Ideal partner preferences: The role of facial attractiveness

The application of health psychology theory to hearing loss research

The genetics of language disorders

Also in this issue:

Hints and tips: Preparing, attending, and presenting at your first conference

Parasites and their implications for social and cultural psychology
PsypAG 31st Annual Conference
Affairs Group Conference
27th – 29th July 2016
University of York

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HELLO AND WELCOME to the 99th Edition of the PsyPAG Quarterly. I want to take this opportunity to thank the many people who have supported the journal during our brief tenure. We are delighted to report that the copious flow of manuscripts, mentioned in this space in the earlier issues, continues unabated. We are excited to continue our efforts in examining and highlighting the significant contributions to psychological knowledge by postgraduate students. Under the previous editorial team, PsyPAG Quarterly has continued its upwards trajectory in terms of enhancing scientific rigor and further scientific impact. The Quarterly involves a significant and professional operation, with help from many talented and dedicated individuals. I am very fortunate to work together with an outstanding team of reviewers and editors, who have expert knowledge across different substantive and methodological areas, including Charlotte Pennington, Edge Hill University; Maria Raisa Jessica Aquino, City University London; and Victoria White-lock, Middlesex University.

We would like to congratulate Andrew Duggan, Aleksander Nitka, and Natalie Gentry who were recently elected to committee positions and welcome them to PsyPAG. I would also like to say goodbye to Irena Zabinski, Bernadette Robinson, Michelle Holmes, and Craig Harper who are stepping down, and thank them for all their hard work.

We would like to turn now to a brief summary of the articles in the current issue. We open the issue with a column from our Chair, Emma Norris, who highlights key information about our annual conference and current activities. We then have a Research in Brief article by Jan Cosgrave and Dalena van Heugten who investigate the relationship between sleep and resilience through the use of daily diaries. Several discussion papers follow this. The first of
which is an article by Jennifer Palomares, who provides an insightful overview of the role of facial attractiveness in dating and ideal partner preferences, followed by Sarah Gardner who provides a summary of methods used to assess school based bullying and victimisation. In this article Sarah aims to provide researchers with a starting point from which they can consider the different methods used to measure and assess both bullying and victimisation in schools. Eithne Heffernan then provides an insight into the application of health psychology theory to hearing loss research, and concludes by identifying possible avenues for further research in the field. We then have Annie Brookman who offers a thought-provoking and informative discussion on the genetics of language disorders. She provides an overview of the genetic methods used in the study of language disorders and the insights gained. Following this, we have an article by Amanda Gillooly on the development and measurement of hypersociability in Williams Syndrome. In her article, she discusses the atypical social profile in Williams Syndrome, and draws on both theory and research evidence to explain its development. She also provides an overview on different methods used to measure social approach behaviour. We then have a discussion paper by Brian O’Shea who reports on parasites and their implications for social and cultural psychology. In his article he discusses how parasite stress theory, in conjunction with the Behavioural Immune System (BIS) explains in-group and out-group interactions and specifies the conditions that lead to heightened prejudice. We close the discussion papers section with a piece by Ratko Radakovic who discusses the convergence and divergence of apathy and depression.

In this edition, we have also included a number of reviews. We begin with a book review by Tom Merrill, who provides enlightening review of An EasyGuide to APA Style (Schwartz, Landrum, & Gurung, 2013). He concludes by describing the book as an excellent summary of the major points of APA style and format. We then have a departmental review by Becky Wyatt, who gives a detailed report about the PhD students (and their research) at the Centre of Research & Education in Forensic Psychology (CORE-FP) at the University of Kent. This edition also includes national and international conference reviews, which help to show the benefits of attending conferences. Closer to home, Sarah Page reviewed the 43rd Annual British Association of Behavioural and Cognitive Psychotherapies Conference. The conference took place at Warwick Arts Centre between 20–24 July 2015. Further afield, Jessica Hodgson reviewed the 11th International Conference on Developmental Coordination Disorder. The conference took place in Toulouse (France) on 2–4 July 2015 at Espaces Vanel. This review will be of interest to any readers who are involved in research on Developmental Coordination Disorder and are thinking of attending the DCD conference next year (5–8 July 2017). We conclude this issue with hints and tips; Alice Rees provides tips and advice for preparing, attending, and presenting at your first conference, and Sarah Poland provides five tips for maximising the return of parent consent forms. This article will be of interest to readers who are using or planning to use schools to access children and young persons for their research.

I am pleased to announce that we have a Psychology of Sexualities issue planned for our annual special edition of the Quarterly in December. In this issue we will be working in collaboration with the Psychology of Sexualities Section, who will provide us with a range of exciting articles relative to the field and their section. Our aim for this issue is to advance the understanding of sexuality related issues with respect to psychological theory, knowledge, and practice. In particular, we seek to address work that is relevant to Lesbian, Gay, Bisexual, Trans*, and Queer issues in Psychology, although articles relating to other gender and sexual communities and identities are also welcome. An official call of submissions was released in
mid May, and the deadline for submissions is 10 September 2016. We look forward to your submissions!

We would like to thank everyone who has applied for our conference bursaries during our February round. The deadlines for the next rounds are 10 June 2016 and 10 October 2016. So if you are planning to go to a conference and have difficulty finding funding to cover the cost, please visit our website and fill in an application. Successful applicants are required to write an article for the Quarterly. With the registration deadlines for our annual conference fast approaching, we are looking forward to seeing many of you at the PsyPAG conference. This year the conference will be held at the University of York from the 27–29 of July 2016. The accommodation will be at the University Halls, and a range of social events are currently being organised, including an exciting conference dinner at the Hilton Hotel. This flagship event provides excellent opportunities for networking and communicating research.

The editorial team would like to thank all of the authors for submitting their work to us, and we invite others to contribute. We welcome book reviews, conference reviews, personal accounts or guides, and articles that discuss your research. Although you might want to keep the results of your research to publish, we would like to hear about your experiences. For example, if you have encountered certain problems, then it would be great to know how you managed to solve those issues.

We look forward to receiving your submissions. To ensure that your article is submitted correctly and that it will be reviewed for inclusion in the PsyPAG Quarterly, please carefully read the ‘instructions to authors’ and publication guidelines on our website.

Happy reading!

Jimmy Couzens
On behalf of the PsyPAG Quarterly Editorial Team

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Psychology of Sexualities Section Annual Conference &

Annual General Meeting

Friday 2 December 2016
British Psychological Society’s London Office,
30 Tabernacle Street, London, EC2A 4UE

Conference Theme:
Innovations in Psychology and Sexualities

Keynote Speaker: Dr Katherine Johnson

Presentations / Posters / PechaKucha / Prizes

Call for Abstracts: To follow shortly

For updates – visit our website: www.bps.org.uk/pos
or follow us on twitter: @BPSSexualities
HELLO AND WELCOME to the Summer 2016 issue of PsyPAG Quarterly. It has been a busy time preparing for our 31st Annual Conference at the University of York, running from Wednesday 27 July to Friday 29 July. The PsyPAG Conference is THE opportunity to present postgraduate research in a supportive, friendly environment. The 2016 Conference Team have been working really hard and have arranged a jam-packed programme which will see postgraduate psychology students from around the UK present their work to their peers, from many different areas of psychology. A range of social events are being organised, including a conference dinner at The Hilton Hotel, York.

Our keynotes this year represent a range of international experts from diverse psychological backgrounds. Leading memory researcher Professor Alan Baddeley (University of York), health psychologist Professor Daryl O’Connor (University of Leeds) and face perception expert Professor Andy Young (University of York) will all be presenting their work. In a unique addition to this year’s conference, we are also excited to be joined by the Trainee Conference on Thursday 28 July: bringing together postgraduates and trainees for the first time.

Although abstract submission has now closed, conference registration is open at our conference website until Sunday 26 June: https://psypag2016.wordpress.com/. We have received a fantastic number and range of high quality submissions from postgraduates studying in all areas of psychology. To stay up to date with conference news and events throughout the event, please follow our dedicated conference Twitter feed (@PsyPAG2016) and Facebook (facebook.com/PsyPAGAnnualConference).

We will also present the winners of the PsyPAG awards at the conference: The Masters, Rising Researcher and Division of Academics, Researchers and Technicians in Psychology (DART-P)/PsyPAG Teaching Awards. The deadline for these awards has now passed and we look forward to awarding the winners with prizes at the event, alongside presentations from some of our winners. We will also be awarding best oral and poster presentations during the conference itself. Last year, we welcomed around 200 delegates to this event, as our flagship conference. We look forward to seeing you in July!

PsyPAG supports psychology postgraduates in a range of ways. Our bursaries provide a great way to supplement conference attendance etc (www.psypag.co.uk/bursaries-2/). For example, our Research Grant bursary of up to £300 can assist you in conducting research as part of your studies e.g paying participants or helping with travel costs. Also our workshop fund is available for applicants to run workshops to benefit postgraduates: www.psypag.co.uk/workshops/.

As we enter the summer season, we are approaching the one year anniversary of the release of our PsyPAG book: A Guide for Psychology Postgraduates: Surviving Postgraduate Study. This has been posted free of charge to UK psychology postgraduate departments across the UK and can also be downloaded here: www.psypag.co.uk/psypag-book/.

Since the last issue, PsyPAG’s Treasurer Kate Williams and I hosted a stand at the BPS Annual Conference in Nottingham, 27–28 April 2016. We were pleased to meet many postgraduate students from across the UK and provide them with information on the support that PsyPAG provides. Also, Vice Chair Elect, Ryc Aquino, Undergraduate Liaison Officer, Holly Walton and I hosted a
stand at the first BPS Research Day in London. This event was successfully trialled this year, providing research support from libraries, methodology experts and the BPS for postgraduates and early career researchers. This is set to be run again in future years.

As ever, thank you to the BPS Research Board for their continued support and the PsyPAG committee for their hard work and commitment to supporting UK psychology postgraduates. I look forward to meeting many of you at our Annual Conference in July!

Emma Norris
PsyPAG Chair
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RESILIENCE IS ‘the process of effectively negotiating, adapting to, or managing significant sources of stress or trauma’ (Windle, 2010). Resilience research has seen a substantial increase over the past two decades as an alternative to the ‘deficit’ model of psychopathology. As an example, lower socioeconomic status (SES) in childhood and adolescence is often considered a risk factor for developing mental health problems (Hudson, 2005). One approach to understanding why lower SES is related to psychopathology would be to focus on other deficits or risks, which may mediate this relationship. Examples may include limited community resources (Hudson, 2005) or unemployment (Hudson, 2005). Conversely, researchers adopting a resilience framework would argue that, despite these risks, many individuals growing up in conditions of lower SES display positive outcomes (Fergus & Zimmerman, 2004). Thus the question for the resilience researcher would be, how has healthy development manifested in the face of risk or adversity? Factors which may buffer this risk might be higher self-esteem (Buckner, Mezzacappa & Beardslee, 2003) or the presence of an adult mentor (Zimmerman, Bingenheimer & Notaro, 2002). The use of such factors to overcome risks and foster positive outcomes demonstrates resilience as a process (Fergus & Zimmerman, 2004).

Thus, resiliency theory emphasises the need to comprehend and promote healthy development in the presence of risk to psychopathology (Windle, 2010). Moreover, there is evidence to show that resilience is an important marker for the prevention, development of and recovery from psychopathology (Kim et al., 2013; Maruanda & Addington, 2014).

Sleep and circadian rhythm disruption (SCRD) feature in several of the most pervasive psychiatric disorders, including depression, schizophrenia, and bipolar disorder (Wulff, Gatti, Wettstein & Foster, 2010). These disruptions are associated with a degraded quality of life, exacerbated symptoms, and a poorer overall prognosis for the patient (Wulff et al., 2010). Interestingly, these sleep disruptions are often present even before the onset of the illness, as found in major mental disorders (Scott et al., 2014), bipolar disorder (Ng et al., 2014), and psychosis (Zanini et al., 2013). As a result, it

**Research in brief:**

**Good sleep quality as a pathway to resilience – A pilot study investigating the relation between sleep and resilience using a daily diary**

Jan Cosgrave and Dalena van Heugten

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Are we thinking about sleep’s relationship to mental health in the right way? Sleep and circadian disturbances are often cited as a risk factor for mental health problems, yet couldn’t one so easily argue the inverse? Instead, might sleep act as a protective shield from psychopathology? Clearly, these lines of thought are not mutually exclusive, but I am interested in sleep’s relationship to resilience: Can a good night of sleep affect how capable you feel to cope with the woes of the following day?
has now been suggested that SCRD may be considered a shared risk factor, one which is fundamental to the development of psychopathology all a whole (Harvey, Murray, Chandler & Soehner, 2011). However, this line of thought is fraught with difficulty as sleep disturbances within and across each disorder are notably heterogeneous (Alvaro, Roberts & Harris, 2013; Reeve, Sheaves & Freeman, 2015).

Rather than perceiving poor sleep as a risk, an alternate view might be that good sleep is a protector, or a factor that can buffer or reduce risk, and thus when removed reinstates an individual’s vulnerability (Kohler, Chatburn & Coussens, 2013). One potential avenue of investigating this notion empirically is to observe sleep’s relationship with resilience. While the role of sleep in resilience is relatively unknown, these two variables are strongly correlated (Kohler et al., 2013). To illustrate, resiliency was found to significantly mediate the relationship between increased sleep and behavioural problems in school children (Kohler et al., 2013). Furthermore, the authors proposed that there could be an underlying neural mechanism governing both sleep and resilience, but research has yet to evaluate this.

To summarise, sleep is notably affected in several psychopathologies; resilience is known to be an important marker for both the prevention and development of psychopathology and there is preliminary evidence to suggest sleep and resilience may be connected.

In this pilot study, we aimed to evaluate whether self-reported daily fluctuations in sleep predicted subsequent fluctuations in daily resilience. First, we hypothesise that higher sleep quality and greater number of hours of sleep reported the night before will correlate with how resilient one feels the following day. Second, greater sleep quality and hours of sleep will predict higher resilience the following day.

**Methods**

**Participants**

Following university ethical approval, 92 participants were recruited via poster advertisements and email.

Email addresses were sourced from a secure database comprised of individuals who have consented to be contacted about opportunities to participate in research conducted by the Sleep and Circadian Neuroscience Institute in the University of Oxford. Inclusion criteria were: 18 years and older, and English language proficiency.

**Procedure and design**

We employed a repeated measures design with each participant asked to complete the original Brief Resilience Scale Questionnaire (BRS) to establish his or her baseline resilience (Smith et al., 2008), and an edited version of the BRS (to make it suitable for daily report) for five consecutive days during the study. Furthermore, each participant was asked to complete a daily sleep diary (adapted from the Consensus Sleep Diary; Carney et al., 2012).

**Measures**

The Brief Resilience Scale (BRS; Smith et al., 2008). The BRS is used to assess resilience, defined as the ability to bounce back from stress. There are three positively worded items (e.g. ‘I tend to bounce back quickly after hard times’) and three negatively worded items (e.g. ‘It is hard for me to snap back when something bad happens’). The items were scored on a five-point scale from $1 = ‘strongly disagree’$ to $5 = ‘strongly agree’$. A review by Windle, Bennett and Noyes (2011) demonstrated the BRS to have good psychometric properties. To evaluate how resilient people were feeling on a particular day we edited the BRS to make it suitable for daily report. The scoring for this measure was identical to the original.

The sleep diary is a self-report instrument that examines sleep patterns, adapted from the Consensus Sleep Diary (Carney et al.,
containing questions about sleep patterns (e.g. time of lights out, number of awakenings during the night, time of final awakening, and time out of bed), and dream occurrence. Sleep quality was recorded by asking participants, ‘How would you rate your sleep last night?’ There were four possible responses: very bad, fairly bad, fairly good and very good. The response ‘very bad’ equated to a score of 1, with increments of 1 for each response. Participants completed the items every morning. Sleep diaries are a commonly used and valid means of collecting data regarding daily activities and sleep perceptions (Cheek, Shaver, & Lentz, 2004).

Results
Statistical analyses were performed within the R statistical environment (R Core Team, 2014). Of the 92 participants, 72 participants (55 women; 15 men; 2 unreported) completed all assessments on all 5 days. Their mean age was 35.8 years (SD = 16.9 years).

To investigate whether our edited state resilience measure was a good proxy for baseline resilience, we calculated Pearson’s correlations between each subject’s daily state resilience and their baseline trait resilience, with a Bonferroni correction used when assessing significance to adjust for multiple comparisons. Mean scores, standard deviations and Pearson product-moment correlations are displayed in Table 1. We found significant correlations between daily resilience and baseline resilience for each day in the study, overall indicating a high level of agreement between the two measures, $r(70)=0.43-0.59$, $p<0.01$.

<table>
<thead>
<tr>
<th>Day in study</th>
<th>Mean (SD)</th>
<th>Correlation with baseline resilience</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3.27(0.99)</td>
<td>0.46*</td>
</tr>
<tr>
<td>2</td>
<td>3.41(0.84)</td>
<td>0.43*</td>
</tr>
<tr>
<td>3</td>
<td>3.54(0.91)</td>
<td>0.59*</td>
</tr>
<tr>
<td>4</td>
<td>3.50(0.90)</td>
<td>0.50*</td>
</tr>
<tr>
<td>5</td>
<td>3.63(0.83)</td>
<td>0.45*</td>
</tr>
<tr>
<td>Overall</td>
<td>3.47(0.90)</td>
<td>0.59*</td>
</tr>
</tbody>
</table>

* $p<\alpha/m$ (where $m=6$ is the number of statistical tests being performed).

An exploration into self-reported sleep quality and resilience the next day
A boxplot highlighting the global relationship between sleep quality and resilience is depicted in Figure 1. Figure 1 demonstrates an upward trend, with those who report higher daily resilience also reporting improved sleep quality from the night before.

To formally investigate whether daily self-reported sleep quality and hours of sleep from the night before was related to daily resilience, we calculated Pearson’s correlations between each subject’s daily state resilience, the number of hours of sleep they reported getting and their daily self-reported sleep quality (referring to the night before), with a Bonferroni correction used when assessing significance to adjust for multiple comparisons. Pearson product-moment correlations are displayed in Table 2. We did find preliminary evidence for an association between self-reported sleep quality and state resilience. However, the correlation between perceived sleep quality and state resilience was significant on only three of the five days within the study. Self-reported hours of sleep...
showed neither significant relationships nor a consistent trend as three of five days highlight a negative correlation between hours of sleep and state resilience.

To explore whether self-reported sleep quality of the previous night’s sleep was able to predict subsequent resilience the following day, a generalised estimating equation (GEE) model was fit. GEE models can account for repeated measures data with a temporal dynamic (Hardin, 2005).

First, we tested a model without covariates (model 0 in Table 3), and then iteratively added covariates which lower the Quasi Information Criterion (QIC) most, until no further reduction was possible. QIC

\[ \text{QIC} = -2 \times \text{log-likelihood} + 2 \times k \]

where \( k \) is the number of parameters in the model.

Table 2: Pearson product-moment correlations for state resilience, self-reported sleep quality and hours of sleep

<table>
<thead>
<tr>
<th>Day in study</th>
<th>Mean (SD)</th>
<th>Correlation with baseline resilience</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.18</td>
<td>-0.02</td>
</tr>
<tr>
<td>2</td>
<td>0.47*</td>
<td>0.06</td>
</tr>
<tr>
<td>3</td>
<td>0.52*</td>
<td>-0.10</td>
</tr>
<tr>
<td>4</td>
<td>0.32*</td>
<td>-0.11</td>
</tr>
<tr>
<td>5</td>
<td>0.20</td>
<td>0.01</td>
</tr>
</tbody>
</table>

* \( p < \alpha/m \) (where \( m=10 \) is the number of statistical tests being performed).
is an alternative to Akaike’s Information Criterion (AIC) which is used to measure the relative quality of a statistical model for a given dataset (Bozdogan, 1987). AIC cannot be applied to GEE models and thus we used the QIC in order to measure the quality of models applied here (Pan, 2001).

Forward selection terminated at a model with two predictors: sleep quality and hours of sleep. Summary output from this model (model 3) is provided in Table 3. From the set of candidate models, we proceeded with the one with the lowest QIC, which has both sleep quality and hours of sleep as main effects, though sleep quality is the only significant main effect in the model ($p<0.001$).

<table>
<thead>
<tr>
<th>Model</th>
<th>B(SE)</th>
<th>Wald</th>
<th>p</th>
<th>QIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 0 (no covariates)</td>
<td>3.47(0.09)</td>
<td>1563</td>
<td>0.000**</td>
<td>297.7</td>
</tr>
<tr>
<td>Model 1-SQ</td>
<td>0.42(0.09)</td>
<td>20.4</td>
<td>0.000**</td>
<td>268.65</td>
</tr>
<tr>
<td>Model 2-HS (both with one covariate)</td>
<td>-0.02(0.04)</td>
<td>0.18</td>
<td>0.67</td>
<td>300.08</td>
</tr>
<tr>
<td>Model 3- SQ &amp; HS (with 2 covariates)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sleep Quality</td>
<td>0.45(0.09)</td>
<td>26.55</td>
<td>0.000**</td>
<td></td>
</tr>
<tr>
<td>Hours of Sleep</td>
<td>-0.07(0.03)</td>
<td>3.86</td>
<td>0.05</td>
<td>267.19</td>
</tr>
</tbody>
</table>

Note. SQ=Sleep Quality, HS= Hours of Sleep. *$p < 0.05$, **$p < 0.001$

**Discussion**

This was an exploratory pilot study aimed to investigate whether there is a relationship between self-reported sleep and resilience and whether this relationship is identifiable on a daily basis. This study had two hypotheses. First, we hypothesised that higher sleep quality and greater number of hours of sleep reported the night before would correlate with how resilient one feels the following day. This was only partly supported. We found significant correlations between sleep quality and resilience on three of the five days in the study; however, we found no significant relationships between hours of sleep the night before and resilience the next day. Second, we hypothesised that greater sleep quality and hours of sleep would predict resilience the following day. Again, this was partly supported by our findings. We showed that sleep quality but not the number of hours of sleep from the night before could predict subsequent self-reported resilience.

Overall, this pilot study lends partial support to the notion that there is a relationship between sleep and resilience, and could offer some interesting interpretations. While SCRD is so frequently considered to be a risk factor for a gamut of psychiatric disorders, an alternative conceptualisation may be that sleep is a protector, allowing for increased resilience. Thus, good sleep would promote healthy development in the face of psychological adversity, but when removed or disturbed, an individual’s risk for psychopathology is reinstated. If this is the case, targeting sleep as a means of early intervention for mental health may offer hope in promoting more positive long term outcomes. However, given the nature of our study and its preliminary analyses, these
results should be interpreted with caution. A number of caveats merit mention. These analyses were all based upon self-reports and are thus prone to report bias and time of day effects. Furthermore, there were no objective measures of sleep within this study, yet insomnia research has taught us that subjective perceptions of sleep can be misleading (Harvey & Tang, 2012). Future research should investigate whether this relationship can be seen across both subjective and objective measures of sleep and aim to clarify exactly which parameters of sleep (if any) can best predict an increase in resilience the following day.

Conclusions
These limitations notwithstanding, we believe that the current findings shine a light on potentially new and interesting avenues for future research. This, to our knowledge, is the first study to investigate the relationship between sleep and resilience on a daily basis. Future studies may want to further elucidate the role of sleep in resilience using a longitudinal data set with both objective and subjective markers of sleep.

References

Data originally published in:

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Discussion paper:
Ideal partner preferences: The role of facial attractiveness
Jennifer South Palomares

Research has identified three factors representing ideal partner preferences: warmth-trustworthiness (e.g. kind, supportive), vitality-attractiveness (e.g. sexy, nice body), and status-resources (e.g. successful, nice house). People place differing emphasis on each ideal partner factor and these preferences involve strategies to maximise genetic continuity both within and across generations. Traits representing vitality-attractiveness may be particularly striking in a potential partner as these may signal health and fertility. In addition, physical attractiveness is associated with numerous social consequences and the ‘what is beautiful is good’ stereotype posits that people attribute multiple positive qualities to attractive individuals (e.g. better career prospects, better romantic partners). Symmetry, averageness, and skin health and colour are key factors in facial attractiveness, and these are briefly reviewed.

Marilyn Monroe was a popular 1950s sex symbol; she was the first model on the cover of Playboy magazine in 1953 and remains an icon today. In 2011, the licensing rights to her image were bought for up to $30 million by the Authentic Brands Group. Today, Monroe’s Facebook page has over 14 million likes with many claiming that Monroe was the perfect woman of all time. In contrast, individuals may not actually want the ‘perfect’ romantic partner. Individuals mostly do not seek a romantic partner who is highly attractive, trustworthy, and wealthy as these individuals are rare, difficult to attract, and difficult to maintain as long-term partners (Fletcher, Tither, O’Loughlin, Friesen, & Overall, 2004). Indeed, obtaining a partner who is moderate on several traits may be more beneficial than the costs involved in seeking a partner who is exceptional in one or more traits. For example, some researchers suggest that individuals who are fairly attractive have increased probabilities of being resistant to many genetic and environmental stressors (Streeter & Mcburney, 2003) so seeking a highly attractive partner may not provide many further gains relative to seeking a partner who also possesses other desirable qualities (e.g. trustworthiness).

There are substantial individual differences in the attributes that men and women prefer in an ideal partner. Fletcher et al. (1999) identified a tripartite structure underlying ideal partner preferences: Warmth-trustworthiness (e.g. a person who is kind and supportive), vitality-attractiveness (e.g. sexy and nice body), and status-resources (e.g. successful and nice house), although not all ideal partner factors are weighted equally. Eastwick, Luchies, Finkel, and Hunt (2014) conducted a meta-analysis on partner preferences for attractiveness (k=97) and earning prospects (k=56), which revealed that attractiveness predicted romantic preferences with a moderate to strong effect size ($r=-.40$) and earning prospects predicted romantic preferences with a small effect size ($r=-.10$).

There is much research examining the factors involved in facial attractiveness and their relationship to evolutionary theory. Physical attractiveness is associated with numerous social consequences and the ‘what is beautiful is good’ stereotype (Dion, Berscheid, & Walster, 1972) posits that
people attribute multiple positive qualities to attractive individuals. For example, relative to less attractive people, attractive individuals have better career prospects, facilitated economic mobility (particularly for women), pay less bail, are better romantic partners with better marriages, date more people, and, when dating an attractive individual, people mention being more pleased by their date. Notwithstanding individual and cross-cultural differences in perceptions of attractiveness, inter- and intra-cultural agreement on attractiveness is robust and widely documented (e.g. see Langlois et al., 2000, for a meta-analytical review). This cross-cultural agreement on attractiveness intimates common (or similar) criteria underlying attractiveness judgements, which are largely (although not completely) independent of cultural and person-specific influences.

An evolutionary perspective posits that partner preferences are adaptations to biological and social cues (e.g. Gangestad & Simpson, 2000). Individuals preferring partners who display cues reflecting their mate value (e.g. genetic quality or social status) would be at an advantage and would be more likely to produce progeny, relative to individuals who either could not perceive these cues or who had no preference for these cues. From this perspective, partner preferences involve strategies to maximise genetic continuity both within and across generations. For example, preference for traits related to parasite-resistance may be beneficial as individuals are less likely to acquire a contagious partner (i.e. direct benefit) and genetic resistance to parasites is more likely to be passed on to progeny (i.e. indirect benefit).

Symmetry

Much research has revealed correlations between attractiveness and symmetry, when using non-manipulated face images and computerised symmetry manipulations of face images. For example, Rhodes, Proffitt, Grady, and Sumich (1998) found that within monozygotic twins, the most symmetrical twin was rated as most attractive. Symmetry is more strongly related to sexual attractiveness in men than in women and it is associated with having more sexual partners.

Some research suggests that symmetry may be related to health and fertility. Facial asymmetry is correlated with self-reported frequency of respiratory illness, male body symmetry is correlated with sperm count and sperm speed, and female breast symmetry is correlated with fertility. Body symmetry is an indicator of better resistance to genetic and environmental stressors throughout development whilst symmetry is related to higher fertility and improved survival in individuals. In addition, Little et al. (2008) found that participants rated symmetrical male face images as containing more masculinised features and they rated symmetrical female face images as containing more feminised features, relative to asymmetrical face images. Hence, Little et al. (2008) suggest that facial symmetry and sexual dimorphism are linked and signal heritable fitness. The relationship between symmetry and health may create a selection pressure such that individuals preferring symmetry in a partner may result in offspring with higher genetic quality.

Averageness

Averageness in face images is related to attractiveness. For example, averageness is correlated with attractiveness in digital caricatures of faces (Rhodes & Tremewan, 1996). Average faces might be attractive for two reasons. First, faces with large deviations from the average often are homozygous for...
adverse alleles that are harmful to a person. Second, average faces are correlated with genetic diversity, resulting in a person having uncommon proteins that provide better pathogen resistance. Heterozygosity in the major histocompatibility complex genes, coding for proteins involved in the immune response, is correlated with both facial attractiveness and facial averageness. In addition, Rhodes et al. (2001) revealed that facial averageness was related to health as per medical records. Facial averageness seems more familiar to individuals, which may impact on attractiveness. Individuals that prefer facial averageness may be more likely to have healthier offspring, resulting in a selection pressure on facial averageness.

**Skin health and colour**

Research has linked skin health and colour to attractiveness. Perceptions of skin facial health are related to male facial attractiveness and homogenous skin colour is linked to attractiveness. With regards to colour, a diet rich in carotenoids (derived from fruit and vegetables) adds a yellow hue to the skin, which may be an ‘honest’ signal of health. Further, Roberts et al. (2005) found a correlation between facial redness and apparent health, perhaps due to apparent healthy oxygenated blood. Many women mimic this effect with make-up blusher. Hence, skin health and colour may be cues favoured by selection, as individuals who find these attractive may be more likely to have healthy offspring.

To summarise, individuals may prioritise traits related to vitality-attractiveness in face images. From an evolutionary perspective, it can be inferred that traits related to vitality-attractiveness may be especially salient in a potential partner as these may signal fertility and resistance to environmental and genetic stressors (e.g. Lassek & Gaulin, 2008). For example, individuals prioritising attractiveness or adventurousness (both traits related to vitality-attractiveness) in their ideal partner preferences may be more likely to result in a partner who is healthy, which are advantageous traits both when raising offspring and insofar as these traits are heritable by potential offspring.

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Over the course of the last few decades, bullying has increasingly been of a societal and research concern. Coupled with an international exchange of information, our understanding surrounding the complexities of bullying and victimisation have grown exponentially. However, finding answers to the ‘who, why, what, when, where, and how’ is still an ongoing challenge (Hong and Espelage, 2012). In order to continue to improve our understanding of bullying and victimisation, the empirical quality of the research must be of the highest order.

Whilst empirical quality is essential, the importance associated with the accurate measurement of school-based bullying and victimisation is amplified when considering the negative consequences that can occur as a result of bullying. Peer-victimised children have been shown to have poor school adjustment, higher levels of loneliness, and mental health issues that can last into adulthood (Arseneault et al., 2006). In consideration of these factors, the following article will briefly outline several methods, which researchers can use to measure and assess school-based bullying and victimisation, highlighting a number of associated strengths and limitations.

**Self-report**

Self-report measures (predominately psychometric scales) are the most commonly used method in the assessment of bullying behaviour and victimisation (Cornell & Bandyopadhyay, 2010). In part, their popularity is due to the ease associated with administering self-report measures. For example, there are fewer burdens with regards to both time and cost, compared to alternatives. However, owing to the increased empirical focus on school-based bullying, researchers are now faced with a large number of psychometric scales designed to assess bullying and victimisation. In order to ease the process, Hamburger, Basile and Vivolo (2011) have compiled a very helpful compendium of some of the most commonly used scales to help researchers with making an informed decision.

Many self-report scales are designed to allow researchers to assess and distinguish between multiples forms of bullying and victimisation, such as physical, relational, verbal, cyber etc. This is an important feature as the different forms of bullying and victimisation have been shown to be heterogeneous with regards to their prevalence, stability and association with other variables of interest. In addition, self-report measures focus on the student’s perspective of...
bullying, providing an interpersonal account of their experiences (Kochenderfer-Ladd and Ladd, 2001). However in turn, self-report measures are at an increased risk of children inflating or minimising these experiences (Cornell & Bandyopadhyay, 2010).

Broadly speaking, psychometric scales assessing bullying behaviour and/or victimisation use either a ‘definition-based’ strategy or ‘behaviour-based’ strategy. A definition-based scale will present the child with a definition of bullying prior to the questions, whereby a behaviour-based scale will present the child with questions/items that depict a bullying behaviour (i.e. ‘I have been punched by another child’). Some researchers argue that using a definition is important as the term ‘bullying’ has become commonplace within society and may not always be used accurately (Cornell & Bandyopadhyay, 2010). By providing a definition, accuracy of reporting is likely to increase. Conversely, it has been found that children are more likely to under-report bullying experiences when provided with a definition (Kert et al., 2010). Furthermore, it is unclear as to how well children are able to apply a broad definition of bullying to questions depicting sub forms of bullying and victimisation. When a scale is used that describes particular behaviours with clear operationalised features, this can reduce ambiguities regarding the understanding of bullying definitions. It is important that researchers evaluate whether the presentation of a definition may or may not benefit their target sample and research questions.

**Peer-report**

Peer-reports (often known as peer nominations) are a popular alternative to self-report assessments of bullying and victimisation. This method typically involves asking students to identify classmates who match descriptors or a definition of bullying and/or victimisation behaviour.

There are a number of benefits to using peer report to assess bullying and peer-victimisation in schools. Firstly, peer-reports can reduce measurement error and yield more reliable data as they assess a child’s bullying and victimisation behaviour via multiple-informants. On average, 85 per cent of bullying incidences are observed by peers and thus peers have been shown to be extremely accurate in identifying perpetrators and victims (Craig and Pepler, 1997). Secondly, much of the research into bullying and victimisation will assess bullying alongside an array of other self-report measures of interest. The use of self-report, for all measures in a study, can give rise to a bias known as common method variance (CMV). Through using peer-reports to measure bullying and victimisation, limitations associated with CMV can be addressed. For a more detailed overview of CMV including how it can affect your data and suggestions for overcoming CMV, see Podsakoff et al. (2003).

In addition, educators may raise concerns over pupils being asked to make judgements about their peers. Although studies have not reported any negative side-effects as a result of being asked to nominate peers, researchers should still be aware of this potentially sensitive issue and remind participants not to discuss their answers. A second issue surrounding the application of peer-report is with regards to cut-off points. Cut-off points are used to identify a pupil as either a victim or bully. However, the decision regarding the cut-off point to use is often arbitrary, with there being a lack of consistency across studies. It is important that researchers carefully consider how their choice of cut-off point impacts their data and research question, and is able to fully justify their decision. For more advice regarding the issue of cut-off points please see Branson and Cornell (2009).

**Observation**

Observational methods are used less frequently within bullying research, particularly in older children/adolescents, but can provide a rich source of data and have several advantages over self-report and peer-report. Observations can include collecting
information systematically, including frequency, duration or types of bullying across different locations.

The ability to observe bullying interactions in-vivo is a distinct advantage over alternative methods. Not only can researchers gather information regarding bullies and their victims, but they can also observe the behaviours of others involved (such as peer bystanders and teachers). Furthermore, whilst common assessment methods such as self-report and peer-report provide researchers with the ‘who’ and ‘what’, using an observational method can further examine the process involved in bullying behaviour to help further understand the ‘how’ and ‘why’. When conducting an observation study, it is important that time is invested into training the observers to agree upon the definition of bullying and victimisation. With adequate training, direct observations can be objective and have high inter-rater reliability.

One obvious limitation associated with observational methods is that not all bullying occurs in observable settings. Bullying can be a covert behaviour, occurring in settings that are inaccessible to the researcher (Craig & Pepler, 1997), such as within toilets or outside of school. The rise of cyber bullying also presents an issue for researchers. This form of bullying is not only difficult to observe, but it can be hard to identify the bully, given that most perpetrators are anonymous (Kowalski & Limber, 2007). However, a few studies to date have successfully observed the content of student’s electronic communication (e.g. Mikami, Szwedo, Allen, Evans & Hare, 2010). As with observations that occur in school, it is important that participants are aware that their communications are being observed.

**Interviews and pictorial methods**

Interviews and pictorial methods have been used in a variety of bullying and victimisation studies, assessing incidences of bullying, impact of bullying on students and the effectiveness of interventions. Qualitative approaches allow the researcher to gather more rich information regarding the nuances surrounding bullying, such as the tactics used by bullies, the reasoning behind their actions, or the content of their rumours (Crothers & Levinson, 2004). These methods can also be extremely helpful for the development of a new psychometric scale.

For younger children, showing them bullying scenarios or asking them to draw a picture of bullying has proved successful in eliciting responses (e.g. Bosacki, Marini, & Dane, 2006). As well as aiding the qualitative aspects of the interview, researchers can also code a child’s drawings. For example, information regarding the number, relative size and gender of characters drawn, positive/negative affect in faces and any depiction of communication can be identified from the drawings, thus providing further data.

**Which method should I use?**

As with any study, the research question should always guide the method of choice. However, there are a number of factors one should consider when selecting an appropriate method. The age of the sample can, to some extent, influence method choice. Older children and adolescents are more capable of completing self-report scales and using peer-report methods independently (Sturgess, Rodger & Ozanne, 2002). However, observation may be less successful in older children as overt forms of bullying decreases with age, with more covert forms of bullying such as relational victimisation increasing (Smith & Gross, 2006); which might be, as a result, harder to observe. Factoring in reading ability, younger children need a lot more support when it comes to completing psychometric scales and peer-report (Sturgess, Rodger & Ozanne, 2002). For example, completing questionnaires in smaller groups or on a one-to-one basis, often with pictures to aid the child may be more beneficial. If you are unclear as to whether your participants will
be able to complete a questionnaire with little support, it would be advised to either conduct a pilot study or ask your participating school(s) for advice. Children even within the same year group can vary greatly from school to school, with factors such as teaching style, English as an additional language, and learning difficulties affecting a child's capacity to independently complete a questionnaire.

If your research involves an anti-bullying intervention, it is important that your method of choice is able to effectively detect change in bullying and victimisation behaviour, thus allowing you to be able to evaluate the outcome of the intervention. For example, whilst peer-reports can be a very good tool for measuring bullying, they can be susceptible to limitations when evaluating interventions and detecting change over time. It has been found that often the same children are nominated at time 1 and time 2, regardless of whether the level of bullying has reduced or not. This is attributed to the notion that peer-reports reflect a child's social reputation, such that a child nominated as a bully at time 1 may still display bullying behaviours at time 2, and so will be nominated, even if these behaviours have reduced.

To summarise, there are many different ways in which a researcher can measure school-based bullying and victimisation. It is not always clear which method is the 'best' and in some instances multiple methods can be extremely effective. However, as discussed, it is important that the researcher’s decision is informed by the research question(s), including how bullying and victimisation are to be defined, practical implications, and the age and ability of the children.

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Discussion paper:
The application of health psychology theory to hearing loss research
Eithne Heffernan

Hearing loss (HL) is a widespread condition that can impair daily functioning, including communication and social participation. The last decade has seen an increase in the utilisation of health psychology theory to investigate the health-related behaviours of individuals with HL. There has been particular interest in the issue of individuals with HL under-using or not using hearing aids. This discussion paper examines several key HL research studies that have employed health psychology theories and models, such as the health belief model and the theory of planned behaviour. The paper concludes by exploring avenues for future research in this field.

This paper discusses the utilisation of health psychology theory in hearing loss (HL) research and also considers future directions for this field. The paper primarily focuses on HL acquired in adulthood, particularly age-related HL. This form of HL is highly prevalent and can have a detrimental impact on essential elements of everyday life; namely communication with other people and participation in social and professional activities. Aural rehabilitation encompasses a range of interventions that can help individuals with HL to manage the difficulties associated with the condition (Boothroyd, 2007). The primary intervention for HL is hearing aids, yet many individuals who could benefit from hearing aids under-use them or do not use them at all. Research suggests that this is due to a variety of factors, including hearing aids being ineffective in noisy situations, uncomfortable to wear, and difficult to insert and maintain (McCormack & Fortnum, 2013). In the last decade, there has been increasing interest in the employment of health psychology theory to develop a better understanding of the health-related behaviours of individuals with HL, especially their uptake of and adherence to hearing aids. Several key highlights from this area of research are discussed below.

Transtheoretical model
The main tenet of the transtheoretical model (Prochaska & DiClemente, 1983) is that individuals with a health condition can be assigned to one of six stages of change: (1) pre-contemplation, where patients do not intend to take action; (2) contemplation, where patients consider taking action; (3) preparation, where patients prepare to take action; (4) action, where patients overtly change their behaviour for less than six months; (5) maintenance, where patients overtly change their behaviour for more than six months; and (6) relapse, where patients return to their original habits (Adams & White, 2005; Manchaiah, Rönberg, Andersson, & Lunner, 2015).

Two recent studies found mixed evidence for the validity of the stages of change, as measured by the University of Rhode Island Change Assessment questionnaire, in individuals with HL who had not yet taken-up an aural rehabilitation intervention (Laplante-Lévesque, Hickson, & Worrall, 2013; Manchaiah et al., 2015). Both studies found evidence for construct validity and, as predicted, the participants were primarily in the contemplation, preparation and action stages. While Manchaiah et al. (2015) did not uncover support for concurrent validity,
Laplante-Lévesque et al. (2013) found some correlations between the stages of change and degree of HL, degree of hearing disability and number of years since HL onset. In addition, Laplante-Lévesque et al. (2013) examined predictive validity and demonstrated some evidence of an association between intervention uptake, intervention outcomes, and the stages of change. However, the stages of change were not predictive of intervention adherence.

Despite the present popularity of the transtheoretical model in HL research, this framework has been critiqued in other fields and the long-term effectiveness of interventions based on the model has been questioned (Adams & White, 2005; West, 2005). Adams and White (2005) argued that the model is not suited to the study of complex behaviours, as individuals can be in a different stage of change for each action within a complex behaviour. Also, the model ignores various important influences on health-related behaviours, including operant conditioning, demographics, and environmental factors (Adams & White, 2005; West, 2005). Finally, the stages of change (the fundamental tenet of the model) are flawed, as they are only distinguished from one another by artificial boundaries and therefore are not genuine stages (West, 2005). For example, action is only delineated from maintenance by an arbitrary time period. Even Laplante-Lévesque et al. (2013) and Manchaiah et al. (2015), who recommended further utilisation of the model in HL research and practice, stated that change in health-related behaviours may be better represented on a continuum than in discrete stages.

**Health belief model**

The health belief model (Becker, 1974) proposes that health-related behaviours are predicted by (1) perceived susceptibility, or perceived vulnerability to a condition; (2) perceived severity, or the perceived seriousness of a condition; (3) perceived benefits, or perceived advantages of taking action; (4) perceived barriers, or perceived obstructions to taking action; (5) cues to action, or triggers that prompt action; and (6) self-efficacy, or one’s belief in one’s ability to take action. The model also acknowledges the influence of sociodemographic factors, such as personality and gender (Champion & Skinner, 2008; Saunders, Frederick, Silverman, & Papes, 2013).

Saunders et al. (2013) used the health belief model, as measured by the Hearing Beliefs Questionnaire, to distinguish between different groups of individuals with HL. Firstly, individuals who did not seek help for their HL, relative to those who did, had lower perceived susceptibility, greater perceived barriers and fewer cues to action. Only cues to action had a large effect size. Secondly, individuals who did not wear hearing aids, in comparison to those who did, had lower perceived susceptibility, fewer perceived benefits, greater perceived barriers and fewer cues to action. Only perceived barriers and cues to action had large effect sizes. Finally, individuals who did not regularly wear hearing aids, relative to those who did, had lower perceived severity, greater perceived barriers, lower self-efficacy and fewer cues to action. They also had greater perceived susceptibility, in contrast to expectations. Only perceived barriers and self-efficacy had large effect sizes. Additionally, logistic regression analyses resulted in robust models that correctly categorised 59 per cent to 100 per cent of participant health-related behaviours. However, a factor analysis indicated that the Hearing Beliefs Questionnaire requires further development, as the self-efficacy scale did not emerge as a factor and the remaining factors explained only 36 per cent of the variance.

Another recent study (Hickson, Meyer, Lovelock, Lampert, & Khan, 2014) examined the relationship between success with hearing aids and a range of variables that included the health belief model constructs, psychological factors (e.g. locus of control), demographic factors (e.g. gender) and audiological factors (e.g. duration of HL). Success with hearing aids was defined as
using them for more than one hour per day and obtaining at least moderate benefit from doing so. Five factors were found to significantly influence hearing aid success. One factor was audiological (i.e. insertion gain), while the remaining factors were health belief model constructs (i.e. perceived severity, perceived benefits, self-efficacy and cues to action). The factor with the strongest influence was cues to action, which was denoted by support from significant others in this study.

Although these studies have produced some promising results, it must be noted that the health belief model has limitations. In particular, the model does not include emotions, such as fear, despite evidence that they can have a considerable influence on health-related behaviours (Champion & Skinner, 2008). Also, the current conceptualisation of the model is somewhat simplistic, not least because the relationships between its constructs remain unclear. For example, it has been proposed that perceived susceptibility only becomes a powerful predictor of health-related behaviours when there is a high degree of perceived severity. As such, it may be preferable to combine perceived susceptibility and perceived severity to form a single construct, perceived threat, rather than to treat them as separate constructs. Furthermore, perceived benefits and perceived barriers may become weak predictors of health-related behaviours when there is a low degree of perceived threat. Therefore, further research is required to establish whether the predictive power of the constructs within the model depend on one another (Champion & Skinner, 2008).

Theory of planned behaviour

The theory of planned behaviour (Ajzen & Madden, 1986) posits that the performance of a health-related behaviour is predicted by the intention to perform that behaviour and that, in turn, the intention to perform that behaviour is predicted by (1) attitude towards the behaviour, or a favourable, rather than unfavourable, opinion of the behaviour; (2) subjective norms, or social pressure from significant others to perform the behaviour; and (3) behavioural control, or the perception that the behaviour is easy, rather than difficult, to perform (Meister, Grugel, & Meis, 2014).

Meister et al. (2014) used the theory of planned behaviour, as measured by a questionnaire developed specifically for the study, to examine the intention to use hearing aids in individuals with HL who were in one of four stages of the patient journey. Stage 1 contained individuals who were aware of having HL but who had not yet consulted a healthcare professional. Stage 2 contained individuals who had consulted a healthcare professional but who had not yet tried hearing aids. Stage 3 contained individuals who were trialling but did not yet own hearing aids. Stage 4 contained individuals who owned hearing aids. Multiple regression models demonstrated that attitude towards the behaviour, subjective norms and behavioural control explained 46–73 per cent of the variance in intention to use hearing aids. The relative influence of these constructs depended on the participants’ stage of the patient journey, with the results suggesting a transition from extrinsic to intrinsic motivation as the stages progressed. Specifically, the influence of subjective norms diminished in the latter stages of the patient journey, whilst the influence of attitude towards the behaviour was significant in all stages, except Stage 1. Behavioural control had a moderate influence in all four stages.

The theory of planned behaviour is well-established in the health psychology literature (Connor & Armitage, 1998), yet has been little-used in HL research (Meister et al., 2014). The results of the above study suggest that the theory could provide new insights on hearing aid use. However, although the theory constructs accounted for a considerable proportion of the variance in the dependent variable (i.e. intention to wear hearing aids), a sizable proportion of the variance remained unexplained; a common finding in many health psychology studies (Meister et al., 2014;
It has been postulated for some time that additional constructs, including affect, self-identity, self-efficacy and past behaviour, should be included in the theory of planned behaviour to provide a comprehensive account of health-related behaviours (Connor & Armitage, 1998). This is a potential future avenue for HL research.

**Future directions**

The last decade has seen a growing interest in the application of health psychology theory to HL research, with the transtheoretical model and the health belief model appearing to be particularly popular. Although these models have various limitations, their utilisation nevertheless represented an important and innovative advance in the field of HL research. It is likely that, as the field progresses, more up-to-date health psychology theories and models will be investigated, including self-determination theory (e.g. Ridgway, Hickson & Lind, 2015), the self-regulatory model (e.g. Heffernan, Coulson, Henshaw, Barry & Ferguson, in press) and the COM-B (i.e. capability, opportunity, motivation and behaviour) model (e.g. Barker, Atkins & de Lusignan, in press), as well as further research on the theory of planned behaviour. Also, the construct of self-efficacy alone is set to gain much ground (Smith & West, 2006). As the purpose of health psychology theory is not only to understand health-related behaviours but also to inform clinical practice (Noar & Zimmerman, 2005), the next step will be to develop and evaluate theory-based aural rehabilitation interventions.

In addition, it will be crucial for HL researchers to avoid the potential pitfalls of conducting health psychology theory research, as outlined by Noar and Zimmerman (2005) and Ogden (2003). These authors argue that the testing of health psychology theories frequently lacks rigour. When study results do not support a particular theory, researchers rarely, if ever, conclude that the theory might be incorrect but instead routinely propose alternative explanations, such as flaws in the measurement instrument. Theory testing is further impeded by the fact that many theories do not sufficiently specify the relationships between their variables. As such, few older theories are discarded or considerably modified, whilst new theories are introduced without having a clear added value, leading to an overabundance of theories (Noar & Zimmerman, 2005; Ogden, 2003). These issues are being addressed through assessments of the commonalities of different theories, such as overlapping constructs, and through empirical comparisons of different theories (Connor & Armitage, 1998; Noar & Zimmerman, 2005). HL researchers who employ health psychology theory must stay abreast of such developments in order to ensure the quality of their research.

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What is Williams Syndrome?

WILLIAMS SYNDROME is a rare neurodevelopmental disorder which affects an estimated 1 in 7,500 to 1 in 20,000 individuals across the world (Dodd, Porter, Peters, & Rapee, 2010). Individuals with WS are characterised by an impairment in their intellectual functioning (Bellugi, Adolphs, Cassady & Chiles, 1999), a unique profile of cognitive and executive function deficits, physical complications which include heart, kidney and bladder problems and a distinct social profile (Jarvinen, Korenberg & Bellugi, 2013).

Individuals with WS have been reported to show excessive friendliness towards all individuals and a high engagement in social approach behaviour (SAB) (Jarvinen-Pasley et al., 2010; Martens, Wilson, Dudgeon & Reutens, 2009). This hypersociability can place those with WS in a situation of social vulnerability due to their poor threat detection and absence of fear towards strangers. This has been reported to be a major concern for the parents of individuals with WS with regards to their safety (Fisher, 2014; Jawaid, Riby, Jones, White, Tarar & Schulz, 2012).

Which factors underlie this heightened social approach behaviour?

Several neural and psychological accounts have been proposed to account for the heightened SAB demonstrated by individuals with WS. This article will describe two of these theoretical accounts – the frontal lobe hypothesis and the amygdala hypothesis. It will support further these theories with empirical research evidence.

The frontal lobe hypothesis

The frontal lobe hypothesis proposes that the heightened SAB demonstrated by individuals with WS is caused by impairment in response inhibition, resulting from abnormalities in the frontal lobe brain structure (Little, Riby, Janes, Clark, Fleck & Rodgers, 2013). Response inhibition is the suppression of an automatic response and has important consequences for daily functioning (Brydges, Anderson, Reid & Fox, 2013). Researchers have reported significant impairments in response inhibition in individuals with WS when compared to typically developing individuals (Carney, Brown & Henry, 2013; Porter, Coltheart & Langdon, 2007). Neuroimaging research has further supported this
theory, demonstrating reduced activation within the dorsal lateral prefrontal cortex and the dorsal anterior cingulate cortex, with both of these brain structures believed to be critical in the functioning of response inhibition (Mobbs, Eckert, Mills, Korenberg, Bellugi, Galaburda & Reiss, 2007).

Research findings have also shown that individuals with frontal lobe brain damage demonstrate a similar social profile to individuals with WS; specifically they both engage in uninhibited behaviour towards strangers. These individuals know that they should not approach strangers, however are unable to inhibit their impulsive response to engage in these interactions (Little et al., 2013). The frontal lobe hypothesis suggests that individuals with WS have an impairment in their executive response inhibition, which leads to uninhibited behaviour towards strangers and subsequently increases the social vulnerability of these individuals in their everyday lives.

The amygdala hypothesis

The amygdala hypothesis is another theoretical account which has been proposed to account for the heightened SAB shown in WS. It is argued that this heightened sociability to approach strangers is a result of abnormalities in the functioning of the amygdala. The amygdala is the brain structure which is responsible for the identification of emotional expressions and is essential in the detection of threat (Winston, Strange, O’Docherty, & Dolan, 2004).

Research using functional magnetic imagining has supported atypical functioning of this brain structure in WS, with reduced activation of the amygdala in response to negative facial expressions and increased activation in response to positive facial expressions (Hass, Mills, Yam, Hoeft, Bellugi, & Reiss, 2009). This suggests that individuals with WS process faces differently from typically developing individuals, where they engage in greater processing of positive facial expressions and reduced processing of negative facial expressions. As a consequence, they may be less likely to detect threat in their social environment and may be at greater risk of social vulnerability.

In a similar vein, research has demonstrated that individuals with bilateral amygdala damage rated negative faces as more approachable than typically developing controls (Adolphs, Tranel & Damasio, 1998) and demonstrated increased approach towards unfamiliar people (Bellugi et al., 1999) similar to individuals with WS (Martens et al., 2009). Furthermore research has highlighted a significant relationship between increased amygdala volume in WS and increased SAB (Martens et al., 2009). This suggests that amygdala damage may account for the heightened SAB and sociability demonstrated by individuals with WS.

Little et al. (2013) tested the frontal lobe hypothesis and the amygdala hypothesis as an account of heightened SAB in WS. There was a significant relationship between impairment in response inhibition and higher ratings of approach in a sub-group of children in this sample. A sub-group of individuals studied who demonstrated the highest rating of SAB as indicated within ‘Adolph’s approachability task’ also demonstrated the poorest inhibition performance across all individuals. These findings provided support for the frontal lobe hypothesis as an account of SAB in WS as there was a significant relationship between reduced response inhibition and heightened SAB. There was no significant relationship between emotion recognition performance and SAB and therefore the results did not support the assumptions of the amygdala hypothesis.

How has social approach behaviour been measured?

Several research methods have been employed to measure SAB in WS. This section of the paper will describe the three research methods of parent reports, self-reports and behavioural observations. This section will evaluate the strengths and limitations of each of these research methods by discussing their application in past research studies.
**Parent report measures**

Parent reports are a widely employed method in the measurement of SAB in WS. Several researchers have utilised the Salks Institute Sociability Questionnaire (SISQ) among the parents of individuals with WS (Doyle, Bellugi, Korenberg, & Graham, 2004; Jones, Bellugi, Lai, Chiles, Reilly, Lincoln, & Adolphs, 2000). Research employing this measure have shown that individuals with WS are reported to demonstrate significantly higher approach behaviour towards unfamiliar people when compared to typically developing controls (Doyle et al., 2004; Jarvinen-Pasley et al., 2013) and to a matched control group of individuals with Downs syndrome (Doyle et al., 2004). While it is evident that parent reports have provided substantial support for heightened SAB in WS and have been highly informative to this field of research, it has been argued that parents’ prior knowledge of the WS profile and their expectations for their child’s behaviour could increase the potential for response bias (Dodd et al., 2010).

**Self-report measures**

Self-report measures have also been employed in the assessment of SAB in WS. Adolphs Approachability Task (Adolphs, Tranel, & Damasio, 1998) is a self-rating task which has been widely administered within this literature. In this task individuals are presented with static images of faces and are asked to rate the extent to which they would like to approach the depicted person using a likert scale (Bellugi et al., 1999). This task allowed researchers to successfully measure an individual’s judgement on the approachability of an unfamiliar person. Researchers reported that individuals with WS demonstrated significantly higher levels of approach towards unfamiliar people across the positive, negative and neutral faces when compared to typically developing controls (Bellugi et al., 1999; Jones et al., 2000; Martens et al., 2009) while other researchers reported this heightened approachability to only occur in response to happy faces (Frigerio, Burt, Gargliardi, Gioffi, Martelli, Perrett & Borgatti, 2006). A potential limitation of self-report measurements is that individuals with intellectual difficulties have been reported across research to experience difficulties in understanding abstract concepts. This raises concerns regarding whether individuals with WS are able to accurately judge their own approachability (Dodd et al., 2010) and thus report in an accurate manner. This limitation could account for the inconsistent findings within the literature.

**Behavioural observation measures**

In more recent years, observation methods have been recruited to measure SAB in WS. Observation methods provide a direct measure of behaviour and allow social behaviour to be observed in real-life settings. Dodd et al. (2010) were one of the first researchers to recruit an observation method in their measurement of SAB in a sample of pre-school children with WS. The children were invited to the research lab which had been set up to resemble a playroom. During the study a stranger entered the playroom and the children’s behaviour and interactions with this stranger were observed. Dodd et al. (2010) reported that the children with WS engaged with the stranger significantly more than the typically developing children and often approached the stranger without any prompt. This study provided a more direct measurement of SAB than had been achieved by previous parent and self-report methods, however this study was lab based and therefore the ecological validity of the findings must be considered.

Overcoming this issue, Fisher (2014) conducted an observational study in a real-life environment. Fisher (2014) assessed SAB towards strangers at a residential summer camp for individuals with WS. Situations were constructed with the use of a confederate actor who played the role of the stranger. In each scenario the stranger invited the participant to follow them or to go with them to assist with a task. Fisher (2014) reported that 86 per cent of the participants followed the stranger. This study provided a direct measurement of SAB in WS in a real-life social
environment and highlighted the vulnerability of this group to stranger danger.

**Conclusion**

Multiple methodologies have been recruited by researchers to measure social behaviour in WS and have generated accumulated support for heightened SAB in this population. Parent and self-report measures have been highly informative in providing insight into the social profile of individuals with WS. More recently observational studies have successfully measured SAB directly by observing individuals in their social interactions with strangers. The frontal lobe hypothesis and the amygdala hypothesis are two accounts which have been proposed to explain the development of this atypical social profile and have identified underlying neural processes as potentially important factors in this behaviour. It is concluded that SAB is a prominent feature of the WS profile, with both children and adults with WS vulnerable to 'stranger danger'. Future research should continue to investigate SAB in WS, with further focus on developing interventions to educate individuals on appropriate and safe practices in everyday social interactions.

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In considering the influence of genetics on our understanding of language disorders, it is useful to examine a range of studies. Twin studies have helped to tease apart genetic influence from shared and non-shared environmental effects, giving an estimation of the heritability of language ability (Bishop, 2002). More specifically, genetic markers have been examined alongside behaviour to identify associations, and family studies have examined genetic mutations. Genome-wide association studies (GWAS) are a more recent enterprise, allowing identification of a number of genes that contribute towards certain traits. Individuals with genetic disorders, who may have particularly good or bad language ability, have also been researched. Each of these types of study will be considered in turn, examining what they have told us about language disorders.

Defining language disorders

Twin Studies
The twin method looks at differences between sets of monozygotic (genetically identical) and dizygotic (genetically non-identical) twins. Greater similarities between monozygotic compared to dizygotic twins are thought to be indicative of genetic cause (Winerman, 2004). A summary of the findings from five twin studies aiming to discover the heritability of Specific Language Impairment (SLI) was given by Bishop and Hayiou-Thomas (2008). Four of these found that monozygotic twins were more concordant for SLI than dizygotic twins. Heritability was estimated at .5 (where 50% of variability in the population is accounted for by genes) or greater in these studies of individuals aged five years and above (Bishop & Hayiou-Thomas, 2008). The fifth study, which tested four-year-olds, found no meaningful difference between monozygotic and dizygotic twins for SLI, leaving the heritability effect negligible. Interestingly, re-analysis of data from the fifth study suggested that the diagnostic criteria determined whether or not a heritability effect was found. The first four studies had only tested individuals whose speech and language problems had led them to clinical help. The fifth study had taken a different approach and generated their SLI sample from testing a population of twins and using standard diagnostic criteria. Bishop and Hayiou-Thomas (2008) explained that those who present to clinics tend to have speech problems, as parents are more likely to notice speech problems and request help. The biased samples had indicated what appeared to be heritability for SLI, but was rather heritability for speech impairment.

Although the twin method is widely used, it remains controversial. Twin studies rely on a number of assumptions, including random mating and equal environments, which may
be unmet (Winerman, 2004). If mating is not random, and humans reproduce with partners who are similar to them, then dizygotic twins may share more than 50 per cent of their genetic code (Winerman, 2004). Further, it may not be the case that dizygotic and monozygotic twins are treated equally; identical twins may be treated more similarly than non-identical twins. Molecular genetics becomes useful here, as it allows us to look more directly at the effect of specific genes (Winerman, 2004).

**Molecular studies**

The first gene found to be implicated in language disorders was FOXP2, discovered through extensive testing of the KE family. The KE family were an especially interesting case study, because half of the family had severe disorders in speech and language. Microscopic techniques allowed the researchers to identify a mutation on FOXP2 that was common to family members with the disorder (Itzhaki, 2003). Watkins, Dronkers, and Vargha-Khadem (2002) investigated the cognitive and behavioural profiles of affected KE family members, shedding light on the gene’s specific effects. Affected family members had a similar deficit to stroke sufferers who had acquired aphasia; in non-word repetition requiring complex articulation. This is indicative of a disability in phonological storage, keeping word sounds in working memory (Watkins et al., 2002). FOXP2 seems to have a broad role for producing language and speech (Gibson & Gruen, 2008), and a mutation in FOXP2 can lead to severe speech and language disorder.

Another important gene for language is CNTNAP2. Common variants of four marker regions of CNTNAP2 were associated with language development at two years of age (Whitehouse, Bishop, Ang, Pennell, & Fisher, 2011). This gene appears to affect language acquisition in the typically developing population. This suggests that language disorders may not differ from the normal distribution, but rather appear at the lower end of normal variation.

**Genome-wide association studies (GWAS)**

This method involves analysing the entire genome to identify risk factors for certain disorders. One million markers across the genome can be tested for association (Gibson & Gruen, 2008). Only a few GWAS have been conducted in relation to language disorders, largely due to the relatively small proportion of individuals with these disorders (Reader, Covill, Nudel & Newbury, 2014). Those that have been carried out often include individuals with comorbidities, and so far most of these results are conflicting (Reader et al., 2014). One study looked at language and reading together: as these abilities are often concomitant they probably share some genetic influence (Gialluisi et al., 2014). Two single-nucleotide polymorphisms (SNPs) were associated with a range of reading and language abilities (Gialluisi et al., 2014). One of these SNPs was within RBFOX2, which is a target of FOXP2 (Reader et al., 2014). As seen above, FOXP2 is implicated in language disorders.

GWAS are helping to build a picture of the genes related to language variation and language disorders, and more studies will help to untangle the contradictory results. Although GWAS are becoming cheaper and easier to run, there are concerns that the huge numbers lead to false-positives (Gibson & Gruen, 2008). Large numbers of comparisons with big samples are likely to lead to significant effects, so statistical procedures must advance to counter this possibility.

**Genetic syndromes**

Studying language in genetic syndromes that are associated with atypical language may improve our understanding of language disorders as a whole. Down syndrome is the most common birth defect, and is usually caused by duplication of chromosome 21. In Down syndrome, language ability is often lower than expected by general cognitive level, and grammar appears to be more impaired than vocabulary (Stojanovik, 2013). Comparisons with children who have
SLI showed that grammar abilities are similar (Stojanovik, 2013). It is interesting that individuals with a known genetic disorder have language profiles similar to SLI, and is perhaps indicative of a genetic influence in language disorders. Williams syndrome is caused by the deletion of around 25 genes on chromosome 7, and is associated with severe learning difficulties (Stojanovik, 2013). The prevailing view is that children with Williams syndrome tend to have language above an expected level for their intelligence (Asbury & Plomin, 2014). However, it appears that the picture is more complicated than this. A review of speech and language abilities in Williams syndrome showed contradictory findings across a range of studies. In one body of work, children performed at ceiling on tasks of grammatical regular inflection, while other studies showed morphosyntactic abilities in line with SLI (Stojanovik, 2013). Overall, individuals with Williams syndrome show uneven profiles of cognitive ability, and it is unclear why language is described as enhanced by some researchers and poor by others. It may be that the deleted genes in this syndrome are not related to language at all, and these individuals simply show variation as would be expected in any population.

Individuals with a sex chromosome trisomy (XXX, XXY, or XYY) tend to have language and communication problems (Bishop & Scerif, 2011). The cognitive phenotype of Klinefelter syndrome (XXY) is similar to SLI, and has led to speculation that the underlying genetic determinants may be the same (Bishop & Scerif, 2011). The neurexin-neuroligin (NN) hypothesis posits that these genes interact to play an important role in regulating neuronal genesis and synaptic connectivity (Bishop & Scerif, 2011). If an individual with an extra sex chromosome has an overexpression of neuroligins, alongside certain variants of neurexin that are risk factors for SLI, outcomes may be particularly severe (Bishop & Scerif, 2011). CNTNAP2, examined above, is one such neurexin.

These studies have shown how specific genetic disorders may lead to atypical language. Although it may be tempting to draw conclusions from Down syndrome to garden variety SLI, it is important to be aware that the average Down syndrome cognitive ability and associated genome is not simply a window into the development of others. Karmiloff-Smith (1998) argued that to think in this way ignores the great heterogeneity in development. Furthermore, it is worth studying language atypicality in genetic syndromes for the sake of those particular individuals; their cognitive difficulties are just as important as those who are typical genetically. Parents and paediatricians need to know the expected outcomes for individuals with genetic syndromes in order to provide the necessary help (Bishop & Scerif, 2011).

Many genetic risk factors

One goal of studying the genetic underpinning of any disorder is to identify risk. Apart from in genetic syndromes, the science is not yet at a level to test individuals for their risk. Considering the heterogeneity in language disorders it seems unlikely that any single genetic underpinning will be discovered. The Quantitative Trait Loci (QTL) hypothesis suggests that all traits are influenced by many genes, each of which has a tiny effect (Asbury & Plomin, 2014). In terms of language disorder, this hypothesis would posit that there is no single gene contributing to impairment, rather, it is the outcome of a number of genes.

Conclusion

Here we have seen the contributions of a number of genetic methods to our understanding of language disorders. Twin studies initially suggested high heritability for language impairment, although the speech aspect appeared more heritable than the language component. Molecular analyses revealed that FOXP2 and CNTNAP2 are genes that appear to be important for language development. GWAS discovered...
two SNPs involved in language and reading. An examination of genetic syndromes indicated that language disorders in these individuals may be genetically caused. Finally, the QTL hypothesis suggested that a range of genes may be involved. So far the picture is a complicated one, but all of these types of study are improving our understanding. Although we may currently not have a good enough knowledge of genetics to inform practice, the endeavour is nonetheless worthwhile. A solid knowledge base is gradually being built, together with findings from other research methods, which may one day help early diagnosis and treatment of language disorders.

Acknowledgement
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CALL FOR CONTRIBUTIONS
Special Issue Psychology of Sexualities Review

Bisexuality / Non-Binary Sexualities
Edited by Nikki Hayfield & Adam Jowett

A number of scholars have highlighted how bisexualities and non-binary sexualities have been marginalised both within and outside LGBTQ psychology. This special issue, to be published in 2017, seeks to highlight work that addresses the marginalisation of bisexualities and non-binary sexualities. Suggestions for topics that contributors may wish to engage with include, but are not limited to:

- Bisexual (in)visibility
- Bisexual and non-binary identities and experiences
- Biphobia and social marginalisation
- Attitudes towards and perceptions of bisexual and non-binary sexualities
- Social representations of bisexuality and non-binary sexualities
- Bi communities and activism
- Bisexuality and monogamy/polyamory
- Bisexuality and wellbeing

Psychology of Sexualities Review is the official publication of the British Psychological Society’s Psychology of Sexualities Section, which aims to serve members whose work is relevant to LGBTQ issues. We welcome papers from a wide range of disciplines. The editors would welcome early expressions of interest and are happy to discuss proposals for contributions. Empirical papers will be peer-reviewed, while shorter comment pieces will be accepted at the editors’ discretion. The deadline for submissions is 1st October 2016. Manuscripts (maximum 8000 words) and informal enquiries should be sent to the editors using the email address below. Further notes for contributors can be found in the publications section of our website: www.bps.org.uk/pos

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Discussion paper:

Parasites and their implications for social and cultural psychology

Brian O'Shea

Social/cultural psychologists have traditionally used the value systems of collectivism and individualism to explain differences across cultures but very little consideration has been given to the ultimate origins of these value systems. Parasite Stress Theory (PST) is a new evolutionary theory that aims to explain why overarching value systems develop differently throughout the world and how these value systems lead to variations across countries (e.g. in xenophobia, innovation, conformity and political attitudes). This paper will discuss how PST, in conjunction with the Behavioural Immune System (BIS) explains in-group and out-group interactions and specifies the conditions that lead to heightened prejudice.

Parasites and their implications for social and cultural psychology

FACEBOOK’S CO-FOUNDER Mark Zuckerberg has recently pledged to give 99 per cent of his wealth to charity. One of the primary uses of this money will be for curing diseases, which is a goal similar to that of the Bill and Melinda Gates Foundation. One possible reason for these investments is that diseases are both historically and currently the number one cause of death for humans. Non-infectious diseases (e.g. heart attacks) are currently the leading cause of death in developed countries, whilst infectious diseases such as HIV or respiratory infections are still the leading cause of death in developing and low-income countries (World Health Organisation, 2012). What distinguishes these two types of disease is that infectious diseases are caused by organisms (pathogens) such as viruses, bacteria or parasites whilst no pathogens are involved in the development of non-infectious diseases; the latter often develop due to unhealthy lifestyle choices. Because infectious diseases have had such an immense impact on human survival, it is likely that humans have developed strategies/mechanisms to minimise pathogen threat throughout evolution.

Behavioural Immune System (BIS)

One of the mechanisms that evolved in humans to protect them from diseases is an immune system. The immune system triggers a physiological response that is activated when a pathogen is detected (reactive response). Additionally, humans also have a proactive defence mechanism as seen by the Behavioural Immune System (BIS; Murray & Schaller, 2016) which involves vigilant response behaviours to potentially threatening stimuli (e.g. avoiding foul smelling foods or sick people). Importantly, humans are biased towards making Type 1 errors such as incorrectly identifying and responding to inexistent threats (Error Management Theory; Haselton & Nettle, 2006) because it increases the chances of survival. Therefore, the BIS, in conjunction with Error Management Theory, predicts that people are more likely to avoid those who are perceived to have an infectious disease or those that are more likely to contract one.

For example, comparably heightened avoidance behaviours and disgust responses were observed when participants were responding to individuals with an infectious disease or superficial facial disfigurements compared with healthy controls (Ryan et al.,...
Although facial disfigurement can be an indicator of a genetic abnormality, normally no infections can be transmitted because of this abnormality. An error management BIS response is also evoked when participants are primed to think about diseases through a picture slideshow. For example, participants in a disease slideshow condition showed increased prejudice towards the elderly, people with physical disabilities and those who are obese compared to a control slideshow (for a review see Murray & Schaller, 2016).

The BIS also posits that people will engage in avoidance behaviours as well as having heightened negative attitudes towards people who are more dissimilar to themselves. These responses are based on the fact that people who look different (i.e. skin colour), sound different (i.e. accent, language) or have different cultural values (i.e. religion) are more likely to be from a different region and hence would have been exposed to novel diseases. Therefore, foreigners are likely to have increased immunity to some diseases that local people can become infected by and local people can also infect foreigners with diseases they themselves are immune to. Consistent with this disease avoidance response, Faulkner et al. (2004, study 6) found that participants primed with diseases were more inclined to spend government money recruiting immigrants from subjectively familiar countries to the exclusion of those from countries they considered more foreign.

Introducing Parasite Stress Theory (PST)
The BIS explains the psychological mechanisms of detecting and avoiding potentially threatening disease transmissions, hence focussing more on individual differences. In contrast, PST (Thornhill & Fincher, 2014) is used to explain why differences in overarching value systems develop (i.e. collectivism vs. individualism) and generally uses environmental differences (e.g. rates of diseases) to explain cultural variations in beliefs. Social and cultural psychology has tradition-
Table 1: Differences between Collectivism and Individualism (Thornhill & Fincher, 2014)

<table>
<thead>
<tr>
<th>Collectivism/Conservatism</th>
<th>Individualism/Liberalism</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developing countries</td>
<td>Developed countries</td>
</tr>
<tr>
<td>More infectious disease</td>
<td>Less infectious disease</td>
</tr>
<tr>
<td>More homicide</td>
<td>Less homicide</td>
</tr>
<tr>
<td>In-group goals paramount</td>
<td>Personal autonomy and self-fulfilment paramount</td>
</tr>
<tr>
<td>Low cognitive ability (IQ)</td>
<td>High cognitive ability (IQ)</td>
</tr>
<tr>
<td>More religious</td>
<td>Less religious</td>
</tr>
<tr>
<td>Autocratic governance</td>
<td>Democratic governance</td>
</tr>
<tr>
<td>Stronger family ties</td>
<td>Weaker family ties</td>
</tr>
<tr>
<td>Low rate of innovation</td>
<td>High rate of innovation</td>
</tr>
<tr>
<td>High conformity to tradition and norms</td>
<td>Low conformity to tradition and norms</td>
</tr>
<tr>
<td>Low socioeconomic status</td>
<td>High socioeconomic status</td>
</tr>
<tr>
<td>Restricted/conservative female sexuality</td>
<td>Unrestricted/liberated female sexuality</td>
</tr>
<tr>
<td>Greater distinctions between in and out-groups</td>
<td>Fewer distinctions between in- and out-groups</td>
</tr>
<tr>
<td>More out-group avoidance and racism (xenophobia)</td>
<td>Less out-group avoidance and racism</td>
</tr>
<tr>
<td>High disgust sensitivity</td>
<td>Low disgust sensitivity</td>
</tr>
<tr>
<td>Low openness to new experiences</td>
<td>High openness to new experiences</td>
</tr>
<tr>
<td>Closed-minded and unimaginative</td>
<td>Creative and curious</td>
</tr>
<tr>
<td>Perceptions of a threatening and dangerous world</td>
<td>Perceptions of a more secure world</td>
</tr>
<tr>
<td>Intolerance of ambiguity</td>
<td>Tolerance of ambiguity</td>
</tr>
<tr>
<td>High contagion concern</td>
<td>Low contagion concern</td>
</tr>
</tbody>
</table>

Initial evidence in favour of PST

Using epidemiological data and worldwide cross-national surveys of individualism/collectivism, Fincher et al. (2008) were the first to find support for PST. They found that greater regional prevalence of pathogens strongly correlated with cultural indicators of collectivism and negatively correlated with individualism. Further evidence has shown that increased pathogen prevalence predicts regional variation (both internationally and across US states) of indicators of collectivism such as stronger family ties, increased ethnocentrism (seeing your culture/group as superior) as well as greater religious belief (Fincher & Thornhill, 2012). The reasons for religious beliefs increasing under high pathogen stress is that they ensure strict adherence to behavioural norms that would reduce disease transmissions (e.g. no premarital sex and not eating certain types of food). Premature death of loved ones, especially children, is more likely in high parasite stress areas and religion has the potential to reduce some of the torment this situation will induce.

Correlational evidence also shows that across countries as well as US states, increases in disease prevalence predicts lower intelligence (Eppig et al., 2011). The potential cause for this correlation is that the body has to distribute energy in the most effective way to ensure survival; under high parasite stress, people are more likely to get exposed to an infection and consequently energy would have to be devoted to the immune system response which would reduce the energy available for other areas of development (i.e. cognitive development).
Individualism has often been linked to economic growth and Gross Domestic Product (GDP), and Thornhill and Fincher (2014) have shown that a decline in parasites is also strongly linked to these outcomes. Indeed, Murray (2014) has shown that a reduction in parasites predicted scientific and technological innovation, which greatly influences a country’s GDP and economic growth. Importantly, mediation analysis revealed that the link between decreasing parasites and increased innovations was mediated by reductions in conforming behaviours. In collectivistic cultures (high parasite), deviating from the norm is greatly disapproved and this conformity is believed to reduce creativity and innovation. Because social norms help to reduce infections transmitting (e.g. hygiene and food preparation techniques; Murray & Schaller, 2016), conformity likely had evolutionary advantages.

Both correlational and experimental methods have shown that increased exposure to diseases leads to increases in conformity (e.g. Murray & Schaller, 2012). Furthermore, greater parasite prevalence leads to autocratic governance (Murray et al., 2013) and increases (social) conservatism (for a review see Terrizzi et al., 2013). Higher parasite rates have also been shown to increase the number of languages as well as the amount of distinct religions in regions (Fincher & Thornhill, 2008) which is believed to be due to groups’ unwillingness to engage with outsiders. Lastly, parasites are believed to have an influence on personality and sexuality, resulting in more inhibitory behaviours (e.g. introversion, reduced openness and casual sex) as these decrease the potential of becoming infected with diseases (Schaller & Murray, 2008). Importantly, the correlational results reported above remain significant when controlling for potential confounding variables (e.g. human freedom, economic development, educational attainment etc.).

Limitations and new preliminary results
A major limitation of the PST is that it initially relied on only correlational evidence across countries and regions. However, some of these correlations have recently been supported experimentally through BIS research. Hackman and Hruschka (2013) have also criticised PST, highlighting that rates of diseases across the US are heavily influenced by sexually transmitted diseases (STDs). They show that if STDs are removed from the analysis then a number of the significant correlations in the US (i.e. family ties, interpersonal violence, child maltreatment and religious adherence) are lost. However, I would argue that certain diseases cannot be arbitrarily removed from the analysis, especially those that lead to pain or a reduction in life span. Regardless, rates of infections have been greatly reduced throughout the US over the past half century and still strong correlations are found even if STDs are the major contributor.

An additional concern with PST is that it generally aggregates (using the mean) individual level data to form overall state level and country level metrics, and to date the theory has not accounted for individual variation in responding. I am attempting to provide a much finer level of analysis to validate PST by using multilevel analysis, which allows individual participants’ data to be grouped, not aggregated by region (Pollet, Tybur, Frankenhuis & Rickard, 2014). This will be achieved using Project Implicit’s results gathered from millions of people across the world (see www.projectimplicit.net/).

Conclusion
In a relatively short period, an intensive effort has been mounted to highlight how infectious diseases/pathogens can have a strong impact on overarching value systems. PST details how high pathogen environments cause people to display traditional, collectivist/socially conservative values such as nepotism, xenophobia and ethnocentrism. In contrast, regions with low pathogen stress display progressive, individualistic/liberal values, including greater outgroup tolerance. The BIS has further validated PST through experiments which highlight how primes of diseases lead people to be
more xenophobic and have conforming behaviours. Advanced statistical techniques such as multilevel analysis which takes into account individual level responses will also strengthen PST. The impact of diseases is especially important for social and cultural psychologists as it emphasises situations when discrimination and prejudice will likely be exacerbated. If the evidence from PST and BIS is correct, then the efforts of Mark Zuckerberg and the Bill and Melinda Gates Foundation to reduce/cure diseases will likely improve relations between groups which is one of the major pursuits of social psychology.

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References
Psychology of Women Section
ANNUAL CONFERENCE, 2016
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Apathy and depression can occur as independent constructs in various diseases, however, they have also been shown to overlap in certain features. It is not always clear as to how these two constructs are practically and theoretically different (divergent) or similar (convergent). Therefore, this article aims to discuss how the relevant literature has attempted to explain the issue of divergence and convergence of these constructs and to clarify this important, albeit complex, relationship between features of apathy and depression. Finally, important considerations are outlined so that apathy and depression can be assessed and researched while taking into account these divergent and convergent features.

**Divergence**

Apathy is defined as a lack of motivation pertaining to aspects of behaviour such as planning, doing things and experiencing emotions (Marin, 1996). It also includes features relating to indifference and emotional blunting, i.e. emotional neutrality (e.g. Levy, 2012; Radakovic & Abrahams, 2014). This is best exemplified through individuals not being concerned with, empathetic towards or emotionally expressive to others or their environment. Depression is most often defined through emotion, primarily as a low mood or sadness (World Health Organization, 1992). Specifically, depression is associated with feelings of dysphoria, guilt and hopelessness (Tagariello, Girardi & Amore, 2009), with these feelings often accompanied by negativity towards oneself (World Health Organization, 1992).

Based on these definitions, it seems apparent that the main divergence between apathy and depression is in relation to emotionality. While depression is characterised by emotionality itself (i.e. negative mood), apathy on the other hand is defined by emotional neutrality (i.e. no experience of positive or negative emotions). Research looking at subtypes of apathy has found emotional apathy to be least associated with depression, in healthy adults and amyotrophic lateral sclerosis patients (Radakovic & Abrahams, 2014; Radakovic et al., in press). Further, in dementia, characteristics of apathy are thought to be indifference, blunted emotions, low social engagement, diminished initiation and poor persistence in activities or tasks (Landes, Sperry, Strauss & Geldmacher, 2001; Tagariello et al., 2009). However, apathy research is still relatively new, as there are seldom studies that have directly looked at whether these specific aspects, or subdivisions, of apathy uniquely distinguish it from depression. Currently, many of the divergence assumptions are theoretical and have yet to be tested empirically.

**Convergence**

Apathy and depression share some common features (e.g. Levy et al., 1998; Tagariello et al., 2009). Interest is cited as the most common overlapping characteristic between apathy and depression (e.g. Landes et al., 2001; Kirsch-Darrow, Fernandez, Marsiske, Okun & Bowers, 2006) and is noted as being a part of the definition of depression (World Health Organization, 1992). Nevertheless, interest is thought to be associated with both motivation and mood (Landes et al., 2001; Kirsch-Darrow et al., 2006). For example, when interest in an activity exists, it requires prospective enjoyment of the activity. This in
Convergence and divergence of apathy and depression

Turn provides motivation for such an activity, which is associated with a positive emotion or enjoyment of an activity. Further to this, interest has been observed as a separate factor specific to apathy and depression in Parkinson’s disease (Kirsch-Darrow, Marsiske, Okun, Bauer & Bowers, 2011). It is important to note that many tools that assess apathy or depression have items that ask about interest, for example interest in the wellbeing, activities, plans and surroundings of oneself or others (e.g. friends or family members). Therefore, it is important to be aware of and sensitive to how often these tools mention interest and this taken into account when choosing appropriate tools for assessing either depression or apathy.

Additionally, anosognosia, or a lack of insight or awareness, has in the past been considered an overlapping characteristic of apathy and depression (Landes et al., 2001). In a prospective follow up study, 199 patients with dementia were found to display anosognosia for apathy and increased awareness in relation to depression (Aalten et al., 2006). Research suggests that anosognosia may be related to depressed mood in Alzheimer’s disease (Verhülsdonk, Quack, Höft, Lange-Asschenfeldt & Supprian, 2013). A recent review, however, concluded that anosognosia was observed more in apathy than in depression (Mograbi & Morris, 2014). Furthermore, one study looking at amyotrophic lateral sclerosis patients with and without frontotemporal dementia found that patients with amyotrophic lateral sclerosis with frontotemporal dementia had profound lack of insight relating to apathy, observed through as a discrepancy between self-ratings and informant-ratings of behaviour change occurring since disease onset (Woolley, Moore & Katz, 2010). It is therefore possible that anosognosia in relation to apathy and depression is specific to disease type or even severity, which could account for these mixed findings. Thus, it would be important to record both self-observed and carer/informant-observed apathy and depression, to determine how they relate to anosognosia.

Fatigue is also considered one of the main criteria for diagnosing depression (e.g. Marsh, McDonald, Cummings & Ravina, 2006; Vilalta-Franch et al., 2006). Fatigue can be defined and observed as tiredness with a gradual onset and can occur as a symptom associated with various neurodegenerative diseases (e.g. Beiske & Svensson, 2010; Lo Coco & La Bella, 2012). Apathy has also been shown to be associated with fatigue in both Parkinson’s disease and multiple sclerosis (Cochrane et al., 2015). Another recent study found an association between apathy and fatigue in depressed Parkinson’s disease patients (Skorvanek et al., 2015). However, fatigue itself could be masked by the lack of motivation associated with apathy, tending towards incorrect classification of fatigue. These points could serve as a prompt to revise the diagnostic criteria for depression to take into account the relationship between fatigue and apathy, along with the consideration of the latter possibly concealing the former.

Summary
It is clear that apathy and depression as constructs have very complex relationships. There are several areas where apathy and depression converge. Interest seems to be the most prominent factor in this overlap, influencing assessment of both apathy and depression. Further to this, anosognosia seems to be an important point of convergence between the two, but is variable and related to type of disease or other clinical variables. Solutions to these issues could be to carefully choose apathy and depression tools that are matched for use in specific diseases, while recording carer’s/informant’s rated observations, in addition to self-assessment, to overcome the issue of lack of insight. It would also be preferable to take into account the extent to which interest is used within apathy and depression tools, choosing tools that have no or minimal reference to interest. In relation to diver-
gence, there are areas that are thought to be independent to apathy and independent to depression. The most implicit area is in relation to emotionality, with depression being associated with emotion and apathy being associated with emotional neutrality. However, while there is some evidence supporting this, it has seldom been examined in patient populations and requires further investigation. Further research looking at subtyping of apathy, and perhaps even depression, may help clarify these dissimilarities.

References

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We look forward to hearing from you...
IN RECENT DECADES the appeal of coaching has gathered a momentum all of its own. Peruse the shelves of virtually any book shop and the consumer is confronted by a plethora of resources promising innovative ways to enhance happiness and success. An online search similarly produces information on an enormous variety of individuals and organisations claiming to be able to facilitate improved wellbeing and performance at the personal or professional level. As I discovered when researching this article, inputting the word ‘coaching’ into Google (the likely route of many potential consumers and the ‘coaching curious’) now generates over 400 million entries. Coaching is big business in every sense of the word, and there is a lot of it about.

The popularity of coaching and the apparent speed of its proliferation is probably a phenomenon that is deserving of investigation in its own right. For the purposes of this article, however, my aim is to introduce you to what is arguably one of the most exciting recent developments within applied psychology and to make the case for why, as members of PsyPag, you would be interested in what this field has to offer.

What is coaching psychology?
Since the turn of the 21st century, coaching has become widely recognised as a powerful intervention for optimising effectiveness, fulfilling potential and enhancing the performance and wellbeing of individuals, teams, organisations and communities. As a distinct specialism, coaching psychology has been defined as,

‘…an applied positive psychology [which] draws on and develops established psychological approaches, and can be understood as being the systematic application of behavioural science, which is focused on the enhancement of life experience, work performance and wellbeing for individuals, groups and organisations with no clinically significant mental health issues or abnormal levels of distress’ (APS IGCP, 2003; cited in Grant & Cavanagh, 2007; p.240).

Of course, the informal delivery of coaching is far from new. Over the centuries master practitioners of all trades, professions and disciplines have developed forms of instruction and mentorship aimed at initiating apprentices into the practices of their specific enterprise that might loosely be considered as falling under the umbrella of coaching. However, formal recognition of coaching is much more recent and can be traced back to the publication of Coleman Griffiths’ book, The Psychology of Coaching in 1926 – a volume that looked specifically at the application of coaching to sports management. The human potential movement that emerged during the 1960s and 1970s added further impetus for scoping the
terrain of coaching, given the shared value of strengths-building over the modification of problems and limitations.

In the UK, coaching psychology achieved formal recognition with the founding, in 2004, of the Society’s Special Group in Coaching Psychology (SGCP). This event followed the development in 2002 of the Coaching Psychology Forum – an internet-based forum which sought to achieve improved standards of practice for the benefit of both the public and the profession. Since then, coaching psychology flourished, attracted members from across the Society’s member networks (the SGCP’s membership comprises occupational, clinical, counselling and health psychologists, amongst others) and has developed a strong professional identity. (For a more detailed history of the SGCP, see Palmer & Whybrow, 2005.).

Given the emphasis on enhancing well-being and performance, and optimising personal and professional effectiveness, it is perhaps unsurprising that a number of professionals claim coaching interventions amongst their armoury. This has resulted in an increasingly wide range of applications designed to meet the needs of an equally diverse range of stakeholders. For example, the Society’s Register of Coaching Psychologists (which enables Society members working in the field of coaching psychology to achieve recognition of their expertise and to differentiate their services) identifies, amongst other forms of specialism:

- Business coaching;
- Executive coaching;
- Health/wellbeing coaching;
- Sports coaching;
- Life coaching;
- Personal coaching;
- Career coaching;
- Leadership coaching;
- Performance coaching;
- Stress management coaching;
- Team coaching;
- Mentoring;
- Retirement coaching; and
- Educational coaching.

Delivery may take the form of individual, team, peer and organisational coaching (and may be delivered by coaches who are internal or external to an organisation) where the focus could be on skills and performance, developmental or transformational work. Add to all of this the fact that coaching can also be approached from a variety of theoretical perspectives (solution-focused, cognitive-behavioural, psychodynamic, person-centred, gestalt, narrative, positive psychology, existential, NLP, etc.) and what becomes apparent is that the field is characterised by a smorgasbord of conceptual perspectives and domains of application.

Why coaching psychology needs you!

The diversity that characterises coaching psychology is one of its hallmark features. In a previous interview for The Psychologist (Corrie, Grajfoner & Watts, 2014), I likened coaching psychology to a Venn diagram, where a number of shapes overlap. Its intellectual roots lie in theories of human and organisational development, management and leadership, education and counselling and psychotherapy. Although many psychological disciplines would claim a similarly broad spectrum of conceptual perspectives and coaching psychology does indeed have features in common with other forms of applied psychology, its uniqueness can be found in the ways in which coaching psychologists synthesise the knowledge of different traditions to deliver bespoke interventions in new settings and for a new audience.

Developing an evidence-base: What we want and need

Whilst coaching is flourishing, a number of fundamental questions remain unanswered. Coaching continues to be a largely unregulated profession that is carving out its territory. Training routes for psychologists are still in the process of being established. Moreover, the speed of proliferation means
that many applications share neither a common language nor a set of broader psychological values. This poses real challenges to establishing a robust and credible knowledge-base that is recognised as such by other forms of applied psychology.

The field of coaching more broadly has also been criticised for making enthusiastic pronouncements about effectiveness that exceed its evidence-base (Briner, 2012). While such critiques are grounded in the apparent dearth of randomised controlled trials, it has also been argued that attempting to construct an evidence-base that relies principally on RCTs may be misguided given the inherent complexities associated with investigating coaching – complexities that include limited resources and the inherent challenges of controlling for a wide variety of influencing variables, certainly in the context of workplace coaching (see Fillery-Travis and Corrie, in press). To secure its future, coaching psychology would do well, therefore, to consider fresh and creative ways of designing and implementing investigations which are capable of truly capturing the phenomena of primary importance to practitioners and their stakeholders (Corrie, in press).

There seems little doubt that coaching psychologists are extremely interested in high quality research viewing this as the route to establishing credibility and enhancing practice. At the 5th European Coaching Psychology Conference hosted by the SGCP in December 2015, the organisers of a dedicated research stream (‘Learning in Action: Connecting research and practice for enhancing our effectiveness’; available at www.kc-jones.co.uk/sgcp2015) took the opportunity to survey delegates’ views of research and its role in their work as academics and practitioners*. The results highlighted a very positive attitude to research but also a desire for greater access to more high quality research that could inform the profession at a number of levels. More specifically,

- Just over 78 per cent of respondents said that they regularly read research (with a particular emphasis on applied research);
- Just over 86 per cent of respondents identified research as having had a significant impact on how they work as coaching practitioners; and
- 97 per cent stated that they saw high quality research as being essential to the future of coaching as a discipline and profession but significantly, 45 per cent did not agree that such research was easy to come by.

Although based on a somewhat small convenience sample ($N=110–113$ respondents per question obtained from conference delegates rather than from the broader SGCP membership), reviewing the data suggested a view that the future of coaching psychology is intertwined with the development of a solid basis of knowledge and evidence that is grounded in research. However, there is also a sense that more, good quality research is needed that can inform all stages of the commissioning, delivery and evaluation of coaching outcomes.

This identified need provides potentially rich opportunities for postgraduate psychology students to help shape the future of this discipline – for which there is a receptive audience. The SGCP has two publications – *The Coaching Psychologist* and the *International Coaching Psychology Review* (each of which produces two volumes per year) – that are important vehicles for sharing and disseminating research findings. The SGCP is also in the process of growing a Research Network for individuals who are interested in contributing to the knowledge-base of coaching psychology. And in order to

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* The results of this survey are to be reported in more detail elsewhere (contact the author for further details).
encourage and recognise research excellence in coaching psychology – including from ‘newcomers’ to the field – we offer annual research and student project awards.

**Researchers wanted: Coaching psychology needs you!**
At the 5th European Conference in December 2015 Professor Jamie Hacker Hughes, in his capacity as President of the Society, described the SGCP as an example for the Society’s member networks in terms of its cross-disciplinary appeal and relevance, and its creative approach to inter-disciplinary activity. What unites us as a community is an interest in being at the vanguard of psychology, a desire to find innovative ways to enable individuals, organisations and communities to flourish, and a commitment to extending psychological knowledge and practice to new stakeholders. But there is much work still to do.

As an offering in the market place with now widespread appeal, the field of coaching has witnessed an exponential increase in both supply and demand, and high quality research is needed to inform all stages of the commissioning, delivery and evaluation of coaching outcomes. Coaching psychology is a field of enquiry that is ripe for research, and research innovation. This opens up a wealth of potential opportunity for postgraduates to contribute studies that can genuinely shape what is perhaps the most recent addition to the field of applied psychology. As the researchers of today and tomorrow, coaching psychology needs you.

Will you join us?

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**Further information**
The SGCP is holding its next annual conference in London on 8–9 December 2016. For further details about this, the Research Network, and the Research and Student Project Awards, please contact Sarah Corrie. More information about the mission, aims and activities of the SGCP can be found at: www.bps.org.uk/networks-and-communities/member-microsite/special-group-coaching-psychology.

**References**
Book Review:

An EasyGuide to APA Style, Second Edition
Beth M. Schwartz, Ronald Eric Landrum and Regan A.R. Gurung

Reviewed by Tom Merrill

The morass of stylistic red tape that is the Publication Manual of the American Psychological Association (American Psychological Association, 2010) can be both frustrating and time consuming for new and experienced writers alike. The aim of the EasyGuide to APA style is to provide a condensed and user-friendly adjunct to the Publication Manual. On this front the book largely succeeds.

This book is written in a conversational style which provides a nice relief from consulting the rather dry text of the Publication Manual. The aim of the book is essentially to simplify or demystify some of the complexities of writing using APA style and format. It does this particularly well by providing precise examples of common mistakes and how these can be avoided. I particularly like the fact that, as well as describing correct APA style and format, the book also contains screenshots of sample papers, which provide quick visual guides on correct formatting, referencing and writing style. This allows the reader to see what writing in APA style really looks like ‘on paper’. I also like the fact that the book is spiral bound as it lays flat and stays open at the required page. Another useful addition is the inclusion, on the inside front cover, of ‘common APA style questions’, which directs the reader to the page numbers in which these questions are answered. This allows the reader to quickly access the most relevant parts of the book, rather than having to read it from cover to cover, which is very useful for working ‘on the fly’. Likewise, on the inside back cover is a handy ‘quick checklist’ that covers the majority of style and referencing points that need to be considered when writing and submitting articles.

The guide covers many of the fundamental aspects of good writing style, including topics like paraphrasing, utilising unbiased language and using punctuation. It also provides a chapter on common mistakes made by those new to APA style. It is geared towards those using Word 2010 and includes a useful chapter on APA formatting in Word 2010 (particularly useful if, like me, you are always forgetting how to insert things like page breaks). However, this already makes the book somewhat out-of-date as a newer version of Word (Word 2015) has been released by Microsoft and, of course, it will not be as useful for those using other word processing software. Nevertheless, it makes use of tables for quick reference particularly well, for example laying out common abbreviations and their meanings, as well as frequently used statistical symbols. Towards the end of the book there is also a sample student paper that includes a number of intentional errors and readers are encouraged to spot and amend these. This is a
particularly clever feature as it encourages putting theory into practice and encourages good proofreading practices.

Overall, this book provides an excellent summary of the major points of APA style and format. However, it is important to remember that, rather than operating as a replacement for the *Publication Manual*, this book should be used in conjunction with it.

A good example of this point is the chapter on referencing. The *Publication Manual* includes 77 different examples of referencing formats, while the *EasyGuide* focuses on a handful of the most commonly used formats. However, this ‘need-to-know’ approach represents everything that is good about this book and I would definitely recommend it to those learning about, or needing a refresher on, APA style.

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**References**
THE SUBJECT OF Forensic Psychology has grown in popularity over the years. It seeks to understand and reduce the occurrence of offending behaviour through the application of psychological theory. It also looks at victim groups and their responses to offenders. An increase in the number of researchers within the School of Psychology engaging in Forensic research and consultancy led to the launch of ‘The Centre of Research & Education in Forensic Psychology’ (CORE-FP) at the University of Kent in September 2011. The main aim of the centre is to conduct high impact psychological research, which develops understanding of key forensic issues. The work of the CORE-FP encompasses a broad spectrum of forensic psychology research, including: bullying in prisons, prison gang behaviour, jury decision-making, child sexual offending, rape proclivity, female sexual offending, theories of offender rehabilitation, firesetting, sexual harassment, violence, aggression and alcohol, and the infrahumanisation of offenders. Other areas of research include social cognition, social and moral emotion, and group process theory; all of which are applied to the study of offending behaviour or court process issues.

There are several PhD students who work under the supervision of the CORE-FP team. Here each student will introduce themselves, along with an overview of their doctoral research.

Postgraduate students and research interests

Janice Attard  
**PhD Supervisor: Dr Markus Bindemann**  
For my PhD I am researching the assessment of deviant sexual interests through eye tracking paradigms and comparing these to other implicit measures of sexual interests. More specifically, I am investigating whether viewing time and pupil dilation are indicative of a person’s sexual interests when viewing natural scenes of males and females and whether this can be extended as an age-specific measure of sexual interest for the assessment of child sex offenders.

Emma Barrowcliffe  
**PhD Supervisor: Professor Theresa Gannon**  
Deliberate firesetting is devastating both personally and economically. Given the enormous societal costs, it is important that researchers develop an understanding of who is most prone to set fires and for what reason. My PhD is to investigate and evaluate the characteristics of unapprehended deliberate firesetters, for example, firesetters who have not received a criminal conviction for arson and have not come to the attention of mental health services for their firesetting behaviour.

Hayley Beresford  
**PhD Supervisor: Dr Jane Wood**  
The overall objective of my PhD research is to develop a framework for understanding
the unique psychological (PTSD, anxiety, depression, psychopathy, antisocial personality disorder) and behavioural (criminal and antisocial behaviour) sequelae of trauma exposure in gang-involved males. At present there is an established and growing corpus of research examining the effects of trauma exposure in juvenile delinquents. However, this focus has not been broadened to include the study of gang members who – through their shared gang norms and links to violence – may be at greater risk of exposure to potentially traumatic events and the adverse consequences associated with this e.g. mental health problems and continued delinquency. Due to this relative underdevelopment in the gang literature there is an opportunity to build on what we know from the trauma sequelae of non-gang delinquents to inform and develop a program of research dedicated to mapping the trauma pathway of gang-involved youth.

Helen Butler
PhD Supervisor: Professor Theresa Gannon
My research is focused around the existence of expertise and scripts with adult male firesetters. Whilst often the deficits of offenders are emphasised, my research is investigating whether offenders, particularly those who commit arson, hold offence related competencies that allow them to be more proficient in their offending. Coupled with this, I am also investigating the existence of firesetting scripts. I am interested in whether men who set fires hold a set of rules that direct their behaviour in a given situation and explain why they use fire in certain instances (e.g. to destroy evidence or to send a message of revenge).

Tara Dickens
PhD Supervisor: Dr Jane Wood
Statistics indicate that one to two children each week in the United Kingdom die at the hands of a parent or carer (NSPCC, 2011), with many more serious injuries going undetected by the relevant agencies. My thesis aims to identify the psychological pathways that are unique to men who cause serious physical harm to children, through both qualitative and quantitative research methods. Utilising this mixed methodological approach, my research examines a number of cognitive distortions, including: self-esteem, attachment style, emotional control, anger provocation, empathy, moral disengagement of parenting and coping strategies with stress. I am also interested in the role of empathy and attachment within the prison rehabilitation process, along with the education of front line professionals in child protection work.

Katarina Mozova,
PhD Supervisor, Dr Jane Wood
My PhD focuses on the area of gang membership. The main purpose is to create a Social Psychological framework of youth group membership, specifically focusing on differences between youth in gangs, other delinquent groups and non-delinquent groups. This will be done using a mixed method design – using quantitative and qualitative methods.

Tom Page
PhD Supervisor: Dr Afroditi Pina
My research interests are broadly centred on the etiological processes conducive to sexual harassment. More specifically, I am interested in understanding the social psychological processes that may either inhibit or facilitate sexually harassing behaviour. I am particularly interested in the psychological characteristics of sexual harassment perpetrators, the motives driving and reinforcing sexual harassment, and the social cognitive mechanisms that influence how people perceive and react to sexual harassment and enable harassing events to be rationalised and justified. Moreover, I am interested in examining these processes from perspectives of social identity and morality.
Anita Ruddle  
**PhD Supervisor: Dr Eduardo Vasquez**  
I am interested in the psychological processes that can contribute to the onset of domestic violence, particularly among individuals who have been exposed to some form of childhood abuse. My current focus is exploring the role of anger rumination, generalised trait aggression and implicit theories as possible predictors of domestic violence behaviours within the context of intimate relationships. Other projects I am working on include the investigation of how emotional intelligence and anger rumination may influence aggression and domestic violence behaviours within intimate relationships.

Arielle Sagrillo Scarpati  
**PhD Supervisor: Dr Afroditi Pina**  
Following the completion of my Master’s degree in Brazil, I have been investigating the notion that sexual violence is not an individual problem, but a social one. A cultural and social approach must therefore be taken in order to investigate this. More specifically, my PhD aims to expand and deepen the understanding of rape myth acceptance and its relation to honour concerns and values for law students. Thus, my current aim is to understand some of the cultural components believed to be antecedents of the perpetration of sexual violence against women in Brazil and the UK.

Kayleigh Whitby,  
**PhD Supervisor: Dr Afroditi Pina**  
My doctoral research focuses on perceptions surrounding sexual offences, specifically that of rape and sexual assault. I am mainly concerned with perceptions of rape within the police service and what this can mean for victims’ experiences, reporting and attrition rates. My thesis is looking at a combination of personal and professional factors that influence officers’ perceptions of rape and how the findings can be used to inform training of police officers.

Becky Wyatt  
**PhD Supervisor: Professor Theresa Gannon**  
Firesetting is generally under researched in comparison to sexual and violent offending. My PhD is part funded by the University of Kent and Medway NHS Trust (KMPT) Forensic Psychiatry Service. My thesis focuses specifically upon the development of a structured professional judgement tool for mental health patients who have a history of firesetting. In the development of this tool, I aim to highlight the specific dynamic and static/historical risk factors associated with firesetters who also have mental health problems. It is anticipated that the introduction of this tool into clinical practise will improve the treatment, assessment and overall rehabilitation of firesetters with mental health problems.

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Conference Review:
The 43rd Annual British Association of Behavioural and Cognitive Psychotherapies (Warwick, 20–24 July 2015)
Sarah Page

The British Association of Behavioural and Cognitive Psychotherapies hold their annual conference every summer, using academically prominent universities as their venue. This year’s conference presented research spanning a diverse assortment of interests and approaches within psychotherapy; sessions explored a wide-range of clinical disorders and therapeutic techniques across multiple clinical settings. In this article I discuss symposiums that emphasised innovation in psychotherapy, focusing on novel ways to treat complex symptoms of post-traumatic stress disorder and inventive use of technology to enhance clinical practice. I also highlight the benefits that attendance has for delegates, including clinical, academic and networking opportunities.

HELD AT THE prestigious University of Warwick, the BABCP annual conference was excitedly anticipated by hundreds of clinicians across the UK. The attendees included not only cognitive behavioural psychotherapists who are accredited with the BABCP, but a whole array of mental health professionals and students, keen to practice their psychotherapy skills, eager to learn about developments in the field and be inspired by their peers. The conference allowed individuals who are completing their training to network with established therapists and researchers. Additionally, it provided delegates in clinical practice the chance to be updated regarding current research developments and researchers to appreciate the key skills and priorities of clinicians who are actively treating individuals. This conference spanned a diverse range of themes and interests, with 14 keynote speakers, over 40 symposia and 13 key skills classes.

Some of the most compelling symposia focused on the treatment of post-traumatic stress-disorder (PTSD). Clinicians can often struggle to follow a traditional treatment plan when working alongside individuals with complex PTSD; one symposium provided an insight into the innovative ways some psychologists have overcome hurdles in treatment. Here, Dr Andy Pike and Dr Kerry Young presented the case of an individual who had experienced an immeasurable amount of trauma, was suffering from vivid flashbacks and could not face discussing directly his most distressing memories. They utilised a new technique, that Dr Young had read a paper on, namely pre-emptive imagery re-scripting (c.f., Arntz, Sofi & van Breukelen, 2013). This technique allowed their client to modify the content of his traumatic memory without having to directly ‘tackle’ it. For example, their client was able to discuss the events of the day that took place before his most distressing experience, however when it got to moments before his trauma, Dr Pike worked with him to re-script his next actions. Dr Pike and Dr Young’s successful case presentation set the atmosphere for other clinicians to present their innovative clinical approaches.

Dr Deborah Lee moved on to discuss PTSD treatment for individuals who have endured a life of trauma. Her clients shared important additional obstacles to treatment, such as never experiencing a positive inter-
personal relationship, having no ability to self-soothe during sessions or feeling they could not regulate their own emotions. Before beginning any trauma-focused work, Dr Lee and her team developed a compassion-focused group therapy technique. This group approach provided those involved a specific opportunity to develop the skills needed to work on their trauma memories. Dr Lee described how they had learned that they are not alone, developed a sense of self, realised others do care about them and most importantly, learned affect regulation. For some, this intervention has been so ground-breaking that they felt able to move on with their life without needing the trauma-focused treatment. The outlined case studies were greatly inspiring to hear and highlighted the importance of innovation and evolution in clinical practice.

Spanning multiple keynotes and symposia was an undeniable support for the increased use of technology to aid psychotherapy and develop novel approaches to treatment. In a 40 year review of the use of psychotherapy to treat depression, it was acknowledged that research has shown that sessions delivered via video-conferencing can be just as effective as traditional face-to-face sessions. In addition to its use in treatment, Dr Andrew Beck described how video-conferencing has been used to enable supervision of therapists in less accessible areas. He presented a successful scheme in which Psychologists in Pakistan were supervised by experienced Psychologists in Britain, to help develop their skills and ensure their treatments were following CBT protocols. Interestingly, in a presentation regarding the importance of visiting accident sites when treating PTSD, the use of Google Street View was discussed. Often patients may have experienced a trauma abroad or may not be able to visit the accident site for logistic reasons; Google Street View provides a free, convenient and safe way for the therapist and client to ‘visit’ the accident site together. Overall, it was very apparent that psychotherapists are developing innovative ways to use technology to help improve treatment and make their skills more accessible.

In addition to professional development, one of the primary attractions of the BABCP conference is the chance to network and socialise with other psychotherapists and mental health professionals. The social offerings began with a night of introductory drinks at the University on Tuesday. On Wednesday evening, the delegates were spoilt with the opportunity to visit Warwick Castle for a BBQ and party. This was an amazing opportunity to spend an evening dancing in the beautiful halls. Finally, there was an evening of Tapas on Thursday. The conference ended with a half day of symposia and classes on Friday morning, before delegates returned home with a lot of new knowledge, fresh skills and enthusiasm for the 44th annual conference which is being hosted in Belfast in 2016.

This conference is a great opportunity for anyone with a particular interest in providing psychotherapy or conducting research in the area. It unites clinicians and researchers, allowing them to share their findings and experiences, with the mutual aim of making psychotherapy practice as effective as possible. Everyone attends with an open mind and an excitement to reconnect with old friends and, of course, make new ones.

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In July this year I attended the 11th International Conference on Developmental Coordination Disorder (hereafter DCD11). This biennial event is the go-to meeting for researchers working in the field of developmental movement disorders. The conference was held over three days at the beginning of July and attracted more than 500 delegates from across the globe. Those in attendance were a mixture of cognitive, developmental and neuro psychologists; occupational and physical therapists and doctors and education professionals with an interest in developmental disorders. Developmental Coordination Disorder (DCD) is a condition that affects around 750,000 children in the United Kingdom alone (Bishop, 2010). Sometimes referred to as dyspraxia – and historically thought of as simple ‘clumsiness’ – the condition is now considered to be a disorder of brain development, affecting the parts of the brain responsible for the control of skilled movement. Specific difficulties experienced in DCD relate to the effective planning and initiation of a motor action, the efficient execution of the desired action and the ability to change a desired motor action at the last minute (Wilson et al., 2013). Some children with DCD experience such great difficulty in everyday tasks that the condition interferes with their schoolwork, impairs their ability and desire to participate in sports or social activities, and lowers their overall life-satisfaction (e.g. Cairney & Veldhuizen, 2013; Chen, Tsai, Hsu, Ma, & Lai, 2013). These impairments are not due to medical conditions (such as cerebral palsy) or to differences in muscular morphology, but instead represent neuro-developmental delays in the ability to carry out fine and gross motor tasks compared to typically developing children (American Psychological Association, 2013). DCD is an idiopathic, stand-alone neurodevelopmental disorder, although in 25 per cent of cases there is co-morbid presentation with other neurodevelopmental disorders, most commonly dyslexia or ADHD (Sugden, 2007).

I was particularly keen to attend DCD11 as the conference theme this year focused on co-morbidity of developmental disorders, including aspects of impairment that occur alongside typical deficits seen in DCD. My PhD research examines the organisation of motor control and language in the brain, and as I had conducted a study with participants with DCD this was a good fit for this year’s theme. As such I was pleased my abstract was accepted for an oral communication. The second reason I was excited to
attend DCD11 was that this conference would give me the chance to network with some of the leading DCD researchers from around the world, which was a very useful opportunity given the relatively small number of research groups focusing specifically on DCD.

The conference was organised into a research theme for each day, the first day starting with ‘Diagnosis and Assessment’. There were plenty of interesting talks on offer, most notably the poignant keynote by Professor Amanda Kirby (University of Wales, Newport) discussing in a candid way the impact on her life of having a child with DCD and how thorough assessments can make a big difference to a young person’s life. That same day there was also stimulating discussion about research evaluating handwriting ability; a skill children with DCD particularly struggle with that impacts negatively upon their academic performance. The theme of the second day was ‘Perception and Neural Correlates of DCD’ and it was most exciting to hear the range of emerging neuroimaging studies. It was also interesting to hear about work integrating developmental neuroscience and psychology that aims to further our understanding of the neural substrates of DCD, particularly since only a handful of studies have been conducted in this area. My own oral presentation took place on the second day, and I am glad to say that it was well received and well attended! The third and final day was titled ‘Intervention and Participation’ and again the quality of presentations was very high. One talk which stood out to me presented data demonstrating how children with DCD could be trained to improve their motor coordination through a visual gaze technique adopted from sports science (Miles, Wood, Vine, Vickers, & Wilson, 2015). This highlighted the interdisciplinary nature of the meeting, and also the fact that some of the most useful and impactful research stems from collaboration across research areas and techniques.

Throughout the three days the oral presentations were supported by poster sessions. Posters remained up throughout each day of the conference, and were not restricted to a small poster session timeslot. This allowed attendees a chance to network and meet international research teams and gave time to discuss posters with the authors. One particular appeal of this type of format is that early career researchers were able to present their work in a less intimidating environment, but one in which their research still received a large amount of visibility.

This was my first experience of a conference attended by a mixture of practitioners and academic researchers from a range of disciplines. This meant that the variety of topics was broad, and the level of experience of each presenter was very good, but at times the scientific quality was perhaps not as rigorous as my experience of other cognitive neuroscience/experimental psychology meetings. Nevertheless, the purpose of the conference in bringing together professionals who may not usually have the opportunity to interact was a positive and successful one, and certainly in my own case has led to discussions with new contacts about research collaborations.

I found the structuring of the event very good as there were a significant number of oral communications given, which is increasingly rare at international conferences due to time constraints and number of delegates. However, this did mean that the programme was very full, and the presentation-heavy format did get quite tiring! The organisation was very professional, and the delegate packs contained a lot of useful information, especially the inclusion of a travel card for the entire duration of the event. The next International DCD meeting (DCD 12) is due to be held in Freemantle, Western Australia in July 2017, and based on my experience of this year’s conference I would highly recommend attending if it is relevant to your research area!
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Acknowledgements:
I would like to thank PsyPAG for supporting my attendance at DCD11 through their International Conference Bursary Award.

References:
ART OF BEING an academic means sharing your research with others in your field and the wider community. One of the best ways to do this is by attending conferences. Conferences are a wonderful experience as they provide you with the chance to meet like-minded people and find out more about the latest research. The conference environment is a great place to strike up collaborations and get feedback on your own work.

When I submitted my abstract, I never imagined that I would be accepted to do an oral presentation. When an email landed in my inbox saying ‘we are very pleased to be able to inform you that your submission has been accepted for presentation as a 20-minute talk’, I could not quite believe it. My emotions fluctuated from being excited at the opportunity to being terrified. Not only was this going to be my first conference, it was an international conference in Chicago and I was going on my own. I was worried that I was going to forget what I was supposed to say and I was most scared that I wouldn’t be able to answer any questions that I was given.

I spent months preparing and worrying about the conference when, in retrospect, I did not need to worry at all. I gave my talk on the first day of the conference and it wasn’t as bad as I thought it was going to be. Whilst I may have spoken too quickly in some places and forgotten to say some things, I did not get booed off the stage and I was not struck by lightning. I had some difficult questions but no one minded when I said that I did not know the answer. Indeed, such questions gave me the opportunity to search for the answers; something that will greatly strengthen my research in the long term. I am really glad to have had the opportunity to present my work as I met some wonderful people who were able to give me some invaluable feedback on my work. I was also able to network with other academics in the field and discuss ideas for future collaboration.

Preparing for the conference
Meet with your supervisor
If you are presenting at a conference, your supervisor(s) is (are) one of the best resources you have. They can help you to plan your talk and give you further hints and tips as they will have been to conferences and know how to pitch your work to a target audience. They can also help with more practical things, such as giving feedback on
your presentation design and tips on how to calm your nerves.

**Practise, practise, practise**
Make sure that you prepare what you are going to say. Even if you have a poster you need to know how you will guide people through the work. Recording your presentation or practicing in front of a mirror can really help because it gives you the chance to see what you look like and to evaluate your body language; there is nothing more distracting than watching a presenter fidget. Once you feel comfortable, then present in front of an audience. This will allow people to react to what you say and gives them a chance to ask questions. This gives you the chance to see how well people follow what you are saying and whether you need to tweak anything. Remember, not everyone who attends a conference is an academic, so presenting to non-academics can help you adjust the content to make it accessible to everyone.

**Plan and prepare for questions**
An important part of the conference is sharing information. People will ask questions about your work, so it is helpful to spend some time considering what these might be. That way you will have a chance to prepare your answers. But remember if you get a question that you do not know the answer to then just be honest – explain that you will look into this further and follow it up. There is no point pretending that you know the answer when you do not.

**Disseminate business cards**
Having business cards on hand are great for networking. It looks more professional handing over a business card than looking for a spare piece of paper to write your details on. However, business cards can be expensive. There are cheaper alternatives to the traditional card such as e-business cards and apps which send virtual business cards.

**Attending the conference**

**Dress code**
Make sure that you check the dress code for the conference. It is the worst feeling to be under or overdressed! Usually conferences adhere to a ‘smart/casual’ dress code. By dressing appropriately not only do you give a good impression to other attendees but it will make you feel more comfortable.

**Programme**
Check the conference programme to see who else is presenting. Copies of abstracts are usually provided too. It is good to have a read through these to see which talks and posters you would like to see and to whom you would like to talk to. Reading conference abstracts beforehand also gives you the chance to come up with some questions you might like to ask presenters.

**Talk to people**
Conferences provide a fantastic networking opportunity so take advantage of it! One of the best things about a conference is the chance to talk to a wide group of people. There will be PhD students who you will probably have a shared interest with or who may have expertise in a particular area which you are interested in. Conferences are a great time to strike up collaborations. Not only will there be PhD students, at larger conferences there are likely to be seasoned academics whose work you will have read. It is helpful to talk to these people too (even if it is a bit scary). Once you come to the end of your PhD you may be looking to continue in academia, if this is the case then knowing more senior academics can be helpful when looking for Post-Doc positions.

**Ask questions**
The biggest compliment you can give to another researcher is your genuine interest in their work. If there is someone whose work you’re interested in, or a presenter who had a particularly engaging talk, approach him or her. Ask them about their work; not
only will they will be flattered but it also gives you an opportunity to find out about other projects that they are working on.

**Presenting your work**

*Be enthusiastic*

When presenting your work be enthusiastic about it. If you aren’t excited by your own work, then how can you expect your audience to be excited by it? Watching speakers who are enthusiastic about their work can make even the most boring topics interesting. Enthusiasm can be shown through your facial expression and intonation during your presentation. Try to look at the audience instead of staring at the presentation or off into the distance; this can help engage them and make them feel involved. Remember to smile!

*Breathe*

Breathing is important! Before you present a few deep breaths can help you to relax and prepare you for your presentation. During the presentation do not get to breathe. If you find yourself getting nervous do not be afraid to pause, take a deep breath and recompose yourself. Not only will it give you a chance to collect your thoughts but it will also give your audience a chance to process what you’ve told them.

Most importantly though: Enjoy yourself.

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Hints and Tips:

Five tips to maximise the return of parent consent forms

Sarah Poland

Psychologists who are carrying out research on children are faced with the challenge of obtaining parental consent for children to participate in their study (opt-in). This is a challenge I faced with my own research on children’s cognitive abilities and social behaviour and in this article I outline five tips to maximise the return of parent consent forms.

Recruiting schools to participate in research is only the first hurdle. The consent, once obtained, will allow researchers to engage and work with the institute(s). Researchers are then left with the challenging task of getting parental consent to enable children to participate in their research. When the ethics committee decided that my research should follow an opt-in procedure, I thought that I would struggle to recruit a sufficiently sized sample; instead, having an opt-in procedure led me to explore tactics used in other studies to boost parent response rates. Based on the suggestions of Ellickson and Hawes (1989) and Rodgers (2006), I was able to develop a recruitment strategy. This strategy was so effective it allowed me to recruit more children (with parental consent) than I required for my study. Here, I share with you my top five tips for maximising the return of parent consent forms.

1. Engage with the school
   It is important to build a good working relationship with the schools and their employees, as this can be a valuable asset in the research process. Having at least one member of staff, at the school(s), who is willing and motivated to assist with recruitment will help significantly. In fact, having a member of staff who is interested and enthusiastic about your research will help the whole process of data collection. Therefore, don’t be afraid to talk to staff about your study and get them interested in your research – they are a useful resource! At the schools I recruited, the teachers were responsible for distributing parent consent forms. They also chased up with children and parents to get as many consent forms returned as possible.

2. Eye catching consent forms!
   Your consent form is likely to end up crumpled at the bottom of a schoolbag. So your information sheet and consent form need to stand out and grab the attention of parents. Based on the suggestions of Ellickson and Hawes (1989) and Rodgers (2006), I was able to develop a recruitment strategy. This strategy was so effective it allowed me to recruit more children (with parental consent) than I required for my study. Here, I share with you my top five tips for maximising the return of parent consent forms.

   • Don’t overload parents with psychological theory and research.
   • Don’t use lots of psychological terms.
   • Don’t make parents fill out unnecessary information on the consent form.
   • Do outline what the study will involve for their child.
   • Do state that the consent form should be returned as quickly as possible.
3. **Cover letter**  
By attaching a cover letter from the school’s headteacher (or deputy headteacher) to your consent form, it can boost your parent response rates. A deputy headteacher, at one of the schools I recruited, suggested that she write a letter to accompany mine so that parents were aware the school was on board with the research. The letter expressed the schools interest in the study and the importance of participation in the research. This was then something I requested at the other schools in my study.

4. **Text alerts**  
Most schools in the UK now use a texting service (a short message service) as a way of informing parents that an important letter is being sent home (Ofsted, 2011). This can be really helpful in ensuring that your letter reaches parents. One of the schools in my study used their texting service to inform parents when my consent form was sent out and also to remind them to return the consent form.

5. **Follow up, follow up, follow up**  
You need to be active in your recruitment. Formulate a recruitment schedule that outlines key dates, including: when you are going to distribute initial consent forms; when you are going to follow up with non-responders, and when you are going to begin your study. I distributed my first batch of consent forms a month before I wanted to start my research. After around two weeks I chased up with non-responders. One school sent out a text reminder and the other school sent out further letters to parents who had yet to respond. Then after around 4 weeks, letters were sent again to non-responders. The key is to follow up, follow up, follow up!

This strategy produced a high response rate from parents. There are other tips in Rodgers (2006) paper, such as providing incentives for parents to return consent forms, and for further tips see also the paper by Schilpzand, Sciberras, Efron, Anderson, and Nicholson (2015).

Remember opt-in isn’t the end of the road – be active and boost your response rates!

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**References**  


Dates for your Diary

27–29 July 2016
PsyPAG Annual Conference
University of York.

6–8 August 2016
BPS Psychology of Women Annual Section Conference,
Cumberlând Lodge, The Great Park, Windsor, Berkshire.

23–27 August 2016
European Health Psychology Society and the British Psychology Society
Division of Health Psychology annual conference
University of Aberdeen, (submission deadline 14 February 2016).

31 August – 2 September 2016
BPS Cognitive Psychology Section Annual Conference
Hilton Barcelona, Avenida Diagonal 589-591, Barcelona, 08014, Spain.

31 August – 02 September 2016
BPS Social Psychology Section Conference
Mercure Cardiff Holland House Hotel, Cardiff, Wales.

14–16 September 2016
BPS Developmental Section Annual Conference
Hilton Belfast, Belfast, Ireland.

2 November 2016
BPS Wessex Branch 5th Military Psychology Conference:
Defence & Security
The Ark Conference Centre, Basingstoke.

02 December 2016
BPS Psychology of Sexualities Section Annual Conference

12–13 December 2016
BPS Division of Sport and Exercise Psychology Annual Conference,
Mercure Cardiff Holland House Hotel and Spa, 24-26 Newport Road, Cardiff.

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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.

PsyPAG’s 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 Division within the British Psychological Society, with 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 tinyurl.com/PsyPAGjiscmail. 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 (twitter.com/PsyPAG) and add us on Facebook (tinyurl.com/PsyPAGfacebook). This information is also provided at www.psypag.co.uk.
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