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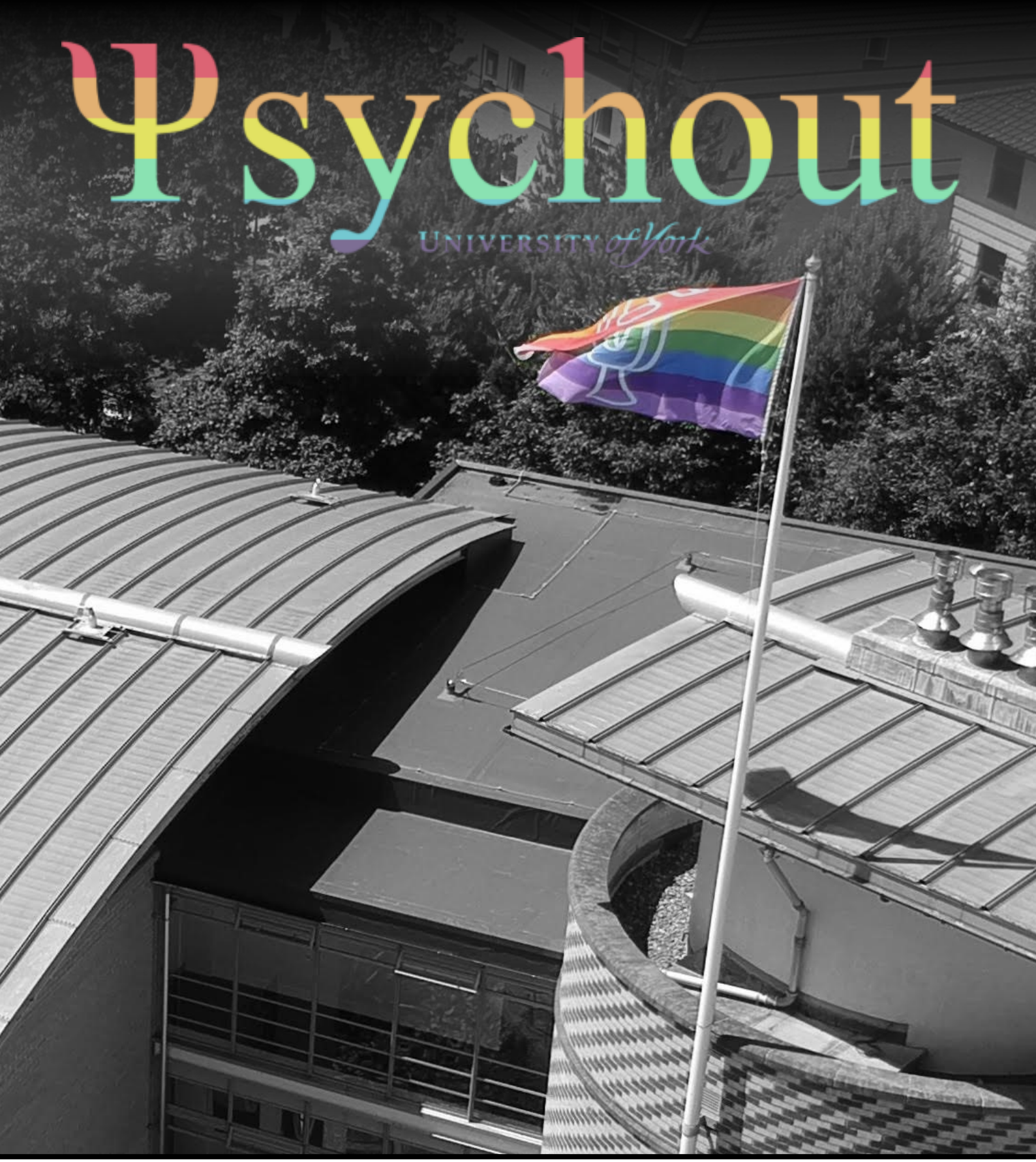
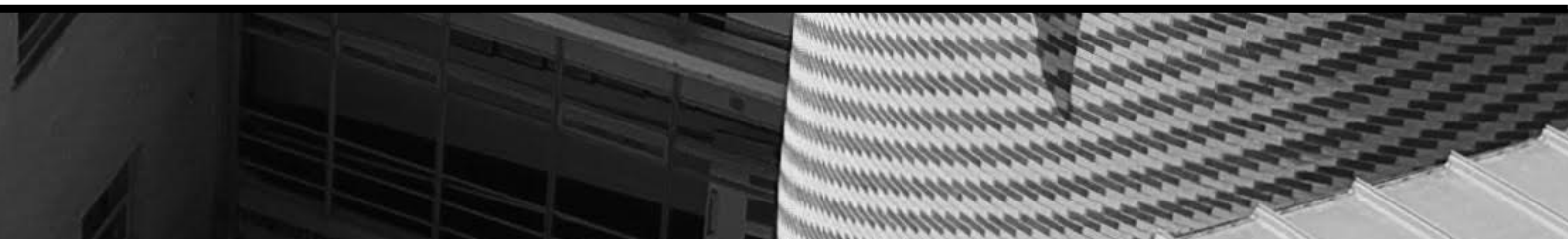
University of York



Issue 11: The Diversity Issue



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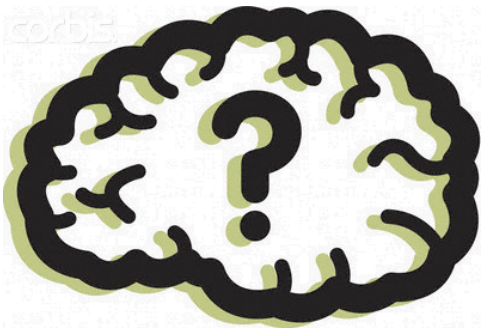

Features:

Psychology In Action:

Additional Content:

Disclaimer: Please note this magazine is written and edited by students of the Department of Psychology, University of York. Views reflect the position of our individual writers, and are not the official position of the University or Department.

Find past issues of Psychout at:

https://www.york.ac.uk/psychology/news-and-events/psychoutstudentmagazine/

All references from this issue are also available online.

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Editor's Letter

Hannah Paish

This issue of PsychOut explores Diversity. We have featured articles exploring psychology research related to diversity and issues of diversity within the field of psychology. Our writers have worked hard on their articles, so we are sure you'll enjoy them!

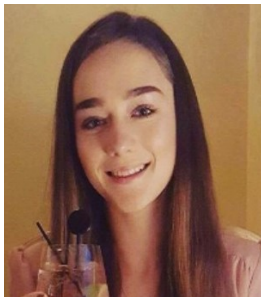
New to this issue is the "Research Highlights" page. If you're interested in psychology research happening at the University we encourage you to check it out!

Darel Halgarth

MEET THE TEAM

Aisling Kenny
Aisling is an undergraduate psychology student. Her article explores lack of diversity in sampling.

Rossi Redgrave
Rossi is currently doing an MSc in Cognitive Neuroscience. His main area of interest is where social psychology and neuroscience overlap.



Lucy Staffords
Lucy is a first-year undergraduate student and her favourite module is Social, Personality and Abnormal Psychology

Laura Scales
Laura is a psychology undergraduate student. In this issue she writes about her experience volunteering for Open Minds.

Want to get involved in the production of PsychOut?

Simply email us at **cdh529@york.ac.uk** or **hgp506@york.ac.uk**

No previous writing experience is required!

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Features

The theme for featured articles in this issue is "Diversity".

The Psychology of WEIRD People

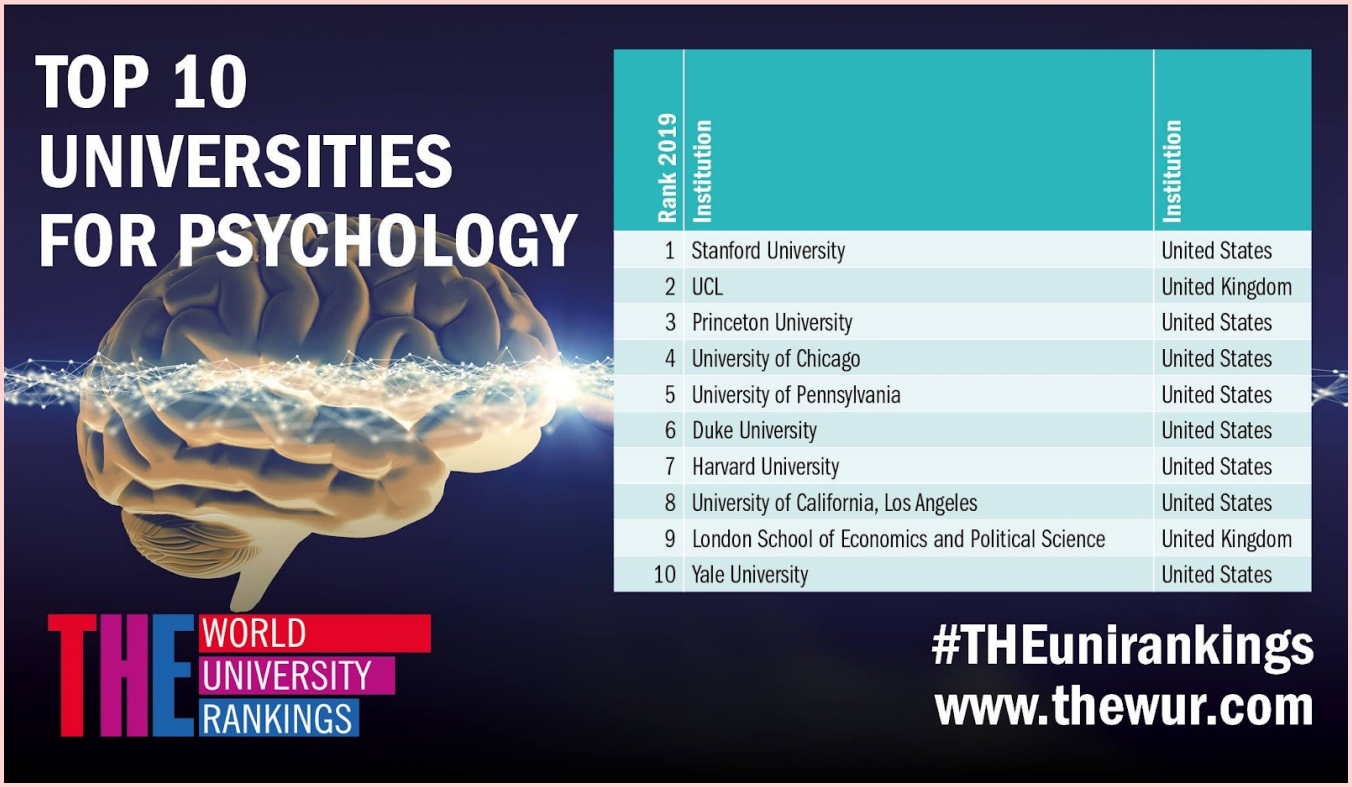
Aisling Kenny discusses the lack of diversity in psychology experiment samples, and the issues this causes.

Have you ever taken part in psychology research? If the answer is yes, then you've probably been a psychology student (or at least known one) from a Western, Educated, Rich, Industrialized and Democratic (WEIRD) society.

This is the norm in psychology research today. Convenience samples are predominantly composed of fresh, guileless undergraduates from Western universities, a problem which has recently come under fire from those inside the field (Rosmarin, 2016). The problem isn't that undergraduate students from these societies are bad participants; the problem is the blatant extrapolation from these niche populations to assumed fundamental principles of the human psyche. Or so say researchers at the University of British Columbia.

In a publication titled "The weirdest people in the world?" Heinrich, Heine and Norenzayan challenged psychology's over-reliance on undergraduate samples from WEIRD societies – and an over reliance there certainly is. Over 70% of all psychology research worldwide is conducted in Europe and North America (García-Martínez, Guerrero-Bote & de Moya -Anegón, 2012). Considering Europe and North America only make up 14.6% of the world population, and psychology undergraduates a much smaller proportion of that, there's some serious over-representation going on.

By zooming in on comparative studies between various subgroups including Western versus non-Western societies, Heinrich and colleagues found certain psychological phenomena were not as universal as you might have thought. Results across similar experiments differed widely depending on subgroup. This was observed in various domains of psychology, including visual



Rank 2019	Institution	Institution
1	Stanford University	United States
2	UCL	United Kingdom
3	Princeton University	United States
4	University of Chicago	United States
5	University of Pennsylvania	United States
6	Duke University	United States
7	Harvard University	United States
8	University of California, Los Angeles	United States
9	London School of Economics and Political Science	United Kingdom
10	Yale University	United States

The United States dominates the university leader board in terms of study and output.

perception and spatial reasoning. In fact, they claimed that subjects from WEIRD societies were the most unusual of all. If that is true, it could pose some issues for general theories of psychology.

The counter argument, of course, is that homogenous samples are great. When we control as many extraneous variables as possible, we allow our target behaviour to shine through. While this is true, we must realize that these are models and not exact replicas of the human population.

So, what to do? Though the need for diversity of samples is apparent, it is hard to dismiss that homogenous samples provide better modes of comparability across experiments. But if we continue to focus on this specialized sliver of the human population, we merely know more about undergraduates – and WEIRD ones in particular – not about humans in general. Perhaps we will see a shift in this pattern due to online databases such as Prolific, which allow researchers access to a pool of participants around the world. Yet one still must wonder how far beyond Westernized undergraduates this technology will reach.

Whatever the solution, the bottom line is this: though undergraduates from Western societies are easy and cheap participants, we need to realize that what we know is based on a convenient model, not a true representation of reality. The psychology you know is not general human psychology; it's the psychology of WEIRD people. We must be more aware of this fact, both as producers and consumers of psychology research.

Our Racist Brains: Ingroup Empathy / Out Group Threat

Rossi Redgrave explores research investigating whether our brains are racially biased and respond differently to different social groups.

As countries diversify, societies such as the UK comprise a greater mix of cultures than ever before. As of the last census (ONS, 2016), 14% of the population of England and Wales – 7.8 million – were non-white, compared to just under 6% of the population in 1991. With migration comes beneficial change, but how does our brain fare in our navigation of ethnically diverse populations?

A core aspect of human cognition is the need to belong to a group – whether that be a friendship group, a societal group – such as race - or both (Stevens and Fiske, 1995). This interdependence on others is thought to benefit our survival which might explain why positive ingroup and negative outgroup biases are evident. In recent years, social neuroscientists have started trying to understand how these biases manifest in the brain, and, importantly, how we can work to inhibit and correct them.

Empathy

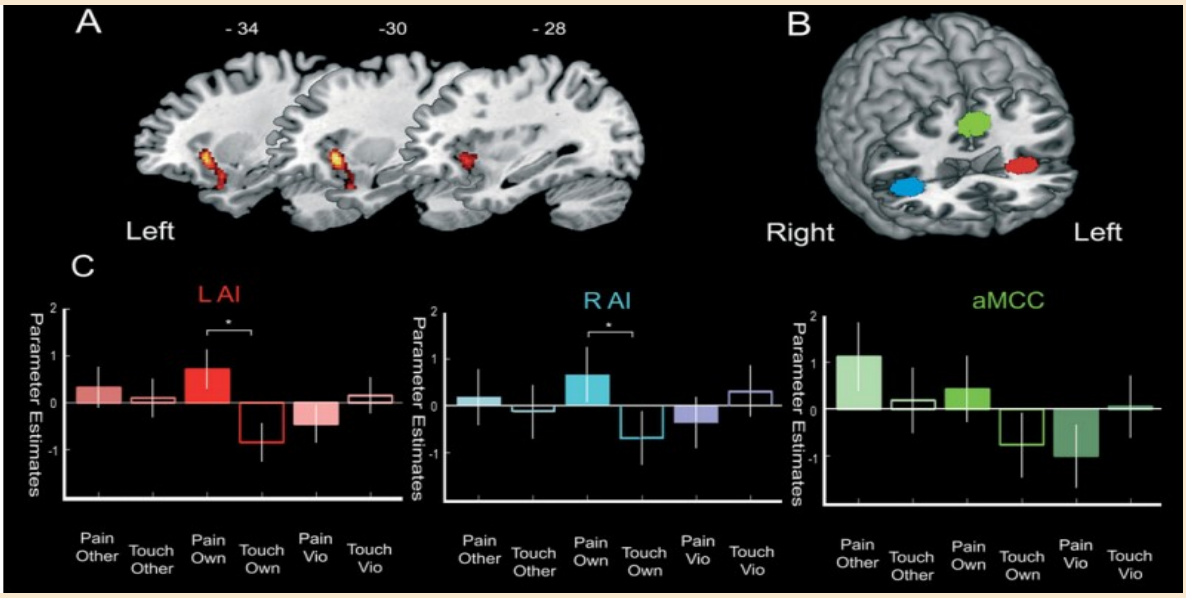
A key factor in the development of prejudicial attitudes is empathy. We find it easier to identify with those who are like us thus are more likely to feel empathy towards them. This also means, however, that we are less likely to empathize with those who come from a different social group.

In one fMRI study, when White and Black Italian participants viewed same-race and other-race individuals experience pain (being prodded by a q-tip versus a syringe), areas of the brain known to be involved in pain processing - such as the bilateral anterior insula (shown above) – showed greater activation for the pain experienced by own-race than other-race individuals, and greater than for a purple-skinned model (Azevedo et al., 2013). Further, greater implicit racial bias – tested using the implicit association test (IAT – Greenwald, McGhee, and Schwartz, 1998) – predicted this increased activity within the left anterior insula.

Threat

It's also thought that we are more likely to perceive those from an outgroup as threatening, implicitly at least. One region implicated in this threat processing is the amygdala, a region in the frontal part of the temporal lobe.

In a recent study, when predominantly White American participants were instructed to make 'shoot' versus 'don't shoot' decisions when viewing an armed or unarmed individual in pictures (Senholzi et al., 2015), increased amygdala activity was evident in response to armed Black individuals



than armed White individuals, and was related to an IAT measure of Black-Danger associations. Although quite a unique task, these findings indicate that amygdala threat detection of a racial outgroup individual is part of the brain's network underlying racial bias.

Challenging Biases

So, what can we do to correct these seemingly automatic, but potentially damaging neural responses?

Interestingly, some suggest that transcranial stimulation to the medial Prefrontal Cortex (Sellaro et al., 2015) and even taking certain drugs like Propranolol (Terbeck et al., 2012) decreases negative implicit attitudes towards racial outgroups. Fortunately, it's not necessary to zap our brains or take certain drugs to work on our biases.

Perhaps unsurprisingly, a key to challenging our negative outgroup bias is contact with outgroup individuals. In an fMRI study of Chinese individuals who had recently (6 month - 5 years ago) moved to Australia, although an anterior cingulate cortex (ACC – a region involved in pain/empathic processing) activation bias towards ingroup individuals was still found, ACC activation to pain in other races increased with the level of contact participants reported with other-race individuals but importantly not the closeness of the relationships they'd established (Cao, Contreras-Huerta, McFadyen, & Cunnington, 2015).

Though far more complex than discussed here, neural mechanisms do positively bias us towards those in our racial ingroup. This can help explain how racist attitudes manifest as discrimination, like disproportionate police brutality towards black citizens in the US (mappingpoliceviolence.org, 2019) however these findings do not attempt to take agency away from individuals. Importantly we still have the ability to change attitudes. Promoting increased interaction between social groups and improving media representation of, thus exposure to, a range of ethnicities are key steps in correcting these biases.

Gender Binary: Assumption or Fact?

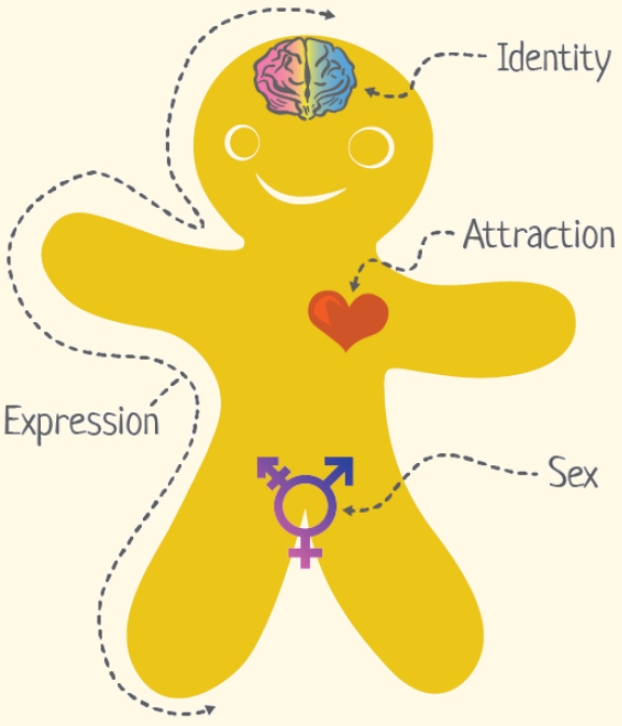
Lucy Staffords highlights challenges to the gender binary presented in Hyde et al. 2019

Gender should not be confused with sex. Sex is categorisation based upon chromosones, hormones, and anatomy. Gender is categorisation based upon how one relates to their sex and social roles. Gender identity is the internal sense of one's own gender, and can differ from the sex assigned at birth. Some indviduals may feel they are not strictly male or female, and thus identify as non-binary.

Support for sexual dimorphism of the brain has thrived in trying to understand gendered behavioural differences. In the search for a 'male' and 'female' brain, Joel et al (2015) revealed that only 0.7-10.4% of the brains examined were made up of wholly 'male' or 'female' structures, suggesting brains are a mosaic of both 'female' and 'male' forms. This raises the question of why we continue to categorize ourselves as one gender or the other when our own brain, a major structure that contributes to our sense of self, is often neither strictly male nor female.

The presence of both typically 'male' and 'female' hormones discovered in men, women and non-binary populations (Gillies & McArthur, 2010) has challenged the neuroendocrine assumption that gonadal hormones are either male or female. Furthermore, social neuroendocrine research highlights how hormone levels are modulated by social context. Oestrogen and androgen levels increase when competing in dominance competitions (Stanton & Schultheiss, 2007), undermining the presumption that hormone levels are fixed by gender and genetics. Therefore, the gender binary has no biological hormonal basis.

Behaviours have been defined as male or female by failing to acknowledge the distributional overlap of males and females for specific behaviours. For example, an implicit association test revealed that males are more closely related to mathematics than females (Noesk, Banaji & Greenwald, 2002).



Gender is a continuum rather than a category

Nonetheless, Lindberg, Hyde, Peterson and Linn (2010) found little to no gender differences in mathematical ability, supporting the gender similarity hypothesis. Thus, males and females are behaviourally indistinguishable, challenging gender binary.

Transgender and non-binary individuals provide invaluable insights that oppose gender binary. By self-labelling their own gender identity or not labelling at all, they emphasise that birth assigned categories do not predict the gender category someone feels they belong to. Likewise, by refusing to define their gender, the non-binary population are opposing the assumption that gender can consist of only two categories: male or female.

Social processes, such as routinely labelling someone as 'he' or 'she' pressure people to identify with their sex, when this may not be how they truly identify. With no linguistic label for non-binary individuals, populations are coerced into sorting themselves and others as 'male' or 'female', reinforcing gender binary. Gender binary also prevails by exaggerating perceptual markers of gender. Wild et al (2000) found that in the absence of stereotypical markers of gender, children were unable to guess a model's gender. Thus, social conventions make the gender binary perceptually predominant.

"The most pinnacle message that emerges from Hyde's review is that the gender binary has no biological origin, it is culturally derived. "

The most pinnacle message that emerges from Hyde's review is that the gender binary has no biological origin, it is culturally derived. Cultural influence leads gender identity to be assigned based on sex rather than what is instinctively felt, which can have detrimental effects on mental well-being. Hyde et al. encourages us to discard the gender binary to improve the quality of our research and our quality of life.

Diversity in Psychological Professions

Darel Halgarth considers why it is important to strive for diversity in psychological professions.

Why is it important to strive for diversity in psychology? There have been many calls to improve diversity within various professional fields in recent years, but for what end? This article will explore some of the problems posed by lack of diversity within psychological professions and the benefits of improving diversity.

One form of diversity is demographic diversity, which is diversity of populations such as nationality and gender. Different populations have different life experiences, so demographic diversity is important for representing as wide a range of life experiences as possible. An on-going problem in psychology has been that most research comes from Western nations, with almost half of all research output coming from the US alone (García-Martínez, Guerrero-Bote, & Moya-Anegón, 2012). Most Western nations, including the US, are individualistic, meaning many behavioural and cognitive models are based on research from individualistic cultures. However behaviour and cognition can vary significantly between individualistic and collectivist cultures (Markus & Kitayama, 1991), meaning these models may inadvertently have a significant cultural bias. Having diversity of nationalities represented amongst psychological researchers can reduce this bias within our research and models.

Demographic diversity is also important within clinical psychology. There seems to be various benefits to a patient and clinician belonging to the same demographic, such as greater patient satisfaction and retention (Wintersteen, Mensinger, & Diamond, 2005; Berger, 2008). On a more anecdotal level, many patients report feeling more confident seeking help from a professional belonging to the same demographic(s) as themselves. This poses a problem for male patients, as the majority of clinical psychologists are female. While demographic factors such as race and gender have no influence on one's capability as a clinical psychologist, it may influence how comfortable a patient is seeking and continuing to receive help from a professional. Therefore increasing diversity within clinical psychology – particularly gender diversity – may be important to fostering positive

patient-clinician relationships.

Another form of diversity is viewpoint diversity, which is diversity of opinions and expertise. There is evidence to suggest that viewpoint diversity is beneficial when working towards "open-ended exploratory goals", such as producing a broad and valid body of research (Duarte et al., 2015). A lack of viewpoint diversity can lead to an implicit bias in the topics researchers choose to explore and cause subjective beliefs to become embedded in method and theory. Currently there is a significant lack of political diversity in psychological research – at least in the US – as the overwhelming majority of research identify themselves as having liberal values/belonging to a liberal party (Langbert, Quain, & Klein, 2016). It has been argued that this has unintentionally led to liberal values becoming ingrained in some theories and for there to be an undue focus on topics favouring a liberal narrative. This is a problem for everyone – including liberals – as ideas are best developed when thoroughly questioned. Encouraging greater political diversity is important for reducing implicit biases within research and for increasing the breadth of ideas produced.

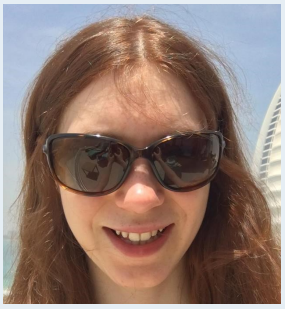
"A lack of viewpoint diversity can lead to an implicit bias in the topics researchers choose to explore and cause subjective beliefs to become embedded in method and theory."

I hope this article encourages people to support diversity efforts and embrace diversity in its many forms.

You can help contribute to memory research by playing games on your phone! Download the YORMEGA app from the Apple store or Google Play store, then pick any of the games from the wide selection in app to play. Data gathered from gameplay will be used to better understand our memory limits and how to better preserve our memory.

Find out more here: https://www.york.ac.uk/psychology/research/areas/cognition-communication/yormega/

PSYCHOLOGY IN ACTION



Open Minds

Laura Scales shares her experience volunteering for the Open Minds charity.

During the spring and summer term I went into local secondary schools around York to educate year 9 and above (aged 13+) students about mental health. This project is run by the Open Minds charity through the university, and I believe it is a fantastic opportunity that all psychology students should engage with. The project directly relates to the psychology degree as one week I'm in a lecture learning about mood disorders and the next I'm teaching children the same material the following week in a classroom environment.

After many years of being taught by others it is a surreal and exciting opportunity to be in the position of the teacher, answering questions of young curious minds and sharing my knowledge. Open Minds provides "crash courses" on the most common mental health issues allowing students studying any degree to take part; in fact it's compulsory that you attend at least four (out of six) crash courses before they allow volunteers to go into schools. These crash courses were given by guest speakers at the university, many of which were clinical psychologists! Personally, I really enjoyed learning more about the clinical aspect of psychology and loved seeing how the topics I'm learning in my degree can be applied to real life situations.

Not only am I helping my local community, but I also feel that I am developing critical life skills which look amazing on your CV. Although giving a talk to around 30 students can be quite daunting, I think that I have grown as a person because of this amazing opportunity. For example, I am becoming much more confident at public speaking. In addition to this, I have made friends from outside my psychology degree, learnt useful advice from 3rd years, and feel good for helping others.
I believe anyone who is interested in becoming a teacher, educational psychologist or even a clinical psychologist, should seriously think about volunteering next year. Even if you feel that working with children is not for you in the end, at least you will know and can then consider different career options. I can guarantee you will not regret it!

To find out more about Open Minds visit their Facebook page, Instagram, Twitter, or website: *http://openmindsyork.wixsite.com/home*

Research Highlights

Here are a few highlights of psychology or psychology-relevant research happening at University of York.

The way we play computer games is so predictable.

A research team led by Anders Drachen have used data from video games to create behavioural models. These models are able to predict information such as how long a player will continue playing a game with reasonable accuracy.

"This research is extremely useful for the games industry because the algorithms allow companies to predict the behaviour of players, and take steps to improve games accordingly. " says Drachen

Read more at: https://www.york.ac.uk/research/themes/computer-games-playstyles/

A symphony of emotions...

Hauke Egermann is investigating whether the format of a classical concert can affect how audiences respond to the music, and if it would be possible to engineer how an audience responds to a classical concert by altering the formatting. For example, he has looked at how the presence of others can influence your experience while listening to music. Egermann and colleagues are planning a series of concerts in Konzerthaus and Radialsystem V as part of this research. Various factors will altered between performances, while audience responses will be measured via questioning and physiological sensors.

Read more at: https://www.york.ac.uk/research/themes/symphony/

Fish and microchips

Researchers led by Betsy Pownall are studying Zebrafish to study and model Parkinson's disease. Pownall remarks "Fish are vertebrates, like us, and they have neuroanatomy like ours, so when studying neurodegenerative conditions like Parkinson's, we can see if the same degeneration occurs, so we can model the condition." Early results are promising, suggesting patterns similar to that of human patients. This could help lead to an eventual treatment for Parkinson's disease.

Read more at: https://www.york.ac.uk/research/themes/fish-and-microchips/

PsychSoc welcomes all freshers and returning students!

PsychSoc are a society which provides University of York students with information and events for all things psychology. We often hold lectures from external speakers and members of our own faculty to share insights into cutting edge research. We also run socials to give people to opportunity to get together with fellow psychologists to get to know people within the department.

Reasons to join PsychSoc:

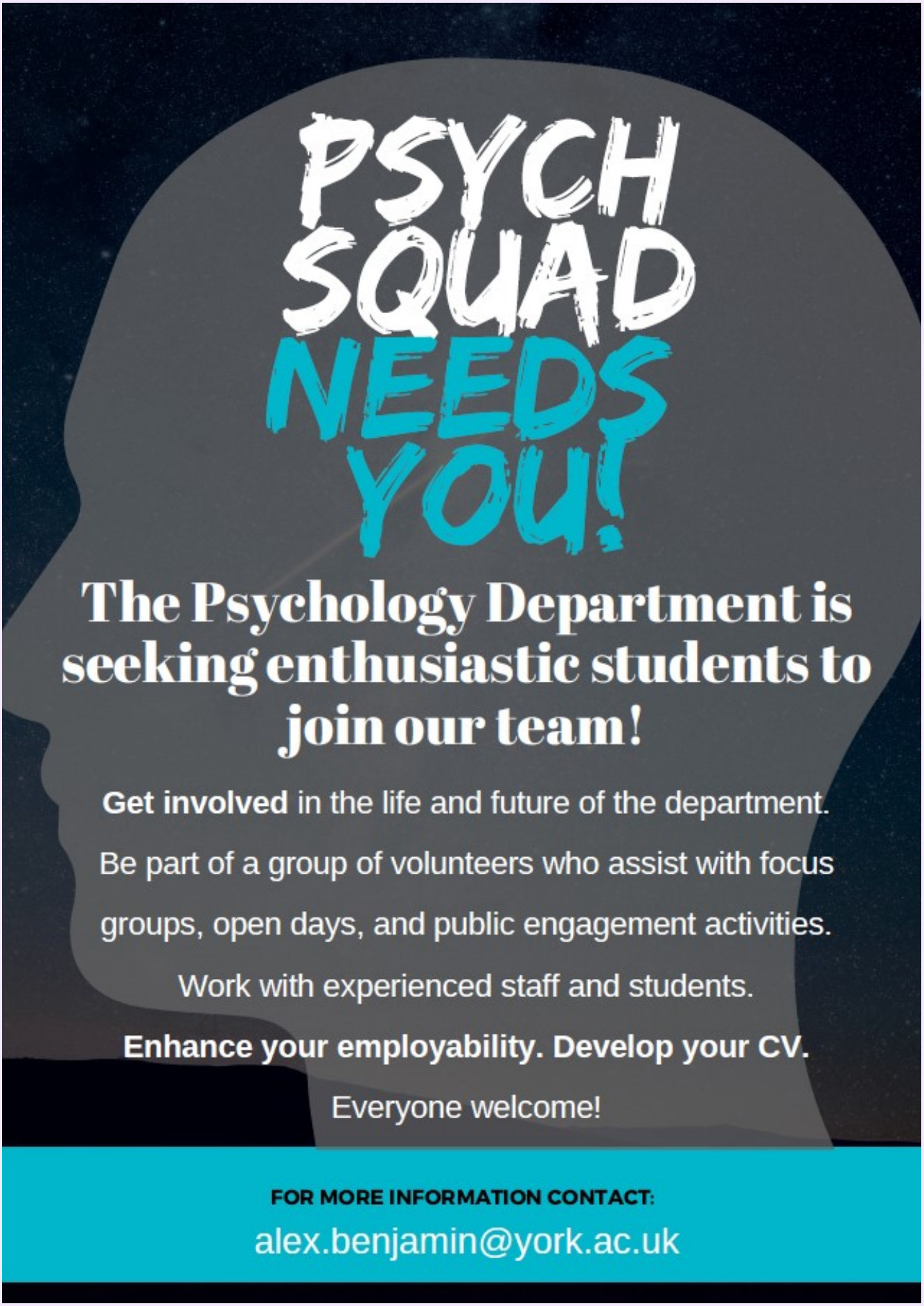
1. Next year we will be holding a social event every 2 weeks, with a variety of both drinking and non-drinking events.
2. We provide a Society Revs card for discounted food and drinks, which includes 50% off all food.
3. We keep you updated on various events happening at the University and in York which are related to Psychology.

Look out for us during freshers fair if you want to join the society! You can also visit our social media pages listed below.

YUSU: *https://www.yusu.org/groups/psychology-society-psychsoc*

Facebook: *https://www.facebook.com/psychsocyork/*

Twitter: *https://twitter.com/psychsocyork*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The Psychology Department is seeking enthusiastic students to join our team!
Get involved in the life and future of the department.
Be part of a group of volunteers who assist with focus groups, open days, and public engagement activities.
Work with experienced staff and students.
Enhance your employability. Develop your CV.
Everyone welcome!
FOR MORE INFORMATION CONTACT:
alex.benjamin@york.ac.uk

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