

## Big Gods

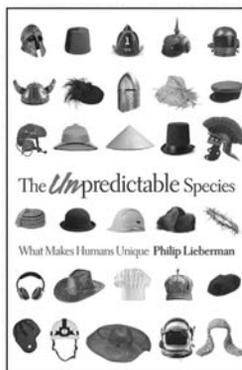
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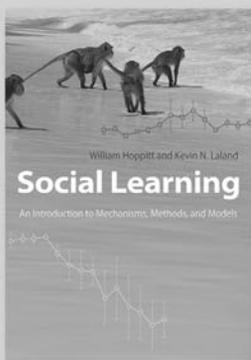
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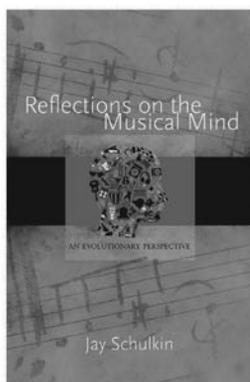
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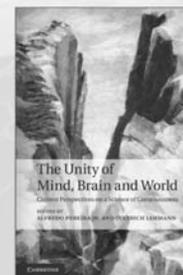
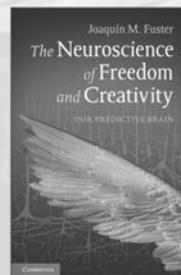
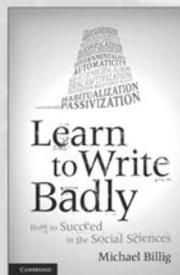
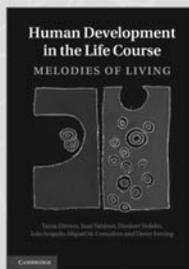
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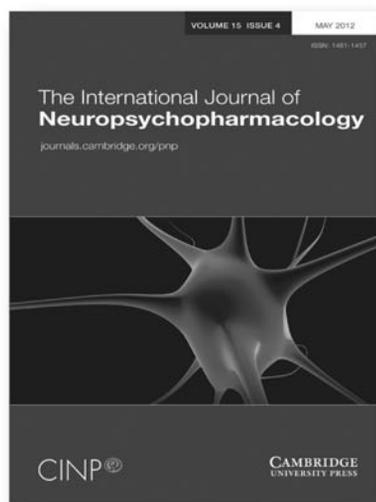
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Evert Van de Vliert

## Navigating in a three-dimensional world

Kathryn J. Jeffery, Aleksandar Jovalekic, Madeleine Verriotis, and Robin Hayman

## To appear in upcoming issues (2013)

## Such stuff as dreams are made on? Elaborative encoding, the ancient art of memory and the hippocampus

Sue Llewellyn, *University of Manchester*

This article argues that rapid eye movement (REM) dreaming is elaborative encoding for episodic memories. Elaborative encoding in REM can, at least partially, be understood through ancient art of memory (AAOM) principles: visualization, bizarre association, organization, narration, embodiment, and location. Episodic memory networks interconnect profusely within the cortex, creating omnidirectional "landmark" junctions. Memories may be integrated at junctions but segregated along connecting network paths that meet at junctions. Episodic junctions may be instantiated during non-rapid eye movement (NREM) sleep after hippocampal associational function during REM dreams. If this is correct, the stuff of dreams is the stuff of memory.

**With commentary from** N Axmacher & J Fell; DL Bimler; M Blagrove, P Ruby & JB Eichenlaub; S Cheng & M Werning; P Cicogna & M Occhionero; A D'Agostino & S Scarone; G Deliens, S Schwartz & P Peigneux; M Desseilles & C Duclos; CG DeYoung & RG Grazioplene; PF Dominey; M Dresler & BN Konrad; MH Erdelyi; TA Girard; G Globus; R Greenberg; A Hobson; R Kirov; HJ Markowitsch & A Staniloiu; TA Mattei; T Nielsen; BA Pearlmuter & CJ Houghton; HS Porte; M Schredl; M Solms; VI Spoomaker, M Czisch & F Holsboer; D van der Kloet, H Merkelbach & SJ Lynn; S Westermann, FM Paulus, L Müller-Pinzler & S Krach; JM Windt

## An opportunity cost model of subjective effort and task performance

Robert Kurzban, Angela Duckworth, Joseph W. Kable, and Justus Myers, *University of Pennsylvania*

Why does performing certain tasks over time precipitate feelings of mental effort and concomitant deterioration in performance? We propose an alternative to current explanations, focusing on the costs and benefits associated with task performance. Because computational mechanisms can be deployed for a limited number of tasks at any given moment, persisting at a task entails forgoing benefits associated with using the same mechanisms for alternative tasks. We argue that the phenomenology of effort is the felt output of opportunity costs, serving the adaptive function of motivating reduced engagement with the current task. We review relevant behavioral and neuroscientific evidence.

**With commentary from** G Ainslie; M Bonato, M Zorzi & C Umiltà; SD Bruyneel & S Dewitte; A Brzezicka, J Kamiński & A Wróbel; EC Carter & ME McCullough; E Charney; DB Cohen & LL Saling; AD Craig; GHE Gendolla & M Richter; MS Hagger; JMD Harrison & R McKay; N Harvey; M Henneke & AM Freund; KL Hillman & DK Bilkey; W Hofmann & H Kotabe; CB Holroyd; HM Huizenga, MW van der Molen, A Bexkens & WPM van den Wildenberg; M Inzlicht & BJ Schmeichel; A Iran-Nejad & SA Zengaro; W Kool & M Botvinick; NJ Malecek & RA Poldrack; DC Malden; J Monterosso & S Luo; D Navon; A Nicolle & K Riggs; PN Prudkov; M Tops, MAS Boksem & SL Koole; JA Westbrook & TS Braver; RA Wright & G Pantaleo; V Zayas, G Günaydin & G Pandey

## Among the articles to appear in forthcoming issues of BBS:

- S. Llewellyn, "Such stuff as dreams are made on? Elaborative encoding, the ancient art of memory and the hippocampus"
- R. Kurzban, A. Duckworth, J. W. Kable & J. Myers, "An opportunity cost model of subjective effort and task performance"
- B. R. Newell & D. R. Shanks, "Unconscious influences on decision making: A critical review"
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- P. E. Smaldino, "The cultural evolution of emergent group-level traits"
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- A. Cimpian & E. Salomon, "The inheritance heuristic: An intuitive means of making sense of the world, and a potential precursor to psychological essentialism"
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