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The science behind facial first impressions

Investigations of misconduct in Psychology

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HELLO EVERYONE and welcome to the 92nd edition of the PsyPAG Quarterly. I write this editorial fresh from meeting lots of our readers at the 29th PsyPAG Annual Conference at sunny Cardiff Metropolitan University. We received some brilliant article ideas from delegates which we hope to bring to you in upcoming issues.

We have some important news that we would like to share. Firstly, at the conference’s AGM we welcomed two new members to our Editorial Team: Claire Wilson from The University of Strathclyde and Suzi Ross from Goldsmiths University, London. I look forward to working with you both on future issues! Secondly, we are currently working on an archiving project that will make it easier to access individual articles and possible to search past issues of The Quarterly. This will make submitted articles easier to find: giving you even more reason to submit to us! Finally, December’s issue will be a Health Psychology special. We have already had lots of great suggestions but please do contact us with your own contribution ideas! We will, of course, still be publishing other received articles, so there will be something for everyone.

Now let me introduce what this bumper issue has in store for you. We have a real mix of articles from across disciplines this month, as well as a range of discussion, research, review and advice pieces. First, Georgina Knott gives us an introduction to Dialectical Behaviour Therapy and its recent changes. Christina Girges outlines her research into response to facial motion. Next, Michelle Jayman provides some Hints and Tips for data collection in secondary schools: a useful extension to Katie Rix’s primary-school piece in Issue 91. Greg Thomas then provides a thought-provoking discussion piece on high-profile misconduct cases in psychology and their implications for our field. Andrew Mackenzie introduces a method of analysing eye movement, featuring MATLAB coding. Edo Shonin discusses the use of Buddhist principles in Western psychological treatments, under the supervision of Professor Mark Griffiths: a much-valued regular contributor to The Quarterly.

Next up is our ‘Featured article’ by 2014 PsyPAG Rising Researcher Award Winner, Hannah Broadbent. Drawing from her large amount of experience, Hannah provides some invaluable Hints and Tips for writing and publishing your research during PhD studies. This is a fantastic piece and surely relevant to all our readers at any stage of postgraduate work. Jin Zhou then presents her reflections on statistics teaching as a psychology postgraduate tutor. Silviya Doneva provides some insight into romantic preferences of narcissistic and non-narcissistic individuals in a brief report of her BSc research. Clare Sutherland outlines interesting research behind her PhD in facial first impressions. Next, Pip Griffiths outlines studies and her own research into studying the true extent of the Autistic Spectrum.

Editor’s Column
Emma Norris

PsyPAG Quarterly
Editorial Team 2014–2015
Emma Norris
Suzi Ross
Martin Toye
Claire Wilson

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How do we make judgements of social justice? Anneline Harvey explains in a discussion of her recently published research. Assistant NHS Psychiatrist Kate Leech gives a thoughtful debate into the link between mental and physical health, considering improvements for future communication between parties. Kate Doran then presents the second part of her interview with Interpretative Phenomenological Analysis (IPA) Godfather Professor Jonathan Smith, discussing the achievements and future directions of the method (see Issue 90 for Part 1). Moving on to our reviews, following her attendance at the conference of the related BPS section; Marta Wanat seeks to explain why history and philosophy are needed in Psychology. Finally, Roni Mermelstine reviews the perceived roles of inner city fathers in a book based on interviews in the US.

I hope you enjoy this eclectic issue. As ever, we give a huge thank you to all of our contributors who make The Quarterly possible. If you have any ideas for articles or comments on The Quarterly, please let us know via email or Twitter.

We wish you a great start to the new academic year. Happy reading!

Emma Norris
On behalf of the PsyPAG Quarterly Editorial Team

Special Issue on Health Psychology

Our December 2014 issue will be a Health Psychology special.

If you have some research you would like to share, a concept or theory to review, or any other ideas, please contribute!

Please email quarterly@psypag.co.uk or tweet @PsyPAGQuarterly with your ideas.
Chair's Column
Laura Neale

Welcome to the Autumn 2014 edition of the PsyPAG Quarterly. I am writing this column whilst reflecting upon my year as PsyPAG Chair. It has been a busy and productive year for PsyPAG which recently concluded with our flagship event, PsyPAG’s 29th annual conference. The conference this year was a fantastic success, held at Cardiff Metropolitan University in July, where over 100 psychology postgraduates from across the UK and beyond came together to present and share their research with their peers.

The conference this year followed on from the accomplishment of previous years and included over 80 excellent presentations through a total of nine themed symposia, six general talk sessions and a poster presentation session. We were also lucky enough to receive four keynote presentations from the following esteemed psychologists: Dr Paul Hutchings (University of Wales Trinity Saint David); Professor Patrick Leman (Royal Holloway University of London); Dr Almuth McDowall (University of Surrey) and Professor Paul Bennett (Swansea University). Additionally, the packed programme contained two workshops one discussing post PhD journeys where delegates heard from experts’ experiences and were able to ask for advice and guidance and the other regarding ethics and internet mediated research.

We received a warm and friendly welcome to Cardiff and the social programme included a BBQ by the river Taff in the Llandaff rowing club which was a wonderful event. This was followed in the second evening by a formal conference dinner in the beautiful Cardiff City Hall. These social events also created a fantastic opportunity for postgraduates to network and get to know one another from different institutions.

A number of PsyPAG’s dedicated and hard working committee representatives stepped down from their positions at our Annual General Meeting (AGM) following their terms, of up two years, volunteering their time to support psychology postgraduates. I wish to once again thank all of these past committee members and warmly welcome the new committee members that were elected during the AGM.

The success of the conference was primarily down to the hard work of this year’s conference Chair Hamish Cox. I would like to take this opportunity to say an enormous thank you to Hamish as I am aware of the time, effort and dedication he has committed, almost single handed, over this past year in order to make the conference a successful and enjoyable event for all delegates. I also wish to thank the numerous conference sponsors for their generosity; their support is very much appreciated.

I am delighted to announce that next year’s conference will take place at the University of Glasgow in what will be a very special 30th anniversary year for the PsyPAG Annual Conference. Planning has already begun and you will see updates in The Quarterly over the next editions leading up to the conference. Further information about next year’s conference can also be found in the advertisement within this edition. Remember to also follow our Twitter (@PsyPAG) and like us on Facebook for all the latest updates about the conference and other useful information for psychology postgraduates.

If you would like to get further involved with PsyPAG we still have a few vacant positions on our committee, details of which can be found on our website www.psypag.co.uk.
If you would like to apply for any of the vacant positions or have any questions please email the Vice-Chair, Bernadette Robertson on vicechair@psypag.co.uk.

Please also get in touch with me if you have any ideas or suggestions as to how PsyPAG can further support UK psychology postgraduates.

I would like to make a final thank you to the British Psychological Society Research Board for their continued support and guidance.

Best wishes for all UK psychology postgraduates beginning a new academic year.

Laura Neale
PsyPAG Chair
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30th Annual Psychology Postgraduate Affairs Group Conference 2015
University of Glasgow
22nd- 24th July 2015

More Information available soon!
Keep up to date on twitter and at
http://www.psypag.co.uk/conference/

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Discussion paper:

An overview of recent adaptations to Dialectical Behaviour Therapy

Georgina Knott, Christy Pitfield & Thomas Richardson

Dialectical Behaviour Therapy (DBT) is a treatment model, developed by Marsha Linehan, incorporating Cognitive Behavioural Therapy (CBT), assertiveness training and Eastern meditative practices (Linehan, 1993). Originally formulated to reduce suicidality and deliberate self-harming behaviour in those diagnosed with Borderline Personality Disorder (BPD), it became the first empirically supported treatment for this complex clinical population (Linehan et al., 1991). Since first conceptualised, this treatment model has been adopted and adapted across diverse settings and populations. This article evolved from a need to evaluate the evidence base in order to ensure that the authors were promoting evidence-based practice within their clinical practice at an adult acute inpatient unit. Specifically, it was aimed to assist with reviewing the content of a current transdiagnostic ward-based ‘Living Skills’ group that was incorporating elements of the original DBT model.

An introduction to Dialectical Behavioural Therapy

The Development of DBT stemmed from Linehan’s recognition that traditional CBT approaches were not sufficiently addressing the emotional instability underpinning BPD. Linehan (1993) opined that a treatment which fundamentally focused on change left patients feeling invalidated and disparaged and increased the likelihood of them disengaging from therapy. Therefore, the principle dialectic in DBT involves therapists balancing the act of validating and accepting a client as they present, whilst simultaneously assisting them to recognise and change their maladaptive behaviours (Dimeff & Linehan, 2001). A substantial evidence base has emerged to suggest that the model is superior to CBT and consequently is considered the treatment of choice for adults with BPD (National Institute of Clinical Excellence, 2009).

The fundamental methodology of DBT is targeting key difficulties associated with BPD such as emotional instability, impulsivity, interpersonal difficulties and identity disturbance. DBT is offered by a team of mental health professionals, ideally with experience of CBT, who have completed an accredited two-week intensive training programme. It follows a highly structured protocol, prioritising problems impacting on a client’s safety and quality of life, as well as working on ‘therapy interfering behaviours’ such as cancelling sessions (Linehan, 1993). DBT uses four different modes of treatment; group skills training, individual psychotherapy, telephone coaching and therapist consultation meetings. Group skills training consists of four taught modules of mindfulness, distress tolerance, emotion regulation and interpersonal effectiveness. Weekly individual psychotherapy allows the monitoring of targeted behaviours to be reviewed. It also provides a forum for ‘chain analyses’ to be constructed which outline the sequence of events leading up to a target behaviour and the generation of solutions for similar situations that could be utilised in the future. Telephone coaching is used to assist clients in the use of these skills outside of therapy and group settings.

The desire to innovate the DBT model has resulted from the needs of clients, thera-
pists and services that may be incompatible with the traditional protocol (Koerner, Dimeff & Swenson, 2007). In some settings, group skills training programmes are prioritised over weekly individual psychotherapy, in what is perceived to be the most cost effective solution (Robins & Chapman, 2004). In an acute psychiatric hospital, where the length of stay is usually brief, it is not possible to teach all the DBT skills. Consequently, modules may be shortened or removed according to identified goals (Kroger et al., 2013). McQuillan et al. (2005) developed a shortened intensive DBT package for patients with BPD, conducting sessions for four hours a day for four days. This was found to reduce depression, hopelessness and hospitalisation, however, suicidal behaviours were not measured and there was no control group.

**Adapting DBT to other client groups**

It has been noted that chronic difficulties with emotional regulation and impulse control are not exclusive to BPD (Linehan et al., 1999). Therefore, attention has been given to adapting developments of DBT to other client groups. The areas below focus on research with adults. For a recent review on DBT adapted for adolescents please refer to Groves et al. (2012).

**Eating disorders**

It has been suggested that food restriction and bingeing may be a dysfunctional attempt to regulate emotions (Linehan & Chen, 2005; McCabe, LaVia & Marcus, 2004). Since binge eating can fulfill one of the diagnostic criteria for BPD and is associated with emotional dysregulation, it was suggested that some elements from DBT may be effective with this client group (Bankoff et al., 2012).

Telch, Agras and Linehan (2000) conducted a DBT-based skills group for 11 women with Binge Eating Disorder (BED), finding that 82 per cent ceased binge eating six months post-therapy. There were also improvements in mood regulation and emotional eating. A later Randomised Controlled Trial (RCT) (Telch, Agras & Linehan, 2001), with 18 women in the DBT group found 89 per cent had stopped binge eating compared to 12.5 per cent of the control group at the end of treatment, though this reduced to 56 per cent at the six-month follow-up. DBT also led to a reduction in urges to eat when angry, though there was no difference compared to the control group for weight loss, depression or anxiety. Safer and Jo (2010) conducted an RCT with 101 men and women with BED. This compared DBT to an active control to see whether skills training was beneficial over non-specific therapeutic factors. This found significantly greater reductions in binge frequency and abstinence in the DBT based treatment group which was maintained at 12-month follow-up. However, there was no difference between groups in emotion regulation.

**Eating disorders and co-morbid substance use**

There is an increasing recognition of a high level of co-morbidity between eating disorders and substance misuse (Wolfe & Maisto, 2000). It has been suggested that a desire for emotional reward and poor impulse control may underlie both eating disorders and substance use (Dawe & Loxton, 2004; Stewart et al., 2006;)

Courbasson, Nishikawa and Dixon (2012) conducted a RCT with 25 female outpatients with an eating disorder and substance use disorder. The DBT was largely similar to the original model, but included elements of DBT adapted for those with BPD and substance use (Linehan & Dimeff, 1997). Courbasson et al. (2012) also added motivational interviewing and relapse prevention techniques. Reductions were found in mood dysregulation, binge eating frequency, concerns about weight and substance use frequency. However, due to small sample size this could not be compared to a control group. Interestingly, an increase in the participants’ perceived
ability to cope with negative emotional states was associated with a decrease in emotional eating and greater confidence in resisting urges to misuse substances.

**Forensic inpatients**
McCann, Ball and Ivanoff (2000) proposed various arguments for the application of DBT in a forensic inpatient setting. These included the importance of managing aggressive and life threatening behaviour to maintain a safe environment for staff and patients as well as the recognition that there is a high proportion of personality disorders including BPD, Narcissistic and most notably Antisocial Personality Disorder (APD) within this population (Berzin & Trestman, 2004). McCann et al. (2000) suggest that whilst those with BPD suffer from emotional dysregulation, those with APD are insensitive to emotions and unempathic (McCann et al., 2000).

McCann et al. (2007) adapted DBT for APD on this basis. This includes the four standard DBT modules, but significant changes have been made to the emotion regulation module, namely trying to increase emotional attachment to others through the development of empathy, understanding the consequences of ones actions on others and practising altruistic acts of kindness. A ‘graduate group’ for successful completers supported clients to develop a chain analysis of their crimes before working on a relapse prevention plan incorporating specific DBT skills. McCann et al. (2007) compared the effects of this programme with Treatment as Usual (TAU) with DBT and reported improvements in depression, paranoia, hostile behaviour and interpersonal coping styles amongst those completing the intervention as well as reduced staff burn-out (McCann et al., 2007). The authors suggest this adapted DBT could reduce violence and subsequent re-offending, but no research has yet confirmed this.

Whilst McCann et al. (2007) support the use of adapted group skills training alongside other modes of DBT, Gordon and Hover (1998) reported a decrease in impulsivity in sex offenders who had only attended DBT-based group skills and did not have individual sessions or telephone coaching. This conflicts with Linehan’s assertion that skills group training without the other modes of DBT does not have a significant impact (Linehan, 1993).

**Depression**
Almost all adapted DBT has been with patients experiencing emotion dysregulation or impulse control (Robins & Chapman, 2004), in contrast to the restricted behaviour and decreased emotional experience characteristic of depression. However, Lynch (2000) states that by adapting the focus of DBT to behaviours related to the rigid, maladaptive coping styles involved in the maintenance of depression it can become an appropriate treatment model to this client group.

Feldman et al. (2009) compared the effectiveness of DBT to a waiting list control group in 24 participants with treatment resistant depression. The original four modules were used but were shortened, with a greater emphasis on mindfulness and acceptance. Reduced symptoms of depression were only noted in the DBT group, however both groups experienced an increase in emotional processing.

It has been suggested that skills-based learning may allow individuals to learn how to relate to their negative emotions differently so that they experience less distress, whereas exposure without these emotion regulation skills may increase the symptoms of depression (Feldman et al., 2009). Feldman et al. (2009) consider whether mindfulness practice helps prevent people with depression from feeling overwhelmed by negative feelings by reducing ruminition.

**Depression in older adults**
Lynch Morse, Mendelson and Robins (2003) randomly assigned 34 chronically depressed participants over the age of 60 to either
receive 28 weeks of antidepressant medication without any psychological support or to receive the course of medication alongside attending DBT-based treatment. The adapted DBT consisted of a weekly two-hour skills training group involving aspects of the four standard modules presented twice on a 14-week sequence. It also included a weekly 30-minute telephone call with a trained therapist to review diary cards and discuss problem solving strategies. Providing scheduled telephone therapy had the advantages of not needing transport, which can be difficult for physically frail older adults with a consequent cost reduction. Post-treatment, 71 per cent of participants receiving DBT-based treatment were in remission, compared to 47 per cent of control participants. Six months later this had increased to 75 per cent versus 31 per cent. It appears that participants in the DBT augmented condition not only learnt skills that benefitted them after treatment had ended, but that they also protected them against relapse. Additionally DBT led to an increase in adaptive coping styles, and a non-significant trend in reduced hopelessness.

Lynch and Cheavens (2007) similarly reported that standard DBT was effective in reducing depressive symptoms in adults over the age of 55 years with a diagnosis of both depression and a personality disorder. There has been increasing research to suggest that intense emotional dysregulation is less of a problem amongst older adults (McConatha & Huba 1999; Morse & Lynch, 2004). Consequently, Lynch et al. (2007) modified the standard DBT model with an emphasis on teaching skills relating to cognitive and behavioural flexibility. The mindfulness module is substantially changed, incorporating the concept of ‘fluid’, ‘fixed’ and ‘fresh’ states of mind, which assist older adults to develop a synthesis between what they know to be true based on past experiences with current information. A fifth module called radical openness was created to tackle rigidity, increase willingness towards novel experiences, reduce bitterness and enhance compassion to self and others. An RCT has not yet been conducted on this, though a case study of its application has been published (Lynch & Cheavens, 2008).

Conclusions and future directions
There is an ongoing dialectic in the practice of DBT; namely an ethical concern that if clinicians fail to adhere to the standardised DBT approach, treatment may be less effective or even harmful. However, there is a need to balance this with innovation to promote new ways of working and generate practice-based evidence (Koerner et al., 2007). The studies reviewed suggest that there is benefit to developing adaptations of DBT according to patient needs and settings, particularly when difficulties are related to emotional dysregulation. It appears that the most common adaptations involve modifying the skills group both in terms of its duration and content. Many retain the four original modules, but some amend the sessions on emotion regulation to fit the patient group (McCann et al., 2000) or emphasise the mindfulness module (Feldman et al., 2009; Lynch et al., 2007; McQuillan et al., 2005,). Other clinicians have created additional modules relevant to specific difficulties (Berzins & Trestman, 2004; Lynch et al., 2007; McCann et al., 2000). As well as the improvements in symptoms described previously, a distinct advantage of DBT appears to be the low number of dropouts (Kroger et al., 2013; Telch et al., 2000). This may be the result of the specific focus on addressing behaviours that interfere with therapy, such as non-attendance.

There continues to be a need to build on the existing evidence base before firm conclusions can be reached in terms of the efficacy for adaptations of DBT. Studies to date have tended to be preliminary, with small, gender biased sample sizes and relatively short follow-up periods. Additionally, the effectiveness of adapted DBT in comparison to other therapies is less clear. Future research may help to identify more precisely the key ingredients for successful treatment.
and predict the type of patient who will benefit from DBT-based treatment (Robins & Chapman, 2004).

Whilst research in the field of adapting DBT is still in its infancy, continued effort is placed in replicated these initial findings and expanding its use with other populations experiencing some emotional dysregulation. For example, adapted DBT with adults with Attention Deficit Hyperactivity Disorder (Hesslinger et al., 2012) and trichotillomania (Keuthen et al., 2012) have shown encouraging results. There have also been studies suggesting benefits of group skills training for carers (Drossel, Fisher & Mercer, 2011; Supulveda et al., 2008). Furthermore, evaluating the use of modern technology such as Skype for skills-based learning or using smartphone apps for diary cards will no doubt allow DBT-based treatment to reach a wider audience (Matta, 2012). Overall, it is hoped that ongoing studies will help demonstrate how adapted DBT may be beneficial for a range of problems outside of the BPD populations for which it was originally developed.

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Research in Brief:

Event-related alpha suppression in response to facial motion
Christine Girges

The visual system can reconstruct a perceptual scene from motion cues alone. For example, a human walker can be detected from just a dozen moving dots (Johansson, 1973). This perception of biological motion may underlie many aspects of social cognition (Pavlova, 2012). Indeed, individuals can recognize emotions, intentions and individuals from point-light walkers (see Blake & Shiffar, 2007).

Unfortunately, there is a paucity of research investigating biological motion of faces. It is crucial however to extend our investigations to include this stimulus class, especially if we consider its role in social cognition. The present study thus examined facial motion perception by analysing changes within the EEG alpha band (8 to 12Hz). Originating from occipital regions, alpha waves are suppressed during active visual perception (Berger, 1929). They are synchronised with cyclic activity of the visual thalamic relay neurons, modulating signal transmission during early input stages (Lorincz et al., 2009). Alpha rhythms may also index visual memory (Klimesch, 1997) and attentional (Belyusar et al., 2013) processing. For example, observers show an interhemispheric difference in alpha amplitudes during the Posner cueing paradigm (Kelly et al., 2005). The increase on the unattended side suggests alpha waves have a 'gating mechanism' and inhibit incoming sensory information in terms of its behavioural relevance (Pfurtscheller & Lopes da Silva, 1999).

Many studies have investigated static face perception by observing alpha rhythms. For example, Hsiao et al. (2006) found 4 to 25Hz activity in the middle occipital and occipitotemporal areas during upright face perception. Inverted faces however produced the most alpha enhancement in the right occipitotemporal area, indicating additional attentional requirements and increased synchrony between neuronal populations. Sakihara et al. (2012) also found alpha, theta and beta suppression occurring over occipitotemporal areas during familiar, unfamiliar and own face perception. Such activity illustrates the structural and semantic encoding of facial information (Sakihara et al., 2012). Further, emotional faces increase alpha amplitudes at posterior occipital locations, whilst angry face stimulation specifically activates substrates over electrodes T5, P3 and O2 (Güntekin & Basar, 2007).

To our knowledge, no published EEG study has directly examined posterior alpha suppression in response to whole-face human motion. Participants, therefore, observed CGI averaged faces animated with human motion sequences. We compared upright facial motion with orientation-inverted and luminance-inverted stimuli. Changes in alpha power were measured over parieto-occipital and occipital regions.

Method

Participants

Ethical approval was obtained from Brunel University. Nineteen neurotypical individuals (10 female, mean age=28.53 years, range=22 to 54 years) with normal or corrected-to-normal vision took part.
Stimuli
The stimuli were developed by Hill and Johnston (2001). Using markers placed on major facial landmarks, motion was captured from 12 actors reciting jokes. This evoked natural facial expressions, speech and head movements. The motion sequences were then applied to a 3D computer-generated averaged head. By using an average face on all sequences, facial motion could be measured independently from structural facial cues. The appearances of all animations were, therefore, identical, and only differed in the way they moved. An orientation-inverted and luminance-inverted version of each stimulus was generated in Matlab.

Procedure
Observers viewed the stimuli on a computer screen. Viewing distance was 80cm, at which the distance of the 38cm x 30cm display subtended an angle of approximately 28° x 22°. The experiment consisted of three blocks, each with 50 trials; upright facial motion, orientation-inverted facial motion and luminance-inverted facial motion. Blocks were repeated three times in a counter-balanced order.

Participants completed a sequence discrimination task during EEG recordings. A single animation was presented, and after an inter-stimulus interval (ISI) of 1000ms, another animation appeared. During a second ISI, participants were required to respond via the keypad, whether the two animations were the same (press 1) or different (press 2) from each other. This process continued throughout the testing period, such that they always judged whether the current animation was the same or different from the previous animation. All stimuli were presented for 3000ms.

ERP recording and analysis
EEGs were recorded with an average common reference from 64 Ag-AgCl electrodes. Impedances did not exceed 10KΩ. The EEG was amplified at a gain of 1000 and bandpass filtered at 0.1 to 100Hz. It was digitised at 1000Hz via a Synamps2 amplifier and Scan 4.4 acquisition and analysis software.

Offline, a DC offset correction was applied to the raw waveform, and the time series was bandpass filtered at 0.1 to 128Hz (24dB/octave). Bad blocks were marked and eye blink artifacts removed by a principal components procedure. Using the cleaned EEG, an event file was created and used to epoch the data for each condition from –100 to 923ms (0ms=stimulus onset). Sweeps were baseline corrected (entire sweep) and amplitudes greater than ±75μV were rejected. An event-related band power analysis detected event-related frequencies within the alpha band. The data was bandpass filtered with a center frequency of 10Hz, and a half bandwidth of 2Hz (12dB/octave) within a moving 100ms window. The baseline (–100-0ms), mid-point maximum (300 to 500ms) and late-minimum amplitudes (600 to 823ms) were detected and analysed in SPSS.

Results
Data from one participant were excluded from statistical analysis due to technical faults. The strongest alpha power was observed at parieto-occipital (PO) and occipital (O) scalp locations1. At both sites, upright facial motion increased alpha power before suppressing it. This pattern of alpha activity did not occur for other stimuli (Table 1).

---

1 Parieto-occipital electrodes (PO7, PO5, PO3, PO8, PO6, PO4) and occipital electrodes (CB1, O1, O2, CB2).
Amplitude data

Facial motion (regardless of type) suppressed alpha power, as indicated by significant differences between the time-sample amplitudes (O sites: $F_{(2,16)}=32.45$, $p<0.01$ and PO sites: $F_{(2,16)}=52.95$, $p<0.01$). For PO data, simple contrasts indicated a significant difference between the late-minimum interval and baseline for all facial motion ($Upright F_{(1,17)}=41.68$, $p<0.005$; $Luminance$-inverted $F_{(1,17)}=90.71$, $p<0.005$; $Orientation$-inverted $F_{(1,17)}=39.43$, $p<0.005$). The difference between the recovery interval and baseline was significant for orientation-inverted faces only ($F_{(1,17)}=9.88$, $p<0.05$).

The amount of alpha suppression evoked by each facial motion only differed at PO sites, as revealed by a significant time-sample x face type interaction ($F_{(4,14)}=6.39$, $p<0.01$). Simple contrasts showed that this interaction was driven by a significant difference between upright and orientation-inverted faces in the mid-point time interval only ($F_{(1,17)}=11.64$, $p<0.05$). See Table 2.

Table 1: Grand averaged amplitude and latency data for facial motion at PO and O sites.

<table>
<thead>
<tr>
<th>Site</th>
<th>Face type</th>
<th>Baseline*</th>
<th>Mid-point</th>
<th>Late minimum</th>
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</thead>
<tbody>
<tr>
<td>PO</td>
<td>Upright</td>
<td>4.77µV at 0ms</td>
<td>4.94µV at 477ms</td>
<td>2.71µV at 733ms</td>
</tr>
<tr>
<td></td>
<td>Orientation-inverted</td>
<td>4.52µV at 0ms</td>
<td>3.82µV at 466ms</td>
<td>2.80µV at 755ms</td>
</tr>
<tr>
<td></td>
<td>Luminance-inverted</td>
<td>4.56µV at 0ms</td>
<td>4.22µV at 453ms</td>
<td>2.97µV at 734ms</td>
</tr>
<tr>
<td>O</td>
<td>Upright</td>
<td>5.24µV at 0ms</td>
<td>5.38µV at 443ms</td>
<td>3.48µV at 731ms</td>
</tr>
<tr>
<td></td>
<td>Orientation-inverted</td>
<td>5.07µV at 0ms</td>
<td>4.27µV at 467ms</td>
<td>3.05µV at 754ms</td>
</tr>
<tr>
<td></td>
<td>Luminance-inverted</td>
<td>5.17µV at 0ms</td>
<td>4.63µV at 460ms</td>
<td>3.40µV at 747ms</td>
</tr>
</tbody>
</table>

*Baseline amplitudes are considered the initial values of alpha.

Table 2: Significant main effects and interactions at PO and O electrodes.

<table>
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<tr>
<th>Electrodes</th>
<th>Within-participant variables</th>
<th>$F$</th>
<th>$df$</th>
<th>$P$</th>
</tr>
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<td>PO</td>
<td>Time-sample*</td>
<td>52.95</td>
<td>2, 16</td>
<td>0.001</td>
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<tr>
<td></td>
<td>Face type*</td>
<td>3.97</td>
<td>2, 16</td>
<td>0.040</td>
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<tr>
<td></td>
<td>Time-sample x face type*</td>
<td>6.39</td>
<td>4, 14</td>
<td>0.001</td>
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<td></td>
<td>Electrode site</td>
<td>33.06</td>
<td>2, 34</td>
<td>0.001</td>
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<tr>
<td></td>
<td>Time-sample x hemisphere</td>
<td>4.81</td>
<td>2, 34</td>
<td>0.014</td>
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<tr>
<td></td>
<td>Sequence x face type x electrode*</td>
<td>4.89</td>
<td>4, 14</td>
<td>0.011</td>
</tr>
<tr>
<td>O</td>
<td>Time-sample*</td>
<td>32.45</td>
<td>2, 16</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>Face type*</td>
<td>4.67</td>
<td>2, 16</td>
<td>0.025</td>
</tr>
</tbody>
</table>

*Results taken from multivariate tests (Pillai’s Trace) due to a significant Mauchly’s test indicating that sphericity cannot be assumed.
Latency data
Differences in the latency of the peak alpha amplitudes were observed amongst the facial motion types (Table 3). Face type had a significant effect on the latency of the late-minimum amplitudes at PO sites ($F(2,34)=3.44, p<0.05$). Simple contrasts indicated that this was driven by a significant difference between upright and orientation-inverted facial motion ($F(1,17)=6.27, p<0.05$). Compared with other types, upright motion suppressed alpha at earlier latencies (733ms vs. 755ms for orientation-inverted stimuli).

At O sites, the latencies of the mid-point amplitudes were significantly affected by face type ($F(2,34)=4.57, p<0.05$). Simple contrasts revealed a significant difference between the mid-point latencies for upright (443ms) and orientation-inverted (467ms) facial motion ($F(1,17)=7.20, p<0.05$).

Discussion
Upright facial motion initially evoked an increase in alpha over parieto-occipital and occipital regions. One possible interpretation of this result is that less information processing is required for upright face perception due to our experience with such stimuli (Gauthier & Tarr, 1997). This would certainly explain why control faces evoked alpha suppression instantly; unfamiliar stimuli would require increased attentional effort and involvement of high-level cognitive resources (Kemp et al., 1996). Yet this argument does not explain why upright facial motion subsequently suppressed alpha after this time point. Alternatively, the transient increase in alpha could reflect a ‘gating’ mechanism used to filter out irrelevant visual inputs (May et al., 2012). In this case, form cues provided no additional information and were thus ignored. The subsequent suppression would, therefore, correlate with attention to motion cues when engaging in facial motion tasks. It is important to note, however, that this transient increase in alpha following video onset could be due to the motion-onset ERP. As our data analysis was conducted using induced event-related band-power measures, we cannot fully address this point. Future studies could potentially utilise evoked synchronisation measures in order to observe a more distinct emergence of face-selective ERP components.

<table>
<thead>
<tr>
<th>Site</th>
<th>Within-participant variables</th>
<th>F</th>
<th>df</th>
<th>P</th>
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<tr>
<td>PO</td>
<td>Hemisphere x electrode</td>
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<td>1.42, 24.07*</td>
<td>0.043</td>
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<tr>
<td>O</td>
<td>Face type</td>
<td>4.57</td>
<td>2, 34</td>
<td>0.018</td>
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<tr>
<td></td>
<td>Upright vs. orientation-inverted</td>
<td>7.20</td>
<td>1, 17</td>
<td>0.016</td>
</tr>
</tbody>
</table>

Table 3: Latency of mid-point peak and minimum amplitudes at PO and O electrodes.

Latency of late-minimum amplitudes

<table>
<thead>
<tr>
<th>Site</th>
<th>Within-participant variables</th>
<th>F</th>
<th>df</th>
<th>P</th>
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</thead>
<tbody>
<tr>
<td>PO</td>
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<td>3.44</td>
<td>2, 34</td>
<td>0.044</td>
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<tr>
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<td>Upright vs. orientation-inverted</td>
<td>6.27</td>
<td>1, 17</td>
<td>0.023</td>
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<td></td>
<td>Electrode</td>
<td>10.15</td>
<td>2, 34</td>
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<tr>
<td>O</td>
<td>Hemisphere</td>
<td>8.58</td>
<td>1, 17</td>
<td>0.009</td>
</tr>
</tbody>
</table>

*Mauchly’s test indicated that the assumption of sphericity had been violated. Degrees of freedom were, therefore, corrected using Greenhouse-Geisser estimates of sphericity.
With reference to the amount of suppression evoked by each facial motion, no difference emerged at occipital locations. This suggests that early visual processing occurs irrespective of orientation or luminance-reversal (Kostandov et al., 2010). This finding is in contrast to studies of static face perception (e.g. Itier & Taylor). In the context of encoding and retrieval mechanisms, occipital alpha is suppressed when participants perceive famous (familiar) faces compared to non-famous faces (Zion-Golumbic, Kutas & Bentin, 2010). The authors suggest face perception evokes interplay between semantic knowledge and episodic memory formation. In the case of biologically unfamiliar faces (orientation-inverted or luminance-inverted stimuli), we may expect less occipital alpha activity to occur. Yet, this effect was not found here. To our knowledge, only one study has found a comparable response to upright and inverted walkers over the left occipital cortex (Pavlova et al., 2004).

By contrast, upright facial motion reduced alpha more than control stimuli at parieto-occipital regions. Similar results using body motion has been replicated elsewhere (Krakowski et al., 2011; Perry et al., 2010). Such enhanced activity may reflect a number of significant underlying mechanisms. First, the medial and dorsal aspects of the parieto-occipital cortex have been associated with attentional reorienting during cognitive-motor tasks (Ciavarro et al., 2013; Tosoni et al., 2013). The parieto-occipital cortex also contains functional areas associated with the visual control of body effectors (Monaco et al., 2011). Regions of the superior and medial portions play a critical role in proximal and distal aspects of reaching/grasping movements, pointing gestures, head movements and eye-gaze shifts (Fattori et al., 2010; Rossit et al., 2011; Tikhonov et al., 2004). Motion selectivity has also been observed within this region (Stiers et al., 2006), indicating dorsal visual stream involvement (Blanke et al., 2002). Perhaps observing upright facial motion, which included head and eye translations, activated a portion of these substrates.

Compared to other stimuli, upright facial motion also evoked parieto-occipital alpha suppression within the shortest latency. Such early processing could reflect a pop-out effect caused by familiar orientations (Jokisch et al., 2005). If this was the case though, luminance-inverted faces would have also been processed just as quickly. Instead, automated feed forward systems may in part be responsible for the efficient processing of upright motion (Kawasaki et al., 2012). Top-down computations should not be completely disregarded though. There is evidence that body motion perception utilises a feedforward and feedback functional loop between the right posterior superior temporal sulcus and the left lateral cerebellum (Sokolov et al., 2010).

Conclusions
Our results indicate that the parieto-occipital region shows selectivity to upright facial motion, whilst the occipital area is less sensitive to manipulation. Future studies are encouraged to build upon these results by examining other frequency bands or including more stimulus categories.

Original article

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References


Hints and Tips:

The practicalities of collecting data in secondary schools

Michelle Jayman

READ Katie Rix’s article, ‘The practicalities of data collection in primary schools’, in the previous edition of The Quarterly with interest and an empathetic eye (Rix, 2014). As a fellow researcher working in schools, I could easily identify parallels with my own extremely enjoyable, albeit at times rather challenging, experience. As a novice researcher, I approached the task of recruiting schools for my study with equal amounts of vigour and trepidation. As my research focuses on evaluating Pyramid club, a specific, school-based, socio-emotional health intervention targeted at a particular age group (pupils in years 7 to 9; Pyramid, 2014), my pool of potential recruits was going to be limited from the outset. My recruitment strategy needed to be slick and organised. As I have discovered, conducting research in secondary schools has its own unique set of challenges, some of which I anticipated and others I encountered along the way. For anyone planning a research project involving secondary-age pupils I would like to offer some additional tips to Katie’s excellent advice:

Tip number 1: Plan meticulously
Anyone embarking on research in schools needs to be a meticulous planner. For several weeks of the year your would-be participants are simply not available and research schedules can be interrupted by seemingly random inset days. This is confounded by the fact that in secondary schools accessibility to pupils is further reduced by the increased number of assessments students have to complete. There are definite points in the school year to avoid and in general Spring term (January to Easter) seems to offer the best opportunity to get into the classroom. You will need to be flexible and having access to the school calendar will help you plan your time in school more effectively.

Tip number 2: Identify your key contacts
Whereas many primary schools are small, intimate communities your typical secondary is vast, complex and home to a huge population of staff and pupils (although this can vary greatly – one school I worked with had a year 8 cohort of 90 students compared to another school with 258). Knowing who is most likely to understand and support your research in school is the first step to securing participation. Although the Head Teacher is the ultimate gatekeeper and is the one who will authorise consent, they may not be the first person you approach or even meet with in person. School websites can be a very useful first point of access to information on who’s who and to find the most likely person to champion your research idea. Also consider contacting other agencies that might help you link with schools, such as educational psychologists or healthy schools’ co-ordinators.

Tip number 3: Be clear, concise and avoid research jargon
Once you have found a school interested in participating in your study you need to present your research objectives clearly and succinctly. Although you may be very excited about the intricacies of your design and the virtues of its philosophical underpinnings, your audience in school will want you to cut
to the chase. During face-to-face meetings or telephone conversations, being able to summarise your project in five minutes allows you to focus on the practical elements of your data collection: what you need; from whom; by when. The same holds true for any written communication; avoid research jargon. The documents I prepared for schools were styled quite differently from those I was accustomed to writing for my research (no references required!).

**Tip number 4: Manage expectations and agree on a contract**

This will save you a great deal of time and effort in the long run. The temptation to jump straight in with data collection can be overwhelming. However, it is well worth producing a short, simple contract, clearly stipulating the commitment you expect from the school in terms of access to participants and the data you propose to collect, within a specific timeframe. I found breaking the data collection down into key activities and summarising them in a table, along with proposed completion dates, really helped to keep things on track. This is particularly useful when the research extends over several months. Equally so, you need to be explicit about what the school can expect from you in terms of feedback and any reports you will provide on completion of the study. It is much better to have this agreed early in the research process, thus avoiding any confusion or ambiguity later on.

**Tip number 5: Establish effective communication channels**

One of the biggest challenges of collecting data in secondary schools is the sheer size and complexity of them. Whilst good communication is a key issue within any research situation, operating within a large organisation makes this imperative. School cultures vary and the preferred means of communication can be different from institution to institution. As students in secondary schools have several subject teachers as opposed to one class teacher, communicating with staff can often be indirect, through the Head of Year or Pastoral Manager. This was the case in the schools I worked with and meant I was a step removed from some of the data collection. If this is the situation for you, remember whoever is requesting information on your behalf will have a plethora of other things on their to-do-list and your data collection will not be as high a priority for them as it is for you; so you need to be patient! If a gentle reminder is needed you can always refer back to the contract you have previously agreed.

**Tip number 6: Raise the profile of your research in school**

Another challenge which arises from conducting research in secondary schools is that in such large communities, with so much going on, it can be hard to get noticed. I was able to distribute flyers and arrange for posters to be put up about the project I was researching (which offered students the opportunity for voluntary participation). However, something that proved really successful was an information coffee morning for students, parents and staff. This provided a great opportunity to raise awareness about the project and to answer any questions. Another useful way of publicising your research is to write a short article about it for the school newsletter. This will bring your research to a much wider audience within the school community.

**Tip number 7: Develop a good rapport with your adolescent participants**

One of the most enjoyable aspects of collecting data in schools is engaging with the students. The age range of my participants stretched from 11 to 14 years and part of my study involved running focus groups with them. In my experience, young people are generally curious and are interested if you have something interesting to say. At the beginning of the project I spoke to all the students about my research; what it was, why I was doing it and what I hoped to do with
the findings. I also explained that I would be visiting them again at the end of the project to hear about their experiences. This meant that when I did go back in to schools to do the focus groups the students knew me, I was a familiar face. All the students were keen to participate in the focus groups and enjoyed making up their own pseudonyms for the recordings – they unanimously agreed research can be fun!

**Tip number 8: Appreciate everyone’s contribution and give feedback**

Without the ongoing support and engagement of staff and students alike, it would not be possible to conduct current, informed and pertinent research in schools. This vital contribution should be acknowledged and appreciated throughout the research process. It is good practice to provide feedback to schools at the end of the data collection period and written reports can be shown to parents and governors or can sometimes be included as evidence for Ofsted. After completing my research I prepared individual school reports with a summary of key findings for each school, which I sent with a letter thanking staff and students for their support. I was delighted to receive a lovely letter back from one of the schools I worked with, stating how beneficial they had found the report and the feedback and praising the professionalism of the data collection in their school!

**Tip number 9: Managing attrition – don’t panic; persevere!**

Despite the best laid plans there will always be circumstances beyond your control that result in fewer participants than you originally anticipated. Attrition is the unwelcome bedfellow of real world research in schools. Although I had initially recruited 12 schools for my study, only five of these were ultimately able to participate in the project during the academic year I had designated for data collection. Moreover, in some of these participating schools student numbers had diminished over the duration of the programme and not all the data I was expecting was available. This is undeniably disappointing but it is not devastating, so if it happens to you, look at the situation as a temporary set-back and stay optimistic. Hopefully, earlier in the research process (in your meticulous planning stage), you allowed for some slack to extend your period of data collection. I speak from personal experience and this is exactly what I had to do.

**Tip number 10: Reflect and learn**

As a novice researcher, my experience working with secondary schools has been extremely enjoyable and I have learnt a lot. I feel privileged to have had the opportunity to do some real world research in a vibrant environment. Although I had anticipated some of the challenges associated with collecting data in secondary schools, I also encountered some new ones. One important lesson for me was to be adaptable; every school is unique and has its own way of doing things. Taking time to understand the culture and identify which processes work best can help to smooth the sometimes rocky road of conducting research in schools.

*A last thought…*

I still have some way to go before I complete my PhD and no doubt will have many more lessons to learn as I progress through my final year. However, one thought comes back to me as I consider my experiences so far. I remember on my very first day as a PhD student, someone who had recently submitted their thesis, said to me how easy it is to simply focus on the end result, getting a doctorate, without really paying attention to how you get there. I will share the advice they gave to me and which I try to follow: Enjoy the journey!
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References

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In 2011 the world of psychology was rocked by the revelation that distinguished psychologist Dr Diedrik Stapel, after being reported by his own PhD students, admitted to fabricating the data used in over 30 published papers (Callaway, 2011). But in the wake of the Stapel case, a new investigation has begun into the work of Dr Jens Förster, social psychologist and recipient of the 2011 Kurt Lewin Award Medal for ‘pioneering research in the domains of self-regulation, creativity, novelty, embodiment and social cognition’. While the investigation is ongoing, it does highlight the need for clear and accurate reporting of scientific research is increasingly clear for modern researchers.

The research in question
In 2012, Dr Jens Förster and Dr Markus Denzler from the University of Amsterdam published a paper in *Social Psychology & Psychological Science* entitled ‘Sense Creative! The Impact of Global and Local Vision, Hearing, Touching, Tasting and Smelling on Creative and Analytic Thought’. The paper described 12 experiments that explored how, in each of the five senses, global or local processing was related to creative thinking.

Participants were assigned to one of three groups in each experiment: (1) primed to focus on the global aspect of a sense stimuli, such as the general sound of a foreign language poem, or general shape of visual stimuli; (2) primed to focus on local aspects of the stimuli, such as speech pauses in the poem’s reading, or individual components of visual stimuli; or (3) given no emphasis on either global or local aspects – the control group.

The dependent variable in each task was how well the participants were able to think ‘outside the box’. After the initial priming, participants completed tasks that measured their ability to categorise stimuli that were only tangentially related to a theme, and participant’s creativity and analytic abilities were tested.

Across all 12 experiments, participants who were primed to focus on global aspects of stimuli were far more likely to show creative thinking, far more likely to classify fringe items to an overarching theme (i.e. thinking more abstractly), and also less likely to demonstrate accuracy in the analytical task. The authors concluded that across the five senses, global processing is linked to enhanced ability for creative thinking, while local processing is linked to greater analytical abilities.

Concerns about the paper
Despite the success of the reported experiments, an anonymous reviewer sent the University of Amsterdam a 35-page complaint about the 2012 paper (as well as two other papers by Dr Förster) with concerns about the analysis of the research. As detailed on the blog RetractionWatch.org, the complainant questioned how the results appeared to be so consistently strong across each of the 12 experiments (Marcus, 2014a).

In brief, the contention is that Dr Förster’s results appear too linear: the mean creativity of participant groups...
increased in a straight line as greater global processing was primed. Creativity was lowest in the local processing conditions, higher in the control group, and higher again in global processing conditions. The line of increased creativity appears almost perfectly straight in all 12 experiments. The anonymous reviewer compares these linear results to other papers exploring similar phenomenon using three experimental groups, and found more naturalistic data: relationship lines were often crooked and bent to reflect the variations in scores across conditions.

Calculating the probability of achieving results as consistent and clear as those reported in the 2012 ‘Sense creative’ paper, the anonymous report suggested that the probability of obtaining such results was one in 508 trillion (or $5.08 \times 10^{18}$). The report also highlighted the unusual completeness of datasets. Of the 2284 participants in three of Dr Förster’s papers, there were no cases of missing data, no participants withdrew from the research, and no participant recognised the purpose of the experiments.

**Official investigations**

The report led to an investigation by the University of Amsterdam, who initially found no evidence for misconduct, suggesting that Dr Förster publish a caution in journals with his published work. According to an email by Dr Förster, the anonymous reviewer then brought the complaint to LOWI, the National Board for Research Ethics in the Netherlands (Marcus, 2014b).

In their report, published in April 2014, LOWI extended the linearity analysis by comparing subgroups of gender. When results were plotted only for male or female participants, there was no evidence of linearity – groups varied in their scores as may be expected, or relationships appeared to be flat with no link between experimental conditions and dependent variables found. Only when the full sample of both genders was combined did the results create the extreme linearity reported in the publication. LOWI argued that while the extreme linearity is statistically extremely unlikely, the fact that the linearity was not found for subgroups was ‘suspicious’ (p. 23).

Weighing the available evidence, including the subgroup analysis and lack of raw data (Dr Förster said that the original surveys had been destroyed when moving office), LOWI stated that ‘the conclusion that manipulation of the research data has taken place is unavoidable’ (p.24), and was not due to mistakes and errors in data collection and analysis (Marcus, 2014c). Citing Dr Förster as the chief researcher, LOWI directly state Dr Förster as responsible for the discrepancies in the data.

Dr Förster has fought back against the claims made in the LOWI report. In an email published on RetractionWatch.org, he decried the accusations against his research as the result of ‘an incredible witch-hunt directed at psychologists after the Stapel affair’, the result of ‘an incredible hysteria’ (Marcus, 2014b). Publicly denouncing any suggestion that he has manipulated data, Dr Förster highlights that the evidence against him is largely based upon statistical inference, and that no concrete evidence of fabrication has been uncovered by LOWI or by other researchers (Marcus, 2014d).

The investigation into the work of Dr Förster will continue over the coming months, and it remains to be seen what the overall conclusions of investigations into his work will be. In 2013, Dr Förster was to receive a professorship from the Alexander von Humboldt Foundation, including a substantial research grant. In April this year, however, the Foundation has postponed the professorship award to Dr Förster, pending the results of the investigation into his work (Statement regarding the charge of scientific misconduct, 2014).

**Considerations for future research**

Psychology has received sharp criticism in the wake of high-profile cases of fraud, such as those committed by Diederik Stapel. Commentators have particularly questioned the integrity of psychology research practices.
that allowed the deception to continue for so long (Enserink, 2012). Since psychology requires anonymised data, it makes it difficult to trace responses back to individuals to check results, and researchers can often claim to have destroyed original records to hide their tracks – a technique Stapel used after simply making up data while sat at his kitchen table (Bhattacharjee, 2013). Yet it is unfair to frame psychology as the sole perpetrator of scientific misconduct. A meta-analysis of surveys investigating misconduct across a range of disciplines estimates one in three scientists have confessed to using ‘questionable research practices’, and that one in 50 scientists admit to fabricating data (Fanelli, 2009). The blog ‘Retraction-Watch.org’ has been reporting scientific retractions from huge number of fields since 2010, with special notice of retractions linked to cases of scientific fraud or misconduct. The dubious honour of ‘winner’ for retractions belongs to anaesthesiologist Dr Yoshitaka Fujii, with reports of falsified data across a staggering number of 183 publications (Marcus, 2013).

There is also concern, particularly pointed at psychology, that limited replication of research findings not only weakens the discipline, but also fosters an environment that allows fraudulent data to endure (Yong, 2012). However, the difficulty in replicating research is seen throughout modern science. In 2012, a team of oncology researchers attempted to replicate the effects of 53 ‘landmark’ papers in cancer research, yet they were only able to replicate results from six (11 per cent) of the laboratory studies (Begley & Ellis, 2012).

Psychology may not be alone in questionable research practices, but with a great deal of public reporting of high profile cases of misconduct, it becomes more important for psychology researchers to maintain strong research practices. The Dr Förster case especially illustrates the need for careful research practices and data storage. It is important that we keep raw data files, and have a clear description of methodology, to allow other researchers to replicate or check our work. As the investigations into Dr Förster’s work continues, we should all be mindful of how best we ensure our research is accountable to the field.

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RECORDING EYE MOVEMENTS can provide insights into how vision is controlled during tasks and, at a higher level, provide insights into brain function. We are seldom aware of the many fixational eye movements we make every minute (Tatler, 2001). We therefore rely on eye tracking technology to track gaze. Technologies used to do so range from desk-mounted eye trackers (e.g. Eye Tribe [The Eyetribe, 2013]) to more mobile head-mounted eye trackers (e.g. Eyelink II [SR Research Ltd, 2014]). The desk-mounted eye trackers are optimal in tracking eye movements for use with computer display stimuli whereas the mobile head-mounted trackers tend to be reserved for real world capture of eye movements.

With regards computer display studies, many eye trackers available, particularly desk mounted trackers, can effectively provide video recordings of overlain eye movements onto pre-recorded video stimuli or static image stimuli. An area of study with which many eye trackers do not effectively cater for is identified here, however. This area is termed as ‘real time stimulus display capture’. This means current online capture of both eye movements and a stimulus display that is ever changing with participant input. For example, playing a video game whilst eyes are tracked would be an example of real time stimulus capture. Many eye tracking software do not provide a direct method with which to produce video output recordings of this type. Thus it is not possible to efficiently identify the where, what and when aspects of an individual’s gaze during real time experimentation which utilise a display screen.

This inability to produce real time capture video outputs by some eye tracking systems is identified as a limitation. As such, a method to overcome this is outlined here, to ultimately enable individuals to produce output recordings of both overlain eye movements and real time video capture of the stimulus display. This allows the experimenter to identify where and when individuals look on a frame by frame basis more effectively. Below a brief overview of the developed methodology is provided, with the software required outlined before the procedure is explained in step-by-step detail.

Methods
Overview
The aim of this paper is to outline a procedure in order to produce a recorded output video of both the real time captured display and the associated eye movement behaviour when using eye tracking software. For the purposes of this paper, the eye tracking system referenced here is Eyelink software but an assumption is made that the method can easily transfer to other eye tracking hardware/software which can save eye movements as a video file. The procedure incorporates a number of steps, namely: (1) a recording stage; where the eye movements are recorded along with a video screen capture of the display; (2) an eye movement output preparation stage; where the eye movements are converted into a video file; and (3) a video editing stage; where the video capture and eye movements are overlain. Please note, the assumption is made here that the reader is proficient in using their respective eye tracking hardware/
software and has knowledge with simple functions used in MATLAB and Psychtoolbox.

**Software and apparatus**

MATLAB (The Mathworks Inc, 2014) with the Psychtoolbox add on is used in order to temporally synchronise recording of the screen capture and eye movements together. Along with the eye tracker (Eyelink 1000, Eyelink II, etc.), the procedure outlined here requires SR Data Viewer in order to process the eye movements into a video file. Often, this video file for eye movements is automatically created by the eye tracking system. For the video screen capture, the software FRAPS (Beepa Pty Ltd, 2014) is used here. For the final video editing stage, use of a video editing software package is implemented. Here the procedure is described with Adobe Premiere Pro (Adobe Systems Software, 2014), with an assumption that a multitude of video editing software can produce similar results.

**Procedures**

**Recording**

The initial stage of the procedure is to record a video of the experiment trial and the eye movements of the observer simultaneously. A trial, for example, may be to record eye movements for when a person drives a certain route in a driving simulator. This synchronised recording is done using a MATLAB script with Psychtoolbox functionality. Here the simplest form of the developed MATLAB function is presented. The function should initially open a pre-experimental window which allows for eye tracking calibration and should define a start and stop key (see Figure 1 for comments [green] and description).

**Figure 1: An example script to create the pre-experimental window and to define start and stop keys.**

```matlab
AssertOpenGL;

%Get list of screens and choose the highest screen number.
ScreenNumber = 1 %max(Screen('Screens'));

%Open a double buffered fullscreen window on monitor
%PsychDebugWindowConfiguration(0, 0.5);
[w,wRect] =Screen('OpenWindow',screenNumber);

% Set 'q' as stop key and 'space' as start.
 KbName('UnifyKeyNames');
 stopkey = KbName('q');
 startkey = KbName('space');

%Set background colour as white
white = WhiteIndex(w);
black = BlackIndex(w);
bgcolo = black;

%Set font parameters for text stamp messages.
 Screen('TextFont', w, 'Arial');
 Screen('TextStyle', w, 0);
 Screen('TextSize', w, 16);
```
The function \( wR ect \) creates a rectangular window on the desired display screen which is defined by \( \text{screenNumber} \); where \( \text{screenNumber} \) is usually 0, 1 or 2 depending on the physical set up of the displays (i.e. single monitor or dual monitors set up). The text and background parameters can be defined by the experimenter with examples given above.

The function should then allow for eye tracking calibration to take place; for which Psychtoolbox has inbuilt functions to communicate with the Eyelink eye tracker. The example script in Figure 2. allows an interface with which to calibrate the participants eye’s using the eye tracker’s host hardware.

The example script allows MATLAB to open up the default calibration screen in the window as defined and controlled within the Eyelink Toolbox directory of Psychtoolbox \((el=EyelinkInitDefaults(w))\). \( EyelinkDoTrackerSetup(el) \) allows for calibration and \( EyelinkDoDriftCorrection(el) \) allows for a drift correction which again is controlled by the default scripts through the Eyelink Toolbox directory.

After calibration, it is useful to present a buffer screen before the start of the experimental session. An example display can be produced using code illustrated in Figure 3. This allows the experimenter to control when to start the experiment using the previously defined start key.

Here the code simply instructs a rectangular window to be created with defined colour parameters along with a text message with font parameters defined. This screen remains until the experimenter/participant

---

**Figure 2: An example script with which to communicate with the eye tracker to allow for calibration.**

```matlab
% Initialize eyelink.
if EyelinkInit() ~= 1;
    closeroutine();
    return;
end

% Default Eyelink Parameters
el = EyelinkInitDefaults(w);

% Specify data samples to record and filename for Eyelink log file.
Eyelink('command', 'link_sample_data = LEFT, RIGHT, GAZE AREA');
Eyelink('openfile', 'driving.edf');

% Calibrate Eyelink.
EyelinkDoTrackerSetup(el);
EyelinkDoDriftCorrection(el);

WaitSecs(0.1);

% Track left eye only.
eye_used = Eyelink('EyeAvailable');
if eye_used == el.BINOCULAR % If both eyes are tracked,
    Eye_used = el.LEFT_EYE; % use left eye data only.
end

WaitSecs(0.1);
```
presses the previously defined \textit{startkey}. If the defined \textit{stopkey} is pressed then the experiment is closed.

The next stage of the procedure is the simultaneous recording of the stimuli and eye movements. This is accomplished through video screen capture executed by the MATLAB script, which also executes the function to allow the eye tracking software to record the eye movements. The screen capture is controlled by the FRAPS video capture software. The function must command FRAPS software to open along with the stimulus programme to be presented (e.g. the video game or internet browser). This can be accomplished using the script outlined in Figure 4.

Using the actxserver function allows MATLAB to call a programme and present it on the display screen. Here it calls the video recording software FRAPS and then after a user defined waiting period, it calls the desired experimental stimulus programme. Note, the user defined waiting periods allows the experimenter to set up the stimulus if required.

After the waiting period, MATLAB should execute a script to allow the eye tracker to begin tracking the eye movements (Figure 5) and allow FRAPS to record to the display screen.

Importantly, there is a line placed here which tells MATLAB that the F9 key has been pressed \([\texttt{h.SendKeys (’(F9)’)}]\) which is the key used by FRAPS to begin recording the screen capture. Note, it is not a requirement for this key to be F9, however, the key must be the same as the key used by FRAPS to initiate the capture. This step allows both the eye movements and the screen to be recorded simultaneously.

Finally, the function should be able to terminate the experiment which in turn should synchronise the termination of both the eye movement recording and video capture recording. This is accomplished with a simple check loop until the previously defined stop key is pressed. Upon manually pressing the stop key, this terminates the experiment and within a user defined time frame, terminates the video recording.
This is accomplished using the example code presented in Figure 6.

Eye movement preparation
The second stage of the procedure allows the eye movement behaviour to be saved as a video file. It is possible that certain eye tracking software automatically generates a video output of the eye movement behaviour and as such this step of the procedure is not required. Here the procedure is described again using Eyelink software.

With the MATLAB script above, the eye movement behaviour of the session will have been saved in the form of an EDF file if using an Eyelink system. This can be opened with SR Data viewer. Once opened, the ‘View Trail Play Back Animation’ tab should be selected from the main trial view display window. Here, the experimenter can select the ‘Save Trail To Video File’ option. The video should be saved according to experimenter preference, that is, compression method, video file type, frame rate. Note that the original screen resolution that the eye movements were recorded with should be selected to save the video file. If the resolutions of the eye movement video file and captured video file are asynchronous then this will likely lead to spatial errors when the eye movements are overlain. It is, therefore, important to maintain consistency in screen resolution throughout the procedure. The saved video is outputted as a black background with a coloured circular gaze cursor as the indicator of eye movements.

Video editing
The final stage in producing the desired output video file is to physically overlay the eye movement file onto the recorded screen capture file. As such, one can identify where the participant was looking in each video frame.

The black background of the eye movement video file is chroma key composited to produce a transparent video file where only the gaze cursor is visible. Chroma key compositing is the video editing technique used to layer two streams of video where the top layer is made transparent relative to the second layer.
The procedure is explained here using Adobe Premiere Pro (Adobe Systems Software, 2014), however, there will likely be analogous functions in other video editing software packages. The eye movement video file should be imported to the video editing software along with the video file of the screen captured session. The eye movement video file should be overlaid on top of the stimulus video file. The black background of the eye movement video is filtered out by applying the chroma key compositing technique. With Premiere Pro, this tool can be found under the ‘effects’ tab of the main project window. A blend should be applied (under the ‘video effects’ tab within the main source window in Premiere Pro) until the black background cannot be seen but the contrasting hue of the gaze cursor can. Finally the complete video of both the eye movements and recorded stimulus can be formatted and outputted as by the experimenter preference.

Summary and limitations
This article has been presented given the limitation of some eye tracking systems in synchronously recording real time stimulus and eye movements. It has outlined a procedure for recording both eye movements and real time stimulus simultaneously and detailed how one can produce a desired video output of these components. With this video output, one can effectively view a recording of the experimental session with overlaid eye movements to investigate where and what an individual is looking at and when.

Of course, there are limitations with this procedure. Namely, it is not fully automated and thus requires some manual input to produce the final video file. This can be time consuming if the experiment requires multiple recordings. The procedure also assumes a basic working knowledge of MATLAB, Psychtoolbox and its functions. An argument is made here however that simply using the script detailed above is sufficient in producing the desired output video without an in-depth understanding of the processes involved.

Conclusions
When working with display screen experimentation and eye tracking, it is often the intent of the experimenter to produce a video of the session with overlaid eye movements. The aim of this piece is to provide researchers a tool with which to accomplish this with real time capture using the SR Eyelink eye trackers. Provided here is an insight into how this can be accomplished using simple computer programming and
video editing. This procedure however, is one of many ways with which this can be accomplished and should encourage researchers to explore other methods to accomplish real time stimulus display capture.

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RESEARCH AND UTILISATION of Buddhist contemplative practices in clinical settings has increased significantly in recent decades. The assimilation of Buddhist techniques by allied health care disciplines is likely to have been influenced by factors such as: (i) increased rates of transnational migration and the need to develop culturally syntonic treatments for Asian Americans and Asian Europeans; (ii) a growth in research investigating the effects of Buddhist meditation on brain neurophysiology; and (iii) the growing popularity of Buddhism in the West including the founding in Western countries of Buddhist practice centres representative of the majority of the world’s Buddhist traditions (Shonin, Van Gordon & Griffiths, 2014a). Although scientific interest has predominantly focussed on mindfulness meditation (see Singh et al., 2008), there is growing interest into the clinical applications of Buddhist insight principles such as emptiness and impermanence. This article provides a brief explication of Buddhist insight practices used in clinical settings and discusses current directions in terms of their psychotherapeutic applications.

Emptiness: Deconstructing the Self
Buddhist psychological and philosophical doctrines regarding the nature of self and reality reflect what might be seen as a paradigm shift when compared with widely subscribed to Western psychological beliefs regarding the ego and the self. For example, Western psychological approaches to treating mental illness or improving psychological well-being are invariably based on the explicit or implicit acceptance that there is an inherently existing ‘self’ or ‘I’ entity (see Sedikides & Spencer, 2007). In other words, irrespective of whether a cognitive-behavioural, psychodynamic, or humanistic psychotherapy model is employed, these approaches are ultimately concerned with changing how the ‘I’ relates to its thoughts, feelings, and beliefs, and/or to its physical, social, and spiritual environment.

This reflects a fundamental departure from the Buddhist ontological perspective where it is both asserted and believed that human beings (and indeed all phenomena) are devoid or empty of an intrinsically existing self (Shonin et al., 2014a). This may seem to be a somewhat abstract concept but it is – as we shall argue – common sense, and the principle of emptiness is universal in its application. For example, Buddhism asserts that the human body comprises the five elements of water, wind (i.e. air), earth (i.e. food), sun (i.e. heat/energy), and space (i.e. in the bodily cavities and between molecules, etc.) (Shonin et al., 2014a). This means that although the body exists in the relative sense, it does not exist in the absolute sense because the body cannot be isolated from all of its contributing causes. Just as a wave does not exist in separation from the ocean, the body does not exist in separation from all other phenomena. According to the Buddhist teachings, when looking at the body, we should also be able to see the trees, plants, animals, clouds, oceans, planets, and so forth (Shonin et al., 2014a). Thus, the body, and indeed the entire array of animate and inanimate phenomena that we know of, cannot be found to exist intrinsically or independently.
An alternative method utilised in Buddhism of refuting the existence of an inherently existing self is based on deductive logic and was widely employed by the Indian Buddhist scholar Nagarjuna in the second century (AD). A simplified demonstration of this approach is provided in Box 1 that shows a hypothetical discussion between a professor and their student regarding the ultimate nature of existence. As the conversation in Box 1 demonstrates, any given object cannot be said to exist: (i) in isolation from its parts; (ii) as each part individually; or (iii) as the sum of its parts (because as a collective, the component parts do not cease to be component parts but are nonetheless assigned a label that by convention denotes an entirely new phenomena). Thus, consistent with Nagarjuna’s philosophical and didactic approach, all phenomena (including the self) are imputed constructs that exist only as mentally-designated labels.

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**Box 1. Hypothetical discussion between a professor and their student to demonstrate the emptiness principle**

**Professor:** Does my fountain pen exist?

**Student:** Well, the pen certainly writes when I put it to paper. Yes, it exists.

**Professor:** So your criteria for existence is based on the function that an object performs?

**Student:** Yes, of course.

**Professor:** I see. Go ahead and take away all of the components of the pen so that you’re left with nothing other than the nib. Does the nib still write?

**Student:** Yes, there is still a small amount of ink left in the nib. It still works.

**Professor:** But the nib isn’t the pen?

**Student:** Ah, good point. The nib is just a single pen component and cannot be all of the individual parts that comprise the pen. One thing cannot be another thing.

**Professor:** So does the pen exist?

**Student:** Well, having just taken the pen apart and seen that all of its component parts are present, I would still argue that it exists.

**Professor:** So you’re saying that the pen exists as the sum of its component parts?

**Student:** Yes, that is correct.

**Professor:** But you’ve already said that a component part can’t be two things at once. Yet now you seem to be saying that when the nib, cartridge, lid, and other pen components are put together, they stop being those components and become a new single entity?

**Student:** No, that is illogical. The component parts still exist in the pen but the word ‘pen’ is used to designate the collection of individual components that collectively form a pen.

**Professor:** Right, so you’re saying that the pen is just label?

**Student:** I’m not sure – I guess so. But if the pen is just a label then it doesn’t inherently exist. Oh yes. I see now.

**Professor:** Excellent.

Adapted from Shonin & Van Gordon (2014a).
The Buddhist teachings go on to assert that suffering, including the entire spectrum of distressing emotions and psychopathologic states, results from adhering to a false view about the ultimate manner in which the self (and reality more generally) exists. As a means of operationalising this notion within Western psychological and clinical domains, we recently introduced the concept of ‘ontological addiction’. Ontological addiction can effectively be considered a new category of addiction (i.e. in addition to chemical addiction and behavioural addiction) and is defined as ‘the unwillingness to relinquish an erroneous and deep-rooted belief in an inherently existing ‘self’ or ‘I’ as well as the ‘impaired functionality’ that arises from such a belief’ (Shonin, Van Gordon & Griffiths, 2013, p.64). Due to a firmly-embedded (yet scientifically and logically implausible) belief that the self is an inherent and independently existing entity, Buddhism asserts that afflictive mental states arise as a result of the imputed ‘self’ incessantly craving after objects it considers to be attractive or harbouring aversion towards objects it considers to be unattractive (Shonin et al., 2014a).

In Buddhist terminology, this process is known as ‘attachment’ and it is deemed to be an undesirable quality that leads to the reification of the ego-self. We have previously defined attachment as ‘the over-allocation of cognitive and emotional resources towards a particular object, construct, or idea to the extent that the object is assigned an attractive quality that is unrealistic and that exceeds its intrinsic worth’ (Shonin et al., 2014a, p.4). Thus, attachment takes on a different meaning in Buddhism vis-à-vis its construction in Western psychology where attachment (i.e. in the context of relationships) is generally considered to exert a protective influence over psychopathology. Based on a Buddhist construction of attachment, lower levels of attachment have been shown to predict greater levels of mindfulness, acceptance, non-reactivity, self-compassion, subjective well-being, and eudemonic well-being (Sahdra, Shaver & Brown, 2010). Furthermore, the Buddhist attachment construct is positively correlated with avoidance (i.e. of intimacy), dissociation, fatalistic outlook, and alexithymia (i.e. an impaired capacity to recognise or describe feelings) (Sahdra et al., 2010).

Having understood from a Buddhist perspective that attachment and harbouring an erroneous belief in an inherently existing self contraindicates adaptive psycho-spiritual functioning, Buddhism teaches that the next step towards recovery from ontological addiction is to embrace emptiness and begin deconstructing our mistaken belief regarding the existence of an ‘I’. Based on this Buddhist approach, a number of novel psychotherapeutic techniques have recently been developed that integrate meditative practices aimed at cultivating an understanding of the emptiness construct. One example is a six-week programme known as Buddhist Group Therapy (BGT) that has been shown to be effective for treating anxiety and depression in diabetes patients (Rungreangkulki, Wongtakee & Thongyot, 2011). A further example is an eight-week secular psychotherapeutic approach known as Meditation Awareness Training (MAT) that utilises phases of concentrative meditation to order to calm and focus the mind, immediately followed by insight meditation techniques such as guiding participants to try and find an inherently existing self. In a number of separate studies, MAT has been shown to be an effective treatment for individuals with anxiety and depression, workaholism, schizophrenia, pathological gambling, work-related stress, and fibromyalgia (for example, see reviews by Shonin et al., 2013, 2014a, 2014b).

From a mechanistic point of view, terms such as ‘witness consciousness’ have been used to refer to the process of therapeutic reconnection and transformation that takes place as client and therapist begin to widen their view of self and work in an ‘open and empty ground state’ (Sills & Lown, 2008, p.80). Greater awareness of emptiness is also believed to assist in gradually uprooting
egoistic core beliefs and, therefore, complement therapeutic techniques that work at the surface level of behaviour and cognition (Chan, 2008). Furthermore, an understanding of emptiness can enhance therapeutic core conditions because ‘the more the therapist understands non-self, the less likelihood that the therapy will be about the selfhood of the therapist’ (Segall, 2003, p.173).

**Impermanence awareness:**
**Preparing for change**

Closely related to the Buddhist insight principle of emptiness is impermanence, which is referred to in Buddhism as the first mark of existence. According to the Buddhist teachings, impermanence refers to the fact that all phenomena are transient occurrences and are subject to decay and dissolution (Shonin et al., 2014a). The Dalai Lama asserts that the universal law of impermanence applies as much to psychological phenomena such as thoughts, feelings, and perceptions, as it does to material phenomena both animate (e.g. the birth, life, and death of sentient beings) and inanimate. Buddhism also teaches that human beings have a tendency to ignore the fact that they only live for a limited period of time, and that rather than simply experiencing the here and now ‘as it is’, people tend to corrupt their experience of the present moment by superimposing their last moment onto the next one (Shonin & Van Gordon, 2014b).

Cultivating an awareness of impermanence (including the certainty of death and the uncertainty of the time of death) is believed to help improve life purpose and life perspective (Dalai Lama, 1995). The Buddhist insight principle of impermanence is also believed to have utility for facilitating recovery from trauma and grief. Traditional Western models of grief are based on a phasic bereavement process and normally involve stages of: (i) shock; (ii) distress and denial; (iii) mourning; and (iv) recovery (e.g. Jacobs, 1993). However, a greater acquaintance with the impermanent nature of life may exert a form of resilience effect. For instance, it has been suggested that increased acceptance and internalisation of impermanence may help to soften the grieving process and facilitate earlier-onset of the recovery and restorative phases (Shonin et al., 2014a; Wada & Park, 2009). Similarly, Kumar (2005) postulates that impermanence awareness can facilitate post-traumatic growth due to a ‘radical acceptance’ of the fleeting nature of human existence (p.8).

**Conclusions**

Recent decades have witnessed an increase in the research and clinical utilisation of approaches that derive from Buddhist contemplative practice. As previously outlined, mindfulness reflects the most empirically researched Buddhist technique (as well as one of the fastest growing areas of psychological research more generally) (Van Gordon et al., 2014). As scientific knowledge relating to Buddhist meditative modalities such as mindfulness advances, interest into the applications of techniques that traditionally underpin and/or complement mindfulness practice is also growing (Van Gordon et al., 2013). Accordingly, although further empirical evaluation is clearly needed, preliminary findings indicate that techniques aimed at cultivating an awareness of the Buddhist emptiness and impermanence constructs may have applications in psychopathology treatment settings. However, given the variance between Buddhist and Western psychological standpoints regarding the ego and the merits of reinforcing a belief in an absolute self, future research is required in order to assess the suitability of utilising Buddhist insight techniques for particular service-user groups.
Acknowledgement
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References
The Thought of trying to publish research during your PhD can be a daunting prospect, and may seem relatively unimportant at this early stage of your career. As a PhD student nearing submission of my thesis and having published 18 papers in academic journals (three of which are from research conducted during my PhD, and a further one currently in press and another in prep), I thought it might be useful to share some of the tips and advice that I have received that have helped me on my way.

Why try to publish during your doctorate?
There are a number of benefits to publishing papers during your PhD, beyond the obvious boost to your CV and enhancing your employability. Publication of your work and developing a research portfolio in the early stages of your career, particularly as a first name author, serves to get your name known within your field and will assist you in being taken seriously as a researcher. At the outset of your PhD it is easy to assume that publishing research will perhaps be a bonus and something to be thought about nearing the end of your doctorate, if you still have time and energy left. However, many benefits ensue from starting this process as early into your PhD as possible.

The skills and experience gained during the process of submitting and publishing work from your thesis will be advantageous when it comes to your viva. For those of you only at the very beginning of your PhD journey, talking about the viva examination may seem fairly irrelevant and lead you to think about putting this article away somewhere for a later and more appropriate time. If you’re somewhere between the middle to two-thirds of the way through your PhD, the mere mention of the word ‘viva’ will likely result in mild palpitations and feelings of overwhelming self-doubt. Traversing the peer-review process before the inevitable defence of your research at the end of your doctorate will mean that you would already have had the opportunity to thoroughly analyse, dissect, and refine your work whilst receiving valuable feedback from experts in your field. This will invariably give you more confidence in your research and allow you the opportunity to think about your methodology and findings from different perspectives. Successful publication is also likely to serve as a pretty good motivator to get the rest of your PhD research done and written up – once you’ve survived the fairly unnerving peer-review process that is (more on that later)! Moreover, research papers or literature reviews that have already been clearly structured and undergone review are easily adapted into thesis chapters. Even at the outset of designing any experimental work that will form part of your thesis, it is beneficial to envisage the extent to which the research design would be publishable and the way that you might analyse any data and formulate your arguments. Indeed, it is never too early to begin thinking about submission and publication.

Publishing articles does not only flag up your name to other researchers in the field. Often, journal Editors will subsequently ask you to stand as a reviewer on other papers, allowing you to hone your critical evaluation skills and give you further insight into the peer-review process. After your PhD, a rich
reference list stands as a clear indicator of your ability to disseminate your research findings. Publishing ability is also an important skill considered during grant-applications and practice will, therefore, benefit you in any future requests for research funding.

In the pursuit of an academic career, there comes great pressure to publish your research. Indeed, you are valued as a researcher not just on the extent to which you publish your work but where you have published and how much your work is cited. Whilst no-one should expect a PhD candidate to publish reams of research articles in prestigious journals; getting into the habit of writing papers for publication and experiencing the peer review process during your PhD will pave the way for an easier transition into academic and post-doctoral life.

**What to write**

Research papers for academic journals are not the only articles that you could try to submit during your PhD. In some cases the results of your research may not be publishable, or you may be still collecting, coding, or analysing data for a while into your PhD. Most of the alternative options detailed below may require a different framework and structure to your writing but would provide excellent practice in academic and scientific prose. Many journals, for example, welcome review articles, giving you a perfect opportunity to publish work from the introductory chapter of your thesis. PhD students are sometimes asked to write or co-write book chapters on subjects relevant to your specific area of research interest. For instance, if you hear of experts in your field who are currently editing a book, it is worth expressing your availability to make a contribution. Although this may be time intensive, many students find this useful for honing skills such as literature reviews and critique development: useful for your own research.

In addition to writing for the more prestigious academic and scientific journals or books, it is worth considering submitting to organisational journals such as *The Quarterly*, which is targeted at postgraduates and accepts a wide variety of article types. Alternatively, *The Psychologist* encourages a diverse range of submissions. The many different sections in *The Psychologist* such as ‘New Voices’ and ‘Reviews’ are ideal for postgraduates to gain writing experience, disseminate your work and receive feedback from a wide audience.

Furthermore, many universities have their own journals that welcome (and indeed encourage) submission of work from doctoral students. This could include preliminary research findings, pilot study reports, book reviews, or even the dissemination of ‘work in progress’. Remember that submitting results of research to such journals may exclude you from re-submitting these data to other places, so check this before submission. However, they provide a good place to start out if you are unfamiliar with the process of submission and review.

Even before starting my PhD, I was fortunate enough to collaborate with a number of different researchers on systematic review papers as well as original research papers. This provided me with important insight into this part of academic life, without all the added pressure of holding the primary responsibility for responding to reviewer’s comments. Asking for opportunities to collaborate with your PhD supervisor, post-doctoral researchers or other academics in your lab or department on research that is in line with your area of interest or expertise is recommended. However, it is important to deliberate how much these collaborations would take away from your own PhD time and focus. Likewise, collaborations with researchers at other institutions may prove fruitful in respect to your publication list and future career, but need to be considered pragmatically.

Another worthwhile option for writing and publication of sorts is in the preparation and submission of abstracts for scientific conference proceedings. Before the process of writing up your research for publication, presenting your work at conferences and
even at lab meetings or to other research groups are excellent ways of learning to frame your arguments and getting feedback from other experts in your field. Sometimes just the relatively simple process of condensing your research to a few PowerPoint slides or a scientific abstract can actually help you to think more clearly about how to present your work, and particularly your data, in a more concise and publishable manner.

**How to submit**

A number of sources of information exist regarding how to write papers (e.g. Hall, 2012; Van Way, 2007), and how to publish academic research (e.g. Hoogenboom & Manske, 2012), and so I will not focus on that here. Instead, I will emphasise certain aspects of the submission process that may increase your chances of successfully publishing work. Firstly, before you even begin writing a paper, it is worth contemplating which journal(s) you would like to submit to. This will give you clear indication as to how to focus your writing, and the journal-specific requirements relating to manuscript length, style and formatting. Once you have formulated your ideas for an article, a sensible option is to write to the Editor of the journal with a brief description of the research you are intending to submit, to see whether it would be of interest to them and worth sending to their journal. This could save you a lot of time and pain if the answer is no!

It is also worth taking into consideration the ‘impact factors’ of potential destinations of your work. Impact factors are the aspect by which journals are rated, based on the extent to which the research that they publish is cited. The higher the impact factor, the more important the journal is regarded to be (Hall, 2012). Journals with higher impact factors will have stricter criteria for article acceptance but it is worth aiming high at first submission; not least because these more prestigious journals are (supposedly) associated with a more rigorous review process. If unsuccessful on this first attempt, subsequent submissions could then be made to lower-tier journals. Although this may seem like an unsettling prospect, it should serve to enhance your research and the formulation of your manuscript. Going through a more challenging review procedure first is also likely to improve your chances of getting the paper published in a different journal, if you are unsuccessful on the initial attempt.

It may seem obvious, but before submitting your article to a journal, it is important that you have followed the ‘Author Guidelines’ laid out by the specific journal in terms of formatting, headings, referencing style and file-types required for Tables and Figures. Also, the use of APA formatting for presenting data is imperative. No matter how interesting or ground-breaking the research your paper is reporting, a poorly formatted and presented article will not fare well in the eyes of the reviewers, and may not even get past the Editor to the review stage before being sent back to you. The submission of any type of manuscript to a journal will also require you to write a covering letter. This is a chance to address the journal Editor(s) directly and state (very briefly) the main points of your paper, why your manuscript may be of importance and to whom it may be of interest. It is also usually a requirement here to declare any conflicts of interest and that you have not submitted the same work anywhere else.

Often at the point of submitting your manuscript, you are offered the chance to recommend or select potential reviewers. Although it is not guaranteed that they will be selected or available, this is an opportunity to help the identify experts in your field who are likely to hold a positive and constructive opinion on your work and would provide insightful feedback. Indeed, more importantly, you may even be able to select who you definitely do not want to review your work, allowing you to avoid potential conflicts of interest or individuals you feel may have competitive motives.
Surviving the peer-review process

After working for weeks and months diligently perfecting your article to a point you believe ready for publication, it can be disheartening to receive feedback from a journal Editor that your submission has been rejected. Firstly, this has happened to, and continues to happen to even the most highly cited, highly acclaimed researchers. An outright rejection of your paper is often a sign that the work was not in line with the journal’s area of interest and sometimes Editors will even recommend other places to submit your work (see above point about writing to the Editor before submission). Bordage (2001) and Pierson (2004) provide insightful accounts of other reasons why manuscripts may not be accepted for publication. However, quite often the Editor will state that they would be willing for you to ‘revise and resubmit’ your work following the adjustments outlined by themselves and the reviewers. This may be quite a task, and is important to consider whether it is worth your while. However, if the Editor has expressed some interest in seeing the article again, it is likely that they will look favourably on a well-revised manuscript. On the other hand, even if you decide that labouring through all the recommended changes would not be possible, it is not advisable to try and submit the same article to another journal without taking into consideration and amending the manuscript in light of the reviewer’s comments anyway.

Fortunately during your PhD, submitting and publishing work is unlikely to be an endeavour you undertake alone. Most likely you will collaborate with your supervisor(s), who will help to guide you through the process. Preparing an article for submission is one thing, dealing with the critiques of your work, amending your article in light of those comments, and formulating appropriate responses to the reviewers is another. Typically, once your manuscript has been through review and returned to you, recommendations would have been made for either major or minor revisions of the paper (and often both!). Trudging through pages of reviewer’s comments can be a gruelling and intimidating process, and the thought of having to collect further data or re-write major parts of your research can feel quite demoralising. It is important to try and see this as optimistically as possible and not feel that this reflects on your ability as a researcher. Reviewers often have quite differing opinions on the way to interpret your findings and what may be important to present. This is why the review process is such an important one, and should serve to ensure that research is of a high standard before being accepted, particularly when the results are likely to have significant impact on the field. One article by Williams (2004) is a particularly useful resource for learning how to respond successfully and appropriately to reviewer’s comments. Alongside some ‘golden rules’ for responding to reviewers, Williams (2004) highlights that disputing points reviewers have raised by being argumentative is not likely to be fruitful, even when you believe that they might be wrong. Picking your battles will be important in raising the likelihood of subsequent acceptance of your manuscript. Even if you do feel the need to battle a certain point, learning to do this diplomatically and constructively is key.

Concluding remarks

This might seem like a lot of hard work on top of the already difficult task of completing a PhD. However the process of writing, submitting, revising and then (hopefully) publishing your work during this time will only serve to increase your confidence as a researcher, and compliment and strengthen your PhD. Organising your time well is key to balancing this alongside an already heavy workload. Having a set day over a number of weeks to work on a paper, or blocking out a section of time to work just on responding to reviewers and editing your manuscript will mean that you are more likely to maintain the motivation needed to get this done.
Trying to publish your work may seem like one of the more challenging components of academic life, but is also potentially one of the more rewarding. Do not lose heart, especially in the face of overwhelming reviewer’s comments; it is worth all that extra time and effort. Even if you do not manage to get anything published at this point, having papers submitted by the end of your PhD will help you feel like you are on track and would have given you invaluable experience of the whole process. Have confidence in your ability, and be assured that at some point the value of your work will be recognised.

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Discuss paper:

Sadistic statistics? Critical reflections on teaching from a neophyte psychology postgraduate tutor
Jin Zhou

Who, what, where, when and why

In my experience, reflective thinking is not common practice in our subject area. My engagement of ‘critical reflections’ within Psychology usually delve only as deep as evaluating the non-personal aspects of my practices, for example, identifying methodological limitations or postulating on the theoretical concepts behind my research. However, reflective practice is seen as an important part of not only our professional development, but also personal development. It provides the opportunity to review the experiences we have and engage in a conscious process to learn from them (Schön, 1983). In order to engage with reflective thinking I must write from a position of self-expression and self-awareness, sharing my personal experiences and insights in order to contemplate areas for development that may be a learning process for both me and my readers. The present paper has arisen from my involvement with the Postgraduate Certificate for Teaching in Higher Education (PGCTHE) programme, and while the original piece was written for module assessment, my first thoughts were: (a) to not let a large piece of writing go to waste... but; more importantly, (b) sharing my reflections may encourage others to do so in their own practice.

As with most young researchers within the field, my first experiences with teaching in Psychology come from teaching on statistics and research methods modules. The class was a medium-sized group (24) of second-year undergraduate Psychology students and held in the computer labs in the Psychology building. Within the three-hour weekly session my role was to introduce a new statistical method, demonstrate on the computer how the analysis would be performed, and exemplify the correct form of presenting results appropriate for psychological research report writing. Students were then set the task of performing the analyses and write-up of fictional data in order to practice the methods and demonstrate their understanding. As this was my first official teaching module that I have been assigned my reflections will be on the series of teaching throughout the module, my initial approach to the sessions, what changed, and critical review of my practices as a facilitator for learning.

Teaching philosophy

Research methods and statistics is one module that never receives much interest (Ball & Pelco, 2006), but we teach crucial skills for research and critical analysis that is vital for the degree, as well as any future forays into research or degree relevant employment. However, in my experiences as a student, the typical approach to teaching these techniques usually involves brushing over the overly statistical and mathematic processes, and focusing instead on the ‘click this; then click that’ method of using computer-assisted statistics software (SPSS) before demonstrating the bare minimum requirement of analysing its output. This is to combat the students’ ingrained perception that statistics is hard and their complete
disinterest as they insist that they are here to study psychology, not statistics. I am fully aware that students often approach this module with already preconceived attitudes towards statistics which impacts on their motivation to learn.

As I had limited experience in teaching, I had very little concept of my teaching style or how to engage with different students learning styles. However, due to the nature of the module, there were guidelines already in place that dictated what must be taught and when, how it is learnt (via in-class practice) and what exactly the outcomes should look like. I found myself slipping into the teaching technique prescribed by the traditional approach to any taught statistics module in Psychology, and not yet fully finding my own teaching style. Like others before I began highlighting and demonstrating the minimum amount of information that is needed to successfully pass the module. Upon reflection I worry as to whether this is the correct or even ethical way of teaching statistics to our undergraduates, however, as a well-known module for contention, the cultural approach seems to be to make it as painless as possible by demonstrating the bare minimum.

Currently, my feelings are that students are not engaging with the deeper attitudinal learning we seek to instil (Garfield, 1995). As a new tutor I have happily accepted the prescribed format that my fellow psychologists follow. Over the course of the module I observe that I often do not attempt to change my students’ attitudes towards statistics. Instead, I make a point of acknowledging their resentment towards the module and appeal to their short-term motivations, such as what will be important to the assignment and exam. Although this does not attend to the teaching goal of inspiring deeper statistical understanding within the students, I did consider myself successful in being able to communicate on their wavelength and give them what they wanted. Perhaps as this was my first ever official teaching experience I felt that it was not expected of me to try and change their world. Merely getting them to a stage where they could pass their exams was, as well as a formative assessment for student learning, also a quantifiable evaluation of my ability to teach successfully. As I look to develop as a Psychology tutor in higher education I understand that my personal development will be important for my professional development. I am now more conscious of the attitudinal goals I should also be seeking to inspire in my students, and I am confident that experience will bring assurance to my teaching practice in order to facilitate this aspect of the student learning experience.

Making improvements

While sessions were conducted under the same format commonly used to teach statistics (Garfield, 1995) I felt that my natural style was to adopt an informal approach in order to create a more relaxed and comfortable learning environment. When reflecting on the learning environment that I tried to create I realise that, although the teaching format is dictated by departmental and cultural traditions, my teaching style very much emulates my personality outside of the classroom (Biggs, 2003). However, I noticed that this relaxed environment often meant that some individuals would clearly not be paying attention! The temptation of online browsing or checking social media meant that the attention of some students was often divided.

Following this observation I deliberated on a more effective method of holding their attention. I understood that second year undergraduates would benefit from an approach that told them what to do and what to study, however, I also wanted to give them the space to actively learn. I began to annotate the course materials, editing the tutorial PowerPoint slides with my own extra ‘hints and tips’, adding relevant (and sometimes irrelevant!) graphics to highlight the key messages, and creating slides with what I felt to be more accessible terminology and information. I edited these slides each week
so that it flowed with the tone of my personal style of teaching, although the foundations remained that of the content provided on Blackboard. My intention was to create a teaching platform where my style did not have to change but provide a situation where active learning by the students could take part. By presenting slides with information that were not going to be published online I hoped that this would incentivise the students to observe (Kolb’s stage 1 and 2) and take notes (stage 3) on the tutorial before applying them practically (stage 4) – therefore taking the students through each stage of the learning cycle (Kolb, 1984).

Since implementing this practice I noticed some change in my classes. Students were no longer using their computers to listlessly click along through the materials with me, or to use the internet for non-tutorial browsing. They had noticed that the slides that I presented were annotated to the ones provided on Blackboard and began editing their own slides while I talked through them. I told them that, although the concepts were the same in both presentations, my annotations were there to provide extra clarity and tips helpful for deeper learning. They had already, of course, the notes provided for them on the blackboard, however, I was also offering them extra learning experiences to engage with. While there was no formalised feedback requested from the students, the murmurs that floated up to me were positive.

A general theme that arose in my informal discussions with my students was that they valued my efforts in trying to create a more engaging tutorial presentation, and that my method ‘forced’ them into paying attention and taking notes. While this may not tackle the underlying issue of changing students’ attitudes to the subject of statistics, perhaps at least this type of teaching practice will at least promote engagement of Kolb’s four stages of learning (1984).

Looking forward to my professional development I would like to be able to teach in a manner that addressed the issue of how we can enable students to embrace the attitudinal goals of viewing statistics (Garfield, 1995). Reflecting on my still very new role as an associate tutor I know that I will continue to improve this nuance of my teaching as I build in confidence of my academic identity and teacher status.

Technology – a ‘marked’ difference

Part and parcel of teaching is the dreaded marking, however, prior to this experience I was hesitant on the use of online, electronic marking used at my university. I held the firm belief that I preferred reading and editing with the traditional practice of pen to paper, and felt that reading 24 research reports off a computer screen and fiddling around with electronic editing tools would reduce the efficiency of my marking. The first report I tackled took me over an hour as I attempted to familiarise myself with the online system, but after the initial resentment over the use of electronic marking I realised how beneficial it actually was. As a postgraduate student I now spend the majority of my time typing up various manuscripts towards my thesis, therefore, I was adept at typing quickly, and I realised it was a lot less time and energy consuming than writing. Moreover, once I had finished marking a report I was able to view a complete PDF version of the coursework with all my comments succinctly integrated with the student’s work. Students have also voiced their satisfaction with the electronic form of marking, highlighting the ease of accessibility, and the clear and formalised pages of feedback. I would now recommend electronic marking in future opportunities, and I would look to advance my knowledge of Blackboard and Rubrics so that I can supply students with better learning tools and feedback.

I have recently been introduced to Prezi (www.prezi.com), a presentation software and storytelling tool for disseminating information to rival PowerPoint. Unlike PowerPoint, which presents each slide of information in a linear format, Prezi
employs a ‘zooming’ interface which allows presenters to zoom in and out of the media, allowing for directional navigation that is almost perceived as three-dimensional (Perron & Stearns, 2010). I consider that perhaps Prezi may be a future tool in facilitating learning as it moves away from the overused and constricting linear fashion of PowerPoint presentations (Adams, 2006), and instead brings a visual ‘mind map’ to teaching materials. The PGCTHe has highlighted the importance of utilising learning technologies as a facilitator for learning and to take ownership of our teaching, therefore my action plan is to begin experimenting with Prezi as an avenue for enhancing the student learning experience in my future practice.

Final thoughts
I take this final moment to reflect on my experiences with the PGCTHe. Firstly, I am more aware of the ownership I should take with my teaching via means of learning technologies, engaging in theories of learning, and evaluating my own teaching styles as a facilitator for student learning. It has helped bridge the knowledge gap between what I perceived as the teacher role from my previous student position, and how I am meant to engage with the teacher role in my current academic position. Also, having the opportunity to identify areas for development, as well as taking the time to reflect on my successes, has been a new and fulfilling activity. While the reflective writing form is rare in science-based academia, I have found that this process has been almost akin to psychological research report writing. I have had the opportunity to describe my experiences in the sense of what I did and why (i.e. methodology), what happened because of it (i.e. results) and evaluate my philosophy and practice (i.e. discussion). Finally, I have identified key areas of development (i.e. limitations) and how I can plan for future practice. By coupling my psychology-trained analytical thinking and the reflective practice I look forward with confidence to the development of my role as a facilitator for student learning.

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References
The concept of narcissism is not easy to define. Over the years, the term was used to refer to a pathological self-absorption, a need for admiration and reactiveness to criticism but also to fragile self-views and introversion (Cooper, 1998). Although theorists differentiated between ‘grandiose’ and ‘vulnerable’ narcissists, both types were known to share beliefs about being more valuable than the others and to often experience feelings of entitlement (Cooper, 1998). Recent research has suggested that narcissism should be viewed as a continuum rather than as a discrete category (Miller & Campbell, 2008).

Historic definitions and the psychodynamic approach
Historically, the term was coined by Freud (1914) after the Greek myth of Narcissus. According to the story, Narcissus was a handsome youth who was so in love with himself that he eventually wasted away to death because of being hypnotised by his own reflection in the water. Moreover, before the incident, he was continuously rejecting the love and intimacy of the people around him because he believed they were not worthy of his commitment. Thus, in his book On Narcissism: An introduction (1914, 1957), Freud distinguished between ‘attachment’ and ‘narcissistic’ type individuals. It was suggested that the ‘attachment’ type directed their love outwards whereas the narcissist directed it to the self. In respect to psychodynamics, Freud hypothesised that the latter would result in the narcissist either seeking partners that resembled him/herself (what one is) or what they used to be (what one was) or their ideal self (what one would like to be) (in Campbell, 1999). Furthermore, Kernberg (1974, 1975) viewed narcissism as a defense mechanism against abandonment which appeared in childhood when the infant did not receive the necessary care and love from the parent (in Campbell, 1999). Consequently, the ‘ideal’ romantic partner had to compensate for the emotional emptiness of their childhood. However, once the partner’s flaws had been spotted, the narcissist would put an end to the relationship. Thus, this theory explained why narcissistic individuals avoided close intimacy (in order for them to protect from abandonment) and provided insights into their emotional state. According to Kernberg ‘underneath the inflated self-image, the narcissist [was] constantly... experiencing intense feelings of fear, abandonment and doubt’ (Campbell, 1999, p.1255). Furthermore, Kohut (1977) proposed that narcissism always occurred in infancy and manifested through ‘mirroring’ (seeing the self through the feedback received from the parent) and ‘idealisation’ (perceiving the parent as perfect) which both started to diminish in adulthood. However, the lack of appropriate feedback in childhood would result in holding the unrealistic image of self and others as a grown-up (in Campbell,
Therefore, the psychodynamic theories identified two main aspects of the narcissistic personality – a necessity for admiration and approval (mirroring) and an implicit association between the self and other idealised images.

**Narcissism and romantic relationships**

Considering the self-serving attitudes employed by narcissists in their social relations, an idea can be derived about their affiliations with romantic partners. Campbell (1999) proposed that these were based on a self-orientation model – narcissists would be more attracted to partners valuing the self rather than partners orientated to the relationship. Moreover, she hypothesised that the narcissistic romantic preference manifested through ‘admiration’ and ‘identification’. On first place, narcissists needed someone to maintain their high self-perception by admiring and praising them. However, according to ‘the self-orientation model’ the association with the partner was also extremely important, since as suggested by psychodynamics, this identification was their main self-concept enhancer. Furthermore, Campbell (1999) supported her model with empirical evidence. On the whole, it was found that there was no statistically significant difference between the preference for caring and perfect partners, still overall higher ratings were assigned to the caring in comparison to the admiring strangers. Moreover, the results suggested that narcissists, regardless of gender, were attracted to partners possessing highly desirable characteristics like ambition and physical attractiveness, as opposed to non-narcissists who valued more, caring and considerate targets. In two similar studies Campbell (1999) demonstrated that narcissists also displayed a preference for ‘admiring’ mates. Furthermore, through meditational analyses the researcher discovered that the narcissists’ romantic attraction was driven by a strategy for self-enhancement. Additional support for the ‘self-orientation model’ came from a recent study conducted in Thailand (Tanchotsrinon, Maneesri & Campbell, 2007). When asked to make a choice between an admiring, perfect, caring and a needy partner, the Thai narcissists displayed a stronger attraction to the admiring and the perfect target compared to non-narcissists. However, since the study was carried out in a collectivistic culture, there was a general preference for the caring partner. Still, likewise their American counterparts, very few participants chose the needy mate for a potential romantic affiliation.

**Our research methods**

The present experiment is a part of an independent research project I undertook in my second year of my BSc Psychology degree at Goldsmiths, University of London. It was a direct replication of the experiment by Tanchotsrinon, Maneesri and Campbell (2007). The study investigated the effects of the romantic preferences of people with narcissistic and non-narcissistic personalities in an individualistic culture (Britain). We measured narcissism in 60 native British participants (33 female; 27 male) aged between 19 and 40. All participants were Goldsmiths undergraduate students and were obtained via opportunity sampling. They were not paid for their participation. Each of them was tested individually by the experimenter.

Narcissism was measured by using the Narcissistic Personality Inventory (NPI; Raskin & Terry, 1988). NPI consisted of 40 forced-choice items with ‘0’ being the minimum and ‘40’ being the maximum possible score. Based on Campbell (1999) in the present sample high narcissism scores were equal to 18 and above and low narcissism scores were equal to 12 and below. Similarly to Campbell (1999) and Tanchotsrinon et al. (2007) participants were presented with a written scenario of a party where they imagined that a friend of theirs introduced them to four strangers of the opposite sex (targets). The new acquaintances possessed different attributes – one was a model of the perfect partner, another was admiring the participant, the next was a caring partner.
whereas the last was emotionally dependent (a needy partner). The four targets were introduced by initials (e.g. J.B.), as described in Campbell (1999), so that an opposite sex interpretation of the person could be made. At the end, participants completed a dependent measure of attraction for each of the four hypothetical partners, presented in a random order. It consisted of five questions reproduced from Campbell (1999) which required the participants to rate how attractive they found each of the four strangers (e.g. ‘How desirable would you find this person as a dating partner?’) on a scale from ‘1’ (not at all) to ‘7’ (very much).

**Findings and implications**

Analysis of the data with a 2 (narcissism: high vs. low) x 4 (target: admiring vs. perfect vs caring vs needy) mixed ANOVA revealed a statistically significant main effect of type of target, \( F(3,120)=70.68, p<.001 \). The perfect target was preferred more than the caring \( t(41)=3.07, p<.004 \) and the needy, \( t(41)=12.94, p<.001 \), (alpha=.008). Moreover, the needy partner was the least liked since this target was also given lower ratings in comparison to the admiring, \( t(41)=10.95, p<.001 \) and the caring partner, \( t(41)=13.55, p<.001 \), (alpha=.008). There was no statistically significant main effect of narcissism \( (p>.71) \). Still, the results revealed a significant Narcissism x Target interaction, \( F(3,120)=70.68, p<.001 \) (see Figure 1 overleaf). Further pairwise comparisons (Bonferroni corrected alpha=.0042) demonstrated that participants with high nPI scores preferred the perfect partner to the caring, \( t(28)=5.61, p<.001 \) and the needy, \( t(28)=14.79, p<.001 \). Moreover, the admiring stranger was also given higher ratings as compared to the caring, \( t(28)=4.31, p<.001 \) and the needy \( t(28)=11.77, p<.001 \). The narcissists also preferred the caring to the needy partner, \( t(28)=10.73, p<.001 \). Pairwise comparisons (alpha=.0042) revealed that the participants with low nPI scores rated the caring partner higher than the perfect, \( t(12)=3.77, p<.003 \), the admiring, \( t(12)=7.10, p<.001 \) and the needy, \( t(12)=8.37, p<.001 \). As in the narcissistic group, the needy target was also less preferred than the perfect \( t(12)=8.25, p<.001 \) and the admiring \( t(12)=6.13, p<.001 \) partner.

Our results were consistent with the two experimental hypotheses. Firstly, narcissists demonstrated a greater attraction to self-orientated targets – mates that either met their criteria for ‘ideal’ or ones who were ready to praise and admire the narcissist. On the other hand, as predicted, individuals who scored low on the Narcissistic Personality inventory preferred partners offering intimacy by being caring and friendly. Finally, as found by Campbell (1999) in the US and Tanchotsrinon et al. (2007) in Thailand, neither the narcissistic nor the non-narcissistic participants liked the needy target.

Thus, the results fit well in the general findings by Campbell (1999) and Tanchotsrinon et al. (2007) the study replicated here. However, Campbell’s (1999) work, which was also carried out in an individualistic culture (the US) suggested that the highest attraction ratings should be given to the perfect and the caring targets, whereas the present experiment revealed a different pattern of attraction. Still, our other findings were consistent with the two target studies. Hence, the data supported the proposition that narcissists preferred partners enhancing their self-concept by the means of admiration and identification as opposed to non-narcissist who valued more the qualities of being considerate and caring in their romantic mates.

**Linkage to psychodynamic theories**

The present findings fit with psychodynamic account of narcissism and with other psychological investigations into the specificity of the narcissists’ interpersonal affiliation. For example, the higher ratings given to the perfect target supported Freud’s proposition (1914; 1957) that narcissists were orientated to partners representing their ideal self. Moreover, the fact that participants with high nPI scores were significantly less...
Figure 1: Estimated marginal means for the admiring, perfect, caring and the needy target in the narcissistic and the non-narcissistic condition.

generous in their ratings to the caring partner implied Kernberg’s (1974, 1975) theory of narcissism as a defense mechanism. Possibly these individuals were avoiding targets, offering self-disclosure and intimacy as a means of protection against experiencing anew the emotional void of their childhood. Another explanation could be that the caring partner was less enhancing for the narcissist’s self-concept (Campbell’s self-orientation model) and thus were found not that appealing. This view is consistent with the investigations by Emmons (1984/1987) and Raskin and Shaw (1988) which demonstrated that narcissists self-reported higher self-esteem and were excessively self-centered. In addition, the observed preference for an admiring partner in the narcissistic group justified Kohut’s (1977) explanation for narcissism as originating from the unresolved idealisation in infancy. The fact that neither narcissists nor non-narcissist liked the needy target was also revealed in Campbell’s (1999) and Tanchotsrinon and colleagues’ (2007) experiments. Possibly, this partner was found
the least appealing since s/he was demanding and required the participants’ cognitive and emotional energy. In regard to the presented studies the observed attraction ratings could be even better understood.

**What does this mean in practice?**
The present findings provide insight into the specificity of the narcissistic romantic preference and affiliation. As Kernberg (1974, 1975) suggested, narcissists desperately sought for perfect partners. However, once the flaws of their romantic mates became visible to the narcissists they were very likely to end the relationship. Thus, such investigations supply information about the durability (or the lack of such) of the intimate affiliations of people with different personalities. Moreover, an idea could be derived about the narcissists’ reliability as partners in a relationship, since they were very likely to split with their mate once their ideal image had been destroyed. Furthermore, the fact that narcissists actively avoided the caring and the needy targets implied that those individuals were self-centered or even hostile in the relationship. As suggested by Carroll (1987) narcissists had a pervasive need for dominance over the others and did not display any need for intimacy (in Campbell, 1999). Moreover, the present study supported the mechanism through which the narcissists’ romantic affiliation might work – the relationship would last as long as the other partner was constantly praising the narcissist or responded to their image of an ideal mate. In this sense, Kernis and Sun’s (1994) finding that the type of feedback (positive or negative), received by a target, determined whether s/he would be liked by the narcissist, provided additional support for this view (in Campbell, 1999).

**Future directions**
In the future it will be interesting to investigate what will happen if instead of written attraction scenarios, the participants were choosing between real romantic targets. This would permit investigating whether other factors such as the confederate’s physical attractiveness would influence the narcissists’ perceived desirability of the four targets. In addition, future research could analyse if demographic variables such as the narcissists’ age or occupation affected their romantic choice. For instance, are narcissistic teenagers more likely to display preference for perfect and admiring partners? Or are older narcissists more mature in their choice in respect to changed values and priorities such as being married and having children? Another idea is to investigate whether the observed narcissistic inclination for mates is limited just to the attraction process or it is deterministic of their true choice of partners.

**Conclusions**
All in all, the present findings significantly supported most of the previous work on the topic. As predicted, the narcissists’ romantic preference was driven by a self-enhancement strategy. Therefore, the most appealing partners to them were the target providing the opportunity of a positive association with the self (a perfect target) and the one amplifying the narcissists’ self-esteem by constant praise and admiration (an admiring target). In contrast, non-narcissists differed significantly since they valued partners possessing qualities such as being sensitive, sharing and caring (a caring target). The present study provided insights into the mechanisms of the narcissistic romantic affiliation and the narcissist’s role in the relationship. Future studies should attempt to investigate other factors influencing the identified specificity of the interpersonal relations of people high in narcissism.
References


Discussion paper:
The science behind facial first impressions
Clare Sutherland

ACES offer a wealth of social information, for example, offering cues to age, gender, ethnicity and emotional expression (Bruce & Young, 2012). However, when perceiving a face, perceivers often go further than these relatively objective judgements, but also spontaneously form a first impression of the target by judging them on traits such as trustworthiness or competence (Todorov et al., 2005; Willis & Todorov, 2006). In research looking at these facial first impressions, participants are usually asked to judge traits from photographs of strangers’ faces, similar to our everyday experiences when we browse online. For example, we can form facial first impressions when reading a news report with an accompanying photograph, when Facebook stalking friends’ of friends, or if we are part of the estimated half of British adults currently looking for a relationship who have tried online dating (YouGov, 2014).

Facial first impressions are a hot topic: in fact, a Google search for first impressions of faces returns over 25 million results. We care about what people think of us when we first meet – just look at the number of self-help books, blogs and articles advising on how to make a good impression (e.g. Forbes, 2014; wikiHow, 2014). But are these impressions accurate? And what lies behind them? In this review, I will cover these questions as well as outline some of my own PhD research at the University of York.

Are facial first impressions accurate?
Maybe the first question people ask is, are our facial first impressions accurate? I will try and briefly summarise research on this, but it’s currently a mixed picture.

Some studies have shown that we can make some personality inferences from faces. For example, observers seem to be better than chance at judging Big 5 traits of extraversion and conscientiousness from targets’ faces (Borkenau & Liebler, 1992; Little & Perrett, 2007; Penton-Voak et al., 2006). The evidence is more complicated for the other Big 5 traits – agreeableness, neuroticism and openness to experience – but observers are sometimes also above chance at judgements of these (Borkenau & Liebler, 1992; Little & Perrett, 2007; Penton-Voak et al., 2006). There may, therefore, be a ‘kernel of truth’ (Penton-Voak et al., 2006) in the idea that we can accurately judge others’ dispositions from their face or other minimal information.

Outside of first impressions of personality, it seems that people are perhaps able to use facial photographs to accurately tell sexual orientation (Rule, Ambady & Hallett, 2009; Rule et al., 2011) and political affiliation (Rule & Ambady, 2010). Here, accuracy refers to correctly identifying the targets’ self-indicated sexual or political orientation. One study found that observers’ ratings of perceived facial intelligence accurately predicted male, but not female intelligence, as measured with an IQ test (Kleisner, Chvátalová & Flegr, 2014). However, it seems that people are not accurate at telling how trustworthy someone is from facial photographs (Bonnefon, Hopfensitz & De Neys, 2013; Efferson & Vogt, 2013; Rule et al., 2013). In these studies, target ‘trustworthiness’ was measured objectively through targets’ behaviour in economic trust games, by looking at targets’ cheating behaviour on a test or by comparing target photographs of criminals.
and non-criminals (Bonnefon et al., 2013; Efferson & Vogt, 2013; Rule et al., 2013).

Importantly, accuracy also probably depends on the sample of face photographs used, since there is often as much variability between judgements of photographs of the same person as between judgements of photographs of different people (Jenkins et al., 2011; Todorov & Porter, 2014). As well as this, a group of raters might be accurate when their individual ratings are averaged together, but that does not imply that each individual rater is necessarily especially accurate (Todorov, Said & Verosky, 2011). So our facial first impressions might only be valid given a particular photograph and at the level of the group judgement.

**First impressions matter**

So if these facial first impressions are not necessarily valid, why do they matter? Anecdotal evidence tells us that a lack of accuracy doesn’t stop people from feeling confident in or acting on their first impressions. As Brunswik outlined, cue validity and cue utilisation are not synonymous (Brunswik, 1956).

Unfortunately, it seems that people use facial first impressions to make a variety of decisions that may not be optimal. For example, Todorov and colleagues (2005) showed that first impressions of politicians’ facial competence made only from photographs predicted the outcomes of political elections in the US. Remarkably, nearly 70 per cent of 2004 Senate races could be correctly predicted this way, ahead of the actual political outcome. This suggests that snap judgements made from candidates’ facial appearance play some role in choosing future political leaders (Todorov et al., 2005). This finding extends beyond American elections, with facial judgements predicting which candidates would win elections in Mexico and Brazil (Lawson et al., 2010), France (Antonakis & Dalgas, 2009) and Britain (Mattes & Milazzo, 2014) among others. In fact, Antonakis and Dalgas’ (2009) study is particularly striking because their participants were children, whose facial judgements still tracked the outcome of political elections.

Other, equally impressive results have been found, implicating facial first impressions in a number of other important decisions. For example, facial first impressions of babyfacedness (i.e. facial immaturity) predict court decisions (Zebrowitz & McDonald, 1991), facial first impressions of an applicant’s trustworthiness predict likelihood and amount of peer-to-peer financial lending (Duarte, Siegel & Young, 2012; Yang, 2014) and facial attractiveness influences hiring and promotion decisions (Gilmore, Beehr & Love, 1986; Hochschild & Borch, 2011; Lutz, 2010).

**Theoretical models of facial first impressions**

Alongside this considerable applied interest, psychologists have been interested for decades in building models of how we make first impressions. In the 1950s, Secord listed a number of mechanisms of first impressions, such as *overgeneralisation*, where you over-learn the relationship between a cue and a trait (Secord, 1958). For example, if a person learns that a smiling expression usually means that the person has a friendly nature, when they meet people with an emotionally neutral face that resembles a smiling expression, they assume that these people must be friendly. In this case, the smiling cue is so strong that it extends to non-emotional expressions that only bear some resemblance to a real smile (Zebrowitz & Collins, 1997). Zebrowitz and colleagues have also described other over-generalisation mechanisms, such as overgeneralising cuteness cues shown by babies (e.g. large cheeks, big eyes) when making first impressions of adults (Berry & McArthur, 1986).

Recently, Oosterhof and Todorov (2008) introduced a model of the content of first impressions – explaining these through dimensions which seem most important. They used a principal components analysis to reduce a large number of trait ratings of face photographs into underlying dimensions. They found two dimensions, which seemed

to map on to trustworthiness and dominance. Trustworthiness seems to correspond to a snap judgement of someone’s intentions towards you (do they want to hurt or help you?) and dominance seems to index someone’s capability in carrying out these intentions (can they hurt or help you?). Oosterhof and Todorov (2008) argue that these two dimensions together represent the evaluation of threat – because someone who can carry out harmful intentions towards you (a person with a dominant, untrustworthy looking face) is definitely a potential threat. This has clear evolutionary implications since it’s probably fairly important for our survival that we can recognise people who might pose a threat. However, this seems like a paradox with what we discussed before: how can we be so inaccurate at trustworthiness judgements if these are so important? One answer might be that it might be better for us to be extra-sensitive to these dimensions at the negative end, which Oosterhof and Todorov (2008) also found, at the expense of accuracy per se. In addition, it might also be better for us to be sensitive to impressions of threat as they occur in the moment, at the expense of being always accurate about stable dispositions (overgeneralisation again).

To date during my PhD, I have started looking at first impressions of varied, ‘ambient’ images of faces – the kinds of varied photographs you actually see on the internet, rather than tightly controlled laboratory images (see Burton, Jenkins & Schweinberger, 2011, for the concept of ambient images; see Figure 1 here for an example). While using tightly controlled images offers great experimental control and can pick up on even really subtle cues, by complementing this approach with more varied, natural images, we can ascertain which cues or judgements are likely to normally occur. In fact, using these ambient images of faces, my colleagues and I replicated Todorov’s trustworthiness and dominance dimensions, but we also showed that a third dimension, attractiveness, captured some of the variance in people’s facial judgements (Sutherland et al., 2013). This makes sense, because attractiveness would seem to be a separate judgement to the threat model described by Oosterhof and Todorov (2008). Attractiveness first impressions are probably important in sexual selection (see Sutherland et al., 2013, for more details).

Figure 1: (A) A standardised facial photograph of the author (non-smiling, frontal facing), similar to the types of face photographs normally used in face perception experiments. (B) A naturalistic ‘ambient image’ facial photograph of the author, taken from the internet. Lighting, hairstyle, pose, facial expression and paraphernalia such as jewellery or glasses are not controlled, among other cues.
Next steps
Most of the work on facial first impressions has involved examining the consequences of making these judgements, or the facial cues involved. However, it seems likely that these judgements are not static, but affected by perceiver and facial context. The next stage of my research will tackle these sorts of questions. For example, are the two (or three) dimensions identified in current studies always the most important ones? How do the cues used depend on the face or perceiver? Are there top-down effects of prior knowledge or stereotyping?

I have been looking at some of these questions in my PhD by examining how spontaneous first impressions differ depending on the gender or culture/race of the face and the perceiver (Sutherland et al., in press). This builds on other ideas of Secord (1958); for example, that another first impressions mechanism is categorisation, where perceivers generalise from prior knowledge about social groups. We are starting to realise that there is a close overlap between semantic stereotypes about groups, such as nurses or lawyers, and the facial representations of these groups (Oldmeadow, Sutherland & Young, 2013).

Conclusions
Facial first impressions research is at an exciting stage. We know that these impressions have real-world impact, and we’re beginning to understand how and why these impressions are made, and to what extent these impressions are accurate. It’s also clear that research in this field can have considerable financial impact, which companies are starting to exploit – for example, https://www.photofeeler.com allows you to get your own face photographs rated.

If you have found this article interesting and want to learn more or to take part in online experiments, please email me! I’m always looking for people to give their first impressions of faces.

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AUTISM SPECTRUM CONDITION (ASC) is a lifelong developmental condition that affects the individual’s ability to understand and reciprocate social interactions, along with restricting the individual to a narrow set of interests or preferred activities (APA, 2013). Much of the research assessing the ability of those with ASC has focused on the impairments that arise when identifying and interpreting the meaning of social information such as facial expressions (Ashwin et al., 2006; Celani, Battacchi & Arcidiacono, 1999; Harms, Martin & Wallace, 2010; Joseph & Tanaka, 2003). It is also important, however, to understand where these impairments may arise and originate from as this could lead to intervention. One suggestion is that the mechanisms that underlie the ability to attend to social information could be impaired (Dawson et al., 2005; Elsabbagh et al., 2012). Deficits in attention then lead to the development of further impairments with social information such as emotional expression processing and understanding the beliefs, intentions and mental states of others. Indeed, those with autism have been shown to pay limited attention to social stimuli compared to non-social stimuli (Maestro et al., 2002; Moore, Heavey & Reidy, 2012; Osterling, Dawson & Munson, 2002), especially when observing social scenes (Klin et al., 2002). Home videotapes of children who were later diagnosed with autism show that they do not orient or pay attention to others calling their name (Osterling & Dawson, 1994).

Autism is a spectrum disorder that not only varies in severity between those with a diagnosis, but it is also suggested that family members of those with autism and even members of the general population will show autism specific traits (Baron-Cohen et al., 2001; Bolton et al., 1994; Hurley et al., 2007; Kanne, Wang & Christ, 2012; Nishiyama et al., 2014; Piven et al., 1997). Evidence for this originated from familial studies of those with autism that have shown that some difficulties representative of the disorder also affect first order relatives to a milder extent. For example, when exploring the heritability of autism, Folstein and Rutter (1977) showed that twin siblings of affected individual had similar cognitive deficits to those with autism, but to a much milder extent. In addition, parents of those with autism have been rated as more ‘aloof’ than control parents (a trait associated with autism, especially the diagnosis of Asperger’s syndrome) (Piven et al., 1997). With special regard to the social attention, siblings of people with autism have been shown to reciprocate fewer emotional expressions and show less joint attention than siblings of non-autistic individuals (Cassel et al., 2007). Such siblings have been shown to have abnormal brain activity (event related potentials) in response to direct gaze; a strong social cue (Elsabbagh et al., 2009). Research such as this supports the view that the difficulties associated with autism stretch beyond those who have a diagnosis and affect individuals in the general population.

In order to validate wider spectrum of autism traits, it needs to be shown to extend further than those directly affected by the disorder. When examining only family members of affected individuals, it could be suggested that these individuals are not a ‘pure’ example of a distribution of autism-like traits in the wider population. For example, siblings and parents of people with...
ASC have been living around ASC-like behaviours. As such, it cannot be robustly determined that ASC-like behaviours observed in family members are anything more than an environmental influence. To report the existence of a wider spectrum of autism traits, evidence of mild levels of autistic symptomology needs to be demonstrated in the general population.

The Autism Quotient (AQ; Baron-Cohen et al., 2001) was developed to do just that. Through examining the typical behaviours someone with autism might choose to engage with and the situations they might choose to avoid, a 50 statement questionnaire was developed which aimed to quantify the number of autism-like traits an individual possesses. This questionnaire included statements such as ‘I would rather go to a theatre than a museum’ and ‘When I talk on the telephone I am not sure when it is my turn to speak’ to which respondents have to rate their agreement with on a four-point scale. Research has shown that people with autism, as might be expected, score very highly on the AQ. More interestingly; members of the general public not related to an individual with autism obtain approximately normally distributed scores: suggesting a spectrum of traits associated with autism that varies throughout the general population (Baron-Cohen et al., 2001).

Building on this, research has shown that those individuals who have high traits of autism tend to perform differently on a range of tasks compared to those with fewer autism traits. Identifying emotional expressions has been shown to be an area of weakness for individuals with high traits of autism, who tend to make errors when judging negative facial emotion expressions of others (Li & Tottenham, 2013). Even when these individuals are able to correctly identify such nonverbal communication they often need stronger facial expression information to do so (Poljac, Poljac & Wagemans, 2012). There is some research that suggests that this impairment could relate to defective attention mechanisms. For example, people with high autism traits have shown an increased propensity for fear conditioning, suggesting that they might pay increased attention for fearful faces (Miu, Pana & Avram, 2012). In the social domain, people with a greater number of autism traits do not show the preference for direct gaze that individuals with fewer traits display (Chen & Yoon, 2011; Freeth, Foulsham & Kingstone, 2013). Interestingly, however, high autism trait individuals do not seem to have this difficulty in real-world situations (Freeth et al., 2013). This might suggest the point at which the wider spectrum of autism traits stops being a continuum of differences within a normal population and starts becoming a clinical impairment diagnosable as autism.

As part of the author’s PhD thesis, we explored the autism spectrum by examining the ability to attend to emotional expressions first in those with high traits of autism and then in individuals diagnosed with ASC using a pictorial dot probe task. The dot probe exploits the restricted ability of attention to focus only on one aspect of the environment and then uses this to assess what attention preferences people have developed (Moore et al., 2012). By presenting two images on the screen simultaneously before removing these images and presenting a target (or probe) in place of one of the images, we are able to assess which image preferentially captures attention. In short, the probe that is presented in the area of the image a person was attending to will be responded to quickly whereas one presented in the location that wasn’t being attended to will be responded to at a slower rate. In the current study we always showed two expressions. One of these expressions was always a neutral and non-expressional face whereas the other was an expressional face that was either displaying a positive (happy) or a negative (angry) expression.

It was found that individuals with high traits of autism (N=24) preferentially attended to emotional expressions regardless of valence (t(23)=2.33, p<.05). That is, those who scored highly on the AQ attended...
to the emotional face over the neutral one regardless of whether the emotional expression was positive or negative compared to those with fewer traits of autism \((N=25, F_{(1,40)}=4.32, p<.05)\). In a second study assessing the same effect in a group of individuals with ASC \((N=22)\) compared to matched controls \((N=20)\), a significant interaction between group and expression valence showed that those with ASC did not pay preferential attention to emotional expressions in particular \((F_{(1,39)}=4.14, p<.05)\). Although the data showed that behaviour was in the direction of paying attention to positive expressions and biasing attention away from negative expressions, this bias was not significant \((all p's>.05)\). Nevertheless, when directly comparing the two valences used in the study, those with ASC paid significantly less attention towards negative emotional expressions compared to positive expressions \((F_{(1,20)}=8.76, p<.05)\).

These results suggest that those with high traits of autism may have mechanisms in place that direct their attention towards stimuli they have previously been found to be inherently disadvantaged at identifying and interpreting. This strategy would be advantageous as it would maximise processing time of emotional expressions in these individuals. As we do not see this effect in people diagnosed with autism, we could potentially be witnessing the cognitive foundations of a protective factor in individuals who are most at risk of developing ASC. Indeed, as shown by Freeth et al. (2013), although participants with high traits of autism don’t seem to show a preference for direct gaze in a lab setting, they do not show this difficulty in the real world. This supports the idea that those with high traits of autism have protective cognitive mechanisms that direct their attention to areas of difficulty. The current work looked at this effect over two different studies (albeit with the same methodology). A tightly controlled replication where people with high traits of autism are directly compared to those with ASC would help to add support to the current interpretation of these results. Further to this, by simultaneously assessing event related potentials associated with attention in these groups, future research may be able to test the neural basis for such protective factors.

In closing, preliminary research presented here points to a difference in the way people with ASC and those undiagnosed but with high traits of autism are hardwired to attend to the social world around them. Those with ASC were found to not pay any additional attention to emotional expressions whereas on the other hand those with high traits of autism seem to preferentially attend to facial expressions. This behaviour will allow such individuals to donate more cognitive resources to tasks that they may otherwise have difficulty with. The findings presented here, although preliminary, suggest that the spectrum of autism traits do not run fluidly into a diagnosis of autism. Instead it is suggested that individuals with ASC are people who are indeed at the higher end of the continuum (in whichever conceptualisation it can exist), but do not have the protective cognitive mechanisms that prevent against the negative deficits that arise as part of autism spectrum conditions.

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References


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**PsyPAG Bursaries**

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PEOPLE respond in a number of ways to restore a sense of justice and deservingness when they are faced with the misfortune and suffering of others (Lerner, 1980). Sometimes people perceive a misfortune as a result of previous, unrelated misdeeds (i.e. immanent justice reasoning; see Callan et al., 2014) or perceive that it will lead to later life fulfilment for a victim (i.e. ultimate justice reasoning; Lerner, 1980). That is, individuals can see a victim as getting their ‘just deserts’, so his/her misfortune is no longer perceived as undeserved, or see the ‘silver lining’ in a misfortune by reasoning that an injustice will be rectified in the future.

Despite a growing body of research exploring these concepts, little is known about how these responses to suffering and misfortune interact with one another. My doctoral thesis considers people’s varied reactions to instances of victimisation and, more specifically, how, when and why they operate. My PhD supervisor Dr Mitch Callan and I sought to extend the literature on immanent and ultimate justice reasoning in three important ways, by: (1) investigating the relationship between immanent and ultimate justice reasoning; (2) identifying the underlying processes that give rise to this relationship; and (3) examining whether immanent and ultimate justice judgements operate the same way when people consider their own misfortune, as when they are considering the misfortunes of others.

To investigate our experimental hypotheses, we conducted two empirical studies. In Study 1, 268 online participants were presented with a news article that described a fictitious victim of a car accident, Keith Murdoch, as either a respected swim coach (good person) or a paedophile (bad person; see Callan et al., 2013). We then assessed participants’ perceptions of how deserving Keith was of the accident (their immanent justice attributions) and how deserving Keith was of later life fulfilment (ultimate justice reasoning) via a questionnaire. As seen in Figure 1, our results suggested that participants engaged in significantly more immanent justice reasoning when the victim was portrayed as a bad rather than a good person, and significantly more ultimate justice reasoning when the victim was described as a good rather than a bad person.

In Study 2, we sought to conceptually replicate our findings from Study 1, in the context of participants’ considerations of their own misfortunes. That is, we investigated if immanent justice reasoning and ultimate justice reasoning operate in the same way when people consider their own misfortunes and self-worth, than if they were to consider the misfortunes and worth of another. That is, would people show a preference for immanent (ultimate) justice reasoning if they had a more negative (positive) view of themselves? We presented 202 online participants with Rosenberg’s (1965) 10-item self-esteem scale before asking them to think about their recent ‘bad breaks’ and answer a questionnaire similar to that used in Study 1. Our results showed that participants with higher perceived self-worth
responded with greater ultimate justice reasoning in regards to their bad breaks, whereas participants with lower perceived self-worth responded with greater immanent justice reasoning.

Furthermore, over both studies we found perceptions of deservingness mediated immanent and ultimate justice reasoning. That is, perceiving an accident as deserved mediated the effect of the worth of the victim/self on immanent justice reasoning, whereas perceiving the victim/self as deserving of later life fulfilment mediated the effect of the worth of the victim/self on ultimate justice reasoning.

In sum, our results demonstrate a hydraulic relationship between immanent and ultimate justice reasoning. That is individuals engage in one type of reasoning over the other rather than utilising both types of justice reasoning simultaneously. This hydraulic relationship between immanent and ultimate justice reasoning is motivated at least partly by perceptions of deservingness, when considering a misfortune occurring to oneself or to another. When a person, or the self, is seen in negative terms, they are perceived as deserving of their misfortune and people react with greater immanent justice reasoning rather than ultimate justice reasoning. However, a victim of high worth is seen as deserving of later life fulfilment and, therefore, people show a preference for ultimate justice reasoning over immanent justice reasoning.

These findings contribute to the literature in two important and novel ways. First, these findings add to the limited literature examining when, and for whom, different reactions to instances of misfortune are

Figure 1: Mean level of immanent justice (IJ) and ultimate justice (UJ) reasoning as a function of the victims' worth (low worth=paedophile versus high worth=respected swim coach) from Study 1. We used standardised scores because immanent justice attributions are typically endorsed at a low level in absolute terms (see Callan et al., 2014). Error bars show standard error of the mean.
apparent (e.g. Hafer & Bègue, 2005; Hafer & Gosse, 2011). As Hafer and Bègue (2005) argued, no one response is dominant across situations or individuals, and, therefore, multiple reactions should be assessed to gain a comprehensive knowledge of how people make sense out of and find meaning in suffering and misfortune. Our work takes one step in that direction by suggesting the worth of a victim is key to determining perceptions of deservingness, which in turn influences the extent of immanent and ultimate justice reasoning.

Second, the interactive pattern between the worth of a victim and type of justice reasoning we observed in Study 1 was replicated in Study 2 in the context of participants considering their own misfortunes. Although research into immanent justice reasoning has almost exclusively focused on people’s causal attributions for the random misfortunes occurring to others (Callan et al., 2014), we found that the same processes operate when people entertain the causes of their own random bad breaks, and personal deservingness plays a crucial mediating role in this relation.

Moreover, our findings may be important and applicable to understanding people’s coping and resilience in the face of personal suffering. As Study 2 demonstrated, people can adopt either an immanent or ultimate justice account of their own misfortunes, and related research has shown that doing so can either be detrimental or beneficial to one’s health, respectively, following an illness (e.g. Affleck, Tennen & Croog, 1987; Büssing & Fischer, 2009). Our findings suggest that people’s perceived worth and perceptions of deservingness are critical in determining the extent of each type of justice reasoning, which has the potential to impact a patient’s prognosis.

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References
Discussion paper:
The link between mental and physical health: Why are we still ignoring it?

Kate Leech

Parity of esteem

PARITY OF ESTEEM is ‘valuing mental health equally with physical health’ (Royal College of Psychiatrists, 2013), and there has been a large amount of discussion as to how this can happen in health care provision. There is currently a clear disparity between mental health and physical health services in the UK. Mental health problems have the largest disease burden (23 per cent) but this is not reflected in health care spending, as only 11 per cent of the NHS budget was spent on mental health in 2010/11 (Department of Health, 2011). The mental health burden in the UK is also getting bigger. For example, schizophrenia has increased by 14 per cent from 1990 to 2010 (Murray et al., 2013), so it is clearly an issue that cannot be ignored.

This problem is now widely discussed by mental health organisations and it has also been well recognised in government policy. It was included in the 2011 mental health strategy ‘No health without mental health’ and in the ‘Health and Social Care Act 2012’, and as a result the NHS is now required to tackle the inequality. In 2012 the Government asked the Royal College of Psychiatrists to develop a definition and vision of parity of esteem, and to create recommendations for movement towards parity. Parity of esteem seems to have been somewhat prioritised by the Government, but with cuts to inpatient beds and services such as early intervention, whether they are achieving parity is also debated.

The link between physical and mental health

In my opinion, it seems that much of the debate around mental health service provision is centred on getting equality for mental health, and this is an extremely important issue. However, we know that it is very common to have both a physical health problem and mental health problem at the same time. People with long-term physical health conditions such as cancer, diabetes or heart disease are two to three times more likely to have depression than people without (Naylor et al., 2012). There is undoubtedly a bidirectional relationship between physical and mental illness: where having one of these increases the risk of having the other (Prince et al., 2007).

Additionally, comorbidity can lead to worse outcomes. Physical health patients with depression are three times less likely to adhere to physical health care recommendations than patients without depression (DiMatteo et al., 2000). It can also affect life expectancy, for example, patients with congestive heart failure were eight times more likely to die within 30 months if they also had depression (Jünger et al., 2005).

From this research we can see that there is a bidirectional relationship between physical and mental health, leading to worse treatment and prognosis. So it seems that not only do we need equality between physical and mental health services, but also to give value (and funding) to the area of overlap where the interactions between
physical and mental health occur. It is not a competition between the two teams of ‘physical health’ and ‘mental health’ when many people are in both teams.

There is some consideration given to this issue in Government policy. One of the six priorities in the 2011 mental health strategy is that ‘more people with mental health problems will have good physical health’. Additionally the 2014 Government document Closing the Gap: Priorities for essential change in mental health highlighted 25 areas for change, one of which is ‘mental health care and physical health care will be better integrated at every level’. This includes having adequate psychiatric liaison services, mental health training for physical health staff and extending GP training to include more mental health training. Both of these documents show that the interaction between mental and physical health is being considered at some level by the government. However, these documents are quite vague and require further consideration and improvement. In my opinion they need to cover a much wider range of improvements, particularly focusing on utilising the knowledge we have about the interactions between physical and mental health. For example, physical health services having and using the knowledge that mental illness can reduce adherence to medical regimens. It may not be enough to just educate staff and expect to see change; it needs to be a systemic change, running throughout services and the NHS as a whole.

The NHS is currently structured to treat physical and mental health separately. This is a major problem. The knowledge of health professionals is consequently generally limited to their own specialisms, with neither necessarily knowing much about how physical and mental health problems affect each other. In my experience there is limited communication between services, and many physical health services aren’t aware of what mental health services are available for their patients, especially IAPT.

Within the NHS there are few services and structures in place to support the link between physical and mental health. One service that does focus on this issue in the NHS is Liaison Psychiatry. Liaison Psychiatry is a service that uses psychiatric assessment and treatment in non-psychiatric settings, which is mostly in hospitals (Ruddy & House, 2006). This is, however, generally only limited to those who are in hospital. There are also services such as Clinical Health Psychology but these services tend to be small and rare. One positive change that is happening is the introduction of IAPT for long-term physical conditions. IAPT is already treating patients for anxiety and depression (Radhakrishnan et al., 2013), and the expansion into treatment for long-term conditions is, in my opinion, a positive step towards supporting the link between physical and mental health. Overall it seems there are some services and professionals working in this area but we have a very long way to go to be able to support the thousands of people that have both physical and mental health problems.

What is missing?
As already mentioned, there is some movement in Government policy towards considering the interactions between physical and mental health, however, this is very limited and inadequate. The services already available do provide some support for this area but they are also too small or insufficient, and they don’t necessarily focus on how having a mental health problem affects physical health care, treatment and recovery, and vice versa.

One of the current problems is that physical and mental health problems are still mostly treated completely separately without effective (or any) communication between services. This problem is relatively easy to solve through better communication between services and staff training on how other health problems can affect the care and recovery of the health problem they are
directly treating. This would result in professionals being better able to provide effective and holistic services and treatment.

There are comparatively few health professionals and services that work specifically in the area of overlap between physical and mental health. Some professionals work within both areas of physical and mental health, but very few are dedicated to the actual interaction between the two. A theoretical and academic knowledge of the interactions between physical and mental health is needed. This can be (and already is) a role for many professionals including psychologists. Health Psychologists and Clinical Health Psychologists are well placed to be able to support improvement in this area. This could be in new specialist service development, in more effectively integrating services or in staff training.

The support for parity of esteem has been very strong and seems to be making an impact, which is fantastic. However, this is somewhat overshadowing the fact that we vitally need to consider the interactions between physical and mental health to be able to treat patients effectively and holistically. We know a lot about the interactions between physical and mental health, so why is this not reflected in our services? Improving communication between services, training staff, developing specialist services and using specialist professionals may be ways to improve this issue. We now need to work towards getting this into campaigns, policy and the NHS.

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References
KATE: Your seminal paper on IPA, ‘Beyond the divide between cognition and discourse’, was published in 1996 (Smith, 1996). How did IPA develop from there?

JONATHAN: Well one way was in response to interest from other people. I was getting increasingly busy with people asking me to do lots of workshops, first on clinical psychology doctorate programmes, then health psychology postgraduate programmes, and then for postgraduates from a wide range of areas. I’d be asked to do a workshop and it was clear that the students liked it. So I’d be invited back. And then some programmes recognised that they needed support for their staff, so staff development programmes happened. I can’t give numbers but it surprised me how quickly the number of students doing qualitative projects on these programmes accelerated. Also, as part of the conference circuit, when presenting my own work, I was asked to do workshops attached to the conferences. In this way, I moved from ‘I’m doing this because my PhD is important and I need to define what I’m doing in order to justify it’ to realising that there were quite a large number of other people who proactively wanted to know about IPA.

KATE: What do you think they valued about IPA?

JONATHAN: An interesting thing for me is that, although there was the 1996 paper and so on, there wasn’t yet a big corpus of empirical work. It’s quite a big thing for a course to say we’ll bring in this different way of thinking that hasn’t really proved itself. I guess there must have been some recognition on the part of courses that this spoke to their broader aims. There must have been some sort of network of people on courses who recognised IPA as potentially making a big contribution; enough of those courses then let students do it.

KATE: How long were you on this workshop circuit?

JONATHAN: For 10 years or so. At a certain point, it turned into me thinking that I needed to organise things differently; I wondered ‘how can this be done more efficiently?’ It became a matter of encouraging other people to do it so it wasn’t just me doing workshops. There are plenty of other people who can do it and now I’m trying to think more strategically about the best use of resources, thinking about advanced training, supporting people who are that bit further on, and also training the trainers so the courses own this more and do it themselves instead of requiring somebody to come in. I think that’s where probably more energy will need to be put in.

KATE: How did you develop the empirical corpus?

JONATHAN: At the same time as doing all the things we are already talking about, part of what happened in Sheffield was me looking at my own research programme and connections. For example, I made connections with a geneticist in Sheffield which led to connections with people doing work on psychology and genetics in London and so forth. I also

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Psychology People in Profile: Professor Jonathan A. Smith

Kate Doran

In the second of two interviews (Doran, 2014), Professor Jonathan A. Smith and Kate Doran discuss the development of Interpretative Phenomenological Analysis (IPA), its achievements and potential future directions.
began to supervise PhD students. For instance, Mike Osborn and Paul Flowers were two of my first PhD students. So there were also the beginnings of important IPA projects where it’s the other person’s primary project and I’m supporting that. So there was a body of work beginning to happen on multiple fronts really. At some point I recognised the value of being broad rather than narrow.

**Kate:** Do you think that was a consequence of your background?

**Jonathan:** What are you thinking there?

**Kate:** Through your English degree at Cambridge, you got a broad sweep through an extensive corpus of literature. In managing this, you would have had to create the structures around which you shaped your knowledge. I see that in your own work in psychology and wonder whether you see the value of the broad perspective as deeply rooted in your own experience, prior to IPA.

**Jonathan:** You know, you’re saying something there that I wouldn’t even have thought of, but I think it probably is the case. My initial academic grounding is not psychology, it’s a different way of thinking: it’s humanities based; it’s question based; it’s about depth of experience. And although that is a long time ago now and I have been a psychologist for far longer than I was in humanities; that way of thinking has influenced what I do and how I see things. So I see myself first and foremost as an experiential psychologist: I’m interested in human experience. It happens to be that the bulk of my work has been in what has been called ‘health psychology’. However, what is of much more concern to me is that I can see that there can be rigorous, systematic, detailed, psychological analyses of the human condition, regardless of the particular domain in which the experience under consideration is located. This means I am looking to a different sort of psychology, which asserts a much more central role to the importance of lived experience. Of course, this is not a project for just one person or one approach; the more people there are going in-depth in different areas, the better. You might think that’s a bit of a high-risk strategy because the danger is that these bodies of work are isolated and it remains fragmented. But if we look for example at the history of IPA, that doesn’t seem to have happened; it seems to have grown successfully in a more generic way.

**Kate:** Perhaps these various clusters could be construed as providing bases for a platform?

**Jonathan:** That’s true. And the growth has been large and widespread. I mean I did this evaluation...

**Kate:** In 2011?

**Jonathan:** Yes, and that was quite a conservative one just looking at peer-reviewed journals included in the major databases (Smith, 2011a, 2011b). Most of the work was from Britain with a spurt of work from other countries coming in at the end. Recently, somebody from France contacted me to say he was going to write something about IPA in Francophone countries, and so I just looked at the growth of papers beyond the UK since the cut-off for that review: it’s exponential! IPA is growing fast and the proportion of papers from outside the UK and also from countries whose first language is not English is growing within that. And if you look where things are happening discipline-wise, as well as continued growth in psychology, there are now large clusters of work happening in for example management, music education, health, nursing, sociology.

**Kate:** What do you see as IPA’s main achievements to date?

**Jonathan:** To have put an empirical, experiential, qualitative psychology fairly and squarely on the map. It offers a theoretically-informed, systematic, accessible approach to conducting research on lived experience. And there is now a large corpus of work making that project manifest. There are also resources to help researchers and readers work out what makes a good piece of research using this approach. And as a consequence of those things, most importantly, there is a set of clear, high quality studies using the approach to address a wide
range of significant questions about human experience.

I have to say I am amazed by the success of the 2009 IPA book (Smith, Flowers & Larkin, 2009). It has regularly appeared in the top three best sellers in broad Amazon categories like ‘research methods’. It makes sense to me that the book is doing well but the fact that the book is doing that well is extraordinary. But the book’s clearly speaking to a need.

Kate: What are some potential directions for future development?

Jonathan: I feel it’s really important that quality research happens. Up till now I have primarily taken the position that I want to encourage people to have a go at doing this thing called qualitative research. The field – and I don’t just mean IPA here, I mean qualitative psychology and/or experiential qualitative psychology – will only move forward if more people actually do it. It’s not enough to talk about what experiential psychology would be like and quote William James and historical analysis. It’s the doing of it that makes it manifest; and then it’s the dissemination of it. So, for example, it’s important that students do qualitative projects; and it’s important that a proportion of them, particularly at postgraduate level, are published.

Now there is a risk in this. Because there’s still not sufficient training, there’s neither sufficient confidence nor sufficient support. Therefore, much of the work produced is not going to be as good as it could be. How could it be? So there’s going to be a period of time where any, I think, objective assessment of it’s going to say ‘OK there is a lot of good stuff out there but there’s also quite a lot of mediocrity’. But if one looks at IPA, I think there is now sufficient work out there and there are sufficient markers of quality to enable people to see what high quality work looks like and to give them an idea of what they should be aspiring towards. With regard to markers of quality, I am thinking of those two 2011 evaluation papers, and also the ‘gem’ paper (Smith, 20011c) which highlights the potency of particular extracts in illuminating the research question. If you’re a new PhD student doing IPA now, there’s a lot out there to help you judge and improve the quality of your work: good exemplars; quality criteria; suggestions to help you do high-quality work. I think we’re at a point where it’s important that there is a lot of work happening, but it’s also important now that more of that is of high quality. I will get great pleasure if, as I hope, over the next five years, I see the overall quality of the work increasing even more. And as part of this push to showing what makes good IPA, I would encourage other people to take on little corpuses like I have done with the health experience work. Take another segment of a corpus of IPA and use the sort of criteria I have been articulating to evaluate the work and say ‘this is the good work, these are examples’ and then that helps the next generation of students in that area take off from a higher level. I’m confident that will happen; that’s what I’m in the business of encouraging.

Kate: What issues do you see arising from IPA beginning to take off in other disciplines?

Jonathan: I’ve said IPA is psychological. Well, what happens to the psychology if you’re in another discipline? I get a lot of emails from people asking ‘Can I do this in management?’, ‘Can I do this in music?’; ‘Can I do this in art therapy?’ and I’m beginning to say ‘you are being a psychologist with a small <p>’. What I mean by that is, I think it important that the psychological features of the content and process of inquiry are recognised: personal experience, empathic but curious engagement, sense making, idiosyncratic analysis. These are constructs that make IPA primarily psychological but don’t necessarily require a formal psychological training to do it. So if you are doing IPA in another discipline, you need to find a way of describing this that is comfortable for your discipline, but also keeps some of the psychology there so it doesn’t just become a ‘methodolatry’ or a package that doesn’t have a theoretical underpinning.
Kate: As an analogy, I think it’s quite important to understand the philosophy behind IPA. As a psychologist, I’m not a philosopher, but I’m a philosopher with a small <p>.

Jonathan: Yeah.

Kate: For me, there’s something fundamentally psychological about IPA because it is about the human being and the connection of human beings. It’s spoken from a particular awareness that can’t be learned merely by reading a set of steps in a procedural manual.

Jonathan: Yeah, that’s a really important point. You’re right, it’s partly about, you’re not carrying out a set of steps according to a cookbook, it’s recognising that IPA is a way of thinking, you enter, and also that the sort of themes one is talking about are experiential, idiographic, elemental. There’s a certain way of thinking and being that lends itself to doing good IPA. And what will help do that? You can read the books on doing it, you can read really good examples, you can read the philosophy, but there is still something else in terms of helping define what doing IPA is, or helping people take on that mantle. I think there’s still something quite hard to articulate to describe what it is. That may sound mysterious. I think it is mysterious.

Kate: I found it helpful to use some of the techniques described by Eugene Gendlin in analysing my interview transcripts. I think that having a practice is helpful, because IPA data analysis isn’t just a cerebral exercise.

Jonathan: That’s an important point. I’ve been trying to write material to help people do this work, and that which is hardest to write about is that which is more tacit, but still important. For example, I would say that I consider doing IPA interviewing involves entering something akin to a ‘sacred space’, a space that is special: enlivened and yet still and calm, meditative and yet active. And I know when I am in that space, it’s an extraordinary encounter that I have with the person. And something really peculiar also happens in relation to time, where you don’t know whether you’ve been there for half-an-hour or two hours or whatever. What makes that happen? Well it’s not just about learning the schedule. And reading Heidegger will help but not get you all the way there. Knowing the good IPA studies is also important but still doesn’t quite get at this special quality. So each of those things I have mentioned are important and necessary to do good IPA. But what I am saying is there is still something else, over and above them, which is the hallmark of really good IPA.

Articulating that’s going to be quite a challenge to do: honouring what is really particular about this, without it sounding incredibly magical and impossible. But as part of the tapestry, part of the repertoire, part of the menu of things that’s available, it probably would be a good thing.

The analogy is riding a bicycle. I learnt how to ride the IPA bicycle a long time ago and I do it intuitively now. I say, ‘Follow all these steps if you are a student’. Well, inevitably I do not always consciously follow those steps in that way myself when I am working and also I am obviously quicker at it than the novice. So it would probably be valuable to see a collaborative project that involves me talking about the special qualities involved in the IPA research interview and so on along with someone who is actually doing it for maybe only the second time or third time and can say, ‘Here is my journal showing the raw process’ and, ‘Actually I see what you’re saying, actually that’s what it was like when I did it the first time, and then that is how I did it better when I did it the second time.’ Probably a piece that combined both perspectives could be valuable. That’s very helpful, thank you for prompting that thought.

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References

Useful links
IPA at Birkbeck homepage: www.bbk.ac.uk/psychology/our-research/labs/ipa
Main IPA website: www.ipa.bbk.ac.uk/
Jonathan’s webpage at Birkbeck: www.bbk.ac.uk/psychology/our-staff/academic/jonathan-smith
H ave attended this year’s History and Philosophy of Psychology Section annual conference for the second time as a PsyPAG Representative for this Section. Again, I came back feeling inspired and aware of how far we have come as a discipline. The conference attracts an international audience with a number of academics from Europe and North America. As it is an area which is not always widely represented in the Psychology curriculum, it provides a great opportunity to share ideas and current research in this important area.

Why psychology needs history?
The conference started with the presentation of two PhD researchers. Firstly, Andrea von Hohental provided a fascinating overview of how British and German psychologists established and developed their relationship during and after World War I. It was followed by another inspiring talk by PhD student from University of Surrey, Katherine Hubbard, who talked us through a number of forgotten female psychologists who contributed to the Projective Test Movement, and Dr Alison Torn, who provided first-person accounts of patients residing in asylum in Victorian period. These talks among others shed not only light on often forgotten past but actually provided an insight on the state of the current state of discipline. Andrea’s talk demonstrated what the starting point was for psychology whilst Katherine’s work showed us how by looking at the past, we can actually uncover how the gender issues has changed and not changed in the last century. Finally, Alison’s talk felt very current with the ongoing debate on the silenced voices of people with enduring and acute mental health problems, their experiences of health care and the state of the psychiatry (Kai & Crosland, 2001).

Why psychology needs philosophy?
Dr Lovemore Nyatanga and Dr Chris Howard challenged the common assumptions that philosophy is an interesting but rather theoretical discipline. They demonstrated how the ‘dialectic method’, an approach rooted in philosophy involving building and presenting arguments and contra-arguments, can be used as an effective tool in teaching students about conceptual topics. It can also provide inspiring and enjoyable discussions and facilitate students’ learning.

In his keynote presentation, Dr Philip Thomas challenged the biological basis for many psychiatric disorders, including psychosis and bipolar disorders. He demonstrated that the current debate is missing important ingredients such as the roles of consciousness, moral agency and mental worlds (Thomas, 2013). Using philosophical ideas, he clearly demonstrated how the current debate is missing ‘human’ components. Similarly, Professor Katrina Roen showed how we need to carefully examine the role of psychology when designing complex medical interventions. It also raised important ethical questions about the assumptions we make on normativity (Roen, 2009).
Finally, we celebrated a new project involving writing a book on the history of Clinical and Abnormal Psychology in Britain, sponsored by the BPS Division of Clinical Psychology and the BPS History of Psychology Centre. Professor John Hall, who led the discussion, raised a number of important questions: recognising that there are a number of ‘versions’ of history, which one do we choose to present? What are our motivations for choosing a particular discourse? And finally: How do we communicate the history of psychology to non-psychology audiences?

Overall, the conference was a great event, and raised a number of very current questions. As a PhD student, I feel encouraged to present my work at the future conferences and think about my work in a different way. I hope this Section continues to grow and contribute to the important debates in contemporary psychology.

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**References**


Through seven years research and over 100 interviews with fathers from inner city neighbourhoods of Philadelphia and Jersey, this book introduces a new kind of fatherhood. This is a gripping, and at times heart-breaking account of the lives of poor and marginalised men, who parent children at a young age, out of wedlock and often with several different women. These men’s experiences of fatherhood are presented chronologically from the early days of courtship to pregnancy and beyond.

By giving these men a voice, the authors have humanised those commonly viewed by American culture as ‘good for nothing’ ‘deadbeat dads’. Recurring themes such as drug abuse, violence, infidelity and mistrust are carefully dealt with alongside notions of transformation and hope. Although the expectation is that such dads would be minimally involved or completely absent, these men strive for a primary role in their children’s lives. More often than not it seems, that the prospect of becoming a father offers some sort of redemption, a call to become a better person. Most men interviewed romanticised the idea of parenthood, giving a child what they perhaps never experienced, being a provider, and being present. Yet, as the story unfolds, one notices the real divide between the fathers’ wish for involvement in the child’s life and the actual existing relationship.

Even though men yearned for an active and integral part in the children’s life they were met by obstacles along the way. Many of these obstacles stem from the unstable relationship with the child’s mother. I found it striking that couple relationships described here are so precarious, with most men and women becoming a couple following the news of a pregnancy. The paths followed by these men are often in complete opposite to traditional notions of family creation, yet in juxtaposition they show very traditional aspirations for a ‘normal’ family life. I could not help but notice that the lives of these men are laden with contradiction. Although they wish to be ‘Dad of the year’, given their disadvantageous circumstances they can only do the best they can.

In the British context the ubiquity of such phenomenon is unclear, but UK-based research presents some similarities. Bunting and McAuley (2004), for example, discussed unwed British fathers’ involvement showing many resemblances to the American men described by Edin and Nelson. Parallels can be observed in men’s socioeconomic back-
grounds, the obstacles they experienced, such as relationship breakdown, and men’s unequivocal desire to take part in bringing up their children.

I would recommend the book to anyone interested in parenting research generally and fatherhood specifically. Anyone who would like to explore a different angle on parenting would find this book very engaging. Edin and Nelson highlight the influence of extreme deprivation and complex family life on men’s ability to parent, as well as the constant renegotiation of the role of such fathers. The book emphasises the importance in offering support to men who experience multiple risk factors and struggle with parenting but wish to be involved in their child’s life.

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References

Dates for your Diary

3–5 September 2014
BPS Developmental Psychology Section Annual Conference
Hotel Casa 400, Amsterdam
www.bps.org.uk/dev2014

9–11 September 2014
BPS Social Psychology Annual Conference
Canterbury Christ Church University
www.bps.org.uk/events/conferences/social-psychology-section-sps-annual-conference

10–12 September 2014
BPS Division of Health Psychology Annual Conference
Park Inn, York
www.bps.org.uk/events/conferences/division-health-psychology-annual-conference-2014

10–12 October 2014
BPS Transpersonal Psychology Section Annual Conference
Sunley Management Centre, Park Campus, University of Northampton
www.kc-jones.co.uk/sacred

7–9 November 2014
BPS Psychology of Education Section Annual Conference
Kents Hill Park Conference Centre, Milton Keynes
http://www.bps.org.uk/events/learning-and-teaching-changing-educational-context
28 November 2014
BPS Division of Neuropsychology Annual Conference
*Holiday Inn London, Regent’s Park*
http://www.bps.org.uk/events/conferences/division-neuropsychology-2014-annual-conference

3 December 2014
Psychology4Graduates 2014
*Kensington Town Hall, London*
http://www.bps.org.uk/events/conferences/psychology4graduates-2014

3–5 December 2014
BPS Division of Clinical Psychology Annual Conference
*Radisson Blu Hotel, Glasgow*
http://www.bps.org.uk/events/conferences/division-clinical-psychology-annual-conference-2014

7–9 January 2015
BPS Division of Occupational Psychology Annual Conference
*The Hilton Glasgow*
http://www.bps.org.uk/events/conferences/dop-annual-conference

6–8 May 2015
BPS Annual Conference
*ACC Liverpool*
Submissions open Monday 1 August 2014.
http://www.bps.org.uk/events/conferences/annual-conference-2015

The British Psychological Society website lists a full list of BPS events:
www.bps.org.uk/events
# PsyPAG Committee 2014/2015

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PsyPAG Quarterly submissions guidelines

The PsyPAG Quarterly is a developing publication, which is distributed free of charge to all psychology postgraduates in the UK. It therefore receives wide readership. The PsyPAG Quarterly accepts articles on all areas of psychology.

Types of articles accepted:
Featured Articles and Discussion Papers: Articles can cover a wide range of topics. Articles may describe a piece of original research; provide an overview of a theory, area or issue.
Research in Brief: A short report of original research, often preliminary findings.
Big Interviews: An interview with anyone connected with psychology, usually written in a question-and-answer format.
Conference Reviews: Provide an overview of a conference, outlining the main themes of the conference.
Departmental Reviews: An overview of a department as well as research interests of the postgraduates.
Book and Software Reviews: A review of books or software relevant to psychologists.
Hints and Tips: Hints and tips that will be useful to postgraduates. For example, how to apply for funding.
Postgraduate Research in Brief: This is a reference list of research that has recently been published by postgraduates within a particular area or department.

Word limits:
The publication has a broad word limit of 500 to 2500 words excluding references. The maximum word limit is flexible for in-depth discussion papers, longer interviews or hints and tips. The word count will differ depending on the type of article, for example, conference and book reviews should be shorter than featured articles.

Formatting:
Please submit all articles in Microsoft Word. The content, including tables, figures, and references, should all comply with the most recent APA guidelines. You should also include your contact details at the end of each article in the format of:

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Email:
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To submit an article, please send as an email attachment to: quarterly@psypag.co.uk.

If you have any further questions, please contact the editors at quarterly@psypag.co.uk, or send in your question via twitter: @PsyPAGQuarterly.
About PsyPAG

PsyPAG is a national organisation for all psychology postgraduates based at UK Institutions. Funded by the Research Board of the British Psychological Society, PsyPAG is run on a voluntary basis by postgraduates for postgraduates. Its aims are to provide support for postgraduate students in the UK, to act as a vehicle for communication between postgraduates, and represent postgraduates within the British Psychological Society. It also fulfills the vital role of bringing together postgraduates from around the country.

- PsyPAG has no official membership scheme; anyone involved in postgraduate study in psychology at a UK Institution is automatically a member.
- PsyPAG runs an annual workshop and conference and also produces a quarterly publication, which is delivered free of charge to all postgraduate psychology departments in the UK.
- PsyPAG is run by an elected committee, which any postgraduate student can be voted on to. Elections are held at the PsyPAG Annual Conference each year.
- The committee includes representatives for each Sub-Division within the British Psychological Society, their role being to represent postgraduate interests and problems within that Division or the British Psychological Society generally. We also liaise with the Student Group of the British Psychological Society to raise awareness of postgraduate issues in the undergraduate community.
- Committee members also include Practitioners-in-Training who are represented by PsyPAG.

Mailing list

PsyPAG maintains a JISCmail list open to ALL psychology postgraduate students. To join, visit www.psypag.co.uk and scroll down on the main page to find the link, or go to http://tinyurl.comPsyPAGjiscmail.

This list is a fantastic resource for support and advice regarding your research, statistical advice or postgraduate issues.

Social networking

You can also follow PsyPAG on Twitter (http://twitter.com/PsyPAG and add us on Facebook: http://tinyurl.comPsyPAGfacebook.

Again, this information is also provided at www.psypag.co.uk.
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