and shaping. This later one will be the most influential both in theory and in its practical implications. The idea behind shaping is that an existing behaviour can be changed to a desired one by means of reinforcement and punishment (Reynolds, 1975). This was an already existing idea but the revolutionary thought was that, given the appropriate envi-

ronment, any behaviour could be obtained. Skinner and his colleagues often worked with animal resulting in great success; teaching pigeons varied patterns of conduct like playing bowling and ping-pong (B.F. Skinner Foundation, 2009). The potential of this procedure was even picked up by the USA army. Named 'Project Pigeon' and funded by the National Defense Research Committee, Skinner and a group of students trained pigeons to direct missiles as a plausible mechanism for 'smart' warfare un the late days of World War II (Scrupski, 1999). Pigeons would peck at a radar display correcting the direction of the projectile after being reinforced to do so by operant conditioning procedures. As far-fetched as it may sound, the project was relatively successful before it was discontinued in October 1944 and it illustrates the potential of operant conditioning in virtually any area of behaviour. Such was Skinner's belief on the potential of shaping that he extended his findings to human behaviour.



The powers of operant conditioning, extend to training a pigeon to play ping pong!

By analogy with the pigeons, any behaviour elicited by humans is the result of their environment and the continuous learning process we are exposed to; and so any behaviour can be trained.

Operant conditioning was even used on his second child, Deborah Skinner. The most infamous instance of this is the invention of the 'Aircrib', an isolated device with temperature and humidity controls and a self-cleaning rolling floor that could sustain the child in a comfortable environment (Skinner, 1945). The child container sparked much controversy about Skinner's parenting techniques and despite his initial attempt at a commercial breakthrough it did not gain much popularity (Bjork, 1993).

Skinner greatly extended his ideas about conditioning to human behaviour, to the point of suggesting an alternative social structure based on scientific premises in his famous novel, *Walden II*. The book describes a modern utopia where the community members live productive and fulfilling lives by adhering to established plans that rule most aspects of daily life. In principle, *Walden II* exposes an idealized society where each member is subject to complex conditioning to achieve an efficient, self-reliant community (Skinner, 1948). At its time the book was controversial and highly criticized due themes like atheism, socialist economy and lack of opportunity for self-expression (Time, 1971). The underlying theme of a high order of planners dictating rules and deciding what is best for the community was seen as threatening against the ideals of western society, specifically the loss of personal freedom and dignity. In response to these accusations, Skinner issues not an apology but a detailed retort in *Beyond Free-*

dom and Dignity. The reply is a logical argument for the incongruence of personal autonomy and a successful, harmonious society.

While freedom and dignity brought positive consequences in human history in the future world of cultural engineering they will become an obstacle and as such they must be left behind (Skinner, 1971). Skinner did not lack critics, but his well structured arguments accompanied by the hopeful feeling at the mid of the century of scientific innovation and vast possibilities earned him many followers.



The "Aircrib" used to train Deborah Skinner

Skinner was successful in taking the ideal of a manufactured society to the general public and arduously defended the idea of societal change. In fact, he was an ardent activist in education, arguing for a change in the way teaching is carried out based on his findings in experimental settings of operant conditioning, particularly opposing the use of punitive teaching when it had been shown that reward is more effective at changing behaviour than punishment (Boeree, 2006).

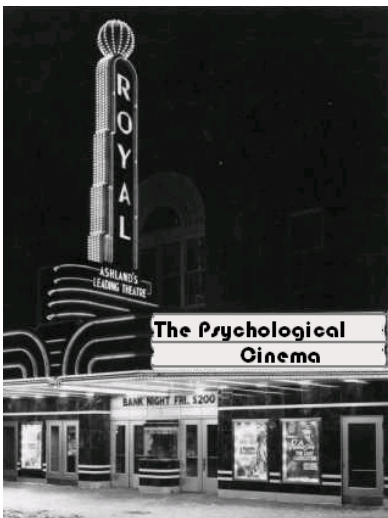
In work spanning experimental and theoretical psychology, literature, social reform and education, B. F. Skinner established himself not only as a reputed academic but also as a controversial public figure. Radical behaviourism, largely abandoned today, imprinted an influential drive on experimental psychology and the contributions and inventions of Skinner are commonplace in behavioural research. Despite much criticism, sweeping claims and downright ludicrous applications, B. F. Skinner's ideas have found a comfortable place among the founding blocks of modern psychology.



Pop Psychology refers to the culturally relevant aspects of psychology which serve to promote a healthier lifestyle and give people scientific insight into aspects of their everyday life.

The Psychological Cinema

By Robert Stuart



The movie industry is forever looking for a fresh psychological disorder to plumb and in some cases this can be seen as exploitative; however in this article I'll be detailing the more important, accurate psychological films. Of course cost vs. benefit means that

no film is going to be at DSM-IV level accuracy as that wouldn't be very entertaining (thus documentaries on certain mental illnesses have been excluded). Therefore this series of articles will attempt to cover some of the best examples of psychological realism in strong, critically respected movies.

Fatal Attraction (1987) - Borderline Personality Disorder (BPD)

Glenn Close consulted three psychiatrists before making this film to get a fuller understanding of BPD. The character also shows the psychological profiling of someone with eroto-

mania; the type of obsessive love seen in stalkers. Glenn Close in her Oscar nominated portrayal displays the behaviours of impulsivity, emotional lability, fear of abandonment, idealization/devaluation and self-mutilation consistent with the diagnosis of BPD. This film is a good example of an accurate depiction of a psychological illness and did manage to coin a new term, 'Bunny Boiler', however in dehumanizing Glenn Close's character to movie star villain it certainly cheapens the message of the film that this woman, with so little control over her mind, receives a rather horrific treatment for her condition - getting shot!

In real life psychotherapy and Cognitive Behavioural Therapy are the main treatments...but that would make this a wholly different film! A tense, enjoyable film, thrillingly acted by Glenn Close makes this a must see, but, though accurate, don't expect to obtain much empathy for a person with BPD!



Memento (2000) - Amnesia

Or to be more accurate – Anterograde Amnesia, the inability to form new memories after the amnesia occurs, in this case through severe head trauma. Memento is simply one of the greatest films ever made. This thriller/murder mystery places you right in the frustrating and confusing mind of a person suffering from anterograde amnesia. Each scene lasts only 5 minutes and the story is told in reverse, so the first 5 minutes is actually the final scene in the film. The film really gets across the sense of desperation that occurs with the inability to remember anything as the lead character uses



everything from Polaroid's, notes, even tattoos on himself to try and make sense of his world.

Told with both colour and black and white scenes (the latter being a side story that is not played in reverse) this is certainly a tough film to follow, however it's also richly rewarding with a very strong performance from the brilliant Guy Pearce. This is a must see film for everyone (not just psychologists) and acts as an entertaining companion piece to the many documentaries on people with anterograde amnesia such as the cases of H.M and K.C.

Scents And Sensibility

By Robert Stuart

Despite Cher trying to convince us otherwise, new research in the field of relationship formation and satisfaction is proving that if you really want to know if he loves you so, it's not in his kiss, but rather, his whiff!

This research states that people tend to be attracted to others whose immune systems are different from ours. As our odours are intrinsically linked to our immune systems, if we experience our partner's natural scent as pleasant it's a good indicator of variability between our immune systems. Put in layman's terms; this is the science behind 'sexual chemistry', the ephemeral phenomenon that makes a truly satisfying, enduring and passionate long term relationship.



'You don't half smell GAWjus

Mr Ferrars!'

So, why is an opposite immune system a positive? It's due to the Major Histocompatibility Complex (MHC) which is a large genome region that plays an important role in the immune system by detecting which cells are 'self' cells and not to be attacked, and which cells are foreign 'antigens' that need to be rejected from the body. Everyone's MHC is different and thus for one person the alleles in their MHC may be particularly good at fighting a virus 'x' but prone to virus 'y' whereas another person may be prone to 'x' but resistant to 'y'. Thus, biologically these two people are well matched and would produce a child who would be likely to be immune to both viruses.

This therefore brings us to the crux of the argument; Odour that denotes differential immune systems indicates that a couple will have offspring likely to survive to reproductive age as the child will be more immune to more viruses. Now counter arguments for this may include that not all couples want to have children and thus in those cases does odour even matter? However, a recent study discovered that opposite MHC partners, with different immune systems, engage in more sex and are significantly less likely to cheat in long term relationships. See, science can be sexy! Moreover it has been found that couples with immune system similarities are more likely to suffer miscarriages and have difficulty conceiving, that alongside a lack of sexual responsiveness and an increase in cheating on the partner does not bode well for the relationships of those with similar immune systems.



When they say opposites attract, they mean it in every sense of the word!

So what to do with this information? Well, for those looking to settle down, yet haven't found Mr or Mrs Right yet, they can join up to dating sites that use scent to match partners based on this research on MHC opposition such as 'Basisnote' and 'Scientific Match'. Or perhaps if you're already in a rela-

tionship and are not sure whether to take it further you could test whether your immune systems are opposing either in a lab or informally by using unscented soap and deodorant for a month and testing each other's scent, if you like what you smell, perhaps you should take the next step. However, if a couple was to do this, the woman would have to stop taking birth control pills as these can effect your natural scent.

Now of course odour will not have a stronger effect on relationship formation than attractiveness, SES or even humour and of course if you found out that the person you love has got a similar immune system you probably would argue that humans can rise above our biology and stay together despite a lack of immunocompatibility, and as a final point little research has been done on whether scents play a role in the formation or maintenance of homosexual relationships where reproductive success is not an issue. However, as a tool in the maintenance of long term relationships, scientists are discovering just how vital scent can be.

Why So Serious?

By Hannah Belcher

- Q. How many psychologists does it take to change a lightbulb?
 A. Just one, but the light bulb has to WANT to change
 Q. How many psychoanalysts does it take to change a light bulb?
 A. "How many do you THINK it takes?"

Neurotics build castles in the sky.
 Psychotics live in them.
 Psychiatrists collect the rent.

RING. . .

CLICK

Welcome to the Psychiatric Hotline.

If you are obsessive-compulsive, please press 1 repeatedly.

If you are co-dependent, please ask someone to press 2.

If you have multiple personalities, please press 3, 4, 5, and 6.

If you are paranoid-delusional, we know who you are and what you want. Just stay on the line so we can trace the call.

If you are schizophrenic, listen carefully and a little voice will tell you which number to press.

If you are delusional and occasionally hallucinate, please be aware that the thing you are holding on the side of your head is alive and about to bite off your ear.

"I see you were last employed by a psychiatrist," said the employer to the applicant. Why did you leave?"

"Well," she replied, "I just couldn't win. If I was late to work, I was hostile. If I was early, I had an anxiety complex. If I was on time, I was compulsive."

A very shy guy goes into a bar and sees a beautiful woman sitting at the bar. After an hour of gathering up his courage, he finally goes over to her and asks, tentatively, "Um, would you mind if I chatted with you for a while?"

She responds by yelling, at the top of her lungs, "NO! I won't sleep with you tonight!"

Everyone in the bar is now staring at them. Naturally, the guy is hopelessly and completely embarrassed and he slinks back to his table.

After a few minutes, the woman walks over to him and apologizes. She smiles at him and says, "I'm sorry if I embarrassed you. You see, I'm a graduate student in psychology, and I'm studying how people respond to embarrassing situations."

To which he responds, at the top of his lungs, "What do you mean \$200?!"

The Worlds "Funniest" Joke: (Wiseman, 2007)

Two Hunters are out in the woods when one of them collapses. He doesn't seem to be breathing and his eyes are glazed. The other guy whips out his phone and calls the emergency services. He gasps, 'My friend is dead! What can I do?' The operator says, 'calm down, I can help. First, lets make sure that he's dead.' there is a silence, then a shot is heard. Back on the phone, the guy says, 'OK, now what?'



Welcome to the Psych Soc section, here you will find everything that is going on within the best society at York! From academic talks to the latest in a long line of nights out!!

New Year, new Psych Soc!

Introducing the (maybe not so) brand new Psych Soc committee members; who shall be organising all your social and academic activities in 2009-2010!

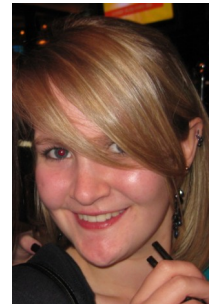
If you have any suggestions or anything in particular you would like to do then send us an email at psychsoc@yusu.org (and don't forget to join our Facebook page for the latest news)!



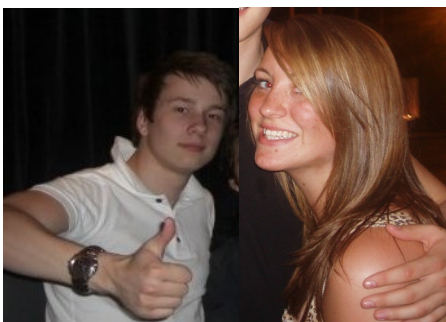
Chair:
Tom Wright



Treasurer:
Michelle Yates



Secretary:
Grace Rice



Welfare Officers:
Sarah Tillotson and Flick Saunders

Social Secs:
Elliot Smith and Cindy Prescott



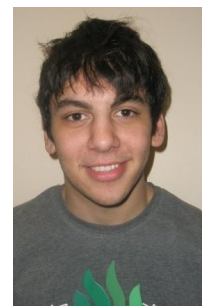
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Sally Ngo



Ordinary Member:
Robert Stuart



PsychOut would like to welcome all FRESHERS!

By Adele Goman

Here is your essential guide to getting the most from your first year as a Psychology Undergraduate straight from the people who have been there and got the t-shirt!

1. Join PsychSoc!

PsychSoc arranges various academic events, in the past these have included tours of YNiC, external speakers and debates with departmental staff and of course the infamous socials, Pub Golf and Cavemen are two of the favourites! For just £4 membership fee for the entire academic year, it is a great chance to get to know fellow psychology students.

2. Become a part of PsychOut!

We'd love to hear from you. Whether you are passionate about a specific area of psychology or have a general interest, PsychOut offers YOU the chance to write about anything psychology related. Look out for the sign up sheets on the first year notice board for the chance to be involved!

3. Buy your course books from students!

A great chance to pick up a bargain! 2nd and 3rd years will be selling their used course books at this terms BOOK FAIR. Details of the book fair will be available soon so check your inboxes!

Advice from current students:

"If you're planning on going into a psychology related profession start getting some work experience as soon as you can as there are lots of people looking for the same thing." - 3rd year

"Make the most of the first term." - 2nd year

"Don't leave all your work until the last minute" - 2nd year

"Get involved in societies and clubs - you meet loads of great people" - 3rd year

"Have fun!" - 3rd year

Don't Forget!!

PsychSoc Social

**Duchess: Friday Week 3
Meet at the Courtyard at 8pm**

Meet the Staff

Welcome to the new Staff Section where members of the Psychology Department are able to write about their previous, current and upcoming research projects within the department

The Centre for Reading and Language Research Group

By Maggie Snowling



Maggie Snowling and Charles Hulme direct the research group called 'Centre for Reading and Language' (CRL). We have worked for several years, both together and separately, on aspects of children's cognitive development, particularly reading, and on children's learning disorders. We firmly believe that in order to understand disorders of development it is important first to work from a sound theory of typical development. Within this framework, we aim to develop causal theories of the relationships between cognitive processes and to use these theories to guide educational practice. Our recent book '*Developmental Disorders of Language, Learning and Cognition*' exemplifies this approach.

The main aim of CRL is to conduct high quality research into the nature and causes of reading and language difficulties. It also aims to translate research findings into practical so-

lutions for educational problems. In addition to pursuing basic research and intervention studies, CRL runs a research clinic for the assessment of children with specific learning difficulties; the Centre has strong links with the City of York Educational Services and Schools, North Yorks County Council, British Dyslexia Association and Dyslexia Action.

There is not space here to discuss all of our current research projects so we will focus on three; the Wellcome Language and Reading Project, the ESRC READING for Meaning Project and The York Assessment of Reading for Comprehension (YARC). For others, please visit our website www.york.ac.uk/res/crl.

Wellcome Language and Reading Project

Is managed by Hannah Nash. This study is following the development of three groups of children from when they are 3 years old to 7 years old:

1. Children from a family where there is a history of dyslexia
2. Children who have pre-school speech and / or language difficulties

3. Children who are developing typically

At 6 years of age, 60 children from high risk groups who are showing reading delay one year after beginning school will be selected to receive a specially designed intervention to promote language and literacy skills.

ESRC READING for MEaning Project

Is managed by Paula Clarke. This is a large scale intervention project (using the methodology of randomized controlled trials) designed to improve reading comprehension skills in children with specific reading comprehension difficulties. The project is shortly to finish. We have shown that it is possible to improve children's reading comprehension skills and one of the most effective ways of doing so is by training their vocabulary. Indeed an oral language

programme brings great benefits to such children.

The York Assessment of Reading for Comprehension (YARC)

Is managed by Sue Stothard. This is an applied research project which involves developing a new suite of reading assessments for children aged 4-16 years. The primary assessments which were published in 2009 include a Passage Reading test that provides measures of decoding skill, reading fluency and reading comprehension. The comprehension questions assess literal and inferential comprehension skills. The assessments also include a downward extension to assess phoneme awareness skills, letter sound knowledge and early word reading skills for children at the beginning stages of reading. We are currently standardizing a secondary version of the test.

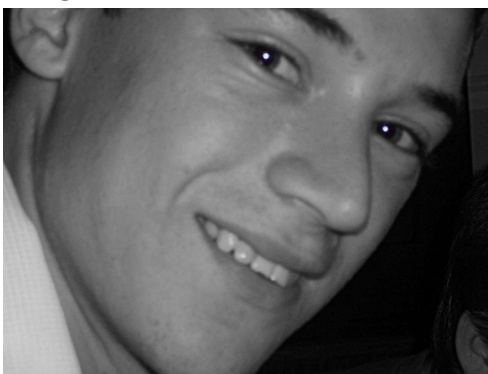
My PhD and Me

By Scott Franklin

Most of my time as a research student is taken up with, well, research. Hourly I pull on my white lab coat, don my blue gloves and pull a face mask over my head, before walking down the corridor to relieve my subjects from their experiment. When I get to my room I open the doors of the experimental chambers, reach in and lift my subjects out. You don't get this kind of control when using students – I think I'll definitely stick to rodents for my work.

My incredibly cute rats have just been part of an experiment where I put them into my skinner boxes to be given food pellets for three-quarters of an hour. I'm interested in how preexposure to stimuli affects later learning, but they don't know that. From their point of view, these are just happy boxes of food. And of course they don't need to know, they

just carry on behaving and reacting like they should. That's what I'm interested in, in how their behaviour changes purely because of the training I give them - I can guarantee there're no demand characteristics with these guys!



As I start the computer running to control my eight boxes, I tidy up and head back to the 'human' area – removing my protective gear on the way. It's generally a good idea to keep on top of the data analysis as I go along so I lean back on my chair and pull up a huge excel sheet and analysis programs. Doing data analysis and statistics everyday soon becomes a joy. It's like those maths lessons we had right at the beginning of school – when you first learnt the material it was really hard, but you've seen the mechanics,

and you've lived with them, they become rather second nature. by the end of school you've used it everyday and you don't even realise that you're doing it. seem complex and mysterious, churning out numbers seemingly at random, but once The same happens in the PhD for statistics, when you're taught as an undergraduate they

But the biggest difference when analysing data for my PhD is that this is my data. My supervisor and I came up with the idea for this experiment weeks ago and we're now finally at the point when the results matter. Each day of experimenting gives me a better view of the outcome of the experiment. Was my theory right? Was it anywhere near good enough? This is when statistics really matters – when the graph suggests you're good but you need to know if it's significant – what will SPSS say? It's great to be able to run your own experiments. We've got some really bizarre results as part of my PhD (I've even replicated them!), and have scratched my head long and hard trying to explain them.

I remember standing at the blackboard pitching one idea to the lab, and declaring what the next experiment should be. Of course

it's my supervisor's money that I'll be spending so I have to get the nod before moving on. He agreed. Over the following six weeks I ran two experiments to directly see whether I was right. I tell you now, when it's your theory being tested, you love getting to the end of the day, grabbing the data from the computer and squeezing as much information as you can out of it. In the end it wasn't to be. I failed to find the desired effect but it didn't matter. It was a good idea and worth a shot – it's back to the drawing board and it's back to the books to try again.

I've read nearly every important paper on the subject now, and truly am the expert in the lab. But there's always more to read, there's always refinements that can be made and new ideas to test. I've got three short years to work these things through and so it's all hands on deck.

On cue my timer rings out. The sessions finished and it's time to put the next squad in so I put down my papers and slowly creak out of my chair. I think I'll put the kettle on, it's always good to have a cuppa tea when doing science – I am still a student after all.

Calling all postgraduate students!

We need your help to show undergraduates what lies beyond their three years at York!
If you would be able to write a short article about your postgraduate studies, then please get in contact at:

psychout@yusu.org



Would you like to know more about our staff in Psychology Department than their e-mail address and psychology field? If yes, then become a regular reader of our interview section! In each issue, we will interview a guest who will tell us about their attitude towards psychology, current research and provide students with success tips.



Dr. Katie Slocombe tells Klaudia Mitura about her career in psychology, research with wild primates, and dangerous events that took place in the Ugandan rainforest.

For me psychology is:

The Science of how people behave and why they behave the way they do.

Why did you choose psychology as your field of expertise?

I found that many different areas of psychology fascinated me and since I tend to do well on the things that interest me, I chose psychology as my degree. The balance between being scientific; using statistics and mathematics, and at the same time developing skills from arts such as essay writing, also appealed to me. I didn't see such balance in other subjects.

How did you develop your career in psychology?

I did my psychology undergraduate degree at the University of Nottingham. Since I got first, Nottingham offered me a PhD place. At that time I had little information about PhDs and no guidance on it; in other words I didn't even really know what PhD was! Initially, I had thought about doing masters degree but I couldn't afford it. After the offer of a funded place from Nottingham, I realized that actually a PhD was a great idea. I applied to other Universities, among them was the University of St. Andrews and that was where I did my PhD. I chose St. Andrews because they offered work with chimpanzees which I thought was fantastic. During my PhD time I applied for grants which I got and which paid for my post-doc job. A post-doc job is just research and you don't need to do a thesis so you can concentrate fully on your research. After 2 years of post-doc work I came to the University of York to work as lecturer and conduct further research.

Tell us about your research area.

My main research area is comparative psychology; more specifically looking at natural communication and cognitive skills in primates.

What has been your most adventurous piece of research?

When working in Uganda with wild chimpanzees you mirror what they do; so if they travel, you travel with them, when they rest, you rest as well. There was one time when a younger chimp bit one of the big males, which went mad. That caused all the males to display their aggression and the alpha male came charging straight at me. I was sitting on the ground, I didn't have time to get up, and I can just remember thinking "I am going to die". Luckily, about 2 meters in front of me he diverted and missed me. It took long time for my heart rate to come down afterwards! Even given such situations; I am planning to do more research with wildlife. The truth is that such adrenaline events are the ones that I remember the most.

What are advantages and disadvantages of working with wild animals?

The disadvantage of working with wild animals is that I cannot collect any data here at York. That means I have to travel away from home. I hate the time away from my husband and now from my dog, missing my family is very hard for me. Another disadvantage is insects, itching all the time due to so many bites is very unpleasant. When I arrive home, after two days all the bites fade and I'm so happy to wake up itch free!

The greatest advantage, however, is to have the privilege observing the natural life of endangered animals. I feel as though I have a connection with individual animals within a community; I know what status they have, what relations with other members, their specific behavior. It is fascinating watching them constantly moving and shifting their relationships and having that happening in front of my eyes. I have seen things so few people ever get to see and this is not only with the chimpanzees but also other wildlife, for example I had the chance to witness a python eating an antelope.

How long have you been involved in the University of York community and what do you like best?

I have been involved in the University of York community since 2007. The Psychology department is very supportive; everyone seems to be interested in my research and I learn a lot from other researchers. Also before coming to York I hadn't done any teaching and I discovered here that I love it; both lecturing and project supervision. It is true that sometimes it can be a bit exhausting especially when I am looking over a lecture room and students are just staring at me looking bored;; but in each lecture there are some individuals that truly listen and are interested. Such individuals give me positive encouragement and in the end I really enjoy it.

What advice would you give to undergraduate students that are working to reach their goals?

My advice is to choose things that interest you so you are going to put the effort into them. If you put lots of effort in, then you should get good grades and impress people and that will be first step to success. In terms of things that you don't like and you have to do, actively search for aspects that interest you instead of saying "I hate it and I am not going to deal with it", which is the easy thing to do.



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Writers own pictures

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Picture was interviewees own