

R. I. M. DUNBAR MA PhD FRAI FBA

Professor of Evolutionary Anthropology
Director, Institute of Cognitive & Evolutionary Anthropology
Fellow, Magdalen College
Co-Director, British Academy Centenary Research Project

Fellow, Royal Anthropological Institute
Fellow, British Academy

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Web pages

Home page url: <http://www.icea.ox.ac.uk/about/staff/dunbar/>
Research Group url: <http://www.icea.ox.ac.uk/evo/>
Lucy Project url: <http://pcwww.liv.ac.uk/~lucy2003/>
DTESS Project url: <http://www.mbs.ac.uk/research/DTESS.aspx>
SOCIALNETS Project: <http://www.social-nets.eu/>

CURRICULUM VITAE**Robin Ian MacDonald Dunbar**

Date of Birth	28 June 1947	Nationality	British
Education	1960-66	Magdalen College School, Brackley, Northants	
	1966-69	Magdalen College, Oxford University	
	1970-73	Psychology Department, Bristol University	
Degrees	1969	B.A. (Oxford): Psychology & Philosophy	
	1973	Ph.D. (Bristol): Psychology (Thesis: "Social Dynamics of Gelada Baboons")	
	2007	M.A. (Oxford University)	
Posts	2007 ⇒	Professor of Evolutionary Anthropology, University of Oxford	
	2007 ⇒	Fellow, Magdalen College	
	2007⇒	Honorary Senior Research Fellow, School of Archaeology, Classics & Egyptology, University of Liverpool	
	2003-07	British Academy Research Professor, School of Biological Sciences, University of Liverpool	
	2003-10	Co-Director: British Academy Centenary Project ("Lucy to Language: The Archaeology of the Social Brain")	
	1997-07	Professor of Evolutionary Biology & Psychology: School of Biological Sciences, University of Liverpool	
	1994-97	Professor of Psychology: Psychology Department, University of Liverpool	
	1992-94	Professor of Anthropology: University College London	
	1990-92	Reader: Anthropology Dept, University College London	
	1987-90	Lecturer: Anthropology Dept, University College London	
	1985-87	University Research Fellow: Zoology Dept, Liverpool University	
	1983-85	Freelance science writer (<i>New Scientist</i> magazine)	
	1983	Asst. Professor ('docent'): Zoological Institute, Stockholm University, Sweden	
	1977-82	SERC Advanced Research Fellow: Research Centre, King's College, Cambridge & Sub-Dept of Animal Behaviour, University of Cambridge	
	1974-77	Postdoctoral Research Associate: Psychology Dept, Bristol University	

Membership of Professional Societies

- British Academy (Fellow: elected 1998)
- Royal Anthropological Institute (Fellow) (Council member: 1989-92 and 2001-present; elected vice-President 2005-present)
- Association for Study of Animal Behaviour (Council member: 1990-92; grants committee: 1991-92; journal editor: 1994, 1995)
- International Behavioural Ecology Society
- Human Behaviour & Evolution Society
- Galton Institute (Fellow; Council member: 1990-93)
- Primate Society of Great Britain (Council member: 1976-79, 1986-90; President: 1988-93; Chair, Conservation working Party: 1978-1982)
- Save British Science
- British Association for the Advancement of Science

National and International Committees

- 1997-2004 Home Office Animal Procedures Committee
(1998-2004 chair: Primate Sub-Committee)
- 2000-2001 Scientific Advisory Committee, Fondation J-M. Delwart (Belgian Academy of Sciences)
- 2000⇒ Isle of Rum Ecological Management Committee, Scottish Natural Heritage
- 2001-2005 Chair, Management Committee, AHRC Research Centre for Evolutionary Analysis of Culture, University College London
- 2001 Special Biological Anthropology adviser, Anthropology Panel, RAE 2001
- 2001 External advisor on Chair in Anthropology, University of Göttingen, Germany
- 2005 External Mock RAE assessor, Department of Anthropology, University of Durham
- 2005 EU EUROCORES grants committee, Brussels
- 2008 Special adviser on evolutionary psychology, Psychology Panel, RAE 2008
- 2007⇒ Scientific Advisory Committee, Courant Centre, University of Göttingen, Germany

Listed in:

Who's Who
Who's Who in the World
Madison's Who's Who of Executives & Professionals
Marquis Who's Who
Marquis Who's Who in Science & Engineering
Dictionary of International Biography
DeBrett's People of Today

Awards/Honours

- 1971-72 Visiting scholar: Institute of Ethiopian Studies, University of Addis Ababa, Ethiopia
- 1974-75 Visiting scholar: Institute of Ethiopian Studies, University of Addis Ababa, Ethiopia
- 1979 Visiting scholar: Primate Research Institute, Kyoto University, Japan
- 1986 Distinguished Visiting Scholar: Psychology Dept, St Andrews University
- 1994-96 Honorary Visiting Professor, Anthropology Dept, University College London
- 1994 Osman Hill Medal, Primate Society
- 1994 Monro Lecture, Depts of Social Anthropology & Archaeology, Edinburgh University
- 1998 Dr van Hofsten Memorial Lecture, Uppsala University (Sweden)
- 1998 Elected Fellow of the British Academy
- 2003-06 Awarded British Academy Research Professorship
- 2005 Galton Lecture 2005, Galton Society
- 2007 6th British Academy/British Psychological Society Annual Psychology Lecture
- 2009 Stirling Lecture, Dept of Social Anthropology, University of Kent
- 2009 Monro Lecture, Depts of Social Anthropology & Archaeology, Edinburgh University

Recent Research Grants

- 1995-2005 ESRC programme grant: Research Centre in Economic Learning & Social Evolution (with Binmore & Plotkin, UCL) [~£5 million]
- 1995-6 Royal Society NATO Exchange fellowship awarded to Dr T.Berezkei (University of Pecs) to spend the year at Liverpool
- 1997-8 Royal Society NATO Exchange fellowship awarded to Dr B.Pawlowski (University of Wroclaw, Poland) to spend a year at Liverpool
- 1997 Unilever Research Laboratories project grant
- 1997 University of Liverpool Research Development Fund
- 1998 Hewlett Packard Research project grant
- 1999 Unilever Research Laboratories project grant
- 2001 University of Liverpool Research Development Fund
- 2003-07 British Academy Research Professorship [£109K]
- 2003-07 Leverhulme Trust project grant (collaboration with Durham and Kent Universities) [£217K]
- 2003-10 British Academy Centenary Project (collaboration with University of Southampton): “Lucy to Language: the Archaeology of the Social Brain” [£1.1 million]
- 2006-2010 EPSRC/ESRC (£560K) [Developing theory for evolving socio-cognitive systems; collaboration with Manchester and Sheffield Hallam Univs.]
- 2006 British Academy (£10K) [Managing violence in Icelandic Viking society; collaboration with Dr A.Wallete, Lund Univ, Sweden]
- 2007 British Academy conference grant (£13K) for conference “Social Brain, Distributed Minds”, London
- 2007-2009 EU/FP6 NEST-PATHFINDER programme [EX-REL project: “Explaining Religion”]; collaboration with Belfast, Brunel, Aarhus, Zurich, Sophia
- 2008-2010 EU/FP7 “Pervasive Adaptation” programme [SOCIALNETS project: “Social Networking for Pervasive Adaptation [in computer networks]”]; collaboration with Cardiff, Cambridge, Nice, Athens, Rome, Aveiro

Editorships

Journal of Human Evolution (Associate Editor: 1989-1991, and 1993-97)

Animal Behaviour (European Co-editor: 1994, 1995)

Frontiers of Evolutionary Neuroscience (advisory editor: 2008 → current)

Advisory Editorial Boards (ie. those where board members make decisions on papers)

Proceedings of the Royal Society, London (B Series) (2001-2007)

Human Nature (1998→ current)

Primates (1990→ current)

Journal of Evolutionary Psychology (2003→ current)

Int. Journal of Primatology (2003→ current)

Journal of Ethology (1999-2001)

Animal Behaviour (1983, 1991-93)

Honorary Editorial Boards

Behavioural Processes (1979-82, 1984-2005); *Behaviour* (1992-1993)

Conference Lectures (since 2000)

- 2000 CNRS interdisciplinary seminars in social science (Paris)
- 2000 British Academy and Novartis Foundation meeting, “Evolution of Human Societies” (London)
- 2000 Swedish Govt. conference on “*e*-risk: the social impact of IT”, Stockholm.
- 2000 Discussant: workshops on “The brain and education”, Royal Institution, London.
- 2000 LASA conference on “Use of primates in toxicology research”, London
- 2000 European Science Fdn & Primate Society workshop and meeting: “New developments in primatology”, (London)
- 2000 Institute of Cognitive Neuroscience workshop “What makes humans special?”, London.
- 2000 ASAB Easter conference, Chester.
- 2001 Plenary lecture: Human Behaviour & Evolution Society conference, London
- 2001 Distinguished visitor, workshop series on evolutionary psychology, Institute of Advanced Studies, University of Western Australia, Perth
- 2001 Konrad Lorenz Institute (Vienna) workshop on “Evolution of Communication”
- 2002 Royal College of Physicians: “Science of morality”, London
- 2002 Museum of Archaeology: “Human evolution”, Madrid
- 2002 Open University Psychology Society: “Evolutionary psychology”, Nottingham
- 2002 British Academy + Novartis Foundation: “Conceptual knowledge”, London
- 2002 Hungarian Academy of Sciences: “Future of mobile technology”, Budapest
- 2002 Heads of University Biology Schools: “How to attract better students into biology”, Birmingham
- 2003 British Psychological Society symposium, Bournemouth
- 2003 Institute of Cultural Research: “Religion and belief systems”, London
- 2003 InnovationsUK, London: “Belief systems”
- 2003 Hungarian Academy of Sciences Small Group Meeting: “Evolution and cognition”, Budapest
- 2003 Wickler Festschrift Symposium: “Investigating ecological intelligence”, Munich
- 2003 Instituto Superior de Psicologia Aplicada: “Evolutionary Psychology”, Lisbon
- 2003 Stichting Praemium Erasmianum: “Social life of early humans”, Amsterdam
- 2003 British Society for Population Demography annual symposium, Bristol
- 2004 International Primatological Society congress, Turin, Italy
- 2004 Wenner-Gren Foundation workshop: “Fission-fusion social systems”, Tuscany, Italy
- 2004 ASAB summer conference, Lancaster
- 2005 Festschrift for Henry Plotkin, Psychology Dept, University College London
- 2005 10th FinBioNet Symposium, Finland.
- 2005 Portuguese Primatological Association symposium, Lisbon.
- 2005 Oxford University Institute of Social Anthropology Centenary symposium.
- 2005 AHRC Centre for Evolutionary Analysis of Cultural Behaviour conference: “Pattern and Process in Cultural Evolution”, University College London
- 2005 Liverpool University Complexity Science International Colloquium, Liverpool
- 2005 McDonald Institute of Archaeology, University of Cambridge, conference: “The Human Revolution Revisited”, Cambridge
- 2005 Galton Institute symposium: “Genetic and Environmental Influences on Human Ability”, London
- 2005 Royal Anthropological Institute workshop: “Kinship”, Univ of Wales Study Centre, Gregynog

- 2006 9th Sydney Social Psychology Symposium, Sydney, Australia
 2006 British Academy colloquium: “Evolution of Religion”, London
 2006 Official opening, Leverhulme Centre for Human Evolutionary Studies, Cambridge University
 2006 Official opening, new Anthropology building, University College London
 2006 ESRC seminar workshop on cultural evolution, University of Edinburgh
 2006 Royal Society + Novartis Foundation discussion meeting on “Social Intelligence”, London
 2006 University of Stellenbosch and NIH, Netherlands, conference “Cradle of Language”, Stellenbosch, S. Africa
 2007 Primate Society conference, Durham
 2007 Primate Society 40th Anniversary conference, London
 2007 Institute of Advanced Studies, University of Durham, public lecture series
 2007 British Academy/British Psychological Society 6th Annual Psychology Lecture, London
 2007 Wellcome Trust “Evolution of Cognition” symposium, Hinxton (Cambridge)
 2007 Coldspring Harbour Lab/MRC workshop “Evolution of the Brain”, Oxford
 2007 European Human Behaviour & Evolution Society conference, London
 2007 6th Goettingen Freilandtage, Goettingen
 2008 Association for Science Education annual conference, Liverpool
 2008 British NeuroPsychiatry Association annual conference, London
 2008 International Primatological Society congress, Edinburgh
 2008 44th Nobel Symposium, Gustavus Adolphus College, St Peter, Minnesota, USA
 2008 Primate Society of Gt Britain 30th anniversary symposium, London
 2009 Pontifical Gregorian University, Rome, conference on ‘Evolution and Theology’
 2009 ESRC seminar series on ‘Darwin’s Medicine: Evolutionary Psychology and its Applications’, Oxford
 2009 WildCRU workshop on “Felids and Primates”, Oxford University
 2009 Primate Society of Gt Britain symposium, Bournemouth
 2009 Stiftung Forum für Verantwortung, Otzenhausen (Germany), conference
 2009 Robert Schuman Institute workshop on ‘Darwin and the Political Sciences’ (European university Institute, Florence)
 2009 Official opening, Nuffield College, Oxford, Centre for Experimental Social Sciences
 2009 CRASHH workshop on ‘Darwinism and the Social Sciences’, LCHES, Cambridge University

Recent Seminar Presentations (since 2000)

- 1999-00** Institute of Advanced Studies, Princeton (USA)
 Biology Dept, Princeton University
 Biology Dept, Imperial College
 Archaeology Dept, University of Reading
 Psychology Dept, University College London
 Economics Dept, University College London
- 2000-01** Dept of Anthropology, SUNY, Stony Brook (USA)

Department of Zoology, University of Cambridge
Department of Zoology, University of Leicester
Department of Philosophy, University of Liverpool
S/Dept of Animal Behaviour, University of Cambridge
Dept of Psychology, University of Otago, Dunedin (New Zealand)

2001-02 Max-Planck-Institute for Evolutionary Anthropology, Leipzig
Department of Cognitive Neurosciences, Western General Hospital, Edinburgh
Department of English, Liverpool University
Institute of Advanced Studies, Budapest, Hungary

2002-03 Unilever Research Laboratories, Port Sunlight
Wotton's Society, Eton College

2003-04 Psychology Dept, University of Exeter
Linguistics Dept, Birkbeck College, London
Psychology Dept, Southampton University
Psychology Dept, University of Central Lancashire, Preston
Psychology Dept, University of Newcastle
Archaeology Dept, Southampton University

2004-05 Media Lab, MIT, Cambridge (MA), USA
Psychology Dept, University of Stirling

2005-06 Institute of Cognitive Neuroscience, University College London
Psychology Dept, University of Plymouth
Schools of Biology, University of Wales, and CEH, Bangor

2006-07 Psychology Dept, University of Kent
Psychology Dept, University of Wolverhampton
Institute of Advanced Studies, University of Durham
Linguistics Society, Cambridge University
COGS, University of Sussex
Psychology Dept, University of Surrey
Revenue & Customs senior managers' breakfast seminar, HM Treasury
Institute of Social & Cultural Anthropology, University of Oxford

2007-08 Social Sciences Group, Keble College, Oxford
Psychology Department, University of Kent
Cambridge University Linguistics Society
Psychology Dept, Bristol University
Biology Dept, Roehampton University
SRC/MRC Research Forum, Magdalen College, Oxford
CABDyN seminars, Said Business School, Oxford University
Linguistic Circle of Oxford
Social Sciences, Oxford Brookes University
Social Sciences seminar, Nuffield College, Oxford
The Reform Club, London

2008-09 Psychology Dept, Edinburgh University

Social Sciences, Oxford Brookes University
 Biology Society, Oxford University
 Linguistics Society, Oxford University
 Institute of Social & Cultural Anthropology, Oxford University
 Social Anthropology Dept, Edinburgh University
 Psychology Dept, Brunel University

Public Lectures

- 1994 SERC Rutherford-Appleton Laboratory (Didcot) public lecture series on "Origins"
- 1995 Primate Day, Chester Zoo
- 1996 Science Day, Dartington Literary Festival
- 1996 Waterstones, Manchester
- 1996 Science Museum, London
- 1997 Royal Bank of Canada lecture series, St Peter Port, Guernsey
- 1997 Edinburgh Science Week, Fruitmarket Gallery, Edinburgh
- 1998 Real Life Lectures, 6th International Artificial Life Conference, Brighton
- 1998 English Speaking Union, Liverpool
- 1999 "Homeworking" seminar, Steelcase Stafor (London)
- 2000 Fiera Concreto seminar on "Touch", Citta di Castello (Italy)
- 2001 "Action 4 Apes", Shrewsbury School, Shrewsbury
- 2001 The Graduate School, SUNY, Stonybrook, USA
- 2001 Institute of Advanced Studies, University of Western Australia, Perth
- 2001 British Assoc. for Advancement of Science, Glasgow
- 2002 Max-Planck-Institute for Evolutionary Anthropology, Leipzig
- 2002 *Café Scientifique*, Nottingham
- 2003 British Humanist Assoc: Darwin Day lecture, London
- 2003 British Association for Adv. of Science: "Evolutionary Archaeology", Salford
- 2003 Millenium Lecture, Department of Chemistry, University of Bath
- 2004 *Café Scientifique*, Birmingham
- 2004 *Café Scientifique*, ICA, London
- 2004 Cheltenham Science Festival
- 2004 Edinburgh Science Festival
- 2004 Edinburgh Book Festival
- 2004 Hay-on-Wye Literary Festival
- 2004 AQA workshop for A-level psychology teachers
- 2004 Dartington *Ways with Words* Festival
- 2003 Bath Royal Literary and Scientific Institute
- 2005 AQA workshop for A-level psychology students, Salford University
- 2005 AQA workshop for A-level psychology students, London
- 2004 *Café Scientifique*, Bangor
- 2006 Oxford International Biomedical Centre meeting "What Makes Us Human?"
- 2006 SciBar Café, Knutsford
- 2006 Merseyside Archaeological Society
- 2006 Solway Arts, Lake District
- 2008 Edinburgh Science Festival
- 2008 Magdalen College, Oxford, 550th celebrations (Anthropology lecture)
- 2008 Science Oxford
- 2008 British Association for Advancement of Science, Liverpool

2009 Darwin's Birthday, Natural History Museum, London
2009 Hay-on-Wye U3A

Administration

2001-2005 Chair, Management Committee, ARHC Centre for Evolutionary Analysis of Cultural Behaviour, Institute of Archaeology, London
2002-2006 Chair, Psychology Section, British Academy
1999-2004 Chair, Primate Sub-Committee, Home Office Animal Procedures Committee
1989-1993 President, Primate Society of GB
1978-1982 Chair, Standing Conservation Working Party, PSGB
1990-1992 Council member, ASAB
1989-1992 & 2001-present Council member, Royal Anthropological Institute
1990-1993 Council member, Galton Institute
1976-79 & 1986-90 Council member, PSGB

Examining

External Examiner (undergraduate degrees)

1989-91	Archaeology & Anthropology tripos, Pt. I, Cambridge University
1992-94	BSc and MA degrees, Department of Anthropology, Durham University
1996-2000	BA, BSc and MSc in Psychology, University of Central Lancashire
1998-2002	BSc in Human Sciences, University of Sussex

External Examiner: MSc (research) degrees

1977	C.Torres	Zoology, Edinburgh University
1983	L.DePew	Zoology, Cape Coast University, Ghana
1988	D.Hawkins	Applied Biology, Cambridge University
1994	A.Scholles	Anthropology, University of Auckland, New Zealand
1999	B.Whiting	Anthropology, Durham University
2006	J.Smaers	Anthropology, Cambridge University

Internal Examiner for PhD theses:

1978	C.Berman	Zoology, Cambridge University
1981	B.Chapais	Zoology, Cambridge University
1981	S.Datta	Zoology, Cambridge University
1981	J.Colvin	Zoology, Cambridge University
1982	P.Lee	Zoology, Cambridge University
1988	S.Ferrari	Anthropology, University College London
1989	C.Pryce	Anthropology, University College London
1989	C.Ross	Anthropology, University College London
1990	C.Faulkes	Biology, University College London
1990	K.Laland	Psychology, University College London
1991	K.Hill	Anthropology, University College London
1999	J.Denman	Biology, University of Liverpool
2001	P.Dixon	Biology, Liverpool University
2006	R.Burriss	Biology, Liverpool University

External Examiner for PhD theses:

1979	E.Shawcross	Biology, Sussex University
1979	H.Muller	Zoology, Zurich University, Switzerland
1982	C.Rowland	Biology, Open University
1987	P.Majluf	Zoology, Cambridge University
1987	R.Stuart-Dick	Resource Management, Univ. of New England, Armidale, Australia
1988	E.Williamson	Psychology, Stirling University
1989	M.Gomendio	Zoology, Cambridge University
1989	G.Dasilva	Zoology, Oxford University
1989	A.Feistner	Psychology, Stirling University
1989	M.Janus	Zoology, Cambridge University
1993	F.Marsh	Psychology, St Andrews University
1993	H.Eeley	Biological Anthropology, Cambridge University

1994	R.Ham	Psychology, Stirling University
1994	A.Fletcher	Zoology, Bristol University
1995	P.Brotherton	Zoology, Cambridge University
1995	S.Doolan	Zoology, Oxford University
1995	T.Sambrook	Psychology, St Andrews University
1995	A.Fairclough	Zoology, Bristol University
1996	A.Vella	Biological Anthropology, Cambridge Univ
1996	C.Uhlenbrook	Zoology, Bristol University
1997	A.Biran	Anthropology, University College London
1997	R.Day	Biology, Queens University, Belfast
1998	S.Semple	Biology, Sussex University
1998	A.Bean	Biological Anthropology, Cambridge Univ
1998	G.Regan	Anthropology, Durham University
1999	I.Penton-Voak	Psychology, St Andrews University
2000	J.Hawcroft	Archaeology, Sheffield University
2001	R.Sear	Anthropology, University College London
2002	P.Stevens	Biology, University of East Anglia
2002	L.Spini	Biological Anthropology, Oxford University
2002	L.Newson	Psychology, Exeter University
2002	C.Whitehead	Anthropology, University College London
2003	K.MacDonald	Archaeology, Southampton University
2004	B.Majolo	Biology, Liverpool John Moores University
2004	I.Capellini	Biology, Newcastle University
2004	D.Cohen	Psychology, Birkbeck College, London University
2005	A. de Andrade Moura	Biological Anthropology, Cambridge University
2005	C.Watt	Psychology, Stirling University
2006	H.Keenoo	Psychology, University of Newcastle
2007	G.Brewer	Psychology, University of Central Lancashire
2007	C.Hardy	Psychology, University of Kent
2008	T.Phillips	Biology, University of Nottingham
2008	J.Lawson	Psychology, University of St Andrews
2008	A.Felton	Environmental Sciences, Australian National University
2008	D.White	Anthropology, Australian National University
2008	F.Amici	Biology, Liverpool John Moores University
2009	M.Kohn	Philosophy, University of Brighton
2009	L.Fortunato	Anthropology, University College London
1991	"Habilitation" assessor for Prof.E.Voland, Anthropology Dept, University of Göttingen, Germany	
1996	"Habilitation" assessor for Prof A.Paul, Anthropology Dept., University of Göttingen, Germany	

Research Students Supervised

<i>Dates</i>		<i>Topic</i>
1988-97	K.Phillips	Social networks in rhesus macaques
1989-94	G.Cowlshaw	Predation and feeding competition in baboons
1989-95	I.Gilloux	Social skills in orang utans
1990-95	L.Barrett	Foraging decisions in mangabeys
1990-97	B.Greiser	Impact of tourism on chimpanzees
1990-94	C.Roberts	Territorial behaviour in klipspringer antelope
1990-94	C.Kenyatta	Maternal time budgets of baboons
1991-95	S.O'Connell	Theory of mind in chimpanzees
1992-96	N.Koyama	Reconciliation in Japanese macaques
1993-98	J.Casperd	Reconciliation in chimpanzees
1993-97	R.Pastor-Nieto	Social behaviour of captive spider monkeys
1993-97	D.Williamson	A model of chimpanzee socioecology
1993-96	D.Nettle	Evolution and diversity of languages
1993-99	D.Hawkins	A test of the baboon time budgets model
1993-99	D.Dutton *	Personality and socio-cognitive skills in chimpanzees
1994-98	L.Harste	Social behaviour of mouse lemurs
1994-99	L.Painter	Behavioural ecology of peccaries
1994-99	R.Wallace	Behavioural ecology of spider monkeys
1994-99	V.Adamczak	Territorial behaviour of oribi antelope
1995-99	R.Hill	Behavioural responses to ecological stress in baboons
1995-00	D.Lan	Behavioural ecology of gibbons
1996-00	R.Swarbrick	Theory of mind in normal and paranoid individuals
1996-01	C.Hunter	Foraging decisions of gelada baboons
1996-01	M.Strate	Vocalisations of gelada baboons
1998-02	L.Bellingham	Conflict management in Barbary macaques
1998-02	J. Shi	Foraging decisions of feral goats
1999-03	K.Lloyd	Mating strategies of male feral goats
1999-02	S.Grainger	Teenage motherhood as a reproductive strategy
1999-04	L.Hannah-Stewart	Managing social relationships in baboons and chimpanzees
2000-03	S.Shultz	African raptors as predators of primates
2001-04	M. Nelson	Evolution of grandmaternal strategies
2001-08	R. Espino-Patino	Functional significance of celibacy in human societies
2001-06	K.Kaskatis	Evolutionary significance of music
2002-06	M.Mehu	Mate choice strategies in humans
2002-07	I.Morais	Development of socio-cognitive skills in monkeys
2002-06	Y.Russell	Social cognition in primates
2003-	Q.Deeley*	Neuroimaging and social skills
2003-	M. Lyons*	Honesty and freeriders in small group interactions
2006-	C.Bettridge	Modelling early hominid socio-ecology
2008-	K.Opie	Reproductive strategies of later hominins
2008-	R.Ross	Cultural evolutionary analyses of folk tales
2008-	I.Behncke	Play and social bonding in bonobos
2009-	E.Pearce	Cultural evolution in later hominins

MPhil Students:

1999-01	P.Plancke	Social organisation of tamarin and squirrel monkey groups
2005-07	K.Andrews	Social networks and grooming in monkeys

* Part-time students

Research

My research focuses on the evolution of sociality in large mammals, with special reference to primates (including humans) and bovids (principally, small African antelope and caprids). My approach has been characterised by a unique multidisciplinary that aims to build an explanatory framework in which top-down functional and evolutionary explanations are integrated with bottom-up mechanistic explanations at both the physiological and the cognitive levels. The latter, in particular, has generated a unique series of studies of the relationship between brain evolution, cognition and behaviour in primates.

Beginning with studies of gelada baboons in the 1970s, my early work was characterised by a combination of detailed and intensive empirical data based on field work illuminated by mathematical modelling. My 1984 monograph on the social and reproductive strategies of gelada baboons [*Reproductive Decisions*] demonstrated that both individual behaviour and a species' social/mating system could vary not only between populations but also within a population as individuals seek to maximise their fitnesses under the constraints imposed by the ecological and demographic context.

This initial emphasis on understanding within-taxon variation led to a second phase of work during the later 1980s and early 1990s that focussed on developing models whose aim was to identify not only the functional (i.e. fitness) payoffs of behavioural strategy choice, but also to understand how environmental, demographic and physiological constraints interact to limit an individual's options. This approach was initially developed and explored in a second monograph, *Primate Social Systems* (1988) that used quantitative data from primates to show that many aspects of primate reproductive and social behaviour could be understood using relatively simple mathematical models.

Many of the ideas developed in this monograph formed the basis for a series of papers that developed both optimisation models of mating strategies and parental investment strategies (applied widely to primates and ungulates) and a series of taxon-specific systems-based linear programming models of the way in which climatic variables influenced grouping patterns and biogeographical distribution in primates. The latter series of models demonstrated that the variability in the grouping patterns of individual genera could be explained by a remarkably small number of climatic variables (acting through vegetation quality and ultimately the animals' time budgets). These models focus on the tradeoff between two core aspects of an animal's biology: ecological constraints (acting through time budgets) that set the habitat-specific upper limit to group size, and predation risk that sets a lower limit.

During the 1990s, I began to extend the remit of my research in two separate directions. One involved a series of studies that sought to apply behavioural ecological principles to humans. The other was to begin a series of projects that explored the cognitive bases for these kinds of decisions in primates and humans in order to better understand both cognitive constraints on decision-making and the impact of social and ecological selection pressures on brain evolution.

The studies of human behavioural ecology focussed on two classic questions: mate choice and parental investment decisions. These studies have shown that human reproductive decisions are contingent on the circumstances in which the individual finds him/herself: while we can identify universal principles, the fact that these are played out within a complex environment means that different individuals may arrive at different optimal solutions even within the same social group. This has implications for the ways in which selection works in

humans.

These studies brought into central focus the issue of the cognitive mechanisms that underpin primate (and human) capacities to make decisions with fitness consequences. This led, first, to a series of comparative studies of primate brain evolution which demonstrated an unexpected relationship between social group size and relative neocortex volume that placed the “social brain hypothesis” on a firm empirical footing for the first time. Second, and even more surprisingly, it showed that humans fit neatly onto the regression line for other primates, thereby providing for the first time a simple, clear, unitary explanation linking social and cognitive evolution across the full range of the Order Primates. **Dunbar’s Number** (150, the number of personal network members) has come to be widely recognised in both the social sciences and business organisation (it has its own *Wikipedia* page).

These initial findings have since been developed and extended, both by exploring the cognitive mechanisms involved and, more recently, by a new series of analyses for ungulates, carnivores and birds which have suggested a general basis for higher vertebrate cognitive evolution. Out of these has come a novel understanding of mammalian social evolution that emphasises two salient points: (i) it is the cognitive costs of pairbonding (monogamous mating systems) that have been the principal stimulus for the evolution of increased brain size across the whole range of birds and mammals, and (ii) the reason why primate sociality seems to be so different to that in other mammals is that they have generalised these pairbonded relationships to other (non-reproductive) group members (hence the group-size/brain-size relationship that is unique to this Order).

There have been two further novel and unexpected developments from this work on brain evolution. One is the demonstration that humans are embedded in a series of social networks of very specific size that reflect the quality of the relationships involved; the network of relationships has a discrete hierarchical structure that was shown, using fractal analysis, to be a geometric series with a constant scaling ratio of 3. This finding has now been extended to a number of mammal taxa that live in multilevel social systems, where exactly the same scaling ratio has been found. While the significance of this scaling ratio has yet to be understood, these findings have important implications for business organisation as well as for the electronic communications industry.

The second development out of the brain evolution work has been a new hypothesis for the evolution of language and an associated explanation of why language should only have evolved in the human lineage. In contrast to conventional explanations (which have emphasised the role of language in facilitating technological production or hunting), this hypothesis (the “gossip hypothesis”) argues that language evolved to enable hominids to bond the increasingly large social groups that were being demanded of them by the novel ecological problems they were known to be encountering.

These themes have recently come together in a major programme grant funded by the British Academy (the Academy’s Centenary Research Project, which aims, over 7 years, to use these findings to illuminate, in quantitative form, aspects of hominin social and cultural evolution that have largely remained hidden from view until now. This project brings together palaeolithic archaeologists, social and evolutionary psychologists, behavioural ecologists, social anthropologists and historians at five HEIs in a series of carefully coordinated projects. In addition, this has provided the basis for collaborations with three separate groups working on social networks and the design of the electronic media (the EPSRC/ESRC-funded TESS Project, the EU-FP7-funded SOCIALNETS project and the recently awarded EU-FP7-funded ICTeCOLLECTIVE project).