

<p>Institution: Nottingham Trent University</p> <hr/> <p>Unit of Assessment: A04 Psychology, Psychiatry and Neuroscience</p> <hr/> <p>a. Overview</p> <p>The core aim of this well-established psychology unit is to sustain theoretically robust research that makes a positive difference to individual lives and society. We achieve this through a vibrant research culture and environment in which excellent impactful research and high-quality training is delivered across the full spectrum of human psychology. This breadth, increasingly rare within UK psychology departments, enables us to bring multiple approaches and methods to bear on psychological issues of current concern. Our work sits under two broad overarching themes underpinned by five research groups:</p> <p>Theme 1 Health and Wellbeing:</p> <p>1.1: <i>Addiction and Aberrant Behaviours;</i> 1.2: <i>Wellbeing.</i></p> <p>Theme 2 Cognition, Perception and Communication:</p> <p>2.1: <i>Cognition and Perception;</i> 2.2: <i>Language and Psycholinguistics;</i> 2.3: <i>Development, Interaction and Social Relations.</i></p> <hr/> <p>b. Research strategy</p> <p>Psychology has clearly demonstrated a sustained and improved research culture and infrastructure, achieving growth both in quantity and quality of research by placing it at the core of our activities. First assessed in 1996, the unit has gained an improved rating in each UK research assessment submission. In 2008, an entry of 25 staff provided valuable funds to grow our research. We have improved on all 2008 indicators and produced a robust demonstration of impact both nationally and internationally.</p> <p>Three key developments attest to the increasing research strength of Psychology at NTU:</p> <ul style="list-style-type: none"> (i) The unit now has a maturing staff profile, with key 2008 early careers researchers (ECRs) choosing to successfully advance their mid-term careers here at NTU, and mid-career staff advancing to more senior positions; (ii) The increased spread of high quality research activity through the staff, particularly in terms of high quality outputs, grant capture, and national and international esteem; (iii) Investment-led growth has enhanced our research environment significantly. <p>The Psychology Research Committee (PRC) has developed a discipline-focussed research strategy and implementation plan to meet both local and institutional goals. The research strategy builds upon the successes of the past five years, further growing the quantity, quality and impact of research outputs. This strategy is based on five tenets:</p> <ul style="list-style-type: none"> (i) <i>The iterative relationship between theoretical and applied research is vital to maximising research quality.</i> We encourage this by equal weighting of theoretical and applied topics for internal and external seminars and through explicit <i>thematic</i> organisation of research groups. (ii) <i>Research in some domains is best served by an interdisciplinary approach.</i> Where appropriate, we encourage staff to collaborate across domains to answer thematic questions. This is facilitated through grant writing workshops, away days, and thematic research meetings (iii) <i>Thematic outputs should impact at the local, national and/or international level.</i> We encourage stakeholder support at all stages of research through outreach meetings and links with industry through student placements, Knowledge Transfer Partnerships (KTPs), and through targeted dissemination both inside and outside of academia as detailed below. (iv) <i>Research growth requires targets, monitoring and support.</i> Individual research targets are set annually though Personal Development and Contribution Review (PDCR) meetings. In pursuit of these goals a dedicated mentor from within the unit supports each member of staff. These targets are reviewed at PDCR meetings and again the following year. Additional support is provided through research facilitation events, capital expenditure on research equipment, research-enhanced infrastructure, and dedicated high-quality research training workshops

drawing on our own as well as external expertise.

- (v) *Research success should be capitalised upon rather than squandered.* We provide bridging funds to successful groups to sustain and grow core research.

As we go forward, our strategy is to build capacity in the established areas of excellence described below while being open to the creation of new groupings of researchers as the unit and areas within the discipline itself evolve. We anticipate our general staff levels will be maintained with no further major expansion although replacement appointments will be used to strengthen our research base. However, increasing research staff and research student numbers, part of our successful strategy in this census period, will continue to be critical goals for the foreseeable future. We will achieve this by increasing external stakeholder engagement (particularly commercial/industry bodies) and by forming research alliances at home and abroad in order to leverage financial and non-financial capacity building.

Response to national and international research priorities and initiatives:

Examples of our responses to ESRC (i-v) and EPSRC (vi) include:

- (i) Forming strong **partnerships with key stakeholders** in the public, private and third sectors has been achieved through joint grants (KTP with the Fire Fighters Charity; EPSRC funded grant with the Ordnance Survey) and doctoral studentships (Responsible Gambling Trust, HMP Whatton).
- (ii) **Transfer of skilled people** between the sectors remains one of the most potent mechanisms for maximising impact and our expertise is much sought after (Underwood to Becta, Hamilton to Rampton Hospital, and Winder to HMP Whatton, while Slade moved from HMS Brixton to NTU).
- (iii) **Research to people:** We disseminate to medical practitioners (REF 3a & Impact Case Study [CS] 1, Conference 2 below), education (CS 2), prison services [CS 3] and the workplace (REF 3a).
- (iv) **Building Research Capacity:** A BPS quantitative methods CPD workshop hosted at NTU and individual staff contributions to BPS, HEA and ESRC events are a direct response to ESRC's call for an upgrading of quantitative skills in Psychology and the Social Sciences.
- (v) **Influencing behaviour and informing interventions** is met by the extensive work of Griffiths on behavioural addiction [CS 1], Zysk on studies of therapeutic safety behaviour [Output (O) 1, 2], Hamilton, Slade and Winder's on offender behavior and treatment [CS 3] and Underwood's work on antecedents of adolescent unemployment [CS 2].
- (vi) **The Digital Economy** is met through (i) an ESRC grant on integrating information from multiple images (Baguley [O4]). We also contribute to two sub-themes (ii) Social Computing/ Interactions (Binder [O3], Griffiths [O1], Underwood [O2, CS 2] and Winder [O4]); (iii) Assistive Technology through Belmonte's work directed from the National Brain Research Centre, Manesar which brings together the out-reach clinic and a Bangalore software company to develop i-Pad software to enhance ASD children's motor and oral skills.

While committed to national and international research opportunities, Psychology is active in a number of local networks as both a funding strategy and in order to meet NTU's mission of serving the local community. For example, we have a number of current and planned future projects with Rampton and HMP Whatton (CS 3). The Wellbeing group has effective links through the *East Midlands Mental Health Research Network* and we are working with regional branches of *Age UK with whom we hold a joint grant*. While Crundall is bringing his expertise on police driving to the *Fire and Rescue Service* and this activity has the specific aim of improving driver training for this service. These are long-term relationships underpinning our research projects and programmes.

Mechanisms for the development, promotion and dissemination of research:

Psychology has co-hosted the BPS Developmental with Nottingham 2009; British Audiology Society 2011; Bio-psychosocial Perspectives in Psychosis: Trauma and Cannabis 2011, a two-day researcher/practitioner conference; followed by Perspectives on Substance Abuse: Should Cannabis be Legalised? 2013; Work and Well-Being in Context 2011 (REF 3a).

We disseminate our work beyond academia through stakeholder meetings (Betts, Griffiths, Crundall, Karanika-Murray, Underwood) and our media presence is significant. For example, Griffiths has over 200 appearances including two on BBC 1's *'Panorama'* (2010, 2013) and is the resident psychologist on the *Discovery TV* series *Forbidden* (2013); Crundall was a major

contributor to BBC 2's "How Safe are Britain's Roads?" (2012); Underwood's work on *Facebook* had international coverage including the *Wall Street Journal* (2011), while Winder's research with HMP Whatton has been reviewed in *The Guardian* (2013). Crundall was the Department of Transport spokesperson for the *National Motorcycle Safety Campaign* (2010).

Research Group activity

Since 2008 Psychology has expanded from three to five research groups under two overarching themes: **(1) Health and Wellbeing, (2) Cognition, Perception and Communication**. While staff members sit in a primary group most are associated with a second or third group as there is significant inter-group activity.

Theme 1 Health and Wellbeing:

1.1 Addiction and Aberrant Behaviours Group led by Prof. Griffiths (12 primary members, 5 associates) – This brings together two successful units: the International Gaming Research Unit (IGRU) and the Sexual Offences, Crime and Misconduct Research Unit (SOCAMRU), plus other staff who conduct individual or problem-targeted group research as necessary. IGRU concentrates on behavioural addictions (e.g. those associated with gambling, video games, Internet use, sex, and exercise). Griffiths is world-renowned in this field and his unit has over 250-refereed outputs since January 2008, reporting how attitudes and various socio-demographic variables impact on health-related consequences of different behavioural addictions [Griffiths O1-4]. This work links with that on psychosis in the wellbeing group. SOCAMRU conducts and facilitates applied forensic research on sex offending, aggressive and violent behaviour and sexual predation in offline and online environments [Bloxsom O1; Slade O1, CS 3; Winder O1-4; CS 3]. Investigations of online maladaptive behaviours links with work on group structure and communication on social networking sites by Binder [O3] and Underwood [O2], and also with Underwood's work on plagiarism, [CS 2].

1.2 Wellbeing Group led by Dr. Sumich (12 primary members, 6 associates) spans psychosis and other mental disorders through to health and wellbeing in the work place. Sumich's new *Bial Foundation* grant brings together two divergent methodologies, computational neuroscience and qualitative methods, to investigate imagery induced via sensory deprivation at neurobiological and phenomenological levels. He [O1-4] and Premkumar [O1-4] use neuroimaging and electrophysiological methods to understand the neurobiology of affect (i.e., depression, empathy, hostility). They both hold honorary positions in the Institute of Psychiatry. Norman's animal models of schizophrenia [O1-3] have been applied to gamblers [4], and links with Griffiths' work. Zysk examines how therapeutic safety behaviour facilitates Cognitive Behaviour Therapy [O1, 2]. Hadjiefthyvoulou's [O1] investigations of cognitive failures associated with ecstasy/polydrug links to the work of both Griffiths (Group 1.1) and Brown (Group 2.1).

Wellbeing within the general population also features strongly. Men's health, health lifestyles, and poor help-seeking behaviour are the focus of work by Seymour-Smith [O1-4]. Karanika-Murray the impact of day-to-day socio-psychological environments on general wellbeing and performance [O1-3; REF 3a]. Her connectionist modelling [O2] has proved to be an effective way of mapping social phenomena. Finally, drawing on self-determination theory, Bartholomew [O1, 2] explores the social-environmental conditions that satisfy or thwart psychological needs in the context of sportsmen and sportswomen.

Theme 2 Cognition, Perception and Communication:

2.1 Cognition and Perception Group led by Prof. Baguley (9 primary members, 6 associates) has several foci. Baguley [O1], with Lansdale, has produced a model of long-term forgetting that specifies different forms of the retention function. Brown's work is concerned with cognitive ageing, attention, and visual working [O1, 2] but also considers the role of dietary supplements to arrest ageing problems, a link to Group 1.2. In visual perception. Howard [O1-4] explores how many objects we can attend to simultaneously, and whether we can report both their nature and location. Guest [O1-4] is concerned with the time course of visual perception, including the prioritisation of perceptual processing in categorization. Jones is a leading researcher in insight problem solving [O3, 4]. More applied research includes that of Crundall [O1-4] and Underwood [O1] on factors influencing hazard perception by pedestrians, bikers and car drivers. Methodological issues are

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addressed by Baguley [O2, 3], who has a well-established reputation in the area of statistical analysis.

2.2 Language and Psycholinguistics Group led by Dr. Jones (5 primary members, 5 associates) examines language acquisition and development using both traditional field experiments and computational modelling of language. Andrews [O1-3] has developed a probabilistic model of semantic representation, and Jones [O1, 2] shows that simple theorisations specifying how short-term and long-term memories interact are sufficient to explain novel word learning in both typically-developing and language-impaired children, invalidating the need for complex explanations. Underwood [O3] focuses on the development and use of early reading and spelling strategies with colleagues submitted under UoA 25.

2.3 Development, Interaction and Social Relations Group led by Prof. Underwood (14 primary members, 3 associates) investigates the socio-cognitive factors impacting on human learning, Belmonte's work aids our understanding of the nature of autism with a view to providing effective therapies to support these individuals [O1-4]. The social relations model has been applied to the study of children's dyadic relationships by Betts [O1-4] and she asks whether specific peer-trust beliefs and peer-reported trustworthiness are longitudinally-predictive of young children's school adjustment. Our understanding of how groups work is extended by Binder's [O1] groundbreaking study of prejudice as a factor of group inclusion/exclusion and by Underwood's [O2] work on the nature of communication in digital social networks.

Interdisciplinary development:

Our focus on developing theory to address applied real world problems encourages interdisciplinary research. Studies of the behavioural issues associated with addiction (chemical/behavioural) and conditions such as schizophrenia and autism necessitate links with medical practitioners, psychiatrists and counselling services (Premkumar, Sumich; Inst. of Psychiatry; Inst. of Brain Chemistry and Human Nutrition). There are also strong and productive links with engineering, for example Karanika-Murray's Heart Research UK grant with Davis (Ulster) and Seymour-Smith's work with the human factors laboratory (Nottingham). Our work on early language learning and technology use has resulted in collaborations with education (Underwood with Harrison & Crook, Nottingham; Twining & LaFevre OU) and computer science (Andrews with Baroni, Trento; Belmonte with Hyderabad). Other major collaborations are detailed below in Section e.

c. People, including:**i. Staffing strategy and staff development**

A planned period of sustained growth has seen staffing levels increase from 13 FTEs in 1996 to 50+ FTEs, matched by improvements in the quality and quantity of our research outputs. Seventy-five per cent Psychology staff are being returned in REF (A04, C22 and 25) Our staffing strategy remains one of organic growth with judicious, strategic appointments to extend our effectiveness in key areas. Within this assessment period we have added 20 staff across all career levels. The appointment of Hall (Chair) gave impetus to our work in neurocognition and attracted Sumich and Premkumar (from the Inst. of Psych) to lectureships in cognitive neuroscience. Following Hall's appointment as Director of the EM Brain Research Unit, Sumich was promoted to Reader and now leads this group. Belmonte has been appointed as a Reader in Developmental Neuropsychology. The promotion of Baguley to a Chair, Jones to Reader and the appointments of Crundall (Professor), Andrews, Brown, Guest and Howard (lectureships) have strengthened cognition research while Gough (Professor), Bartholomew, Binder, Hadjiefthyvoulou, Karanika-Murray and Zysk to lectureships strengthened social and health psychology.

Early Career Researchers (ECRs), the lifeblood of our previous submission, remain significant in this submission (43%). The importance of supporting this group is recognised, and all new entrants are assigned a personal mentor to ease transition. A reduced teaching load and designated research time is the norm (22% of contracted hours). The success of the ECR policy is further illustrated by the numbers of mid-career staff who have developed under this policy (A4: Betts, Norman, Seymour-Smith; C25: Larkin, Stiller, Williams). This core of previously under-represented mid-career researchers is now established at a sustainable level. We have also retained established staff (A4: Baguley, Jones, Winder, Griffiths, Underwood). The first three have

been promoted internally within this assessment period, and Professor Baguley is now part of the management team. We are mindful of the need to maintain support for mid-career researchers, and an active mentoring system is in place with more senior staff guiding colleagues (for example by reading papers and grant applications). There is also a formal grant reviewing procedure for the College (see structures below).

Recent appointees have benefitted from internal Psychology- and University-funded small grants, UG internships and more sustained funding in the form of doctoral studentships. We operate in doctoral teams, which advantages not only the student but also new supervisors. The latter also attend the Graduate School's supervisor training course. In addition, there are workshops on research skills such as grant writing, media dissemination, and academic/ non-academic dissemination. National and international conference attendance is actively supported and a fund to accommodate the new realities of Open Access publishing is in operation.

The University Research Committee oversees the development, implementation and monitoring of the University Research Strategy and the implementation of the *Concordat to Support the Career Development of Researchers*. As a result, NTU has achieved the *European HR Excellence in Research Award* for our commitment to recruiting, rewarding, and developing researchers as full members of staff. In the case of contract research staff, robust mechanisms exist for monitoring and supporting their career development. Since 2008, 14.5 research assistants and 4 research fellows have worked within the Unit on a mixture of short and long-term contracts. All researchers on a substantive contract (over 6 months) are encouraged to develop their CVs through scholarly publishing and presentations. They have co-authored 13 papers in established journals (e.g. *Computers in Human Behavior*, *Developmental Science*, *J of Speech, Language & Hearing Research*, *Language & Cognitive Processes*, *Work & Stress*, 35% as lead author) and presented at 27 high profile conferences (e.g. British Psychological Society, both Cognitive and Developmental Sections, EPS, Int. Ass. for the Treatment of Sexual Offenders, Occup. Health Psych, European Association of Work & Organisational Psych).

ii. Research students

While we reported an increased cohort of postgraduate research students (PGRs) in RAE 2008, we recognised the need for further expansion. Our policy has been, therefore, to expand the PGR population by internally funding at least two PGRs per annum and externally seeking funding for PGRs from RCUK and other prestigious funding bodies. The success of this policy has seen our PGR population quadruple with a pleasing proportion coming from RCUK and overseas sources (see REF 4a). This is significant progress given that external funding for doctoral students is a sector-wide concern as highlighted in the ESRC's International Benchmarking Review of UK Psychology (2011).

The NTU Graduate School is responsible for administration, regulation, and monitoring of students and provides transferable skills training for PGRs. All students register for an MPhil and their progress is formally monitored twice a year. Transfer to PhD registration at 18 months is conditional upon satisfactory progress and a 6000-word report. All PGRs attend a research-training programme that previously received ESRC approval under the 1+3 system. This provides support not only in a range of research methods but also in skills such as academic writing that prepare the student for an academic career. To support the transition from student to independent academic, we provide students with a variety of relevant academic experiences. Psychology's annual PGR Conference, open to all East Midlands universities, stimulates exchange across the student-body and helps to prepare student for presentations in national and international arenas. We are also active participants in the *EM Vitae* network whose 2011 regional poster competition was hosted in our new Conference Centre.

Across the census period we have trained 60 students: 18 to completion (17 as PhD) with 42 as current PGRs (FTE equivalent of 34.5). We strongly encourage the dissemination of PG research as both presentations and publications. For example, in the past year we funded nearly one-third of our PGRs to present at national and international conferences and stakeholder meetings. For those students in a position to publish their work (39 of 60 PGRs in their third year or beyond), 64 papers have been produced, an average of 1.64 per student. These contribute some 15% of the outputs submitted here under REF 2 and 3b.

Our doctoral completions have increased by over 500% from the 2008 submission, a clear validation of our PhD recruitment policy. Of these completions, almost 90% (15 of 17) have

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acquired psychology relevant posts such as: Lectureships – Blagden (Huddersfield), Dillon, Dunn, Kaye (NTU), Hussain (Derby), Elmadani (Misrata), Clark (Liverpool Hope), Coyne and Pemberton (Birmingham City); Post-doc researchers – Kennedy (Southampton); McCormack, (Nottingham); Professional practice – O’Neil, Res Officer PH Agency, Belfast; Rigbye, Assistant Director of Commissioning at the Responsible Gambling Trust; Ruszkowska, Ass. Psych, NHS Camden Stop Smoking Service; Wells, Technical Officer, Aberystwyth. Other posts include O’Hara, a September 2013 completion, who is now a research fellow with St John of God Research Foundation This is a significant contribution to the discipline.

d. Income, infrastructure and facilities

Since RAE 2008, a key goal has been to increase grant capture. To this end staff are supported both through allocated time and the internal grant review process. While there is increasing pressure for funding we have achieved a significant rise in grant income from £960k (£192K p.a.) in 2008 to £1,880K (£376K p.a.). We have also increased our range of funders with major funds from the ESRC (£637K) and EPSRC (360K, £11K in the assessment period) and charitable funds from the Leverhulme Trust (£82K), the Firefighters Charity (£13K) and two new grants from the BIAL Foundation, Lisbon (£60K/£1K in the assessment period). Government-related bodies make a substantial contribution to our income; for example Becta: (£288K), Notts Fire & Rescue (122K), Notts PCT (£111K); HMPS/NOMS (£12K); various industries are also funders: E-Harmony (18K), GamRes (£38K), Svenska Spel (£49K), Camelot (£50K).

Staff also contribute to grants led by other institutions including HEFCE (Baguley, £193K/£35K to NTU) and Becta (Underwood, £125K/£20K to NTU). The volume of applications has continued to increase. Recently awarded grants acquired after the REF-deadline clearly demonstrate momentum is being maintained; these include €1.1M from EU call VP/2012/007 on ageing and £210K variously from the BA, industry and government bodies.

Significant changes to the research environment:

Our research environment has been transformed since 2008 after significant investment from the University. The whole Division is now housed as a unit in totally refurbished accommodation with dedicated on-site laboratory facilities housing upgraded equipment and with a 200% increase in floor space (£200K directly invested). As part of this refurbishment designated laboratories with specialist equipment to the value of £160K were installed, including £70K on new Electroencephalography (EEG) facilities, a new fixed SMI eyetracker, building an intra-net of high specification computers for modelling using the skills of Dr Andrews, as well as further enhancing our extensive psychometric test bank.

More recent acquisitions [£120K] include a Faros GB3 driving simulator with SMI Polhemus head and RED-eye trackers and a *Honda* motorcycle simulator with a bespoke three-screen hazard perception rig and two *Smarteye* eyetracking systems to support our newest professor (Crundall), all housed in a dedicated simulator laboratory (£30K). This infrastructure spend has strengthened the research base. As well as the fixed laboratory space for EEG, eye-tracking, human psychophysics, driving behaviour and mathematical modelling, we have purchased a portable eye-tracker to facilitate research in field settings.

We have purchased fMRI time from both Aston and Nottingham Universities and are engaged in research using facilities at the Institute of Psychiatry. In recognition of our progress, the University has funded dedicated and specialist technical support. Although we draw on the University’s central technical pool, we now directly employ three highly experienced technicians. This is a three-fold increase in designated technical staff since RAE 2008. In addition, we have benefited from a £600K investment in College-wide facilities supporting the PG research students.

e. Collaboration and contribution to the discipline or research base

Evidence of collaboration and contribution to the discipline are presented under three main headings: Research Collaborations, Esteem, and Service to Psychology and Related Disciplines.

Research Collaborations:

International collaborations: We have extensive research collaborations in Australia, Europe, Middle East, and North America including **Andrews:** Baroni (Trento, Italy) computational modeling

the integration of perceptual and linguistic knowledge [funder University of Trento]: **Bartholomew:** Ryan (Rochester) self-determination theory, motivation and wellbeing [O1, 2,]; **Belmonte** joint grant studentships held at Cornell University [funder US National Sci Foundation, O4]; **Brown:** Brockmole (Notre Dame, Indiana) memory in the elderly [O1] **Crundall:** Bener (Quatar) (4 papers), Castro, Roca (Granada) [1 paper], Lenne (Monash) driving behaviour [current grant application]; **Griffiths:** King, Delfabbro (Adelaide) videogame addiction [21 papers, O1], Derevensky, Gupta (McGill) adolescent gambling [3 papers]; Demetrovics (Eötvös Loránd, Hungary) exercise and gaming addiction (9 papers, O3); **Guest:** Gibbert (U della Svizzera italiana), Landwehr (St. Gallen) [funder Swiss Nat Sci Found] Mazursky (Jerusalem) cognitive processes underlying brand extensions [2 papers]; **Howard:** Holcombe (Sydney) feature-based interference revealed in perceptual errors and lags (4 papers; O2-4), Kornere (Graz) visuo-spatial attention and target detection [4 papers]; **Jones:** Knoblich (C. European University, Hungary) Öllinger (Parmenides Foundation, Germany) insight problem solving [O3, 4]; **Karanika-Murray:** Biron (Laval) organizational interventions for wellbeing (funder EAWOP; 1 book); Kouven (Warsaw) and Petrou (Nottingham) social-exchange processes at work and emotional exhaustion [O1]; **Sumich:** Hiblin at Nat Inst on Alcohol Abuse and Alcoholism, Bethesda; **Underwood:** Bartolomé (Barcelona) Caneiro (Lisboa), Steffens (Koeln) self-regulated learning [funder EU, 3 books, 3 papers]; Okubayashi (Osaka) text speak [1 paper].

UK collaborations: We have *meaningful* research collaborations with **some 40%** of the research active psychology departments in the UK, including **Andrews:** UCL [O1], **Baguley:** Leicester [O1]; **Bartholomew:** Birmingham [O1, 2]; **Belmonte:** Cambridge [O2, 3]; **Betts:** Keele [British Academy grant, O1-3]; **Binder:** Oxford, Manchester BS, Royal Holloway, Sussex, [O1-3]; **Brown:** Edinburgh, Leeds [ESRC grant]; **Crundall:** Nottingham, Salford [Dept. for Transport, EPSRC grants O1-4]; **Griffiths:** Queen Mary [Responsible Gambling Trust studentship]; **Guest:** Bristol, Kent, Ox. Brookes, Warwick [ESRC grant; O1-4]; **Hadjiefthvoulou:** C. Lancs [O1-2]; **Howard:** Bristol Kent, Leeds [O1], **Jones:** Brunel, Liverpool [Leverhulme grant, O1, 2]; **Karanika-Murray:** Lancaster (Cooper) Ulster, (Heart Res. UK grant); **Norman:** Aberystwyth [O1], Nottingham [O2-4] **Premkumar:** Kings, Inst. of Psych [O1-4]; **Seymour-Smith:** Cranwell, Nottingham [O2]; **Sumich:** Imperial [O2], (Kings, Inst. of Psychiatry) [O1-4]; **Underwood:** Open University [O1,3] Nottingham [O2].

Evidence of Esteem:

Awards, honours, fellowships and prizes: **Andrews:** Cog Sci Soc Language Modelling Prize, 2009, best paper [O3]; **Bartholomew:** Birmingham Ratcliffe Prize outstanding doctoral thesis, 2011; **Belmonte:** BPS Neil O'Connor Award 2010, Fulbright-Nehru Res Scholarship 2010/11; **Griffiths:** US Nat. Council Problem Gambling Award 2009 and Lifetime Achievement Award 2013, Lifetime Award Macau Inst. Study of Commercial Gaming 2011; Acad of Soc Sci 2013; Fellow of Royal Soc for the Arts (FRSA) 2009-; **Underwood:** approved EU assessor 2008-, FRSA 2006-11, best paper e-Learning 2009. **Baguley, Crundall, Jones, Karanika-Murray:** members ESRC peer review college.

Visiting scholar/fellow: **Andrews:** University of Trento, 2012; **Belmonte:** Nat Brain Res Centre, India (ongoing), **Crundall:** U of Granada 2010,12; **Griffiths:** McGill University, Canada (ongoing); **Premkumar, Sumich:** Inst. of Psychiatry (ongoing).

Keynote addresses: **Crundall:** IC Driver Behaviour and Training, Helsinki 2013; **Griffiths:** over 100 keynotes, presentations to EU Parliament, French Prime Minister's Office, Centre D'analyse Strategique; **Underwood:** 7 keynotes USAB 2008; WCES, CAL11, ICTCE 2012.

Conference Commitees: **Andrews:** Abstract Concept Representation 2011; **Baguley** BPS Math Stat Psy 2010; **Bartholomew:** World Congress Int. Soc. of Sport Psy; **Griffiths:** Euro. Assoc. Study of Gambling, 2010,12; **Guest:** Thought Leaders in Brand Management 2011 **Jones:** IC on Cog Modeling 2009-current, BPS Dev Section 2009, **Karanika-Murray** Euro. Acad. Occ Health Psy 2012,14; **Sumich:** IBCHN 2009; **Underwood:** CAL09, USAB, 2011,12, CSEDU 2011-13.

Service to the Academic Community within the census period:

Journals:

Editorships: **Baguley:** BJ Math Stat Psy.; **Underwood:** Computers & Ed; **Guest Special Issues:** IJ Business Research 2013; **Underwood** eLearning.

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Ass Editorships & Ed Boards: **Andrews:** BJ Math Stat Psych; **Baguley:** BMC Psy; J Family Therapy; **Belmonte:** Autism Research, Molecular Autism, Frontiers in Evolutionary Neuroscience; **Betts:** Small Group Research; **Griffiths:** Aloma Revista de Psicologia, Asian J. Gambling Issues & Pub Health, I.J. Cyber Behavior, I.J. Mental Health and Addiction; Psy Learning, J. Gambling Issues, **Jones:** Frontiers in Cog Sci, Meta-reviewer Cog Sci Soc; **Underwood:** Contemporary Issues in Ed, e-Learning, I.J. Cognitive Performance Support, Qwerty, Technology Pedagogy and Education.

Grant Reviewing

International: **Belmonte:** Hungarian Sci Res Fund, US Army Med Res Program, US Nat Sci Foundation, US Nat. Inst. of Health Challenge Grants; **Betts:** Netherlands Org for Sci Res; **Bloxsom,** Soc. Sci. and Humanities RC of Canada; **Griffiths:** Atlantic Canada Opportunities Agency, Australian Dept of Justice, Ontario Problem Gambling RC; **Howard:** Australian Nat Sci Foundation; **Underwood:** Royal Dutch Acad of Sci.

UK: **Baguley, Sumich:** EPSRC; **Baguley, Crundall, Jones, Karanika-Murray:** ESRC: peer review college; **Brown, Griffiths, Seymour-Smith, Underwood:** ESRC grants & end of project reports; **Belmonte, Premkumar, Sumich:** MRC; **Underwood:** Leverhulme Trust; **Griffiths** Responsibility in Gambling Trust/Responsible Gambling Fund.

Committees:

International: **Crundall:** COST European working groups on (i) bicycle helmet safety (ii) motorbike helmet safety; **Griffiths:** V-Chair and Chair Euro Ass Study of Gambling; Inst of Health Studies, Canada; Int Congress Alcohol, Drugs and Other Dependencies; Comité de Suivi Sur le Jeu en Ligne, Quebec Govt., DSM-V Working Group for Pathological Gambling, UCLA, USA; **Jones:** Cog Sci Soc Tutorial Committee.

UK: **Baguley:** BPS Maths, Stats Com Section Treasurer; BPS Research Board; **Crundall:** Parlimentary Adv Council on Transport Safety; **Griffiths:** DoH: Expert Working Group on Sedentary Behaviour, Screen Time & Obesity, DoH: Nat. Adv Group on Gambling and Mental Health, Gambling Commission: Nat Slot Machine Expert Panel; **Underwood:** Rapporteur UKCCIS e-Safety Group; **Winder:** National Organisation for the Treatment of Sexual Abusers Research Sub-Committee.

Equality & Diversity:

Unit A04 operated in full compliance with NTU's Equality & Diversity strategy. NTU's Equality and Diversity Champion participates in the Vitae Equality and Diversity Champion Network. Case studies informed by NTU's work in this area are available on the Vitae website.