

BBIS

Behavioral & Brain Sciences

An International journal of current research and theory
with open peer commentary
Volume 33 | Issue 2/3 | April/June 2010 | ISSN: 0140-525X

CAMBRIDGE
UNIVERSITY PRESS

Behavioral and Brain Sciences

Editors

Paul Bloom
Barbara L. Finlay

URL: <http://www.editorialmanager.com/bbs>

E-mail: bbsjournal@cambridge.org

Behavioral and Brain Sciences
Journals Department
Cambridge University Press
32 Avenue of The Americas
New York, NY 10013-2473, U.S.A.

Editorial Administrator

Ralph DeMarco

Chief Copy Editor

Sumitra Mukerji

Proofreaders

Sylvia Elvin
Rashidah Ismaili AbuBakr

Editorial Board

Atypical Neurodevelopment

Simon Baron-Cohen/Cambridge U.

Behavioral Neurogenetics

Wim E. Crusio/CNRS UMR

Cognition and Artificial Intelligence

Zenon Pylyshyn/Rutgers U.

Cognitive and Decision Sciences

Nick Chater/University College London

Cognitive Development

Annette Karmiloff-Smith/Birbeck College

Cognitive Neuroscience

Moshe Bar/Harvard Medical School

Computational Neuroscience

Nestor A. Schmajuk/Duke U.

Evolution of Brain and Cognition

Dean Falk/Florida State U.

Evolution of Cognition

Celia Heyes/Oxford U.

Experimental Analysis of Behavior

A. Charles Catania/U. Maryland, Baltimore County

Language and Language Disorders

Max Coltheart/Macquarie U.

Linguistics

Robert A. Freidin/Princeton U.

Perception

Bruce Bridgeman/U. of California, Santa Cruz

Philosophy of Science

Massimo Piattelli-Palmarini/U. of Arizona

Primate Cognition

Laurie R. Santos/Yale U.

Social Cognition

Mahzarin R. Banaji/Harvard U.

Social Cognitive Neuroscience

Rebecca Saxe/MIT

Vision, Language and Computation

Shimon Edelman/Cornell U.

FOUNDING EDITOR (1978–2001)

Stevan Harnad

Editorial Policy *Behavioral and Brain Sciences* (BBS) is an international journal providing a special service called Open Peer Commentary™ to researchers in any area of psychology, neuroscience, behavioral biology, or cognitive science who wish to solicit, from fellow specialists within and across these BBS disciplines, multiple responses to a particularly significant and controversial piece of work. (See Instructions for Authors and Commentators, inside back cover and also at <http://journals.cambridge.org/BBSJournal/Inst>) The purpose of this service is to contribute to the communication, criticism, stimulation, and particularly the unification of research in the behavioral and brain sciences, from molecular neurobiology to artificial intelligence and the philosophy of mind.

Papers judged by the editors and referees to be appropriate for Commentary are circulated to a large number of commentators selected by the editors, referees, and author to provide substantive criticism, interpretation, elaboration, and pertinent complementary and supplementary material from a full cross-disciplinary perspective. The article, accepted commentaries, and the author's response then appear simultaneously in BBS.

Commentary on BBS articles may be provided by any qualified professional in the behavioral and brain sciences, but much of it is drawn from a large body of BBS Associates who have become formally affiliated with the project (see <http://journals.cambridge.org/BBSJournal/BBSAssoc>).

Qualified professionals are eligible to become BBS Associates if they have (1) been nominated by a current BBS Associate, (2) refereed for BBS, or (3) had a commentary or article accepted for publication. A special subscription rate is available to Associates. Individuals interested in serving as BBS Associates are asked to view the full instructions for joining at <http://journals.cambridge.org/BBSJournal/Inst/Assoc> and then email bbsjournal@cambridge.org.

© Cambridge University Press 2010. All rights reserved. No part of this publication may be reproduced, in any form or by any means, electronic, photocopying, or otherwise, without permission in writing from Cambridge University Press. Permission inquiries from the U.S.A., Mexico, and Canada should be addressed to the New York office of Cambridge University Press <http://www.cambridge.org/us/information/rights/contacts/newyork.htm>; permission inquiries from elsewhere should be addressed to the Cambridge office <http://www.cambridge.org/uk/information/rights/contacts/cambridge.htm>; permission inquiries from Australia and New Zealand should be addressed to the Melbourne office http://www.cambridge.org/au/information/contacts_melbourne.htm.

Permission to copy (for users in the U.S.A.) is available from Copyright Clearance Center, <http://www.copyright.com>, email: info@copyright.com. Specific written permission must be obtained for republication; contact the nearest Cambridge University Press office.

Subscriptions *Behavioral and Brain Sciences* (ISSN 0140-525X) is published bimonthly in February, April, June, August, October, and December. The subscription price of Volume 33 (2010) for institutions is US \$1061.00 for print and online, US \$894.00 for online only, and US \$957.00 for print only in the U.S.A., Canada, and Mexico; and UK £603.00 for print and online, UK £510.00 for online only, and UK £551.00 for print only elsewhere. The subscription price for individuals is US \$302.00 for print and online and US \$276.00 for print only in the U.S.A., Canada, and Mexico; and UK £177.00 for print and online and UK £161.20 for print only elsewhere. For *BBS Associates*, with proof of eligibility with order, US \$113.00 in the U.S.A., Canada, and Mexico; and UK £71.00 elsewhere. For *students*, with proof of eligibility with order, \$93.00 in the U.S.A., Canada, and Mexico; and UK £56.00 elsewhere. Subscription price includes surface postage. Single parts cost US \$218.00 (UK £94.00) plus postage. *Institutional* orders may be sent to a bookseller, or, in the U.S.A., Canada, and Mexico direct to: Cambridge University Press, 32 Avenue of The Americas, New York, NY 10013-2473 email: journals_subscriptions@cambridge.org; in the U.K. and rest of the world to: Cambridge University Press, The Edinburgh Building, Shaftesbury Road, Cambridge CB2 8RU, England, e-mail: journals_subscriptions@cambridge.cam.ac.uk. *Individuals* must order direct from the Press. You may also subscribe through the Cambridge Journals website, <http://journals.cambridge.org/bbs>.

Postmaster: Send address changes in the U.S.A., Canada, and Mexico to *Behavioral and Brain Sciences*, Cambridge University Press, Journals Dept., 100 Brook Hill Drive, West Nyack, NY 10994-2133, U.S.A. Send address change elsewhere to *Behavioral and Brain Sciences*, Cambridge University Press, The Edinburgh Building, Shaftesbury Road, Cambridge CB2 8RU, England.

Online availability *Behavioral and Brain Sciences* is part of the Cambridge Journals Online (CJO) service at <http://journals.cambridge.org>.

Institutional subscribers: Access to full-text articles online is currently included with the cost of the print subscription. Subscription must be activated; see <http://cambridge.journals.org>.

Advertising Inquiries about advertising should be sent to the Journals Advertising Department of the Cambridge or New York Office of Cambridge University Press.

*Modelled on the "CA Comment" service of the journal *Current Anthropology*.

Contents Volume 33:2/3 April/June 2010

Henrich, J., Heine, S. J. & Norenzayan, A. The weirdest people in the world?	61
Open Peer Commentary	
Astuti, R. & Bloch, M. Why a theory of human nature cannot be based on the distinction between universality and variability: Lessons from anthropology	83
Baumard, N. & Sperber, D. Weird people, yes, but also weird experiments	84
Bennis, W. M. & Medin, D. L. Weirdness is in the eye of the beholder	85
Boesch, C. Away from ethnocentrism and anthropocentrism: Towards a scientific understanding of “what makes us human”	86
Ceci, S. J., Kahan, D. M. & Braman, D. The WEIRD are even weirder than you think: Diversifying contexts is as important as diversifying samples	87
Chiao, J. Y. & Cheon, B. K. The weirdest brains in the world	88
Danks, D. & Rose, D. Diversity in representations; uniformity in learning	90
Fernald, A. Getting beyond the “convenience sample” in research on early cognitive development	91
Fessler, D. M. T. Cultural congruence between investigators and participants masks the unknown unknowns: Shame research as an example	92
Gächter, S. (Dis)advantages of student subjects: What is your research question?	92
Gaertner, L., Sedikides, C., Cai, H. & Brown, J. D. It’s not WEIRD, it’s WRONG: When Researchers Overlook uNderlying Genotypes, they will not detect universal processes	93
Gosling, S. D., Sandy, C. J., John, O. P. & Potter, J. Wired but not WEIRD: The promise of the Internet in reaching more diverse samples	94
Karasik, L. B., Adolph, K. E., Tamis-LeMonda, C. S. & Bornstein, M. H. WEIRD walking: Cross-cultural research on motor development	95
Kesebir, S., Oishi, S. & Spellman, B. A. The socio-ecological approach turns variance among populations from a liability to an asset	96
Khemlani, S. S., Lee, N. Y. L. & Bucciarelli, M. Determinants of cognitive variability	97
Konečni, V. J. Responsible behavioral science generalizations and applications require much more than non-WEIRD samples	98
Lancy, D. F. When nurture becomes nature: Ethnocentrism in studies of human development	99
Leavens, D. A., Bard, K. A. & Hopkins, W. D. BIZARRE chimpanzees do not represent “the chimpanzee”	100
Machery, E. Explaining why experimental behavior varies across cultures: A missing step in “The weirdest people in the world?”	101
Majid, A. & Levinson, S. C. WEIRD languages have misled us, too	103
Maryanski, A. WEIRD societies may be more compatible with human nature	103
Meadon, M. & Spurrett, D. It’s not just the subjects – there are too many WEIRD researchers	104
Panchanathan, K., Frankenhuys, W. E. & Barrett, H. C. Development: Evolutionary ecology’s midwife	105
Rai, T. S. & Fiske, A. ODD (observation- and description-deprived) psychological research	106
Rochat, P. What is really wrong with a priori claims of universality? Sampling, validity, process level, and the irresistible drive to reduce	107
Rozin, P. The weirdest people in the world are a harbinger of the future of the world	108
Shweder, R. A. Donald Campbell’s doubt: Cultural difference or failure of communication?	109
Stich, S. Philosophy and WEIRD intuition	110
Authors’ Response	111
Henrich, J., Heine, S. J. & Norenzayan, A. Beyond WEIRD: Towards a broad-based behavioral science	111

Cramer, A. O. J., Waldorp, L. J., van der Maas, H. L. J. & Borsboom, D. Comorbidity: A network perspective	137
--	------------

Open Peer Commentary	
Belzung, C., Billette de Villemeur, E., Lemoine, M. & Camus, V. Latent variables and the network perspective	150
Bornstein, R. F. The rocky road from Axis I to Axis II: Extending the network model of diagnostic comorbidity to personality pathology	151

Cervone, D. Aligning psychological assessment with psychological science	152	Ross, D. Some mental disorders are based on networks, others on latent variables	166
Danks, D., Fancsali, S., Glymour, C. & Scheines, R. Comorbid science?	153	Rothenberger, A., Banaschewski, T., Becker, A. & Roessner, V. Comorbidity: The case of developmental psychopathology	167
Davis, O. S. P. & Plomin, R. Visualizing genetic similarity at the symptom level: The example of learning disabilities	155	Rubinsten, O. & Henik, A. Comorbidity: Cognition and biology count!	168
Fleeson, W., Furr, R. M. & Arnold, E. M. An agenda for symptom-based research	157	Staniloiu, A. & Markowitsch, H. J. Looking at comorbidity through the glasses of neuroscientific memory research: A brain-network perspective	170
Haig, B. D. & Vertue, F. M. Extending the network perspective on comorbidity	158	Tzur-Bitan, D., Meiran, N. & Shahar, G. The importance of modeling comorbidity using an intra-individual, time-series approach	172
Haslam, N. Symptom networks and psychiatric categories	158	van der Sluis, S., Kan, K.-J. & Dolan, C. V. Consequences of a network view for genetic association studies	173
Hood, S. B. & Lovett, B. J. Network models of psychopathology and comorbidity: Philosophical and pragmatic considerations	159	van Geert, P. L. C. & Steenbeek, H. W. Networks as complex dynamic systems: Applications to clinical and developmental psychology and psychopathology	174
Humphry, S. M. & McGrane, J. A. Is there a contradiction between the network and latent variable perspectives?	160	Wass, S. & Karmiloff-Smith, A. The missing developmental dimension in the network perspective	175
Hyland, M. E. Network origins of anxiety and depression	161	Yordanova, J., Kolev, V., Kirov, R. & Rothenberger, A. Comorbidity in the context of neural network properties	176
Johnson, W. & Penke, L. The network perspective will help, but is comorbidity the question?	162	Zachar, P. The abandonment of latent variables: Philosophical considerations	177
Krueger, R. F., DeYoung, C. G. & Markon, K. E. Toward scientifically useful quantitative models of psychopathology: The importance of a comparative approach	163		
Markus, K. A. Questions about networks, measurement, and causation	164	Authors' Response	
McFarland, D. J. & Malta, L. S. Symptoms as latent variables	165	Cramer, A. O. J., Waldorp, L. J., van der Maas, H. L. J. & Borsboom, D. Complex realities require complex theories: Refining and extending the network approach to mental disorders	178
Molenaar, P. C. M. Latent variable models are network models	166		

Machery, E. *Précis of Doing without Concepts* **195**

Open Peer Commentary			
Blanchard, T. Default knowledge, time pressure, and the theory-theory of concepts	206	Keil, F. Hybrid vigor and conceptual structure	215
Couchman, J. J., Boomer, J., Coutinho, M. V. C. & Smith, J. D. Carving nature at its joints using a knife called concepts	207	Khemlani, S. S. & Goodwin, G. The function and representation of concepts	216
Danks, D. Not different kinds, just special cases	208	Lalumera, E. Concepts are a functional kind	217
Dove, G. An additional heterogeneity hypothesis	209	Lombrozo, T. From conceptual representations to explanatory relations	218
Edwards, K. Unity amidst heterogeneity in theories of concepts	210	Margolis, E. & Laurence, S. Concepts and theoretical unification	219
Gonnerman, C. & Weinberg, J. M. Two uneliminated uses for "concepts": Hybrids and guides for inquiry	211	Markman, A. B. Where are nature's joints? Finding the mechanisms underlying categorization	220
Hampton, J. A. Concept talk cannot be avoided	212	Rey, G. Concepts versus conceptions (again)	221
Harnard, S. Eliminating the "concept" concept	213	Samuels, R. & Ferreira, M. Why <i>don't</i> concepts constitute a natural kind?	222
Hayes, B. K. & Kearney, L. Defending the concept of "concepts"	214	Scarantino, A. Evidence of coordination as a cure for concept eliminativism	223
Jacobson, A. J. The faux, fake, forged, false, fabricated, and phony: Problems for the independence of similarity-based theories of concepts	215	Schneider, S. Conceptual atomism rethought	224
		Strohming, N. & Moore, B. W. Banishing the thought	225
		Virtel, J. & Piccinini, G. Are prototypes and exemplars used in distinct cognitive processes?	226

Vlach, H. A., Krogh, L., Thom, E. E. & Sandhofer, C. M. Doing with development: Moving toward a complete theory of concepts	227	Zaki, S. & Cruz, J. Parsimony and the triple-system model of concepts	230
Weiskopf, D. A. The theoretical indispensability of concepts	228	Author's Response	
Yermolayeva, Y. & Rakison, D. H. Developing without concepts	229	Machery, E. The heterogeneity of knowledge representation and the elimination of <i>concept</i>	231