

Professor Doug Carroll

Professor of Applied Psychology

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About

Professor Carroll has an international reputation in Behaviour Medicine. His research group contributed substantially to the success of the School in the last RAE exercise. The School was joint top in their subject area in the UK.

Qualifications

BSc (University of Edinburgh)
PhD (Australian National University)

Biography

Following a BSc in Psychology at the University of Edinburgh, Professor Carroll completed his PhD at the Australian National University in Canberra. He was then a research fellow, lecturer and senior lecturer in the School of Psychology at the University of Birmingham. In 1990, he left to become Professor of Psychology and Head of the Department of Psychology at Glasgow Caledonian University, returning in 1995 to Birmingham to become Professor of Applied Psychology in the School of Sport and Exercise Sciences. He was Head of the School from 1998 to 2008.

Teaching

Professor Carroll contributes widely to both undergraduate and postgraduate teaching.

Postgraduate supervision

Professor Carroll has supervised over twenty PhD students to successful completion. In the last eight years, three of them have been awarded the University's Ratcliffe Prize as best postgraduate in Science.

Research

- Health Psychology
- Cardiovascular Psychophysiology
- Psychoneuroimmunology
- Exercise Psychology
- Behavioural Medicine

His major research interest are in Behavioural Medicine, Cardiovascular Psychophysiology, and Psychoneuroimmunology. He has authored or edited five books, including *Health Psychology: Stress, Behaviour and Disease* and has published some 300 journal articles and book chapters. From 2000-6, Professor Carroll was the Editor of the *British Journal of Health Psychology* and also serves on the editorial board of *Psychophysiology*. He is a Fellow of the British Psychological Society and the Society of Behavioural Medicine (U.S.A.).

Publications

1. Carroll, D., Phillips, A.C. and Der, G. (2008). Body mass index, abdominal adiposity, obesity, and cardiovascular reactions to psychological stress in a large community sample. *Psychosomatic Medicine*, 70, 653-660.
2. Veldhuijzen van Zanten, J.J.C.S., Kitas, G.D., Carroll, D. and Ring, C. (2008). Increase in systemic vascular resistance during acute mental stress in patients with rheumatoid arthritis with high-grade systemic inflammation. *Biological Psychology*, 77, 106-110.
3. Ring, C., Patterson, S.M., Bacon, S.L., Veldhuijzen van Zanten, J.J.C.S., Willemsen, G. and Carroll, D. (2008). Reliability of hematocrit during rest and stress in healthy adults. *Biological Psychology*, 77, 63-68.
4. Burns, V.E., Edwards, K.M., Ring, C., Drayson, M. and Carroll, D. (2008). Complement cascade activation after an acute psychological stress task. *Psychosomatic Medicine*, 70, 387-396.
5. McIntyre, D., Ring, C., Edwards, L. and Carroll, D. (2008). Simple reaction time as a function of the phase of the cardiac cycle in young adults at risk for hypertension. *Psychophysiology*, 45, 333-336.

6. Edwards, K.M., Burns, V.E., Adkins, A.E., Carroll, D., Drayson, M. and Ring, C. (2008). Meningococcal A vaccination response is enhanced by acute stress in men. *Psychosomatic Medicine*, 70, 147-151.
7. Gallagher, S., Phillips, A.C., Evans, P., Der, G., Hunt, K. and Carroll, D. (2008). Caregiving is associated with low secretion rates of immunoglobulin A in saliva. *Brain, Behavior, and Immunity*, 22, 565-572.
8. Gallagher, S., Phillips, A.C., Ferraro, A.J., Drayson, M.T. and Carroll, D. (2008). Psychosocial factors are associated with the antibody response to both thymus-dependent and thymus-independent vaccines. *Brain, Behavior, and Immunity*, 22, 456-460.
9. Phillips, A.C., Carroll, D., Khan, N. and Moss, P. (2008). Cytomegalovirus is associated with depression and anxiety in older adults. *Brain, Behavior, and Immunity*, 22, 52-55.
10. Gallagher, S., Phillips, A.C., Ferraro, A.J., Drayson, M.T. and Carroll, D. (2008). Social Support is positively associated with the immunoglobulin M response to vaccination with pneumococcal polysaccharides. *Biological Psychology*, 78, 211-215.
11. Gallagher, S., Phillips, A.C., Oliver, C. and Carroll, D. (2008). Predictors of psychological morbidity in parents of children with intellectual disabilities. *Journal of Pediatric Psychology*, 33, 1129-1136.
12. Phillips, A.C., Gallagher, S., Carroll, D. and Drayson, M. (2008). Preliminary evidence that morning vaccination is associated with an enhanced antibody response in men. *Psychophysiology*, 45, 663-666.
13. Phillips, A.C., Der, G., and Carroll, D. (2008). Stressful life events exposure is associated with 17-year mortality, but is health-related events that prove predictive. *British Journal of Health Psychology*, 13, 653-660.
14. Phillips, A.C., Der, G., and Carroll, D. (2009). Self-reported health and cardiovascular reactions to psychological stress in a large community sample: Cross-sectional and prospective associations. *Psychophysiology*, 46, 1020 - 1027.
15. Phillips, A.C., Gallagher, S., and Carroll, D. (2009) Social support, social intimacy, and cardiovascular reactions to acute psychological stress. *Annals of Behavioral Medicine*, 37, 38 – 45.
16. Sandoo, A., Toms, T., Veldhuijzen van Zanten, Carroll, D., and Kitas, G. (2009). Short-term effects of rituximab on flow-mediated dilatation may be mediated by intravenous glucocorticoids. *Arthritis Care and Research*, 61, 854-855.
17. Phillips, A.C., Gallagher, G., Hunt, K., Der, G., and Carroll, D. (2009). Symptoms of depression in non-routine caregivers: The role of caregiver strain and burden. *British Journal of Clinical Psychology*, 48, 335 - 346.
18. John, H., Trehan, G.J., Hale, E.D., Panoulas, V., Carroll, D., Kitas, G.D. (2009). Development and validation of a heart disease knowledge questionnaire for people with rheumatoid arthritis. *Patient Education and Counselling*, 77, 136-143.
19. Phillips, A.C., Batty, G.D., Gale, C.G., Deary, I.J., Osborn, D., MacIntyre, K., and Carroll, D. (2009). Generalised anxiety disorder, major depressive disorder, and their comorbidity as predictors of all-cause and cardiovascular mortality: the Vietnam Experience Study. *Psychosomatic Medicine*, 71, 395-403.
20. Veldhuijzen van Zanten, J.J.C.S., Carroll, D., & Ring, C. (2009). Mental stress-induced hemoconcentration across the menstrual cycle. *British Journal of Health Psychology*, 14, 805 – 816.
21. Carroll, D., Phillips, A.C., Thomas, G.N., Gale, C.R., Deary, I., Batty, G.D. (2009). Generalised anxiety disorder is associated with metabolic syndrome in the Vietnam Experience Study. *Biological Psychiatry*. 66, 91-93.
22. Carroll, D., Lovallo, W.R. and Phillips, A.C. (2009) Are large physiological reactions to acute psychological stress always bad for health. *Social and Personality Psychology Compass*, 3, 725 - 743.
23. Carroll, D., Phillips, A.C. and Balanos, G.N. (2009). Metabolically exaggerated cardiac reactions to acute psychological stress revisited. *Psychophysiology*, 46, 270 - 275.
24. Veldhuijzen van Zanten, J., Ring, C., Carroll, D., McIntyre, D., Brown, M.D., (2009). Hemoconcentration during a prolonged stress task: Associations with hemodynamic reactivity and microvascular permeability. *Biological Psychology*, 82, 260-266.
25. Gallagher, S., Phillips, A.C., Drayson, M.T. and Carroll, D. (2009). Parental caregivers of children with developmental disabilities mount a poor antibody response to pneumococcal vaccination. *Brain, Behavior, and Immunity*, 23, 338 – 346.
26. Gallagher, S., Phillips, A.C., Drayson, M.T. and Carroll, D. (2009). Caregiving for children with developmental disabilities is associated with a poor antibody response to influenza vaccination. *Psychosomatic Medicine*, 71, 341-344.
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28. Phillips, A.C., Der, G., Hunt, K., and Carroll, D. (2009). Haemodynamic reactions to acute stress and smoking status in a large community sample. *International Journal of Psychophysiology*, 73, 273-278.
29. Phillips, A.C., Carroll, D., Burns, V.E., and Drayson, M. (2009). Cardiovascular activity and the antibody response to vaccination. *Journal of Psychosomatic Research*, 77, 37 - 43.
30. Phillips, A.C. and Carroll, D. (2009). Heading for an early grave. *The Psychologist*, 22, 122 - 125.
31. Phillips, A.C., Hunt, K., Der, G., and Carroll, D. (2010). Blunted cardiac reactions to acute psychological stress predict symptoms of depression five years later: Evidence from a large community study. *Psychophysiology*, 48, 142-148.
32. Gallagher, S., Phillips, A.C., and Carroll, D. (2010). Parental stress is associated with sleep quality in parents caring for children with developmental disabilities. *Journal of Pediatric Psychology*, 35, 727 - 737.
33. Khanfer, R, Phillips, A.C., Carroll, D. and Lord, J.M (2010). Altered human neutrophil function in response to acute psychological stress. *Psychosomatic Medicine*, 72, 636 - 640.
34. Sandoo, A., Veldhuijzen van Zanten, J.J., Metsios, G.S., Carroll, D., and Kitas, G.D. (2010). The endothelium and its role in regulating vascular tone. *The Open Cardiovascular Medicine Journal*, 4, 302 – 312.
35. Gale, C., R., Kivimaki, M., Lawlor, D.A., Carroll, D., Phillips, A.C., and Batty, G.D. (2010). Fasting glucose, diagnosis of type 2 diabetes and depression: the Vietnam Experience study. *Biological Psychiatry*, 67, 189-192.

36. Carroll, D., Phillips, A.C., Gale, C.R., and Batty, G.D. (2010). Generalised anxiety disorder, major depressive disorder, their co-morbidity and hypertension in middle-aged men. *Psychosomatic Medicine*, 72, 16 – 19.
37. Balanos, G.M., Phillips, A.C., Frenneaux, M.P., McIntyre, D., Lykidis, C., Harry S. Griffin, H.S., and Carroll, D. (2010). Metabolically exaggerated cardiac reactions to acute psychological stress: the effects of resting blood pressure status and possible underlying mechanisms. *Biological Psychology*, 85, 104-111.
38. Phillips, A.C., Carroll, D., Gale, C.R., Lord, J.M., Arlt, W., Batty, G.D. (2010). Cortisol, dehydroepiandrosterone-sulphate, their ratio, and the metabolic syndrome: Evidence of associations in the Vietnam Experience Study. *European Journal of Endocrinology*, 162, 919 – 923.
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40. Phillips, A.C., Der, G., and Carroll, D. (2010). Self-reported health, self-reported fitness and all-cause mortality: Prospective cohort study. *British Journal of Health Psychology*, 15, 337-346.
41. Heaney, J.L.J., Phillips, A.C., and Carroll, D. (2010). Ageing, depression, anxiety, social support and the diurnal rhythm and awakening response of salivary cortisol. *International Journal of Psychophysiology*, 78, 201-208.
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45. Phillips, A.C., Carroll, D., Gale, C.R., Drayson, M., Thomas, G.N., Batty, G.D. (2010). Lymphocyte sub-population cell counts are associated with the metabolic syndrome and its components in the Vietnam Experience Study. *Atherosclerosis*, 213, 294 – 298.
46. Phillips, A.C., Batty, G.D., Weiss, A., Deary, I., Gale, C.R., Thomas, G.N., Carroll, D. (2010). Neuroticism, cognitive ability, and the metabolic syndrome: The Vietnam Experience Study. *Journal of Psychosomatic Research*, 69, 193 - 201.
47. Thomas, G.N., Phillips, A.C., Carroll, D., Gale, C.R., and Batty, G.D. (2010). The metabolic syndrome adds utility to the prediction of mortality over its components: the Vietnam Experience Study. *Atherosclerosis*, 210, 256- 261.
48. Phillips, A.C., Batty, G.D., Veldhuijzen van Zanten, J.J.C.S., Mortensen, L.H., Deary, I.J., Calvin, C.M., Carroll, D. (2011). Cognitive ability in early adulthood is associated with systemic inflammation in middle age: The Vietnam Experience Study. *Brain, Behavior, and Immunity*, 25, 298-301.
49. Phillips, A.C., Batty, G.D., Gale, C.R., Lord, J.M., Arlt, W., Carroll, D. (2011). Major depressive disorder, generalised anxiety disorder, and their comorbidity: Associations with cortisol in the Vietnam Experience Study. *Psychoneuroendocrinology*, 36, 682 - 690.
50. John, H., Hale, E.D., Bennett, P., Treharne, G.J., Carroll, D., Kitas, G.D. (2011). Translating patient education theory into practice: developing material to address the cardiovascular education needs of people with rheumatoid arthritis. *Patient Education and Counselling*, 84, 123 – 127.
51. Phillips, A.C., Carroll, D., Gale, C.R., Drayson, M., and Batty G.D. (2011). Lymphocyte cell counts in middle age are positively associated with subsequent all-cause and cardiovascular mortality. *Quarterly Journal of Medicine*, 104, 319 – 324.
52. Carroll, D. (2011). A brief commentary on cardiovascular reactivity at the crossroads. *Biological Psychology*, 86, 145 -151.
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55. Ginty, A.T., Phillips, A.C., Der, G., Deary, I.J., and Carroll, D. (2011). Cognitive ability and simple reaction time predict cardiac reactivity in the West of Scotland Twenty-07 Study. *Psychophysiology*, 48, 1022 - 1027.
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57. John, H., Carroll, D. and Kitas, G.D. (in press). Cardiovascular education for people with rheumatoid arthritis: What can existing patient education programmes teach us? *Rheumatology*
58. Carroll, D., Batty, G.D., Mortensen, L.H., Deary, I.J., & Phillips, A.C. (2011). Low cognitive ability in early adulthood is associated with reduced lung function in middle age: The Vietnam Experience Study. *Thorax*, 66, 884 – 888.
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60. Sandoo, A., Veldhuijzen van Zanten, J.J.C.S., Metsios G.S., Carroll, D. & Kitas, G.D. (in press). Vascular function and morphology in rheumatoid arthritis: A systematic review. *Rheumatology*
61. Carroll, D., Phillips, A.C., Gale, C.R. & Batty, G.D. (2011). Generalised anxiety disorder is associated with reduced lung function in the Vietnam Experience Study. *Psychosomatic Medicine*, 73, 716 – 720.
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63. Ginty, A.T., Phillips, A.C., Der, G., Deary, I.J. & Carroll, D. (2011). Heart rate reactivity is associated with future cognitive ability and cognitive change in a large community sample. *International Journal of Psychophysiology*, 82, 167-174.
64. Ginty, A.T., Phillips, A.C., Roseboom, T.J., Carroll, D. & de Rooij S.R. (2012). Cardiovascular and cortisol reactions to acute psychological stress and cognitive ability in the Dutch Famine Birth Cohort Study. *Psychophysiology*, 49, 391 – 400.
65. Carroll, D., Bibbey, A., Roseboom, T.J., Phillips, A.C., Ginty, A. T. & de Rooij, S.R. (in press). Forced expiratory volume is associated with cardiovascular and cortisol reactions to acute psychological stress. *Psychophysiology*.
66. Heaney, J.L.J., Phillips, A.C. & Carroll, D. (in press). Ageing, physical function, and the diurnal rhythms of cortisol and dehydroepiandrosterone.

67. Ginty, A.T., Phillips A.C., Higgs, S., Heaney, J.L.J. & Carroll, D. (in press). Disordered eating behaviour is associated with blunted cortisol and cardiovascular reactions to acute psychological stress. *Psychoneuroendocrinology*.

68. Phillips, A.C., Roseboom, T.J., Carroll, D. & de Rooij, S.R. (in press). Cardiovascular and cortisol reactions to acute psychological stress and adiposity: Cross-sectional and prospective associations in the Dutch Famine Birth Cohort Study. *Psychosomatic Medicine*.

69. Heaney, J.L.J., Phillips, A.C. & Carroll, D. (in press). Dehydroepiandrosterone, dehydroepiandrosterone sulphate and cortisol reactions to acute exercise in older adults in relation to exercise training status and sex. *Age*.

