

<p>Institution: Keele University</p> <p>Unit of Assessment: Psychology, Psychiatry and Neuroscience</p> <p>a. Overview</p> <p>Psychology, established at Keele for over fifty years, has developed a strong national and international reputation for the quality and focus of its research on both cognitive and social psychology. Our research activity is organised within the Centre for Psychological Research (the Centre) one of five such centres in the interdisciplinary Research Institute for Social Sciences (RISS). The RISS is responsible for stimulating and supporting research, enterprise and knowledge transfer activities, and for the training, supervision and support of research students. A Faculty Research Committee oversees research strategy, approves applications for research leave, and monitors reports on leave. The University Research Committee has overall responsibility for research matters while central Research and Enterprise Services provides relevant legal and financial expertise. The Centre activity is structured into two primary groups: Brain & Cognition and Social & Developmental Psychology with a shared interest in aspects of Health & Ageing. Over the past five years we have conducted a thorough review of our Centre activities resulting in the recruitment of six early-career researchers (Berry, Grange, Kent, Owen, Skipper, Williams), and increased success on all of our targets in terms of publications, impact, research income and PGR students. We have established collaboration with a wide range of partners and our work is making a substantial contribution to the discipline as evidenced by the leading role of our staff in various areas. The infrastructure provided by Keele has ensured that we can take advantage of a range of local, national and EU initiatives. Building on our recent achievements, we anticipate further growth in the next five years.</p> <p>b. Research strategy</p> <p>Our aim is to develop a centre of excellence in applied social and cognitive psychology that is firmly rooted in fundamental research and critique. Through internal discussion on contemporary theoretical developments and of the needs of a range of community partners, the Centre has confirmed the importance of combining pure and applied work with a focus on Health & Ageing. Our aim is to further enhance our collaborations and to build upon our strong research inheritance to advance our understanding of contemporary social and health issues and to promote wider health and wellbeing.</p> <p>Research in the Brain & Cognition group (Berry, Edelstyn, Grange, Owen, Sherman, Stephens, Wearden, Williams) has included a) bio/neuropsychological work on alcohol hangover; swearing and taboo language; and neuropsychological studies of cognition, drugs and well-being in patients with Parkinson's Disease; b) work on cognitive processing including cognitive control (experimental studies and theoretical models of inhibition in task-switching); and memory ('false memory' in different groups and for different sorts of material and autobiographical memory); and c) human perception research including time perception (experimental studies and theoretical modelling of duration perception) and face recognition.</p> <p>Research in the Social & Developmental group (Fox, Kent, Lamont, Murray, Rotenberg, Skipper, Stiff) has included a) studies of aspects of social development (effects of bullying in schools and different strategies for coping with bullying); the role trust plays in social development; psychological interventions in educational settings; and conversation analysis of parent child interactions; and b) social psychological processes in health; studies of promoting health and wellbeing; and critical analyses of concepts in health psychology.</p> <p>Both of these groups overlap in their concern with investigation of aspects of health and ageing – which are two overarching institutional strategic themes. In recruiting staff, care has been taken to match them with research priorities and to integrate them into the research groups. The Centre Head is also the University lead on Ageing and has promoted an orientation towards that area. In both the Brain & Cognition and Social & Developmental groups about half the members are</p>

Environment template (REF5)

now involved in research into aspects of **Health & Ageing** including a) cognitive control and ageing (Grange); neuropsychology of ageing (Edelstyn); time perception in older people (Wearden), including the first experience sampling methodology study of time experience in the elderly; and b) loneliness and social isolation among older people; community interventions with older people (Murray); engagement with the arts and creative activities (Lamont). To facilitate experimental work on ageing we have established an older person's research participation panel.

The overlap between the two groups ensures the dynamic combination of pure and applied work and the sharing of expertise within the Centre and with researchers elsewhere. It has also enabled the development of strong community partnerships with a variety of agencies (e.g., Manchester and Stoke-on-Trent City Councils; University Hospital of North Staffordshire) and contributed to increasing the impact of our research on both policy and practice.

We have introduced initiatives to promote a strong research culture. These include a biweekly seminar series of invited speakers from the UK/ Europe; events for the main research groups and sub-groups (e.g. Children & Young People's Group); research 'away days' to review research activity; a regular research newsletter which is distributed widely; and research notice boards for research staff and students. Progress on publications, conference presentations and grant submissions is discussed at the main research group meetings supplemented with individual mentoring by the group leaders. Performance within the Centre is subject to an annual Research Institute (RI) review which assesses performance in terms of publications, presentations, grant income, and impact activity, and reports to the University Research Committee. The RI monitors research targets, assists with grant applications (including peer review), organises events to promote impact, organises and evaluates staff research leave, coordinates postgraduate and research staff recruitment, monitors student progress, and other tasks which facilitate smooth running of research and the building of an active interdisciplinary research culture.

Over the next five years our aims include doubling research student numbers and grant income. In view of our achievements of the past five years this is a realistic and achievable target. We will facilitate this through careful mentoring of our early-career staff, expanding interdisciplinary collaborations (especially around health and ageing); developing partnerships with outside agencies (e.g. the establishment of Centre for Research & Action on Health Inequalities detailed in e), and expanding our research infrastructure to further enhance our research (e.g. HEFCE capital funding detailed in d).

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

In developing the Centre, our aim has been to strengthen the research environment to ensure that it is attractive to new researchers, supports and nurtures researchers at all stages of their careers, creates leaders for the future, and provides strong and effective mentoring. Since the last review we have been very successful in recruiting and integrating a number of very talented researchers into the two research groups. Recent appointments in the **Brain & Cognition** group include researchers with expertise in cognitive control (Grange), memory (Williams) and perception (Berry) while in the **Social & Developmental** group we have recruited experts in social development (Skipper), social interaction (Kent) and group dynamics (Stiff). The careful selection and integration of these staff has confirmed the direction of our orientation and is already producing substantial advances in our research activity.

To ensure integration of early-career staff, each has a mentor who provides individual advice and guidance on their research career. Early-career staff are also allocated additional research time under the University's workload allocation model. The RI, in conjunction with the University's Learning and Professional Development Centre, offers an induction programme that includes research planning, funding opportunities, ethical and governance issues. All staff must undergo training before supervising research students or if they have a significant grant that involves responsibility for finance and for staff supervision. Excellence in research is a key criterion in

academic promotions. During the REF period promotions to Senior Lecturer (Stephens and Fox) and Professor (Edelstyn) have been based on research excellence. Recent senior appointments have been based on an assessment of research achievements and plans. Centre staff have been supplemented by six research associates who have been appointed with funding from the ESRC, RCUK New Dynamics of Ageing (NDA), National Institute for Health Research (NIHR), and the EU.

Research leave is provided for all Centre staff who meet a threshold of expectations for performance in terms of publications and grant writing. In the past five years, Grange, Edelstyn, Sherman, Fox, Lamont, and Murray have had leave. Individual performance is monitored by the Centre Head and Research Institute through annual reports on research activity which detail staff members' outputs and future plans. It informs the research element of formal annual appraisals and the allocation of additional research time, advice and mentoring as appropriate. Centre staff are normally expected (allowing for personal circumstances and career stage) to produce at least two high quality publications (peer-reviewed article, substantial chapter) per annum, at least two substantial grant applications over a five-year cycle, to be involved in PGR training and supervision, and to participate actively in societies and conferences.

The Centre is committed to gender equity in its research training and support. We have been awarded the Athena Swan Bronze award with a clear plan to achieve the Silver award within three years. At lecturer and senior lecturer levels there are equal numbers of male and female staff while at the professorial level there are three men and one woman, reflecting the current career age profile of the Centre. Keele has recently achieved the European Commission's HR Excellence in Research Award. There is dedicated support available for promotion through appraisal and mentoring, and arrangements are in place for staff members who go on maternity leave. There is also support for research associates who are encouraged to present papers, develop their own publications and participate in career development training courses offered by the RI under the Concordat to Support Career Development of Researchers.

ii. Research students

Over the REF period, the Centre has steadily expanded the number of research students; the number of successful PhD graduates has increased to fifteen compared to ten over the previous, longer RAE period. These graduates were distributed across the two main research groups and most have gone on to academic appointments either at Keele (e.g. List) or elsewhere, e.g. Cambridge (Wise), Leeds (Greasley), City (Filippopoulos), Aberdeen (Van den Bos), and London (Bourne, Hale). Currently, the Centre has a cohort of fourteen research students (one PGR per staff FTE), and there will be a significant further increase in Doctoral awards over the next REF cycle. The School's plans to provide GTA support to high-quality applicants who do not receive a research studentship ensures that our numbers will further increase in the next two to three years.

All matters concerning the recruitment, supervision, training and examination of research students are coordinated by the RISS and governed by the University Code of Practice on PGR Degrees. Policy at the University level is the responsibility of the University PGR Committee. Within the RI, the five Centre PGR leads and the PGR Director are responsible for admissions, arranging appropriate supervision, and monitoring. The Centre PGR Lead (Lamont) is also Deputy RI PGR Director with a specific remit for PGR research training and development, in addition to ensuring that Psychology's interests are well represented.

All PGR students have a lead and second supervisor, both of whom undergo mandatory training and at least one of whom is experienced. Student training needs are identified and reviewed through a Personal Development and Learning Plan (PDLP) underpinned by the RCUK/Vitae Researcher Development Framework. The PDLP is informed by the student's existing capacities, measured by an initial needs audit together with the advice of the supervisory team and PGR Director. A credit-based system has recently been replaced by one shaped by needs-based principles. Training and general progress are reviewed by the RI PGR committee at six-monthly intervals, with a rigorous formal independent written and oral doctoral progression process after ten to twelve months to confirm that the student meets the criteria for successful PhD completion.

During the REF period, the RI has sponsored Psychology PGR students through a combination of competitively-awarded fully funded studentships at RCUK rates, 'Acorn' studentships (£450,000 per annum), in which contributions from an external partner are matched by the RI, and fee bursaries. In addition, the School of Psychology also offers teaching opportunities to PGRs, while researchers offer short-term employment opportunities to PGR students on projects. This flexible approach has enabled PGR students to combine research, teaching and paid research assistance, benefitting their careers. Currently four FT students are supported by full RI bursaries, two by Acorn studentships (supported by Beth Johnson Foundation and Parkinson's UK), and one by a fees bursary. Two PT students are supported by fees bursaries and one is employed as a PT teaching fellow. These numbers will increase with the revised GTA funding plan.

Most PGR students are housed in the main School of Psychology building where they can interact with the lead researchers and supervisors on an informal basis. Some are housed in the neighbouring Moser Research Centre, which is the central social and intellectual hub for the vibrant RISS community of approximately 300 PGR students. This new £3.5 million facility, built with HEFCE research capital and University funding, was completed in 2008. It houses the Faculty Research Office (FRO), office space and facilities for research projects, offices for visiting scholars and postgraduate students, and meeting rooms. It underpins an efficient and flourishing interdisciplinary research environment, with exceptional office and ICT facilities beyond Research Council minima for PGR students.

The RI organises an annual interdisciplinary forum for PGR students. In addition, our own students organise a similar forum for PhD and MSc students. All PhD students are encouraged to prepare their work for publication, and financial support is provided so they can present their work at relevant conferences such as the British Psychological Society (BPS) Psychology Postgraduate Affairs Group (PsyPAG) conference. We collaborate with four universities (Bristol, Lund, Roskilde, Cornell) in a PhD training network on Action Research at which some of our students have presented (e.g. at the 2013 event in Bristol several of our students (Wright-Bevans, Herron, Jervis) organised a joint presentation and continue to be in contact with the other students who attended). We are a member of the Euro PhD Social Representations Consortium which has provided an opportunity for international networking for research students working in this area (e.g. Taylor: representations of suntan). Some of our PGR students have participated in the British Society of Gerontology (BSG) Emerging Researchers in Ageing Forum (e.g. Wright-Bevans). We have also organised a very successful joint PhD Forum on Ageing Research with Aston University with plans for a West Midlands Forum currently underway.

Our healthy PhD student community is underpinned by a very successful suite of MSc programmes with specialisms in our research strengths. Around seventy-five students have graduated from these programmes during the REF period. Many of the graduates have gone on to study for a PhD at Keele or elsewhere. Undergraduate students are actively involved in research through a dedicated research apprenticeship scheme and are encouraged to present their work at conferences and to consider research as a career. Students are frequently co-authors on publications with Centre staff and several staff (Fox, Sherman, Edelstyn, Stephens) have received BPS and Nuffield funding for summer studentships.

d. Income, infrastructure and facilities

The Centre has enthusiastically promoted applications for external funding such that all staff have been involved in grant submissions during the REF period, leading to an almost doubling of research income to £15,700 per staff FTE per annum (an 87% increase compared with the RAE period). This has included large awards from the EU (Fox, Rotenberg, Stephens), ESRC (Fox), RCUK NDA (Murray), NIHR (Edelstyn) and Leverhulme (Stiff) as well as smaller awards from the British Academy, Experimental Psychology Society (EPS), North Staffordshire Medical Institute, Richard Benjamin Foundation, Stoke-on-Trent City Council, Beth Johnson Foundation and Parkinson's UK. In addition, the RI strategically provides targeted research expenses, such as seed corn funding in the early stages of projects (e.g. Rotenberg's work on trust), to develop

research networks (e.g. Sherman's links with Lancaster and Kent's links with Loughborough), and to facilitate debate and dissemination of research findings (e.g. Narrative and Ageing mini-conference, 2013, Murray). Generous funding (at least £500 per annum but up to £2,000 for important international events, e.g. the European Congress of Psychology in Istanbul, 2011; (Wearden)) is available for travel/conference expenses, for small-scale research costs and collaborative disciplinary or inter-disciplinary events.

Most of the Centre's research activities are based within the School of Psychology building, where staff have their own specialist research labs supported by three dedicated psychology technicians. Specialist equipment has been enhanced with recent HEFCE research capital funding of £80,000. For the **Brain & Cognition** group the bio/neuropsychology labs (Edelstyn, Owen, Stephens) are equipped with blood pressure and heart rate monitors, skin conductance assessment and cold pressor stimulus units. The cognition labs (Grange, Sherman, Williams) are equipped with response keys, foot switches, video-output switching boxes, and audio-visual display boxes. The Human Perception Lab (Berry, Wearden) is equipped with a modern Eye Tracker. All labs have recently purchased computers with a range of specialist software including E-Prime and Qualtrics.

Also, using HEFCE funding, the **Social & Developmental** group have developed a Digital Qualitative Research Lab (Fox, Kent, Lamont, Murray) fitted with a range of advanced audio and video recording equipment. Our established Observation Lab allows unobtrusive observation and recording of social interaction. We have developed in collaboration with the RI Humanities plans for a Research Cinema (HEFCE research capital funding £80,000) which will allow investigation of the impact of various media representations on different audiences. Staff PCs have appropriate software for quantitative and qualitative data analysis, e.g. SPSS, NVivo.

The adjacent Moser Research Building houses the FRO support staff as well as additional rooms for PGR students, contract researchers and for meetings. The FRO staff provide regular updates on relevant funding opportunities, engage with RCUK research initiatives, assist with funding applications and help organise research events. Together with the University Research and Enterprise Services they provide support on all financial, ethical and governance issues, and facilitate work with external partners, including dedicated European funding expertise. This support has enabled a sharp increase in the number of grant submissions.

e. Collaboration or contribution to the discipline or research base

There are active collaborations with researchers at several UK institutions including work on cognitive control (Grange: Bangor), social interaction (Kent: Loughborough), Parkinson's Disease (Edelstyn: Oxford, King's College Institute of Psychiatry), domestic abuse (Fox: Strathclyde, Bath), memory (Sherman: City), group relations (Stiff: Durham), time perception (Wearden: Liverpool John Moores). Centre members also hold honorary appointments at City and Staffordshire Universities (Murray), and University of Manchester (Wearden), while Murray has received Fellowships from both the BPS and the Canadian Psychological Association.

There is extensive collaboration with a wide range of governmental and non-governmental agencies including work by Murray (Manchester and Stoke-on-Trent City Councils, Staffordshire County Council, New Victoria Theatre, Beth Johnson Foundation), by Kent (NSPCC, ParentingUK), by Fox (Arch – a Staffordshire charity providing support to the homeless) and by Edelstyn (University Hospital of North Staffordshire). We have extensive collaboration with schools throughout Staffordshire and Derbyshire. As part of the Keele Initiative on Ageing we have established a local network of almost twenty partners including health (NHS), social care (Staffordshire County Council), housing associations (Aspire Housing, Staffordshire Housing), NGOs (AgeUK), and older people's organisations (Stoke 50+ forum). We have also recently entered into a four-way partnership with Staffordshire University, and Stoke-on-Trent City and Staffordshire County Councils to establish a Centre for Research and Action on Health Inequalities (CRAHI) which has just received funding of £1.5 million for PGRs and post-doctoral researchers over five years and will be jointly directed by Murray.

Environment template (REF5)

Members of the Centre collaborate with colleagues in Europe, e.g., Finland (Murray: collaborator on Academy of Finland project on occupational health); The Netherlands (Murray: collaborator on narrative projects, Twente; Stephens: alcohol, Utrecht; swearing, Tilburg; Grange: replication, Tilburg); Denmark (Stephens: alcohol, Southern Denmark), Portugal (Rotenberg: trust, Coimbra); France (Wearden: time perception, Rouen, Clermont-Ferrand); Spain, Sweden and Malta (Fox: domestic violence); and elsewhere, e.g. New Zealand (Wearden: collaborator on Marsden Trust project on timing; Canterbury, NZ); Japan (Stiff: collaborator on cyberpsychology project with Yamanashi University), and USA (Stephens: swearing, Brooklyn). Visitors from various international institutions have spent periods working with staff in the Centre. These include Brydon-Miller (Cincinnati) who was awarded a Fulbright Scholarship to spend one semester working with Murray on psychological aspects of action research; Väänänen (Finnish Institute of Occupational Health, Helsinki) to work with Murray on a project concerned with 'mental vulnerability in worklife'; Chamberlain (Massey, NZ) to work with Murray on 'New Directions in Health Psychology'; Vale-Dias (Coimbra, Portugal) to work with Rotenberg on an EU collaboration on trust; and Verster (Utrecht) to work with Stephens and Owen on their research on alcohol hangover, which was followed by a three month visit by a research student.

The Centre provides the editorial home for several high-impact journals. These include: *Psychology of Music* (Editor: Lamont), *Journal of Health Psychology* (Associate Editor: Murray), *Psychology & Health* (Associate Editor: Murray), and *Time & Time Perception* (Review Editor: Wearden). In addition, staff members serve on the editorial boards of over twenty journals including *Psychopathology*, *European Neurology*, *Case Reports in Neurological Medicine*, *Journal of Neuropsychology*, *Journal of Experimental Psychology: Human Perception & Performance*, *Health Psychology Review*, *Aggressive Behavior*, and *Social Development*. Centre members are also frequent reviewers for over forty other journals.

Centre staff have given keynote presentations at conferences in Europe including *European Health Psychology Society* (Cluj, Romania); *Association of French Health Psychology* (Lille, France); *Panhellenic Psychological Association* (Alexandroupolis, Greece); *International Congress on Culture, Health and Wellbeing* (Turku, Finland); *International Conference on Health For All* (Leipzig, Germany); *Annual Citizen Participation Conference* (Barcelona, Spain) (Murray); *International Research in Music Education Conference*; *International Conference on Music and Cochlear Implants* (Budapest, Hungary) (Lamont); European Cooperation in Science & Technology *Time & Mental Activity conferences* (Turku, Finland, Delmenhorst and Tübingen, Germany, Granada and Seville, Spain, and Groningen, Netherlands); and the *Temps et Rhythmicité conference*, France (Wearden). They have given keynote presentations at UK meetings including *Battle of Ideas*, London (Lamont) and *Understanding the Social World*, Huddersfield; *BPS Qualitative Methods in Psychology (QMIP) AGM*; *Narrative Practitioner*, Wrexham; *Social Futures Biennial*, Teesside; and *Storytelling and Health*, Cardiff (Murray). Centre staff are expected to present papers and symposia at BPS/EPS and international conferences, e.g. Fox organised a symposium on Domestic Violence at the *BPS Division of Educational and Child Psychology (DECP)* meeting in Cardiff; Rotenberg organised one on Trust at the *Society for Research in Child Development Biennial Meeting*, Denver, Colorado, USA; and Murray organised one on Action research at the *BPS QMiP* conference.

Members of the Centre are active reviewers of research initiatives both nationally and internationally. Fox and Murray are members of the ESRC Peer Review College, and Murray is also a member of the review committee of the German Health Research programme. Other Centre staff are reviewers for such UK granting bodies as ESRC, Leverhulme, NIHR, British Academy, and the Royal Society, and for international organisations such as Social Sciences and Humanities Research Council of Canada (SSHRC), National Institute of Mental Health (NIMH), Austria Academy of Sciences, Estonia Science Foundation, Swiss National Science Foundation, Netherlands Organisation for Scientific Research, and the Irish Cancer Society.

Centre members have been active in editing special journal and book collections. These include work by Lamont (Music and emotion, *Musicae Scientiae*, 2011); by Murray (Health psychology and the arts, Health psychology and writing; Health psychology, poverty and poverty education *Journal*

Environment template (REF5)

of Health Psychology, 2008, 2009, 2010); by Edelstyn (Parkinson's Disease and Cognition, *Journal of Neuropsychology*), and by Grange (*Task Switching and Cognitive Control*, Oxford University Press). Lamont is co-editing the *Sage Encyclopaedia of Music in the Social and Behavioural Sciences* and Murray is editing *Critical Health Psychology 2* (Palgrave), *New Directions in Health Psychology*, 5 Vols (Sage); *Psychology, Health and Society* book series (Routledge) and *Narrative and Health Psychology* (*Journal of Health Psychology*).

Centre staff are regularly invited to contribute to important research collections. This includes work by Lamont (*Music, Health and Wellbeing*, Oxford University Press, 2012); and Murray (*Handbook of Qualitative Data Analysis*, Sage, 2013; *Encyclopaedia of Critical Psychology*, Springer, 2013; *New Science of Ageing*, Polity, 2013; *Advances in Health Psychology*, Palgrave, 2012; *Health Psychology in Action*, Wiley-Blackwell, 2012; *Community Psychology and Mental Distress*, Palgrave, 2012; *Qualitative Research Methods in Mental Health and Psychotherapy*, Sage, 2012; *Community Psychology: Liberation and Well-being*, Palgrave, 2010; *Critical Psychology: An introduction*, Sage, 2009; and *Handbook of Families and Poverty*, Sage, 2008).

Centre members are also active in various research organisations. Examples include: BPS Cognitive Section (Secretary: Sherman); BPS Psychobiology Section (Chair: Stephens); British Neuropsychological Society (Secretary: Edelstyn); European Society for the Cognitive Sciences of Music (Executive: Lamont); International Society for the Study of Behavioral Development (Regional Director: Rotenberg); and International Society for the Study of Interpersonal Trust (Chair: Rotenberg). Several are also active in editing society bulletins including *BPS QMiP Bulletin* (Kent) and *BPS Psychobiology Newsletter* (Stephens).

Further evidence of Centre standing is the number of members who have been involved during the REF period as external examiners for over twenty PhD theses in the UK (e.g. Cambridge, Warwick, London, Sheffield, City, Bath, Leeds) and elsewhere (e.g. New South Wales, Limerick, Minho, Blaise-Pascal, Massey). Centre staff are in high demand to give talks at institutions in the UK (on average four per annum, e.g. LSE, Bath, Surrey, Lancaster, Birmingham, City, Goldsmiths, York) and internationally (e.g. Albi, France; Munich; Umea, Sweden; Aachen, Berlin; New York; techno-managerial and innovation festival, BITS Pilani K K Birla Goa Campus, India). They are also involved in various national and international research consortia such as the EU European Innovation Partnership on Active Healthy Ageing Action Group on Age-Friendly Environments (Murray), the Bullying Research Network and the International Network on Responses to Interpersonal Violence (Fox), the EU TIMELY network on time perception (Wearden) and the Open Science network (Grange).