

July 2009 Volume 13, Number 7 pp. 279-328

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Cover: fMRI is one of the most widely used methodologies in investigating the neural basis of cognitive functions. As the fMRI signal measures neuronal activity only indirectly, it is important to understand its neural basis. On pages 302–309 Biyu J. He and Marcus E. Raichle discuss the slow cortical potential, a novel neurophysiological correlate of the fMRI signal, and put forward a hypothesis according to which the slow cortical potential is involved in the emergence of conscious experience. Cover design by Philip Patenall.