

Institution: Brunel University
Unit of Assessment: 4 Psychology, Psychiatry and Neuroscience
<p>a. Context</p> <p>Working closely with both national and international non-academic user groups, our work has tackled major UK and international priorities pertaining to global uncertainties, health and well-being and economic improvement, through collaborative work with professional medical bodies, clinicians and clinical services, charitable organisations, law enforcement professional bodies, financial regulatory bodies and commercial organisations. The Unit's three research centres, with additional links to University-wide initiatives, are responsible for addressing different national and international priorities, generating different types of impact benefitting different user groups.</p> <p>The Centre for Culture and Evolutionary Psychology (CCEP) engaged with key decision-makers in government, industry, and finance, disseminating its research through well-attended, multi-disciplinary seminars and public lectures. CCEP impacted on <i>health and welfare and international development</i> via improved measurements and modelling of well-being (Gaines), new sex education programmes leading to significant reductions in high risk sexual behaviour (Goodwin, in Georgia), and public engagement in research on children's Holocaust awareness (Robertson, with schools, synagogues). Impacts on <i>society, culture and creativity</i> were achieved via national debates on evolutionary psychology and financial risk (Price, Pound, with the Financial Service Knowledge Transfer Network) and <i>on public policy and services</i> through new Metropolitan Police recommendations on terrorism and 'suspicious behaviour' (Goodwin). The interdisciplinary Centre for the Study of Health and Well-Being (CSHW) promoted multidisciplinary research and collaborations in priority research areas identified by the Department of Health and other major health organisations. This impacted on <i>health and welfare</i> via new practitioner training (Myers), recommendations around food allergies adopted by the Food Standards Agency (Barnett), and through professional presentations to clinicians and service providers (Crockett on Rehabilitation in Multiple Sclerosis, Dibb on spinal chord injury with the INSPIRE Foundation). The Centre for Cognition and Neuroimaging (CCNI) worked with expert groups (e.g. sports professionals) and professional test developers (e.g. in dyslexia and normal/abnormal reading processes) to apply their work on cognitive/perceptual processes and neural substrates. CCNI impacted on <i>health and welfare</i> through new procedures for rapid visual assessment of patients with brain injury (M. Wright); informed government health policy in the Australian Capital Territory (Bunce on the consequences of cognitive decline for mental health services), and led to new dyslexia diagnostic techniques (Wydell). It has impacted on the economy through research council sponsored work on elder financial abuse (Gilhooly), and commercial <i>research and development</i> through consultancies (e.g. Spencer, Leapfrog Toys), and via funded placements with Sharp Research Laboratories, Oxford (Uther), NTT Communication Science Laboratories, Japan (Wydell) and commercial doctoral funding (Uther, Glaxo SmithKlein). Wider <i>impact on society and culture</i> has been generated via Brain Awareness Week and through panel membership of national policy bodies (e.g. Spencer, Royal College of Physicians).</p>
<p>b. Approach to impact</p> <p>Research in the Unit reflected the culture of promoting research and enterprise 'for the benefit of individuals and society at large', stated in the University's Royal Charter (1966), that has characterised Brunel from its inception. Various mechanisms at institutional, School and Departmental levels ensured research is informed by user needs. Strategic research collaborations, often at international level, were backed by high profile events and institutional support mechanisms to maximise impact.</p> <p>Strategic research collaborations. Staff and students in the Unit were exposed to the needs of non-academic groups through the University's prize-winning work placement scheme (Rate My Placement 'Best University Placement/Careers Service' 2012 and 2010), running in the Unit since the 1960s. By requiring staff to make 4 work visits per year, Unit staff are ideally placed to develop networks with industry, government departments and bodies and charities. Often working in tandem to these placements, individuals and research centres developed a range of partnerships to enable research and maximize the reach of their work. For example, CCNI members worked on neuro-cognitive deficits with hospitals (e.g. Papworth Hospital, Cheeta; Imperial College Health Care Trust, Russell; Northwick Park Hospital, M. Wright), while research into the neural</p>

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mechanisms of perceptual and motor skills in sport (M. Wright) involved sports coaches and athletes (Badminton England, Women's Premier league football teams). Price worked with the financial services industry on risk, leading to plenary addresses at the Financial Services Knowledge Transfer Network and Centre for the Study of Financial Innovation (www.csfi.org). Unit members used a specialized database of research collaborators from outside academia, while the cross-disciplinary BORG (Brunel Older people Respondents Group) identified research stakeholders and ensured work was planned and disseminated with public involvement (used by Bunce, Goodwin). As a result of their impactful research Unit members were invited to share expertise with governance and professional bodies. Influence on health policies and social care was achieved, for example, via authorship of two Cochrane Reviews on food labelling (Crockett: CD009315, CD009086), decision-making work by regulatory authorities used by European Food Standards Agency (Barnett: www.vizzata.com), research into high risk sexual behaviour leading to new nurse training in Georgia (Goodwin) and through training partnerships with the Metropolitan Police (Operation Sterling: Gilhooly). Research expertise in the unit led to Reynolds's work with the DoH on CBT and opioid dependency, Spencer as panellist on a Royal College of Physicians panel on pain relief, and Pound as panelist for the Wellcome Trust's national educational programme 'Darwin's Children' (<http://bit.ly/10QrAhN>). Gaines presented at a knowledge transfer workshop in Zambia sponsored by Oxfam, Myers wrote an e-learning module on treatment adherence for The British Society of Periodontology.

International strategy. Maximising the reach of our research has been a major Unit goal. With a high percentage of ethnic minority / overseas born academics (10/24 Unit members) the Unit is in an ideal position to exploit international contacts. Colleagues act as brokers, translators and network providers to maximize impact. The Unit strongly supports stakeholder-led work meeting major international agendas and initiatives. For example, as part of a large international project on well-being in collaboration with Traidcraft and Oxfam, Gaines used placement students to trial the questionnaire and the Unit provided incentives payments for additional survey costs and teaching cover to allow project travel. As part of an FP7 project on food risk Barnett addressed Europe-wide risk communication agendas, while Goodwin worked on pandemic threat in Central/Eastern Europe and with the Health Communications Institute, Shanghai China. To complement this, Unit members gave prominent addresses worldwide e.g. Nobus gave 27 keynote/ invited public addresses in 10 countries.

High profile events. The Unit fully recognised and supported the need to engage with a wide public, hosting high profile events to promote our research. Advertised nationally specialised mailings promoted local engagement, attracting additional audiences of senior school children, teachers and media. Examples include Brunel Brain Awareness week (part of Dana Foundations' global campaign on brain research), the ESRC 'Evolutionary approaches to health and disease' series, 3 CCEP research series (with individual events attracting > 300 attendees), a 'Women in Neuroscience' series and multidisciplinary workshops aimed at academics and practitioners (e.g. 2011 London Workshop on Problem Gambling (<http://bit.ly/ZlxR3z>)). To reach further audiences, findings from CCEP were blogged bi-monthly in Psychology Today (<http://bit.ly/RUOe6O>) and the banking magazine *Global Custodian*. A dedicated Web officer in the Unit edited online news (<http://bit.ly/Yvn4rK>), working alongside School and University publicity managers (<http://bit.ly/11NC4m3>; <http://bit.ly/YhW7mV>).

Institutional mechanisms to guarantee impact. Institutional support provided training and funding to further the Unit's impact. Internal awards (e.g. University BRIEF awards, awarded to Johnston, Kuhn, Marshall, Russell and Scott) were partly awarded on potential impact; applications for all Unit funding additionally required specification of impact, as did more targeted interdisciplinary pump priming awards (Wydell, Goodwin, Williams). Staff used the Impact Toolkit developed in-house by this office when applying for grants; 'Understanding Impact' formed part of the Professional training course for all new staff (Marshall, Imada, Clark), while Unit students on the doctoral route were trained in maximising impact. A competitive University research leave scheme included impact as an evaluative criteria (Dibb, Gaines, Gobet, Goodwin, Pound, Schützwohl, Uther, and Wydell); short research leave within the Unit allowed for the extension of existing user collaborations (Dibb, with Naz.org.uk; Price with Financial Services Knowledge Transfer Network). The University rewarded those with consultancies via time off and percentage of award, demonstrating flexibility in 'waiving' overheads in order to further develop the work (e.g.

Goodwin's work with Metropolitan Police leading to further collaborations with NATO and the Home Office). The University's Open Access Mandate (agreed in 2010) and the Open Access Publishing Fund (from 2011) supported free access to Unit research, helping promote serendipitous creation of impact (paying for publication of 22 papers by the Unit during REF period).

c. Strategy and plans

The strategy of 'embedding' impact into research lifestyle is explicitly recognised at Unit and School level (School plan, 2012-15). Our recruitment strategy promotes criteria that evaluate the candidate's ability to contribute towards impact: recent appointments will therefore enhance this impact (e.g. Dovey, who works with the NHS on feeding disorders). A senior member of staff will continue to act as dedicated Impact Champion, promoting impact activities via staff meetings, seminars and training where necessary. S/he will be supported by School and University appointments including practitioner appointments to support pathways to impact (School Plan, 2012-15). Staff will continue to be rewarded through shared income from consultancies, knowledge transfer schemes and research leave. In line with the School Plan, non-academic staff will be invited as visiting scholars, complementing schemes already in place for academic visitors, while Research Centres will increase involvement of external users in management structures.

International and interdisciplinary research. We recognise the increasing nature of research funding for impactful research, and the challenges involved in developing active partnerships with user groups and partners in both the UK and overseas. We will further develop international liaisons using resources within the University (e.g. dedicated personnel in the research office) and encouraging staff attendance at responsive subject-group training (e.g. on user partnerships for Horizon 2020). We will develop opportunities offered by a work placement scheme permitting overseas placements, and international postgraduate students already serving on practitioner bodies (e.g. Tanaka, Board member, Japan Association for School Mental Health). Reflecting a major cross-University initiative to develop high quality interdisciplinary, user-inclusive groupings (<http://bit.ly/14hK5Sz>), unit members will participate in broad initiatives, such as on the Circular Economy (with Technology Strategy Board), to help develop further impactful collaborations.

Facilitating translation of research. We will make increased use of the growing network of partnerships in our School Impact Database to strengthen collaborative partnerships, and actively promote the recent Knowledge Transfer Leave and Knowledge Transfer Secondments to allow staff to spend a dedicated period of time engaged in an external knowledge exchange project. We will continue to build on our work with government agencies, charitable sector and other user bodies to identify future collaborative opportunities and potential impact on policy and practices, promoting links with government agencies through continued participation in the Parliamentors programme (<http://bit.ly/97h8Pr>). We foresee, and will promote, significant impact and international implications for, amongst others, Gaines' current work on well-being, B. Wright, Spencer and O'Brien's research on autism, and Myers research on vaccination and treatment adherence.

Dissemination strategies. Appropriate dissemination of ongoing projects will be a key focus of Centre activities. Funding will be available for the promotion of existing research activities within the Unit through expert seminars and workshops and with wider practitioner audiences. We will promote the appropriate use of new media as a way of targeting audiences, with growing emphasis on the use of new media (e.g. Twitter, other micro-blogs), with success monitored through appropriate metrics. This may require further staff training as new portals for dissemination appear.

d. Relationship to case studies

Our case studies represent only a selection of our impactful research, but exemplify this work. All involved significant strategic stakeholder collaborations, exerted influence on governance/professional bodies, and have international impact (Goodwin in Georgia, Wydell in Japan; Barnett's allergy work at EU level). All received institutional support to enable impact: Goodwin and Wydell benefited from research leave; Goodwin received Pro-Vice Chancellor support for dissemination costs, Barnett pump priming funding from the Research Office for research assistants to develop impactful follow on research applications on food and other risks. Barnett and Goodwin reached wide audiences through online publications supported by the University Open Access Fund. Through innovative use of social media to promote findings (Barnett, Goodwin) the selected cases provide signposts for emerging dissemination strategies in the Unit as a pathway to future impact.