



MAZE

ISSUE 6



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A NOTE FROM THE EDITOR:

Hopefully, whilst you are reading this issue of Maze, you have emerged a stronger individual from the array of Martinmas semester deadlines, and have plenty of energy and enthusiasm left for the final few leading up to Christmas break.

This issue focuses on the clinical perspective, continuing from the Mental First Aid Training course that Maze organized this October. Additionally, feature pieces by St Andrews alumni Jonathan Firth on teaching psychology and Gerry Humphris from the School of Medicine on the fear of breast cancer recurrence are a welcome outside perspective on issues concerning psychology. As such, I am very excited that Maze is beginning to represent the topic diversity and interdisciplinary approach that is the very essence of psychology.

Of course, none of this would be possible without the help of the Maze team, student submissions and the support of The School of Psychology and Neuroscience, so thank you to everyone that has made Issue 6 possible. This is also the last issue of this semester and so, let me wish you all a well-deserved Christmas break and we all look forward to your submissions in the following semester!

All the best,
Natalia Fedorova

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Many thanks to the Head of School, Professor Keith Sillar, and School President, Deborah Moffat for their support



THE 'OTHER' EMERGENCY: MENTAL HEALTH FIRST AID

BY NINA BRIGGS

Most of us learn physical first aid from a young age. The signs of distress and what to do become second nature: SMILE for strokes, apply pressure to wounds to stop the bleeding. When it comes to mental health emergencies, very few of us would know what to do. How do you help someone who is having a panic attack? Where can you direct a friend who is suicidal to get the help they need? What are the signs of an episode of psychosis?

Like responding to physical health emergencies, it can be scary to be the one to respond; but unlike physical emergencies, there was no course that gave attendees the tools they need to get beyond that fear and help others until 2001. Mental Health First aid training (MHFA) started in Australia and was developed by Betty Kitchener and Anthony Jorm to respond to the growing demand for such a course by mental health workers. In the following years, the course has been attended by nearly 2% of the Australian population and is offered in 23 countries around the world. The Scottish branch, Scottish Mental Health First Aid (SMHFA) was founded in 2003, and updated to its current incarnation in 2007. By this year, nearly one million individuals have been certified by their local MHFA training branch; Scotland alone has trained over 40,000 people through courses taught by more than 300 instructors.



The course covers topics such as anxiety, depression, psychosis (which covers aspects of bipolar disorder and schizophrenia), suicide, substance abuse, and self-harm as well as the methods used in the course, and talks on attitudes toward mental health and recovery from mental illness. The program breaks down preexisting attitudes and misconceptions about mental illnesses in order to help people interact with others effectively. The course encourages non-judgmental listening and the provision of resources as the best ways to help people having a psychological emergency.

Some of the resources championed by SMHFA include BreathingSpace, ChildLine, and Samaritans. Aside from helping others, the materials also list ways to care for your own mental wellbeing regardless of the presence of a diagnosed illness; making the course applicable to each and every one of us.

In the first few weeks of October, MAZE hosted the first student-hosted MHFA courses at St Andrews. We are glad to announce the training sessions made up MAZE's largest event to date! With the help of SMHFA instructors Lyndsey Thomson and Sue Cairns, 32 students were certified over three weekends. This was no small feat on the part of the attendees; each course spanned 14 hours, with lunch breaks, over both days of each weekend. If you are interested in attending a MHFA course in Scotland, please see the SMHFA website (smhfa.com) for listings of upcoming courses. The website can also help you find courses in your home country, and has links to the instructor training course for certified individuals. The Union is looking to sponsor an in-university trainer through CAPOD, and MAZE will also be hosting these courses annually.

All of us here at MAZE would like to thank our wonderful attendees for joining us, and for helping to make the Bubble a more supportive and understanding environment.



illustration: Aviva Gillman



INSTRUCTOR INTERVIEWS

Lyndsey and Sue were kind enough to answer a few more questions about their perspective on the program.

How did you first hear about the program and what made you decide to become involved?

L: My younger sister completed suicide 1 year after being diagnosed with Bipolar Disorder. At the time of my sisters' death I was unaware of her diagnosis and knew very little about mental health problems and the issues faced by sufferers. I wanted to know more and I wanted to increase awareness of the issues people who suffer from mental health problems face on a daily basis. I also wanted to understand more about the illness my sister unfortunately couldn't live with and highlight the symptoms of this illness, and others, to the public to try to reduce the stigma surrounding mental illness and empower people with the skills and confidence to intervene in a crisis situation.

S: I heard about the program from the main SMHFA office in Edinburgh after your original enquiry. It sounded a really good opportunity to work with students at St Andrews and offer such a wonderful and enlightening course to students.

What would you say the benefits of taking the course are?

L: Some of the benefits of the course include increasing awareness of mental health, both negative and positive, learning new skills which can be used both in the workplace and in your personal life, reducing stigma and ultimately - the skills learned could save a life!

S: I would say the benefits are huge - first and foremost the course raises awareness of mental health and that we all have mental health, it is just that sometimes we are not as good as other days - alternatively, it also offers an insight into mental illness such as depression, anxiety etc., and allows a safe space for discussion and questions.

Why do you think it is important for students to take this course?

L: I think Scotland's Mental Health First Aid should be a core learning need for everyone. It is especially important for students to take the course as students often find themselves under severe pressure to meet deadlines; they often experience financial difficulties in supporting themselves through their studies and have the temptation of a very busy and sociable social life. The skills learned throughout the SMHFA can help them to spot the onset of possible mental health problems not only amongst their peers and friends but also in themselves and evidence has proven that early intervention helps a quicker recovery and journey back to positive mental wellbeing.

S: For students it is important to become more aware of self and others and how various events in our lives may affect our mental health and that of others. It is also important that students are aware that they CAN help by following the ALGEE guidelines and may save a life!

What are some other ways for people to get involved in mental health training and awareness?

L: There are numerous ways people can get involved and many courses available to take. These include SAFETalk, ASIST, and Storm. You can also become an instructor in Mental Health First Aid by taking the Training for Trainers course, more information on this course can be found on the SMHFA website. Mental Health organizations such as SAMH, Health in Mind and Rethink also offer mental health training. You can also help by telling others about your own positive experiences of Scotland's Mental Health First Aid and encouraging them to sign up!

S: There are various other training opportunities for mental health awareness especially within the voluntary sector. The Scottish Mental Health First Aid office in Edinburgh offer regular Training for Trainers courses, so please see their website or give them a call if you would like to take it further.



TERRIFIED TO TALK: SELECTIVE MUTISM

By Eliska Klimentova

<https://judithland.files.wordpress.com/2014/01/judith-land-adoption-detective.jpg>

Imagine yourself standing on the stage of the National Theatre, presenting a brand new play to an excited audience. You have worked hard towards this moment—you are ready to shine. The curtain goes up, you take your spot, you open your mouth... and nothing. Suddenly, your voice, the same voice that discussed the last details of the show just a few minutes before, has just gone away.

The situation described above is in no way unusual and almost everybody has experienced it at some point in his or her life. We're at an audition, oral examination, important presentation or interview, and suddenly we have nothing to say and all we want is to run away, hide in the corner and never face the world again. The problem is that while most of us pull ourselves together after a few seconds, some people will never overcome it by themselves; these are people who suffer from selective mutism. The disorder, named "aphasia voluntaria" back then, was first described in 1877, and was changed to

"elective" or "selective" mutism by the 1930's. Selective mutism is characterized by the inability to communicate effectively—verbally as well as nonverbally—when one finds themselves in a certain social situation (Chavira et al., 2007). That by itself would not be so surprising. There are many disorders characterized by temporary or permanent deficits in speech and communication in general: autism, Asperger's syndrome, traumatic events, etc. What is interesting about selective mutism is the last part of the definition: "a certain social situation". People, mostly children, suffering from selective mutism can communicate in a normal way so long as they feel comfortable and secure. Problems, however, emerge once the situation changes (Shipon-Blum, n.d.). To give an example, a child can be completely fine when talking to their mother or father while he or she is driving them to school, or to their friends, but once they arrive, that very same child can shut down and will not utter a word until school is over.



Kids who dont talk in School.
I once was like you because I ~~didn't~~ talk in school I was sad because I had no friends ~~and~~ I was isolated because I didn't have friends to play so I talk with the happy doctor I talk to all the kids so I more happy and I'm thankful because I talk.

<http://www.vwmn.org/what-is-selective-mutism.html>

What is the cause of this? A definite answer is yet to be given, but it seems like selective mutism is an extreme form of a social anxiety disorder (Dummit et al., 1997), combined with an enormous fear of the unfamiliar. In short, children who suffer from this disorder are so scared of attention being paid to them while they are in a certain place or situation, that they stop even trying. Instead, they start to avoid situations that may, from their point of view, attract someone's attention: not just talking, but also gesticulating, playing or even eating.

Children who suffer from selective mutism often have other anxiety disorders in their family. The second vulnerable groups are then children raised in bilingual families, living in a different country or exposed to another language in any other way. Such children feel that they have deficits in language in comparison to their friends, and so have difficulties in starting a conversation. So what's the difference between an ordinary shy child and a child with selective mutism? Unlike ordinary shyness, children with selective mutism can be, and often are, physically sick at finding themselves in uncomfortable situations. Their abnormal body language (which usually disappears once the environment has changed), nausea, vomiting and various other symptoms can deepen the social isolation they find themselves in.



Parents of children with selective mutism also report that while at home, their children are everything but quiet mice. Rather, they are more commonly described as bossy, moody and stubborn. There are also a small percentage of selectively mute children who actually love attention, and are excellent mimes, even though they still do not produce any noises (Shipon-Blum, n.d.)

How can we help such a child? First of all, remember that, unlike a child with autism, a child with selective mutism is perfectly capable of communication and is interested in doing so. They want friends, and some of them are even able to communicate to a select few on a limited level, such as with a whisper, while ignoring others. Therapy is therefore usually focused on strengthening one's self-confidence, and improving the ability of a patient to deal with unknown places and people—not only to communicate, but also to cope with seemingly common issues, such as being introduced to new people or being in the center of attention.

If you would like to know more, not only about selective mutism and its treatment, but also about the work of a children's psychotherapist in general, I can personally recommend books from the American author Torey Hayden: "Murphy's Boy", "Tiger's Child" and "Just Another Kid". Torey writes not only about work with child patients, their parents and the issues of follow-up care for children with selective mutism, but also about ethical aspects of the work as a psychotherapist. She is a great storyteller too, so go for it.

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FORECAST



>>**FORECAST PROJECT TO ASSESS THE
TRAJECTORIES OF RECURRENCE FEARS
IN BREAST CANCER PATIENTS THROUGH
THEIR RADIOTHERAPY TREATMENT<<**

BY GERRY HUMPHRIS



Fears of cancer recurrence (FCR) in breast cancer patients are common, stable once developed, reduce quality of life, increase health service utilization and are associated with depression. To prevent this common concern research is required to understand its development and identify factors that increase FCR levels. Recent evidence has shown that the quality of communication between the clinician and patient in cancer clinics raises FCR. For example some recent research has shown that the use of jargon, interrupted message giving and lack of empathy increase the chances of FCR developing in patients following their diagnostic interview with the cancer specialist.

Over the past 8 years, I have conducted a psycho-oncology clinical session at the Edinburgh Cancer Centre, Western General Hospital as an Honorary Consultant Clinical Psychologist. This time has been devoted to the understanding of patients' excessive fears of recurrence and commitment to helping to manage these fears. My colleague, Dr Gozde Ozakinci, also has a special interest in this field and we are two of about 20 specialists who have joined an International Special Interest Group on fears of cancer recurrence (known as FORWARD). This Group met in Ottawa in August 2015 following an inaugural meeting at the Cancer Colloquium in 2009 in St Andrews.



My interest has been drawn to the development of FCR. I applied to the Breast Cancer Now charity for support to study this area in patients attending the final stages of their intensive protocol of treatment. The aim of this pilot project (FORECAST) is to test the collection of FCR levels in a longitudinal design with 100 patients receiving radiotherapy for their disease. Two research questions will be tested.

First, are FCR levels raised on nearing the termination of treatment? Second, do these levels increase due to the communication pattern established by the clinician? Audio-recordings will be taken of the radiotherapist during the period of the 15 to 25 treatment sessions. All tapes will be coded using The ObserverXT10 and VRCoDES system to record emotional language and clinician responses. An established short form FCR self-report scale and digital audio recordings will be made. Longitudinal structural equation analyses and mixed linear modeling will be applied to establish the trajectory of FCR over the course of treatment. This will be the first study to intensively investigate FCR development nearing the end of the patient's treatment cycle. This proof of concept study will enable more extensive data collection to track FCR over periods on completion of treatment and then allow continuing monitoring on routine follow up. Such understanding will enable clinical teams (out-patient and primary care) responsible for continuing patient care following treatment to develop clearer strategies for management of FCR, such as the Mini-AFTER telephone counselling intervention being developed by Gerry and Gozde with breast cancer teams in Scotland.



THE HEART WAS MADE TO BE BROKEN

– OSCAR WILDE

By Sara Chan Yun Yu

That's one of the first quotes that come up when you search for 'break up quotes' on Google images. A bit melodramatic perhaps, but there's a haunting quality in this quote that belies Wilde's usual bombastic style. Maybe because it's truer than we'd like to admit: Heartbreaks are something most of us will go through at some point in life, and unfortunately the doctors don't seem to have found a cure for it yet.

Research into the psychology of break-ups can be depressing: higher levels of stress, loneliness, a sense of identity loss and increased risk of depression. In other words, nothing most of us don't already know. What most of you probably don't know however (but which you will if you keep reading), is that heartache is an actual ache: fMRI studies of participants who had recently been through an unwanted breakup found that looking at pictures of their ex activated the secondary somatosensory cortex and the dorsal posterior insula, that is, the same areas that underlie the affective components of physical pain (Kross, Berman, Mischel, Smith & Wagner, 2010). Luckily however, pain-killing drugs that act on the central rather than the peripheral nervous system such as acetaminophen, more commonly known as Tylenol, can reduce the feeling of heartache (DeWall, MacDonald, Webster, Masten, Baumeister, Powell, Combs, Schurtz, Stillman, Tice & Eisenberger, 2010).

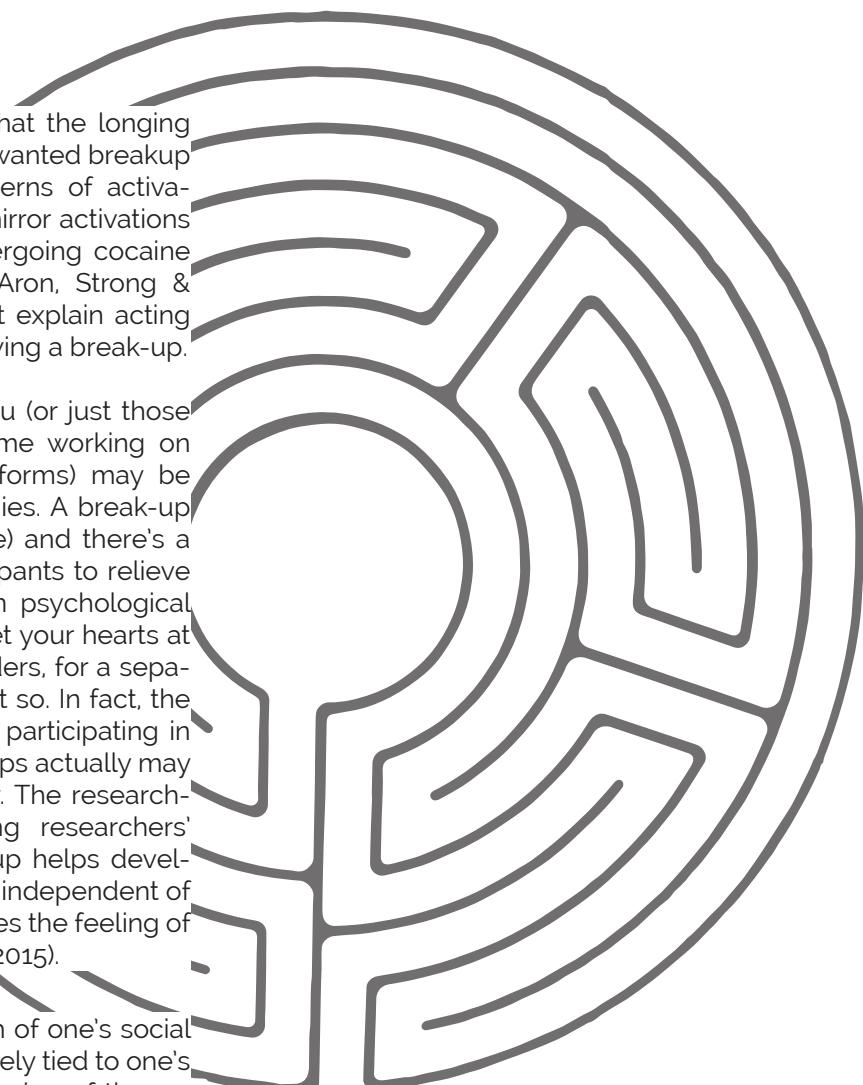


Furthermore, it was found that the longing those who go through an unwanted breakup feel is associated with patterns of activation in the forebrain which mirror activations in the brain of addicts undergoing cocaine withdrawal (Fisher, Brown, Aron, Strong & Mashek, 2010). This may just explain acting a little out of character following a break-up.

The more cynical among you (or just those who have spent a lot of time working on filling out ethical approval forms) may be wondering about these studies. A break-up is a painful thing (see above) and there's a possibility that asking participants to relive these painful experiences in psychological studies may be upsetting. Set your hearts at rest, dear conscientious readers, for a separate study found this was not so. In fact, the study found indications that participating in research on romantic breakups actually may promote emotional recovery. The researchers propose that answering researchers' questions about the break-up helps develop participants' sense of self independent of the relationship and decreases the feeling of loneliness (Larson & Sbarra, 2015).

This is crucial because much of one's social circles, and activities are closely tied to one's romantic partner, so the severing of the relationship disrupts these and therefore one's self-concept. Meanwhile, the decrease in loneliness may be because asking someone to report on their mental health cues them to cope with their feelings, or possibly because it helps remind them of the ways in which they are actually doing well. To sum up, having people talk about their feelings helps, there's another groundbreaking discovery in the psychology of heartbreak!

In the absence of a convenient study on heartbreak in the area near you, however, there is no need to despair. One may develop one's self-concept and consider positive aspects of one's life even without the aid of a friendly experimenter. Friends may be helpful, or in the absence of helpful friends, reflective journaling that focuses on positives can help in the development of new perspectives (Fredrickson & Joiner, 2002).



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LOBBYING FOR LOBSTERS: **CAN CRUSTACEANS** **EXPERIENCE PAIN?**



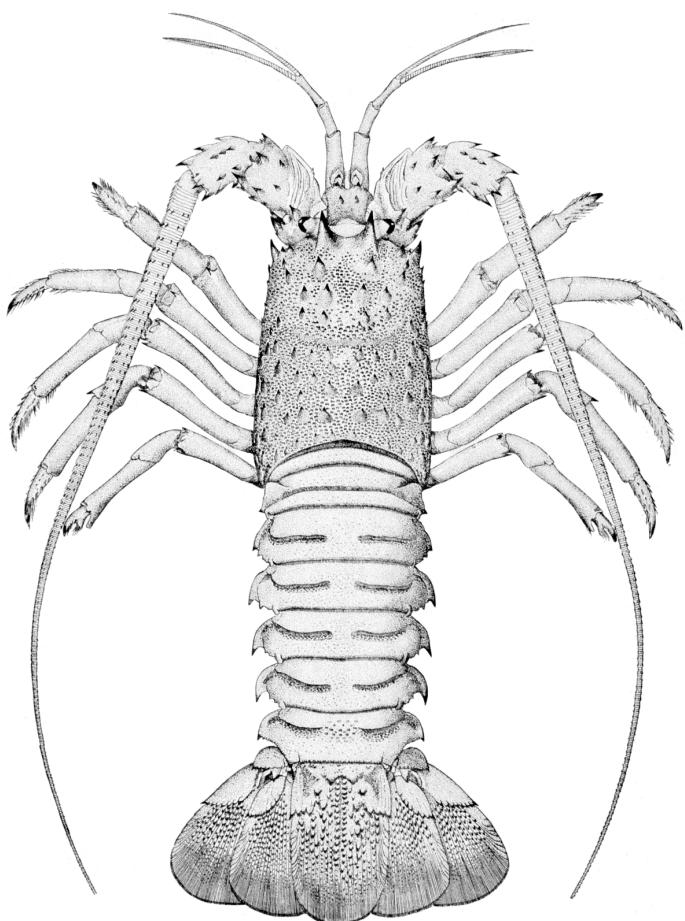
By Gleb Dobrovolskiy



"Don't worry, they don't feel anything!" - announces Dan 'The Lobster Man' Zawacki, a middle-aged cooking enthusiast and entrepreneur, to his YouTube channel's spectators, as he throws a confused scaly creature into the hissing tempest of his crock pot. To little surprise, the comments made by the crème de la crème of enlightened internet audience range from "I hope someday someone will boil your kid" to "eating lobster while watching cruelty being done to a lobster makes me horny". There is however something intriguing about the topic which provoked these reactions: that scientists, too, are divided on whether to side with The Lobster Man, albeit in a more reserved language of academic publications, or with those who believe the lobster to be experiencing the undue pain of being boiled alive. There is an obvious reason why it's difficult

to establish whether crustaceans feel pain: they don't excel at interviews and questionnaires. One available approach is to compare their physiology with that of higher vertebrates; another is to study how they respond to potentially painful stimuli.

The organization of the crustacean nervous system is very primitive – it is to the mammalian nervous system what a ballpoint pen is to a typewriter.



Some crucial elements that are involved in pain processing are absent altogether, such as the brain's primary somatosensory cortex. Or any brain cortex. Or brain. Instead, crustaceans have a cerebral ganglion behind their eyes and an array of smaller ganglia in other segments of the body.

For many, this observation is sufficient to say that complex cognition, including pain, doesn't exist in these invertebrates. Yet it doesn't discourage some other academics. They point out that both nociceptors (which register painful stimuli) and opiate receptors (which can inhibit them) are found in crustaceans, and that it is sensible to assume they are there for a reason. There may be some sort of alternative mechanism that delivers the same experience as the mammalian perception of pain—it's just that we haven't found it yet. This argument, however under-developed,

can only be debunked once the nervous system of crustaceans is understood in its complete entirety, thus making it difficult to prove anything on the basis of neuroscience. But what of crustacean behaviour?

There was a landmark study at Queen's University of Belfast (Magee & Elwood, 2013) in which crabs were found to be fleeing an electric shock: they left the safe (dark) areas where the shock was applied for unsafe (lit up) areas where it wasn't. Moreover, the animals learned not to return to the dark areas – implying that something more



sophisticated than a mere reflex – memory, perhaps – was responsible. Unfortunately for the triumphant authors of the experiment, this doesn't qualify as proof of pain experienced by their unlucky participants.

Animals escape all sorts of dangerous stimuli – not all of which are immediately painful (cold temperatures, light or lack of oxygen to name a few). Crustaceans could be "programmed" to automatically avert from anything that may deliver physical damage to their tissues – without any suffering felt in between.

To be fair, these concerns were met in an earlier study (Barr et al., 2008) by the same team that focused on the signs of distress as opposed to avoidance. If you think of a badly wounded fluffy kitten—to give a completely random example of a mammal—you will know that it's in pain because it is crying and crippling and attending to its injury. The researchers investigated whether similar behaviour could be found in invertebrates. In the experiment in question, acid was applied to shrimps' antennae, which are an important navigation organ and are therefore very sensitive. Once it was done, the little fellows began to rub their antennae feverishly. Nevertheless, a few years later a similar study demonstrated that three different species of decapods rubbed their antennae irrespective of whether an acid or a control substance was used to trigger the response (Puri & Faulkes, 2010). The authors justly concluded that what appeared before their eyes must have been an example of personal grooming – i.e. the shrimps and crayfishes were simply cleaning themselves from the junk humans dropped on them.

To summarize, there is an absence of convincing evidence for pain in crustaceans in each approach; however, the conclusion I'm about to offer is far from decisive. In terms of scientific opinion I agree that pain is overall unlikely to occur in lobsters and their relatives. And yet the huge ethical implications, remarkably, switch the burden of proof from a less likely scenario to the more likely one. You probably want to be completely sure that you have the correct answer before you give your next handcuffed dinner a 100°C bath – and you aren't. For example, new developments in neuroethology may soon offer a better insight into the working of ganglia and make us reconsider our beliefs. Not everyone is ready to risk sentencing a living creature to death in a manner so dreadful that it's beyond rational comprehension—simply because it's tasty.

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ON TEACHING PSYCHOLOGY

By Jonathan Firth

I have been teaching Psychology in a secondary school for 15 years. I became interested in teaching when I was an undergraduate, through the experience of giving talks to my Honours class and leading small seminars - I found that I enjoyed explaining concepts and research to others. If you also enjoy working with others and sharing your knowledge of psychology, perhaps you should consider a career as a school psychology teacher or college lecturer. I will try to explain in simple terms how best to follow these paths, and what might be involved.



ROUTES INTO TEACHING

Historically, it has not been particularly easy to get into psychology teaching at school level - it is necessary to do a teaching diploma and be accredited by the General Teaching Council, Scotland (GTCS), and in many ways, the current teacher training arrangements do not work well for graduates with a single honours degree in psychology. Up until now, there has been no postgraduate diploma in education (PGDE) in the subject in Scotland; in contrast, if you have a joint honours degree with a 'school' subject (e.g. biology) then you can train in that subject, with a view to teaching Psychology once you are actually in a school. Another route might be to train as a primary teacher - though most trainees tend to stay in the primary sector once they have started out there, rather than moving on to a secondary job.

Indeed, most of the school teachers who are currently teaching the subject did not start out teaching Psychology, but came to the subject through one of a variety of different routes. This somewhat bizarre situation is due to the way teacher training is funded and structured, but fortunately things are changing - for the past few years, there have been a small number of funded teacher training posts in psychology teaching south of the border, and there are plans afoot for a course based at Strathclyde or Glasgow too, so it would be worth keeping an eye out and enquiring before the end of your studies if you are interested.

At colleges, things are rather simpler - a long established training course called the TQFE (teaching qualification in further education) is required, though some colleges may be willing to employ graduates and allow them to train on the job. It is worth noting, though, that many college lecturers actually deliver psychology in schools too, going out weekly to deliver the Higher to schools who do not have their own psychology departments. Because of this, it would be an advantage to be GTCS registered as described above. In fact, I know of lecturers for whom their entire teaching timetable consists of school visits.

NATURE OF THE COURSES

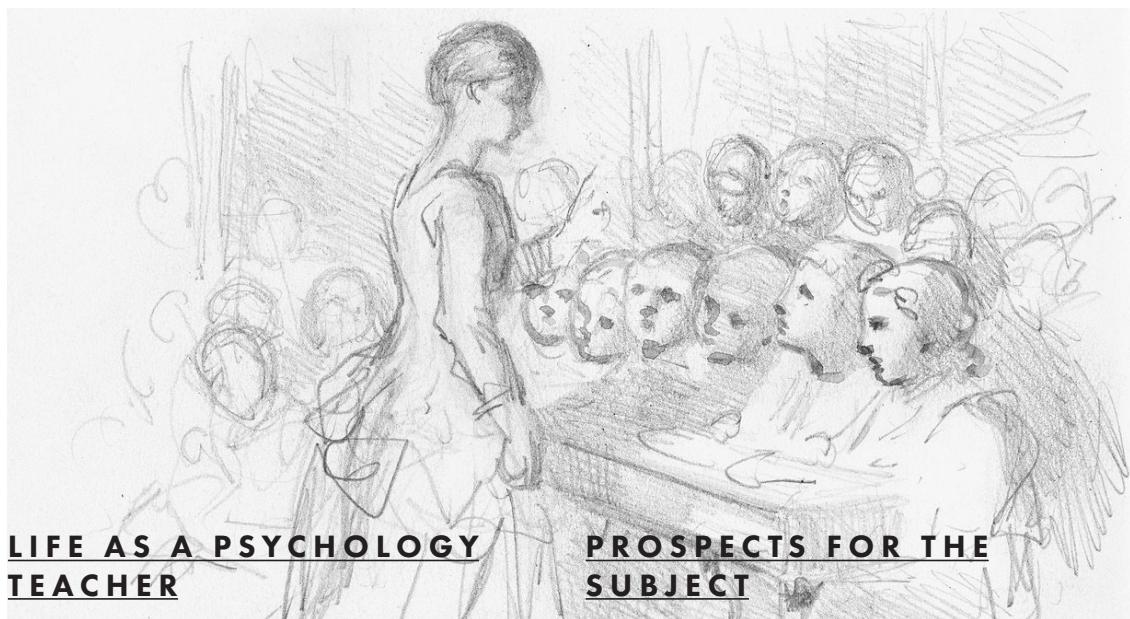
If you didn't do psychology at school, you may wonder what exactly is taught in a school psychology course. Actually, even if you did, it is likely to have changed by now! New and much changed versions of both the Higher and A-Level courses have recently been launched.

In terms of the Higher, there is a big focus on research. 40% of the grade is awarded for an individual research project, which is written up in the same format as reports at university. The exam also tests research methods - although inferential statistics are optional at this level. Mandatory topics include 'conformity & obedience', and 'sleep & dreams', and learners need to understand different theoretical approaches such as the biological and cognitive perspectives. Naturally, theories and research evidence are covered, though much fewer than at undergraduate level. Two optional topics can be chosen by the center - prejudice, attachment and memory are all popular choices.

The A-Level is essentially similar, but as a 2-year course it is more demanding than the Higher. It also places more emphasis on the exam - the exam boards south of the border controversially dropped their project work from the syllabus a number of years ago, amid concerns about cheating.

Most lecturers at FE colleges deliver the HNC or HND in Social Sciences (Higher National Certificate/Diploma - equivalent in level to 1st year or 2nd year of a degree respectively), including elements of psychology but also of disciplines such as politics and sociology. Some FE colleges have their own degree programs, too.

As a new teacher, it can be hard to get up to speed on the various theories and research in the syllabus - a degree is an excellent foundation, but you can't assume that you will have studied everything that is on the school syllabus. You may also be in the position of having to create a lot of teaching materials initially - I set up a school course from scratch and it was a tough couple of years at the start, but became much easier once things were up and running it.



LIFE AS A PSYCHOLOGY TEACHER

Networking and sharing resources are always helpful in education, but are particularly important when if you are the only teacher of the subject in your school! Over the past couple of years, a group of over 80 psychology teachers in Scotland have established a circular email group, asking each other questions and providing peer support. We share resources directly via email and also using a file sharing website called Resourcd. The British Psychological Society is also supportive, offering free membership and other resources to school departments.

There are regular conferences for psychology teachers. A UK-wide organization called the Association for the Teaching of Psychology holds a large conference every summer; it has a Scottish branch which runs its own events, and there is also a European 'confederation' of psychology teacher associations from different countries with a biannual conference - the subject is widely taught in schools in some countries such as Germany, Russia and Finland, but hardly at all in others.

One aspect of life as a school psychology teacher is that you become very exam-focused - with most of my classes sitting the Higher, my year revolves around prelims, coursework and the SQA exams in June. I have learned a lot from working as an exam marker, both from talking to other markers and from reading students' work!

WEBSITES

The Association for the Teaching of Psychology (ATP) - theatp.org

The European Federation of Psychology Teachers Associations - efpta.org

Resourcd - The site for sharing teaching resources - Resourcd.com

A perspective from England - <https://thepsychologist.bps.org.uk/volume-21/edition-10/careers-psychology-teacher-training>

PROSPECTS FOR THE SUBJECT

For now, Psychology remains a minority subject in Scotland - in the top 20 of subjects in terms of number of Higher candidates with almost 4000 entries annually, but little taught at younger years. However there is huge potential for it to expand; the A-Level is the 4th largest subject in terms of entries, with only Maths, English and Biology recording higher numbers. The main reason for the difference north of the border is that fewer schools offer it, partly because it is newer. It may surprise you that there isn't an Advanced Higher qualification in Psychology - available in all other subjects of comparable size - particularly as psychology tends to be viewed as a subject for sixth year pupils. It would be good to see SQA introduce this in the future; I have had many students who would like to study psychology but could not, either because they had already done the Higher in S5 and there was no course to move on to in S6, or because their university conditions required Advanced Highers only.

If psychology is taught to 5th and 6th year school pupils, why stop there? There are also GCSE and National 5 qualifications, and several schools are now offering the subject to 3rd and 4th year pupils. In the future it would be great to see psychology taught to even younger children too - I am currently in the early stages of setting up a 'psychology for children' project (analogous to a well-established 'philosophy for children' program), in connection with Education Scotland. If this seems strange, I would point out that many aspects of psychology are already taught to younger children in the form of memory strategies, mindfulness, stress management, behavior issues etc, but tend to be taught by non-psychologists and with little or no evidence base. I'd like to see that change, and for the subject to be properly recognized throughout the curriculum.

Just out of interest, out of the four people (including myself) who were on the SQA examining team for Higher Psychology last year, three had done their psychology degrees at St Andrews... A coincidence no doubt, but there is clearly no reason that a psychology graduate from the university can't prosper in the world of pre-university teaching!



<https://www.flickr.com/photos/pagedooley/5456071822>



PhDs IN FOCUS

Our very own Nina Briggs met up with Caoimhe Ryan, a PhD student studying anti-deportation campaigns, a highly relevant issue, under the supervision of Professor Reicher



Students protesting outside the University of Manchester. Source: University of Manchester archives.

You started your career working on suicidal behaviour, but then switched to do your PhD on social identity and anti-deportation campaigns; what drew you to these topics, and why did you choose to stick with social identity and anti-deportation campaigns for your PhD?

Hi Caoimhe, could you tell us a little about yourself and what brought you to St Andrews?

I am a social psychologist from Dublin, Ireland. I originally came to Scotland to work in research after completing my MSc in London (LSE). When I decided on an academic career, a PhD was the obvious next step. I compiled a shortlist of social psychologists I would like to work with and because I found his writing so inspiring, Steve Reicher at St Andrews University was top of my list. I was lucky enough that after relatively little badgering on my part, Steve agreed to supervise my doctoral work, and I arrived in 2011 to start my PhD.

My interest in immigration actually predates my work on suicidal behaviour. I have long had a personal as well as academic interest in the experiences of migrants and non-migrants which, I think, stems mainly from a wish for these experiences to be as positive as possible for all concerned. My MSc dissertation explored Dubliners' responses to immigration in the years following the 2004 expansion of the EU. When it came time to pursue my doctoral thesis I was certain that I wanted to re-engage with this field of study. Following my MSc, I had the opportunity to work in the area of suicide research. For me, it was a great chance to put the knowledge and research skills I had so far developed to use in a worthwhile and meaningful way. While I decided not to continue in the field, the time I spent investigating suicidal behaviour was invaluable to my personal development and my development as a researcher.



<https://upload.wikimedia.org/wikipedia/commons/f/f9/ArmenianDeportation.jpg>

Can you tell us a bit more about your thesis work?

My thesis work centres on anti-deportation campaigns – community-based movements campaigning for migrants (individuals or families) to stay in the country when they're at immediate risk of deportation. I was fascinated to learn how such campaigns appeal for public support within a context in which negative representations and opinions regarding immigration proliferate.

To this end, I analysed appeals for support across a range of historical and contemporary anti-deportation campaigns. I found that, across campaigns, those in need of help were represented as members of local in-groups (e.g., Glaswegian, Scottish), as families (parents and children, husbands and wives), as vulnerable people, or as assets to the community.

These representations served two important functions within the analysed campaigns. First, they subverted or circumvented dominant anti-immigration discourses and processes that render migrants 'other' and different, a threat or a burden. Second, they were used to align support for a given campaign with the collective-self of the audience. For instance, appeals presenting migrant-sin need of help as Glaswegian rendered them part of a collective 'Glaswegian self'. Appeals highlighting their contributions to society made their continued presence a matter of collective self-interest. Meanwhile, appeals centring on family life evoked norms and values

concerning the rights and proper treatment of families – norms and values that campaigns presented as being an important part of ingroup identity.

Finally, in a series of simple experiments I found that appeals for support presenting people at risk of deportation as ingroup members or as contributing to ingroup interests were more effective in generating support than appeals stressing the individual identity or interests of those at risk.

So, I heard that you are just finishing up your PhD, Congratulations! Do you have any advice for people who have just started graduate study, or who will soon?

Thank you very much! Yes, I passed my viva (thesis defence) last week. It hasn't quite sunk in yet!

It probably goes without saying that postgraduate study involves a huge amount of hard work and no small measure of stress and self-doubt, but what might not be so obvious is that postgraduate study is a time of tremendous intellectual freedom and creativity. So, to any new graduate student I would say - enjoy the time and space you will have to explore new ideas and to find and develop your own voice. And most of all, try to hold on to the spark of inspiration and excitement that brought you to your topic to begin with. That will serve you well.



WILL WE EVER MAKE CONTACT WITH INTELLIGENT ALIEN SPECIES?

By Gleb Dobrovolskiy



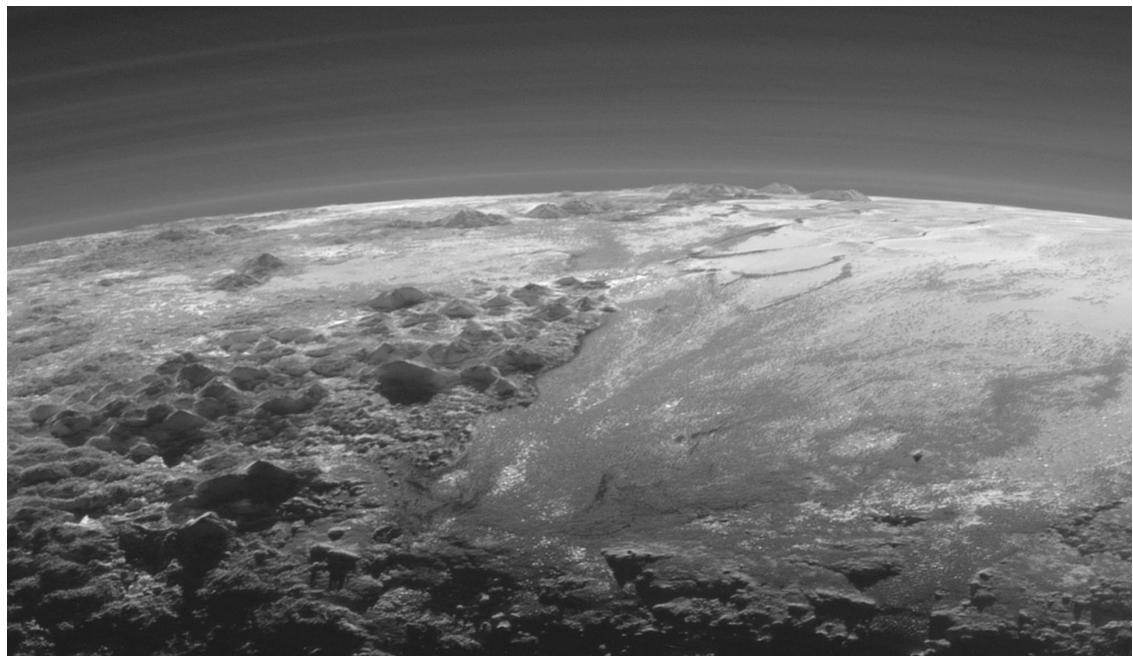
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Most people, as various opinion polls indicate, believe in the existence of intelligent extraterrestrial life. Celebrity CEO's like Mark Zuckerberg and Sergey Brin are funding the construction of radars and telescopes capable of hunting down the most humble traces of an alien civilization; their initiatives receive the approval of renowned cosmologists, including Stephen Hawking. This enthusiasm is easy to understand: galactic empires and gorgeous alien princesses are a universal juvenile phantasy, and the technologies and culture of an otherworldly mind can ignite a sparkle of scientific interest even in the most worldly of minds. It is also a fair point that due to the vastness of the universe and billions of potential Earth-like planets in our galaxy alone, the otherwise unlikely occurrence of life becomes a fairly plausible event. Unfortunately, the excitement has to be seasoned with a pinch of dull critical thinking – and this is where our field of psychology and neuroscience, sometimes regrettably overlooked by astronomers and business mavericks, enters the picture.

Part of the problem lies in the assumption that sapient life is superior to non-sapient, and that the former is an inevitable consequence of the latter. In other words, once a

planet becomes a host to a family of microbes, it is only a matter of time before some of their descendants will sue others for teaching evolution – an example of what we refer to as 'intelligent life'. Yet the steamroller of natural selection doesn't hold any special respect for our brainpower: the ability to process sophisticated data and make decisions is but a handy survival trait, much like camouflage skin or a venomous sting. There is no evidence that simpler organisms are less evolutionary successful (more prone to extinction). At the most basic level, humans in all their complexity are just one of a myriad possible paths to assemble a colony of cells – in fact, a man and a piece of his cancer in a Petri dish are technically the same species, and, arguably, even the same individual animal. The environment of a different planet could easily favor a different formation, or prefer not to develop multicellular life at all. In short, we could as well be mallards arguing that spikes on duck genitalia must exist somewhere else in Milky Way; we fail to see that a trait we hold dear is extremely specific and not very necessary.

But imagine that against all odds the conditions on some inhabited celestial body allowed for large organisms to proliferate and



even develop an analog to our nervous system in order to navigate their mysterious home world. Sadly, the prospect of having an interstellar Skype session is not coming any closer – and here's why.

We tend to portray aliens anthropomorphically, i.e. we attribute to them some distinct human features, and yet there are endless ways in which these expectations could be failed in a completely parallel evolutionary chronicle. Consider a dolphin – it can “see” the surroundings with its echolocation apparatus. Now consider a fly – it can taste food with the buds located on its feet. For us it is extremely difficult to imagine what it is like to feel these sensory experiences, even though they belong to our fellow earthlings. In the case of alien species the difference is likely to be even more striking; instead of processing wavelengths with vision and air vibrations with hearing, they may rely on radiation, magnetic fields or whatever else may help them to orient themselves in their domestic surroundings. The disparity between senses is only the beginning of our struggles to understand a potential extraterrestrial pen friend; aliens’ biological longevity and perception of time are also unlikely to match ours. They may have dynasties which last hours or university lectures that actually span centuries.

Digging deeper and deeper, the differences may exist on completely fundamental levels: they may lack hormones and neurotransmitters – and thus emotions, or perhaps the environment has never favored them to become social – and so they will know no communication; the wiring of whatever is their substitute(s) for a brain could be nothing like familiar synapses and long-term potentiation; and perhaps, such concepts as memory, opinion and imagination would be unknown to them. The bizarre computation of their minds may not even fit into the definition of what we refer to as “thoughts”. In other words, their nature could be so foreign to Earth biology that their qualia, i.e. “soul”, will be ultimately incomprehensible. It would be as impossible to imagine the experience of their existence as that of a star or a supercomputer.

If I managed to sound convincing, some of you may soon feel rather lonely; others may begin to feel rather special. Personally, I think you shouldn't feel either – existence of intelligent aliens will only become relevant once we become a space-faring species, and therefore won't make any difference within the timescale of your tiny lifespans.

Have a nice day.



THANK YOU FOR READING.

