

THE UNIVERSITY of York

January 2010
Issue 3

PsychOut



The Darker Side of Nightmares

A bumper Staff Section featuring:

Andy Young, Philip Quinlan, Liat Levita



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Editors Letter:

Welcome to the Spring Issue of PsychOut. This issue we've gone all clinical to examine such conditions such as sleep disorders, dissociation disorders and YOUR mental health! I would also quickly like to thank all of our writers for putting in so much effort this issue!! Also a quick thank you to all the staff members and postgrads who have contributed!!

If you would like to get involved 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!!



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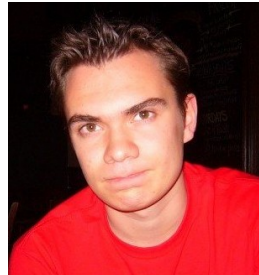
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Features

Our Features Section is where large topics in Psychology are discussed. Previous articles include the history of Psychology, the effects of alcohol on behaviour and autistic savants...

Social Loafing: A Half Baked Article

Roz Baker and Charmaine Eng

Have you ever sat back and let someone else do all the work? If you're tired, or can't be bothered, or think someone else could do it better, it's often easier to take a backseat. For instance, your Granny has 40 years experience of making the Sunday roast; she really doesn't need any help. Your Mum enjoys peeling potatoes, doesn't she, and it's always been your little sister's job to set the table. In fact, it is easier for everyone if you just stay out of the way. Sound familiar? This attitude is called social loafing, and is defined as when overall effort expended by a group is less than the sum of individual efforts.

Ringelmann (1913) found that the overall effort expended by a group of eight people in a tug-of-war was only about half the amount predicted by adding up what they could do individually. This has been repeated in further experiments measuring shouting levels during a brainstorming session. When the individual was lost in the noise of the group, they would put less effort in - shout less loudly, not get as involved - than when they were moni-

tored singularly.

Steiner (1972) suggests two reasons for social loafing: co-ordination losses and motivation losses. Co-ordination losses refer to physical impairments that hinder the amount of effort the participant can give, such as not enough space in the tug-of-war - they slip over, or other people get in the way. Motivation losses are when participants just don't want to do the work.

In a group, everybody's opinions are taken into account, whereas in individual work you can do what you want. This motivates the individual to work harder because they will get all the credit, it is their idea and they can work when, where and how much they want to. In a group individual ideas may be ignored or they may dislike their team-mates, which could cause an apathetic work ethic and lead to loafing.

"Its always been your little sisters job to set the table. In fact it's easier for everyone if you stay out of the way.

Sound familiar?"



A lack of space in a tug of war competition is an example of a co-ordination loss

The individual in the group gets no personal recognition from the efforts they input; they are not singled out and rewarded if they work and punished if they don't; thus lack of consequences leads to minimum effort expended. In the Sunday lunch scenario, there is little reward for helping – maybe a 'thank you', but not a lot more. And there is little punishment for not helping – lunch will still be served. Hence



According to Harkins and Petty (1982) participants put more effort into individual tasks compared to group tasks

there is minimal motivation for helping. Participants are solely responsible in an individual task, whereas the entire group is accountable in group tasks. This diffusion of responsibility has led to loafing. This is used in sports psychology to maximise output from every member of the team. When a team is judged as a whole, members are more likely to coast. Coaches now judge members individually, as singularly individuals will put in maximum effort; a behaviour known as evaluation apprehension.

Interestingly, when groups are pitted against one another in a competition, no social loafing occurs; groups work hard in order to win the competition. When a liquid or monetary prize is offered, participants in a group work harder than when no prize is offered; an immediate reward counteracts loafing. This suggests social loafing is a 'can't be bothered' attitude; when the individual sees no personal gain they won't try as hard. If the loafer in the Sunday lunch scenario had been offered £5, or a couple of beers for helping, perhaps they would have done so. This suggests operant conditioning is at play; rewards and punishments shape the loafers behaviour.

Solutions to loafing include assessing members of a team individually or splitting the tasks of

there is minimal motivation for helping.

Harkins and Petty (1982) found that participants put more effort into individual rather than group tasks. Participants

the group equally. However, this raises another problem – how are tasks split so they are equitable? Is roasting the chicken equal to peeling carrots? Co-ordination issues could further impede tasks. Our house made a Christmas dinner for 16 at the end of last term. In theory, everyone should have done 1/16 of the work; however this didn't happen; one person ended up doing most of it. This was partly because the kitchen was tiny and there was no room for people to help, partly because people felt they lacked the skills to help, and partly because people had other commitments; both motivation and co-ordination losses. Social loafing in this instance was necessary; 16 people could not physically fit in the kitchen and cook the dinner.

A further explanation of loafing is that loafing is dependent on the situation. When brainstorming, it is harder for an individual to come up with a range of ideas than in a group setting as members can inspire and encourage each other; it wouldn't need everyone working at full potential to get the job done. But this doesn't account for loafing in a tug-of-war, as physical exertion, rather than intellectual outcome, is measured.



"Quit complaining. Everyone around here has to pull his own weight."

And so: a half-baked conclusion for this half-baked article. The whole is more than the sum of its parts when there is a reward or competition, and if you want a group of students to work to their full potential, always offer a prize of food or alcohol. Common sense really.

I Cant Get No Sleep!!

Alex Knight

For many, as students, the feeling of awakening either to the dulcet tones of an alarm clock or being forced out of bed by natural light is a common reminder of the desire for more sleep in our lives. Yet in retrospect we spend, on average, one third of our lives sleeping, which equates to 194,821 hours in the lifetime of an individual from a westernised culture (McKenna in Dakker, 2000).

Loomis, Harvey and Hobart (1937) were able to distinguish four key stages within the sleep cycle based on differences in brain activity, shown by EEG recordings. This characterisation involved a division between rapid eye movement (REM) sleep and non-rapid eye movement (NREM). Although many question the importance of such a large amount of time spent sleeping, it has been shown that sleep is a process which has been shaped through evolution, important for the survival of the individual (Zager et al. 2007). However, in light of this, very little attention is paid to a supposedly forgotten medical group within our society, those who have disorders of sleep.

Although psychologists have found it difficult to define exactly what constitutes a sleep disorder (due to varying types), a vague definition is "a medical disorder of the sleep patterns in a person or animal". In the DSM-IV, sleep disorders are featured on Axis 1 (classification code 307). However, typical definitions encompass the concept that patients normally have average physical, mental and emotional functioning, which can be compromised if the condition is serious. Sources have suggested the number of individuals suffering from sleep disorders is as high as 25% in the

UK (Ohayon, Guilleminault, Priest and Caulet, 1997). However, estimation proves difficult as a large number of cases remain undiagnosed. In the USA, currently just over 43 million individuals suffer from sleep disorders, a ratio of one in every six individuals (Ram, Seirawan, Kumar and Clark, 2009). Based on extrapolated statistics, the prevalence in the UK is suggested to be just under 9 million.



On average we spend one third of our lives asleep, most of this is achieved during our student years...

Sleep disorders can be classified in to three distinctive categories. The first (and most common) classification is that of dysomnias, sleep disorders which prevent the individual from

sleeping, or remaining asleep. This branch includes insomnia (difficulty getting to sleep), narcolepsy (excessive daytime sleepiness combined with abnormal nocturnal sleep patterns), obstructive sleep apnea (pauses in breathing during sleep) and restless leg syndrome (uncontrollable moving to suppress uncontrollable itching or burning sensations in the limbs). Although many of us may suffer from bouts of dysomnia (commonly insomnia) during our lifetime, to be classified as having a sleep disorder these episodes must be regular.

"A sleep disorder is vaguely described as 'a medical disorder of the sleep pattern in a person or animal'"

our lives, which lasts between days and weeks and is often brought about by environmental stressors.

In the case of insomnia, individuals must suffer from acute or chronic variations before they can be diagnosed. However, many of us will suffer from transient insomnia at some point in

A national sleep foundation poll (2002) in the US found that 58% of adults had experienced transient insomnia at some point in their lives.

Similarly to dysomnias, many of us at some point or other in our lives will suffer from episodes of parasomnias, the second branch of sleeping disorders. In contrast to problems getting to sleep, parasomnias focus on the problems that individuals encounter during sleep. The two most commonly



Pavor Nocturnus— or nightmares— are a common parasomnia disorder which occur during sleep

experienced forms of parasomnia are somnambulism (often referred to as sleep-walking) and pavor nocturnus (sleep terrors, known to many as nightmares).

Others include teeth-grinding (bruxism) and restless leg syndrome during sleep. Statistics suggest that parasomnias, unlike dysomnias, have a higher prevalence in childhood which then drops by adulthood. For example, sleep-walking occurs regularly in up to 17% of children before age 15, yet this number drops to only 4% of adults (Schenck and Mahowald, 2005). Up to 3% of adults also suffer from sleep terrors (Mahowald, Cramer-Bornemann and Schenck, 2004).

The third category of sleep disorders are disruptions to sleep which occur as part of a more global mental health problem, such as found in patients with schizophrenia (Shamir, Laudon, Barak, Anis, Rotenburg, Elizur and Zisapel, 2000).

For many sufferers, however, the effects of sleep disorders are moderate, having impacts on both the economic and social domains. Despite

this, some cases do have severe consequences and these normally

bring sleep disorders in to the media spotlight. Recently in July 2008, Brian Thomas (a sufferer of sleep terrors) killed his wife in what he believed to be a real-life episode of burglars breaking in to his camper van whilst holidaying. He awoke, sadly to find that he had strangled his wife during his sleep. Although police were initially sceptical about Thomas' claims, psychological assessment over ten months confirmed that Brian suffered from night terrors which had gone untreated by medical professionals for around fifty years. Brian Thomas was released from prison in November 2009, although this case has continued to haunt the health services of the UK as an example of a disorder where very few cases go without diagnosis.

“The case of Brian Thomas has continued to haunt the health services of the UK”

To conclude, despite some headway being made in our understanding of sleep disorders, it is difficult to ignore the fact that many cases go unnoticed by medical health professionals, especially when disorders continue in to adulthood. This may stem from the relatively poor structure of sleep medicine within the overall structure of the health service, where relatively little structured training is provided for healthcare professionals.



Brian Thomas' case is just one example of the dangers of sleep disorders going untreated

Dissociating Identity Disorders

Jo Hartley

Dissociation disorders and particularly identity disorders are commonplace in the media and film industry, with the need only to mention Jim Carrey's role in 'Me, myself and Irene' to understand at some level what the disorder may entail. However, you only need to ask someone to describe the symptoms of schizophrenia to gain an understanding of how these two disorders are often confused.



Jim Carrey's portrayal of a DID patient in the film 'Me, Myself and Irene'.

Schizophrenia, a term proposed by Bleuler originated from

the Greek words 'schizein' meaning to split and 'phren' meaning 'mind', capturing the dissociation of the schizophrenic between reality and delusion. However, the image one contains when hearing this meaning is entirely different, with the perception of multiple personalities, thus leading to the belief that such symptoms are accounted for by schizophrenia, when in fact they are a sign of displaying a dissociated identity.

Once termed multiple personality disorder, dissociative identity disorder (DID) is a rare disorder that until the 1800's, was deemed to be a result of possession. For a person to be diagnosed with DID two personalities have to have complete individual control of the person. In most cases, a primary personality exists, with multiple alter egos that often tend to be polar opposites, for example they write with different hands, have different allergies and even wear different prescription glasses. Myths surrounding the disorder, particularly in emphasized accounts put forward by the media, demonstrate sufferers talking to themselves, essentially showing the personalities to interact. In reality the identities have little knowl-

edge of each other's existence, with rare contact, and so as a result gaps in memory frequently occur.

DID, when first recognised as an individual psychological problem, was believed to be the result of culture. Often referred to as a 'disorder of continent', DID was thought to be confined to the North American region, due to most of the early diagnoses occurring here. With most cases, DID is thought to begin in childhood but is usually not recognised until later in life. Consequently, many patients experience much younger alter ego's, such as a 40 year old mother and wife who frequently will transform into a 5 year old child and act in a similar fashion to her own son or daughter.

The idea that DID begins in childhood has led many to believe that the cause of the disorder thus lies here. DID is believed to result from an early form of stress and trauma, with an ensuing inability to dissociate memories and experiences in consciousness as an adult, and thus the alter ego's form. Therefore, treatment of the disorder often involves psychotherapy, with the aim of associating the differing personalities to form one identity.

"Until the 1880's DID was deemed to be a result of possession"



People with DID experience multiple personalities of different gender and age

A major theory of DID references back to Freud's work on the splitting of the ego. Many believe DID arises as a result of the ego becoming fragmented due to stress previously experienced. Scharfelter (2008) for example, explains this cause to be the major difference between schizophrenia and DID. In schizophrenia, the ego is fragile, causing the distortion between reality and delusion. However, in patients of DID the ego states are fluid and thus become interchangeable.

Two main theories currently exist in understanding DID: the posttraumatic model and the sociocognitive model. The posttraumatic model explains DID as an outlet for previous sexual or physical abuse and trauma within their childhood. Berman (2009) specifically reduced this to deficits in the mother-child relationship causing the primary dissociation and ego splits. Further, the model is supported by the case study discussed by Marmer (1980) of the 42 year old DID patient who suffers as a result of witnessing her father's death as a child. Marmer believes that as a result of this trauma, the patient is unable to allow 'ego integration' and thus in order to cope, substitute's parts of herself into multiple personalities.

The opposing theory of the sociocognitive model explains DID as a result of role learning. This model deems DID to be simply due to suggestion and the act of reinforcing descriptions of such alter egos, either from the therapist or through media reports on DID, causing the fragmented self to occur. As a result, this model questions whether DID is in fact a psychological disorder at all, or whether it is simply induced through implication and hence merely a side effect of therapy. Furthermore, with the disorder lacking any objective symptoms and so purely being subjective in diagnosis between what the patient reports and the therapist concludes, questions have been raised as to whether DID can be defined as a mental disorder at all, being simply a product of therapy or as discussed, purely a cultural phenomenon.

Synaesthesia: "What a Crumbly Yellow Voice you have!"

Cassie Barton

Synaesthesia is a strange and complex neurological condition which causes normally separate sensory experiences to be crossed over or shared. For example, one famous synaesthete remarked on an acquaintance's "crumbly yellow voice"; another writes that a piece of music "when performed in e-flat minor has a deep yellowish shade".

Many different types of synaesthesia have been recorded, linking up a diverse range of senses and experiences. In the most common type, individuals

experience specific colours when looking at different letters of the alphabet – so "a" is associated with red, "b" with dark green and so on. Sound-to-colour synaesthesia is also common, where individuals associate musical notes or keys with a particular colour; this may also extend to everyday sounds such as voices.

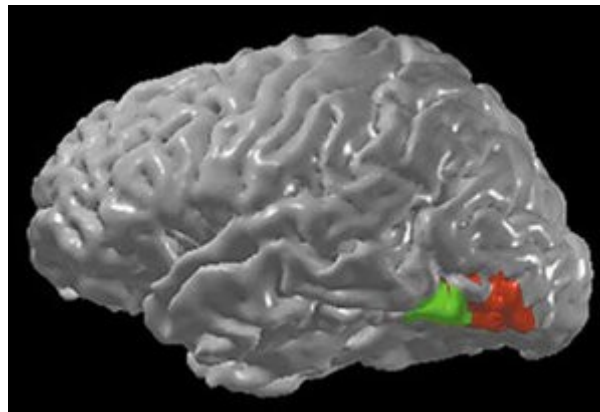
Synaesthesia comes
in many forms

Some synaesthetes experience colours when they see letters, creating an experience like this.

Other synaesthetes map numbers or dates to physical areas around their bodies – they might, for example, assert that Tuesday is somewhere above their left shoulder and Wednesday directly in front of them.

The causes of synaesthesia are not well known, but it's pretty clear that it runs in families. Family members don't always experience the same type of synaesthesia, though – and if they do, they may not agree on what A minor sounds like, or what colour 9 is.

One theory suggests that synaesthesia is caused by crossing over between usually independent areas of the brain. Links between number- and colour-related areas may cause numerical figures to evoke certain colours, for example. The theory goes that babies are born with many of these connections between areas, but these are "trimmed" in normal development. Synaesthetes, on the other hand, maintain some of these connections thanks to their genes.



Two areas in the fusiform gyrus area of the brain, which may cause synaesthesia if they're linked together.

It's also been suggested that having these connections increases your ability for "metaphorical thinking" and thus creativity – which may explain the estimate that synaesthesia is 7-8 times more common in creative types than in the general population. Well-known synaesthetes include the artist David Hockney, novelist Vladimir Nabokov and composer Franz Liszt. The condition may well be an advantage in this kind of area: Nabokov's novels include several synaesthetic references, while Hockney has been known to use his sound-to-colour synaesthesia when designing sets and lighting for operas.

Most synaesthetes are not bothered by their condition, and many do not realise their experiences are unusual until they're fairly old. And it seems to have its advantages – from improved memory stemming from more vivid experiences to creating works of art.

Third Year Choices

Ivan Alvarez and Adele Goman

Over the course of two issues Ivan and Adele will be outlining the major aspects of the final year– this issue will focus on the Literature Survey and the Project. Next issue the advanced modules will be discussed with an interview with Richard Deacon, a third year currently completing the clinical modules....

What is going on?

During your second year you need to make some choices about what you are doing for your course in your final year. These are: a) choose a literature survey topic, b) choose a literature survey supervisor, c) choose a project topic, c) choose a project supervisor and d) choose advance modules. Another thing to keep in mind is obtaining relevant experience, be it paid work or volunteering.

The Literature Survey

What is the literature survey?

The literature survey is a substantial piece of work (4000 words) worth 9% of your final degree mark. This is your chance to write critically about a specific area of psychological research of your choice, evaluating empirical studies published thus far. The department holds some literature surveys written by previous students which will show you examples

of what a literature survey is.

How do I choose a topic? And a supervisor?

The area of research covered is your choice. Inevitably researching an area of research you are interested in will make the literature survey more enjoyable. As with the project, you are required to have a supervisor for your literature survey. However, the literature survey is much less supervised than the project. Your supervisor's interests may be in your area of research however your supervisor does NOT need to be a researcher in the field of psychology you wish to research. If you would like to be supervised by a particular supervisor you must ask them directly. However, if you have no preference for a particular supervisor, the department will allocate you one.

What happens if the supervisor I want is full?

All supervisors have a quota of the number of students they can supervise. If all the places have been filled, you will have to select another supervisor or be allocated to a supervisor. This is the same for projects, so now would be a good time to start researching.

How much time do I have to write the literature survey?

You select your supervisor during the final term of your second year and the deadline for handing the literature survey in is the end of the first week of the second term of your third year. Thus one has the summer vacation, the first term of the third year and the Christmas vacation to use for the literature review. However it is up to you to decide how much time to spend on your literature survey.

For more information:

<http://www.york.ac.uk/depts/psych/www/ug/litsurvey.shtml>

The project

What is the project?

The undergraduate project is a piece of research done during your third year worth 18% of your final mark. This is the largest and most important piece of work you will do during your degree.

How do I choose a topic? And a supervisor?

Your topic will usually be something that falls in the area of knowledge of one of the members of staff. Most supervisors will expect topics in their near-area of research as they will advise you whether the project is viable, but some will be willing to supervise topics outside their area of interest. The key thing is to do your own research and show that you are clear on what you want to study. A supervisor will be more likely to approve a more distantly-related project if you show command and understanding of the topic.

Other considerations are that the project must be completed in a limited amount of time, so no massive longitudinal studies. Projects involving specific populations like animals, children, individuals with disabilities will require more time and more complex clearances. Furthermore, such projects will often be tied to the work of a member of staff so you will have less freedom on what you can do. This is also the case of projects using limited resources such as the animal laboratory or the neuroimaging centre.

A good approach is to select a few potential supervisors that study your general area of interest and discuss possible research topics with them. Remember to prepare yourself well before the meeting.

When do I start the project?

Broadly speaking you should start some preliminary work such as surveying papers at the beginning of your third year and start putting some serious input by the beginning of the spring term. You have until halfway through the summer term to hand in your final project report.

For more information:

<http://www.york.ac.uk/depts/psych/www/ug/projects.shtml>

**Next Issue.... Advanced modules
and a special insight to the clinical
modules**



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!!

In Memory of Hermann Ebbinghaus

Chiifen Hiu



Hermann Ebbinghaus (1850-1909)

Hermann Ebbinghaus was a 19th century German Psychologist who is best known for pioneering the experimental study of memory. Unlike many early psychologists, his methods and experimental results have stood the test of time, and there has since been little development in the

area of rote learning and memory retention that was not already discovered by Ebbinghaus (Wozniak, 1999).

In 1885, Ebbinghaus published his most recognised work; a monograph published in German as *Über das Gedchtnis*, and later translated to English as "Memory. A Contribution to Experimental Psychology" (Shakow, 1930). In this groundbreaking book, Ebbinghaus outlined the experiments in which he was his own subject, the results he obtained, and their implications on the

"Ebbinghaus believed that higher mental processes could be studied through scientific experiments"

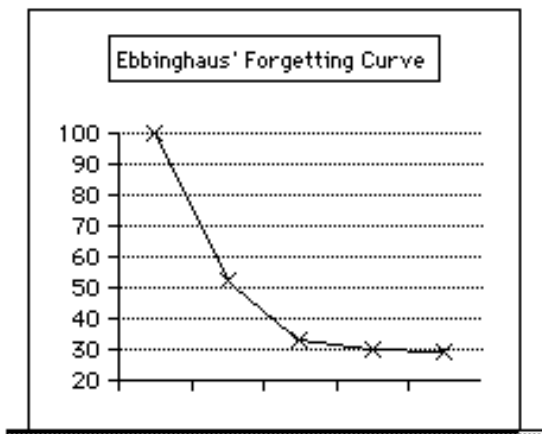
processes of learning and forgetting.

Believing that higher mental processes could be studied through scientific experiments, Ebbinghaus decided to use a certain type of non-words, which were later coined "nonsense syllables" as neutral and homogenous stimulus materials in his experiments. He constructed specific types of syllables *"out of the simple consonants of the alphabets and our eleven vowels and diphthongs"* (Ebbinghaus, 1913) by placing a vowel sound between two consonants. The conditions of these "nonsense syllables" were that the consonants did not repeat, and the syllables held no prior meaning. Acceptable "nonsense syllables" would be as such: HUC, QOV. Using this method, Ebbinghaus came up with approximately 2300 "nonsense syllables", which he used while conducting his experiments.

Armed with his syllables, Ebbinghaus would draw them out at random, write them down in a notebook and to the methodical beat of the metronome, with the same voice inflection, read them out loud. At the end of this process, he would try to recall as many syllables as possible. In attempt to control the degree of learning in all tests, Ebbinghaus established the method of learning to criterion. This meant that the subject was allowed to repeat the material as many times as was required to ensure

the material was learnt to the same degree in each test. This was to avoid the limitations presented by varying mental states of the learner at different times (Wozniak, 1999). Ebbinghaus carried out this experiment on himself for a year (1879-1880) and spent another year replicating it (1883-1884) before publishing his monograph in 1885.

His work led him to arguably the most significant findings in the area of memory research- the forgetting curve and the learning curve.



The 'Forgetting Curve' was one of Ebbinghaus' most influential discoveries

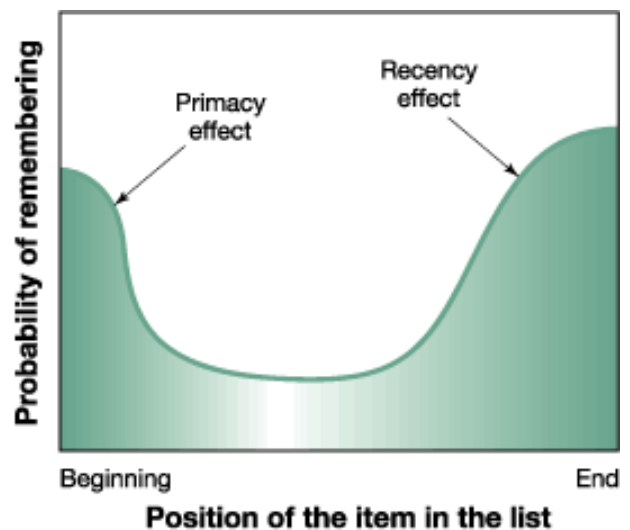
The two exponential curves illustrate how we fast we learn information and how fast we forget said information. According to the forgetting curve, we forget the most during the first twenty minutes after learning new material, and then it gradually lessens before evening off after a day. The similarly shaped learning curve operates on the same principle, with the largest increase being right after the first attempt at memorizing the material. The curve then also gradually evens off, which suggests less new information is learnt after each repetition (Ebbinghaus, 1885).

Furthermore, the primacy and recency effects (see right) also featured in Ebbinghaus' documentation. According to Ebbinghaus, the first (primacy effect) and last (recency effect) items on a list are recalled better. He theorised that the first items on a list are better recalled due to the higher level of processing involved and commitment to long-term memory. The recency effect, on the other hand suggested that recent information is recalled better as it is still stored in our short-term

memory (Murdock, 1962). Collectively, Ebbinghaus named these two concepts the Serial Position Effect.

Moreover, Ebbinghaus was credited with the discovery of a phenomenon known as Savings. In his own words, Ebbinghaus claimed, "*Mental states of every kind, - sensations, feelings, ideas, - which were at one time present in consciousness and then have disappeared from it, have not with their disappearance absolutely ceased to exist.*". To test his theory, Ebbinghaus memorized a list of items until perfect recall was reached and then he proceeded to not access this list until all items on the list were completely forgotten. At this point in time, he would relearn the list and the learning curves for both times were compared. Through this experiment, Ebbinghaus found that the second attempt to memorize the list usually required a shorter amount of time. He named the difference between the two learning curves "Savings".

Hermann Ebbinghaus was an important factor in the progress of Psychology as a science. He used mathematics and methodological scientific experiments in his research, which have made his results statistically significant and his theories applicable to this day. With Ebbinghaus' quantitative efforts, our understanding and study of memory made its transition from observations and speculations in the hands of philosophers such as Immanuel Kant to the scientific laboratories of psychologists. Indeed, his memory and Ebbinghaus' contributions toward it will continue to be relevant and highly regarded in this field.



An illustration of the primacy and recency effects described by Ebbinghaus



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 Eye of the Storm: Students Mental Health

Hannah Belcher



Conditions such as depression and anxiety are on the increase within the student population

over the course of a year, with all its pressures and expectations university becomes a breeding ground for mental illness to thrive.

The term 'mental illness' covers many different forms, from depression and anxiety, eating disorders, and self harm, to severe long term psychiatric disorders like Schizophrenia and Bipolar Disorder. It would seem that students are actually more likely to experience depression and anxiety and it's on the increase, with around one in twelve students requesting counselling during their time at

university. But what is it about university that can push even the happiest individual to the edge? You'll have the time of your life' is a phrase drummed into every student about to begin university, and whilst for many university is an exciting and memorable experience, for many others it becomes much more of a struggle. With one in four people expected to experience some kind of mental illness

university. But what is it about university that can push even the happiest individual to the edge?

You would be hard pushed to find one person who didn't come to university preloaded with great expectations about how life changing the experience would be. However, after the fresher fever has worn off reality hits home. You're miles away from the people who know and love you for most, there's no food left in the fridge, you realise how rubbish A Levels were at preparing you for a degree and how un-special having three A's is, everyone's out drinking every night and you can't keep up, it's nothing like Hogwarts, and to top it all off you've chosen the windiest Uni in the UK. Sur-

"There is no better place to hide unhappiness than at University, it can literally be locked behind the bedroom door..."

rounded by your peers 24/7 it is hard not to constantly compare your life and academic success to theirs, it is no surprise that many students suffer a great deal of anxiety and low self esteem, especially those already predisposed to mental illness.

There is no better place to hide unhappiness than at University, it can literally be locked behind



Stress is a major factor in developing mental health problems

amongst young people, with around one in ten young people self harming at some point in their lives, this works out at about fifteen students per lecture theatre. Sufferers are often high achievers who go to great lengths to hide their pain. Similarly eating disorders at university often go under the radar, when it comes to students and food anything goes and little attention is paid to others eating habits.

University is the eye of the storm for mental illness, the first place many will experience such an intense environment and undergo the chronic stress which can accompany it. Everyone is on the path to self discovery, and

the bedroom door with no one around to notice.

Often disguised with excessive drinking, even the happiest most popular student is not immune. The student newspaper Nouse recently reported on the increasing occurrence of self harm

“Everyone is on the path to self discovery and great discrepancies arise between who we actually are and what we think we ought to be”

great discrepancies arise between who we actually are, and what we think we ought to be. With lots of new and interesting people coming into our lives our values and beliefs can be put into question.



Asking for help is the first step towards recovery

Thankfully we have all chosen a university with a fantastic support network in place. 'It's a Duck's Life' is a new self-help website where students can share their mental health problems; 'Nightline' offers a confidential listening service run by students every night; and the 'Open Door' team offers a first point of contact service for students with emotional, psychological or mental health difficulties, with a great team of counsellors available for minor problems to more severe long term issues.

If you are affected by any of the issues raised above and are seeking help, please see the links below to support services provided by the University of York for further information and contact details.

www.duckslife.org/
www.yorknightline.org.uk/
www.york.ac.uk/students/support/health/opendoor/



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!!

Summer Job Wanted, Will use SPSS

Dea Nielsen



Although the snow keeps on coming and summer seems unfathomable right now, many of us are already turning our thoughts to what to do during the long months of summer. This well-deserved time off provides not only an opportunity for a bit of rest and relaxation, it is

a perfect time to get some work experience that is relevant to your degree. In the increasingly competitive educational and occupational environment, experience in the field is an absolute must for those looking to pursue careers within psychology.

This summer I was lucky enough to participate the department's Undergraduate Summer Research Bursary Scheme (USRBS). These placements last for 4, 6, or 8 weeks, and are an opportunity to work closely with a member or members of the department on one of their current research projects. The position is paid, and besides this bonus it is an excellent opportunity to really get a feeling for what it's like to research. The researcher submits a report of the focus and duration of project, along with the CV of the student

assistant. Those thoughts of summer are certainly not too early in this case, as it is advised that students contact supervisors in the Spring Term, so the report can be submitted in the Summer Term.

So how did I go about this? Well the truth of the matter is I didn't. I had been working with Dr. Elizabeth Jefferies on a different project as part of the Undergraduate Research Experience Scheme, where students have the opportunity to assist on projects and experiments running during term time. This experience is fairly easy to get, and volunteering your efforts to members of the department who specialize in your areas of interest could be a great way to get a few hours of either voluntary or even paid experience

during the term. In my case, the term-time project was extended in a summer project, and as I was already familiar with the material, I was asked to consider the position.

So how does my experience apply to you? Well, what I have found is that there is great potential in getting yourself out there. My opportunity came from a previous contact, and the more you are known in the department, the more likely you are to be considered for future positions. This is not to say you should be tempted to hunt down

“Students have the opportunity to assist on projects and experiments running during term and vacation times”

every last researcher and promise away life and limb, but connecting with a few individuals who are interested in what you're interested in can lead to many things (like research experience, guidance, and even letters of recommendation, another important consideration).

My one caution is that although ones CV is of crucial importance, it is not wise to apply for one of these summer positions on the basis of CV boosting alone. My experience was of working long hours on my own, and had whole weeks were I was expected to work independently without the researchers. Although this is a fabulous way of getting experience problem solving and be-

ing self-directed, it may be hard to motivate yourself if the area you are working in is not your passion. So when considering whether to apply for a place, make sure you pick something you love, and having an interest in pursuing a research career is a definite plus.

My placement was eye opening and surprising, and on top of it all the results were statistically significant! So for those of you looking for a challenging and thought-provoking filler for your lazy days of summer, the USRBS should be a definite contender.

“For those of you looking for a challenging and thought provoking filler for your lazy days of summer”

For more information regarding term time and summer placements keep checking:

<http://www.york.ac.uk/depts/psych/www/research/ures/>

Or alternatively find members of staff who conduct research in your areas of interest and ask them directly!

Vicki Bruce: Honorary Fellow

Grace Rice



On the 23rd January the Psychology Department will award Professor Vicki Bruce with an honorary degree, for her outstanding contribution to Psychology. More specifically to the field of facial recognition, having worked with Alan Baddeley on her PhD in Cambridge, she then went on to collaborate with Andy Young (appears in this issues Staff Section, page 18), producing a highly influential model of facial recognition (Bruce, V and Young, A (1986) Understanding face recognition, *British Journal of Psychology*, 77 (3), 305-327). Before the ceremony on the 23rd, there will be an afternoon of short talks held on the Friday 22nd in her honour.

Presently Professor Bruce is working at the University of Newcastle as a Professor of Psychology, for more information copy and paste this link into your browser:

<http://www.ncl.ac.uk/psychology/staff/profile/vicki.bruce>

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

Face Perception

Andy Young

Many things in life happen just because you were in a certain place at a certain time. I had no plan to work on face recognition, but in 1974, when I completed my PhD in developmental psychology and started as a newly appointed Lecturer at Aberdeen, there was a group of staff who were already making good progress and having a lot of fun with the topic. At the time, face recognition was not really a recognised research area within Psychology, and the Aberdeen group was one of the first to approach it systematically. One of their ringleaders, Hadyn Ellis, caught me at an idle moment and suggested that the development of right hemisphere specialisation for face recognition during childhood was an interesting issue. He had already completed a study of adults – it was just a question of applying the technique to children of different ages...

Face recognition has two things going for it that make it an excellent research topic. First, the question as to how we do it can be understood by

anyone. It isn't driven by a particular branch of psychological theory, so there is little risk that a shift in what constitutes a fashionable theory will make understanding face recognition seem pointless or meaningless. Second, face recognition is central to a number of potential applications. In courts of law, juries have to decide whether witness identification evidence is correct or mistaken, at airports staff look for known criminals or terrorists, when operating on someone's face dentists and doctors need to know what the individual will look like afterwards, and so on. These applications ensure that our understanding of face recognition can be put to the stringent test of whether it works in the world outside the psychology laboratory.

Half the battle in psychology research is finding a good question, and how we recognise faces is a great question. But if you focus too much on face recognition itself, you can fail to see the implications of the observation that recognising people is only one of a number of things we do with faces. By looking at a face, we can also tell a person's age and sex, we can judge their health and attractiveness, and



we can make inferences about their feelings and mental states based on moment to moment changes in gaze direction and facial expression. How do these different aspects of face perception relate to face recognition?

Importantly, most of these things can be done as easily with unfamiliar as with familiar faces, so they don't seem to be inextricably linked to recognising who the person is. But some of them might be critical first steps. For example, a plausible common-sense view is that recognition may involve a kind of perceptual hierarchy in which the face gets assigned to increasingly precise categories (man, old man, lecturer, Andy Young). If this were correct, we would expect that anything that makes the early steps in the process difficult will affect later steps too. So, for example, we should be slower to recognise people who have faces that are somewhat androgynous in appearance; because the first step of telling whether they are male or female is more difficult, recognising the face will be correspondingly delayed. Interestingly, this intuition turns out to be incorrect. Having an androgynous appearance does make it slightly harder for people who don't know you to decide whether your face is male or female, but has no effect on how easily people who do know you can recognise it.

Understanding how the different things we can do with faces relate to each other is therefore an interesting research question. The face is probably the stimulus in our environment that carries the widest range of social meanings, so knowing whether the brain uses a common region or different regions for these various tasks can tell us whether the challenge presented by the face as a complex visual stimulus or whether the need to use different types of facial information for different social purposes is the critical factor.

In many ways, technological progress has now created a period of astonishing opportunities in psychology research. When Hadyn Ellis set me to work on measuring right hemisphere specialisation for face perception, the only way we could do

this was by briefly presenting stimuli in the left or right visual fields. There was no functional brain imaging. And if we tested a person with a brain injury, we often couldn't be confident about where the brain lesion actually was, because there wasn't much structural imaging either. All of our methods were indirect. Neither did we have much control of the stimuli, which came from a limited palette of photographs, Photofits, or just drawings. Without modern image manipulation and computer graphics techniques, it was extraordinarily difficult to identify which aspects of appearance might be critical for recognition and impossible to manipulate them in any realistic way. Data from an experiment were recorded by hand, statistical analyses were done on calculators, and papers written in longhand for typing. It was really a different research world...

“A common sense view is that recognition may involve a perceptual hierarchy in which the face gets assigned to increasingly precise categories (man, old man, lecturer, Andy Young)”

Although face perception has become a popular research area, there are many questions that remain unanswered. One of the biggest challenges is to understand the relation between brain regions that functional imaging has shown to be involved in

face perception and the behavioural phenomena we have known and loved for decades. Tim Andrews, Gary Green and I are working on this from a number of angles. I've also been looking at how information from the face is integrated with other social signals due to tone of voice, body posture, and so on. Non-facial information can be very useful when social signals need to be analysed quickly – as often happens when we judge people's emotions. With Cindy Hagan, Gary Green and others I have used York's amazing MEG facility to analyse the time course of brain responses to emotion, showing that part of the brain usually thought to be involved in interpreting facial expressions of emotion (posterior superior temporal sulcus) is actually responsive to multimodal information coming from face and voice.

So, there's still plenty of loose ends left for me to pursue, and more than enough new questions for enthusiastic students to take up!

Mind and Brain

Philip Quinlan



I am experimental psychologist whose interests are in perception, attention and cognition. (Now as dull opening sentences go ...) Anyway, my earliest experimental work concerned visual word recognition and visual search but I was lucky enough to spend quite a lot of time involved with the fascinating conditions that are known as *optic ataxia*

and *visual agnosia*. At the time (the early 1980s) we were trying to go beyond the apple, orange and a piece of string approach to studying cognitive neuropsychological cases. The aim was to develop reaction time studies on the then state-of-the-art Apple IIe computer. A sad fact, but I programmed software clocks, fought with the 6502 processor and managed to do more or less everything we wanted in 16K of RAM.

Possibly all of these skills are now moribund, given the vast array of off-the-shelf computer technology and software that now exists. However what it does mean is that I can now solve the majority of E-Prime questions in the department and provide support for Excel (dull and getting duller?). To give you an idea of the nature of the advances, I spent quite a lot of time tracing round the individual Snodgrass line drawings on a graphics sketchpad in order to produce electronic versions of these pictures. Yes that's right, no flatbed scanners, no Photoshop, no drawing or painting packages of any kind. An aim was to study "object recognition" in both normal and not so normal participants under more tightly controlled conditions than were typically being employed at the time.

Some of this work did eventually appear in

print, but a surprising amount has, for various reasons, not. For instance, the aspiration of getting timed key presses out of a person with profound motor problems was unsurprisingly thwarted. More importantly, the ideas were ahead of the technology. Believe me, it is far easier to cut and paste in Photoshop than it is to cut and paste out of magazines. Nonetheless, an important lesson I learnt was, 'Do not believe everything you read in the papers'. Even the so-called "pure" cases we studied, presented with collections of other problems that, seemed to me, to be as important as the supposed core deficits.

At the time, my interests were generally with visual cognition but when I discovered the emerging work of David Marr my interest became more focussed on particular concerns about object recognition. Generating empirical tests of Marr's theory formed the basis of my PhD and I was able to provide some evidence for this seminal work. Here again though the lack of technology meant that my experiments concerned 2-D shape recognition rather than real-world object recognition. Another lesson learnt was, 'Don't believe everything you read about object recognition in the papers': speeded naming will only get you so far, and, what

"I promise not to bother you with connectionism. Having taught this topic for over 20 years am now resigned to the fact that this engages only a tiny minority of the undergraduate population"

exactly is it that you hope to achieve by getting people to judge as quickly and as accurately as possible whether a chisel is man-made or not? I sometimes feel that the basic issues should be revisited especially now that computer graphics have progressed so far and yet very few theoretical advances have been made since the late 1980s.

The visual search work came about from reading the early papers on feature integration theory and it became clear to me that despite the elegance of the theory some critical controls were missing. Is the feature/conjunction difference really a qualitative or a quantitative matter? This question engaged me then and continues to crop up in discussions of the theory. Moreover, we still

don't understand how feature binding comes about.

I promise not to bother you with my interests in connectionism. I have taught this topic for over 20 years and am now resigned to the fact that, within the psychology undergraduate population, this engages only a tiny minority. Here is a paradigm case of a topic that galvanised the whole of the discipline but holds little interest for the majority of students. For those who do get it, it can lead to real changes in thinking and provide a distraction to reading the Unix reference manual. I retain some scepticism in being a firm believer in "the cognitive level".

The interest in feature integration theory led me to think of attention more generally and hence I began to consider attentional control in the auditory modality. We initially carried out some rudimentary cuing experiments in audition (and it still pains to be reminded of the confounds with response priming) and this work led onto a consideration of how visual and auditory signals are coordinated across the modalities. The obsession with keeping things simple lead to some interesting findings - synaesthesia is a more general condition than might otherwise have been thought – but I

now seriously question some of the more esoteric lab-based paradigms. For example, I have become more and more despairing about how the field of threat detection has moved further and further into the lab and further and further away from the real world. Nonetheless, there remain many interesting questions and, as far as I can see, these can only be solved by taking a cognitive perspective. We need sensible theories based on sensible data.

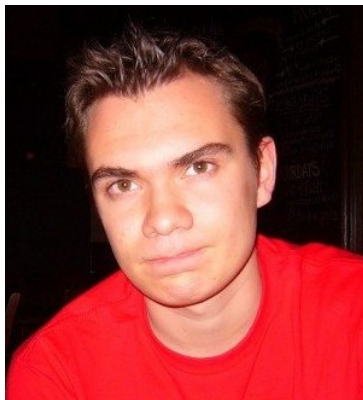
So currently I am engaged with issues concerning perception and memory of visual objects, detection of visual threat, and how emotionally-charged items capture attention. These topics will engage me for the foreseeable future. My interest in auditory attention remains but I now realise that the number of individuals who share this interest is smallish bordering on the infinitesimal.

At a more theoretical level, I try to convey my own particular world view in the *Mind and Brain* advanced option. Clinging onto the last vestiges of academic freedom, I unashamedly exploit these to build a case for dualism, question the validity of evolutionary theory, and express complete bewilderment about much of present-day cognitive neuroscience.

My PhD and Me

Alex Reid

When I started my PhD programme my supervisor called me into his office and informed me that it was as much an 'apprenticeship' as anything else. The dictionary definition of an apprentice is defined as: 'A person legally bound through indenture [a contract] to a master craftsman in order to learn a trade'. In other words a PhD could not only be considered a qualification but also a kind of trial. One of the other PhD students in my office grumpily elaborated on this notion by describing it as more of an 'ordeal' than a trial. His clarification invoked the training that Shaolin monks do, contorting themselves into various uncomfortable positions over a period of years, in order to achieve enlightenment. He then spun his chair back round to hunch over



his keyboard and continue squinting at his brains.

I am now three months into a three year PhD on semantic memory consolidation and sleep. Gone are the procession of exams, essays and practical reports from my undergraduate days. Now in vogue are progress reviews, supervisor meetings and lots and lots of reading. All of the skills I have built up over the previous five years studying psychology will have to become consolidated themselves for me to become a fledgling scientist and, ironically, I probably won't have as much time to sleep. A major component includes the ability to read intensively with the first few months of a PhD necessitating a literature review.

Like chopping the head off an academic hydra every journal article I seem to read is replaced by three more seemingly imperative pieces of literature. For example the paradigm I am looking at for my initial experiment, a seemingly straightforward assessment of a type of deductive reasoning called 'Transitive Inference', has spawned over 3000 pieces of peer reviewed research in the last decade alone. This is not to mention the best part of reading about semantic knowledge which is the inevitable existential breakdowns. You know when you start abstractly conceptualising what your concept of a concept it is perhaps time for a coffee break.

However a PhD should be challenging. If you don't relish a challenge then you shouldn't be doing one. It is like a boot camp for baby scientists. To describe how I got to be on my PhD course I will therefore carpet bomb a military metaphor to death. When I finished my undergraduate degree in Psychology, at Stirling University in Scotland, it felt like winning a battle. I gave my all for a final push, avoiding several landmines thanks to my supervisor, and got a good promotion. Having developed taste for combat I went for a second tour of duty at the University of Liverpool to do an MSc course in Evolutionary Psychology. Here I had to re-arm myself with knowledge about primate behavioral ecology, evolutionary theory and neuropsychology. Another battle saw my ignorance abated. I went on shore leave for a year and trained a division of American youngsters on the theory of Evolution as a Biology teacher at 'Camp Watonka', a science summer camp in Pennsylvania. It was there I also learned the disciplines of riot control, nocturnal espionage and evasive maneuvers under sustained enemy fire (sadly these skills are not part of the metaphor). Having taught and fought I considered myself ready to move on to a PhD.

"I am also very good at sleeping—and it pays to work at what you're good at. To quote the Joker in The Dark Knight: 'If you're good at something never do it for free'"

It was on the latter course at Liverpool that I became interested in sleep research. Specifically in the potential adaptive properties it might provide a sleeper. Sleep is a strange phenomenon particularly if we consider the environmental conditions it may have evolved in. The 'costs' of such a behavior include a reduction of alertness at night, when predators are around, as well as providing ample opportunity for nearby parasites to board a sleeping body like some kind of giant fleshy ark. To make matters more mysterious a deprivation of sleep in most mammals will eventually lead to death. To complete the enigma human sleepers experience dreams: vivid yet bizarrely forgettable hallucinations at certain points in the natural sleep cycle.

It is no wonder, then, that the potential adaptive properties of sleep are the subject of much scrutiny. As the picture emerges it is clear the answer will not likely lie in one domain: restoration, homeostasis, memory consolidation and developmental benefits to an organism have all been highlighted as potential adaptive candidates. I have chosen to examine semantic memory consolidation and sleep as a PhD subject in the hope that I may one day contribute an understanding of this curious state. On a more personal note I am also very good at sleeping – and it pays to work with what you are good at. To quote the Joker, in Christopher Nolan's *Magnum Opus* The Dark Knight, when asked why he hadn't already killed Batman: 'if you are good at something never do it for free'.

What are the benefits of doing a PhD? Of course should you make it through the gauntlet you get to have 'Dr.' put in front of your name on all your credit cards. In fact one of my friends is doing a PhD in Chemistry just so he can be called 'Dr. Power' akin to some kind of bond villain. This is definitely not why I am doing one: I, like a knotted Shaolin monk, am working towards my own illumination.

If you are a postgraduate student and would like to get involved with PsychOut then please email us at: psychout@yusu.org for more information!



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.

This issue the departments newest member of staff, Liat Levita speaks to Danny Bennett

1. For me psychology is ...

A reflective evidence based scientific practice to understand behaviour.

2. Why and when did you choose Psychology as your field of expertise?

I am not sure how to tell you this, but I didn't do a Psychology degree. When I went off to University my father's advice was "whatever you do DO NOT do Psychology..." The inspiration to ask questions about the brain and behaviour



came from books that we had lying about the house, books by Eccles and Popper, as well as a book called "The Amazing Brain" by Ornstein & Thompson, with the most beautiful illustrations of the brain emerging from some primordial swamp (see left), I was hooked.

My dog also inspired me; I was about 10, and at school we learned about the eye, and that dogs did not see the world like us. I was devastated - I just couldn't believe it. I rushed home, went into our garden decimated a lot of flowers to get a variety of coloured petals, I sat my dog down, I showed her a red petal. I cannot describe the euphoria; I saw the colour in her eye. Of course MY dog can see red – I thought I'd proved the world wrong, that didn't last very long, I quickly realized that what I was seeing is the reflection of the petal in her eyes. It was the first of many failed experiments.

3. How did you develop your career in Psychology?

When I started university I was initially signed up for a degree in Biological Sciences, but after the first year I begged to change to the Neuroscience programme, which was split between the Biological Sciences and Psychology Schools at St. Andrews University. Early on, I knew that I wanted to be a scientist, so I found internship positions in different labs during my university summer holidays, where I was either running mice in the Morris water maze, doing extracellular ventral root recordings of motor pattern



generation in an intact spinal cord of tadpoles, or immunohistochemistry to trace and examine the morphology of respiratory bulbospinal neurones innervation of the spinal cord of cats. I loved it all, and it gave me a taste and the passion for more.

4. Tell us about your research area...

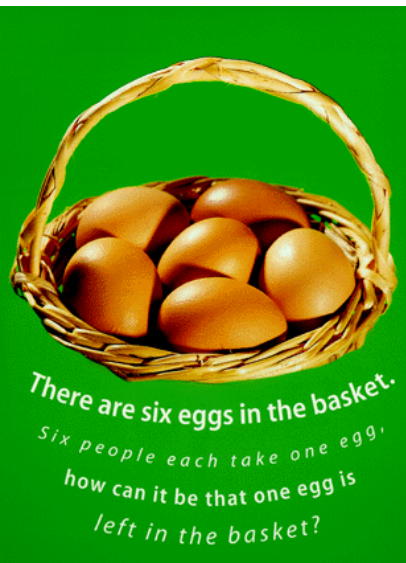
I am fascinated by the mechanisms that underlie emotion; especially those involved in approach and avoidance related actions as mediated by the fronto-limbic and frontostriatal systems. Disruption of these neural circuits has been associated with many neurodevelopmental disorders with different development onsets (ADHD, depression, schizophrenia and bipolar disorder). We know very little regarding the developmental trajectory of circuitry engaged in processing affective stimuli in both typical and atypical development. Consequently, the long-term aim of my work is to examine the development of different brain regions involved in regulation of emotion using functional magnetic resonance imagining (fMRI).

5. What advice would you give to undergraduates?

"It always seems impossible until it's done." (Nelson Mandela). And that "Study without reflection is a waste of time; reflection without study is dangerous"

Have a positive attitude; be organized, as with all in life, its 99% perspiration 1% inspiration. Whatever you do, do with passion and joy. Also I hate to tell you this but the weather forecast for the road ahead is foggy, so take a good torch and some spare batteries with you for the journey ahead.

6. Sometimes when we study we can all hit a 'brick wall' in our thinking, how do you get around your brick walls?



Dynamite? Personally, I use the mantra if at first you don't succeed, stop digging in the same hole, you will not get anywhere new, you will just end up with a deeper hole. Lateral thinking; practise it (see the egg question on the left). Also before you go for dynamite, stop and think, reflect on what is actually stopping you moving forward. Are you trying to move forward before the basics have been fully understood? Sometimes taking a few steps back is the most important thing one can do. Remember, the shy or the proud do not learn, be proactive, search for a solution, and do not be ashamed to reach out to ask for guidance.

7. With Psychology being such a young and recent science in comparison to others, there is obviously so much more yet to discover. If you had the chance to have unlimited funding and infinite participants...what would be the experiment or research you wanted to carry out?

If I had limitless resources, I would like to have a cognitive neuroscience lab in space. I would like to study neuroplasticity in a zero-gravity environment, and the effect of human-computer interfaces on cognition, and the emergence of changed forms of societal interaction and moral codes.

8. And lastly

I would like to wish you all and very happy and productive new year and also tell you about one more thing that I am rather excited by, which is the UK Government's Foresight Project on Mental Capital and Well-being. This project was set up identify a set of evidence-based actions to improve well-being. These are they; Connect, Be Active, Take notice, Keep Learning and Give. We can do that!

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PsychOut



January 2010
Issue 3



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