

Curriculum Vitae

Stanislas Dehaene

Born May 12th 1965 in Roubaix (France)
 Married to Ghislaine Dehaene-Lambertz,
 3 children (Guillaume, David, Olivier)

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Websites for additional information and publications:

Research : www.unicog.org

Teaching : http://www.college-de-france.fr/default/EN/all/psy_cog/index.htm

Education/Training

Year	Institution and Location	Degree	Field of study
1999	Ecole des Hautes Etudes en Sciences sociales (EHESS), Paris	Habilitation to direct research	Cognitive neuroscience
1989	Ecole des Hautes Etudes en Sciences sociales (EHESS), Paris	PhD	Cognitive science
1985	University of Paris VI	Masters	Applied mathematics and computer science
1984-1989	Ecole Normale Supérieure, Paris		Mathematics

Research and professional experience

2005- Professor at the Collège de France, chair of Experimental Cognitive Psychology
 2002- Director of the INSERM-CEA Cognitive Neuroimaging Unit, France
 1997-2005 Research Director at INSERM (French National Institute of Health and Medical Research)
 1992-1994 Post-doctoral Fellow, Institute of Cognitive and Decision Sciences, University of Oregon (USA), director Michael Posner
 1989-1999 Research Scientist, Institut National de la Santé et de la Recherche Médicale (INSERM), Laboratoire de Sciences Cognitives et Psycholinguistique, Paris, France
 1984-1989 Ecole Normale Supérieure, Mathematics sections
 1982-1984 Ecole préparatoire Ste Geneviève, Versailles (Mathematics section)

Major grants

2016-2021 European Research Council Senior Grant (2 500 000 €)
 2013-2023 Human Brain Project (leader of the “cognitive architectures” subproject)
 2011-2014 ANR “Neural bases of hierarchical constituent structure” (with C. Pallier, 789 984 €)
 2010-2014 European Research Council Senior Grant (2 486 640 €)
 2007-2011 HFSP Human Frontier Science Program “The brain’s Turing machine” (270 000 \$)
 2006-2009 ANR Agence Nationale de la Recherche “Origins of reading” (with L. Cohen, 148 111 €)
 2005-2008 EEC Grant NEST-NEUROCOM “Neural origins of language and communication” (339 390 €)
 2005-2008 Volkswagen Foundation “Cognitive Neuroimaging” (153 000 €)
 2004-2007 EEC European network NUMBRA “Numeracy and brain development” (394 537 €)
 2000-2004 EEC European network NEUROMATH (191 000 €)
 1999-2012 James S. Mc Donnell Foundation Centennial Fellowship (1,000,000 \$)
 1999-2001 EEC European network “Imaging of language functions in the brain” (70 000 €)
 + Recurrent funding from INSERM, Collège de France, and University of Paris XI.

Honors

2015	APA Distinguished Scientific Contribution Award
2014	Thomas Reuters Highly Cited Researcher
2014	Prix LIRE, best science book of 2014 for <i>Le Code de la Conscience</i> (French version of <i>Consciousness and the brain</i>)
2014	The Grete Lundbeck Brain Prize (with G. Rizzolatti and T. Robbins)
2014	Mind & Brain Prize (University of Turin)
2014	Member, EMBO
2014	Member, Royal Academies for Science and the Arts of Belgium
2013	Grand Prix INSERM
2013	Honorary diploma, HEC Paris
2013	Prize of the Fondation Roger de Spoelberch
2011	Doctor, honoris causa, University of Lisbon
2011	Chevalier de la Légion d'Honneur, France
2010	Honorary Professor, East China Normal University (Shanghai)
2010	Foreign associate, National Academy of Sciences USA
2010	Corresponding Fellow, British Academy
2010	Member, American Philosophical Society
2008	Dr A.H. Heineken Prize for Cognitive Science
2008	Member, Pontifical Academy of Sciences
2008	French National Order of Merit
2008	Member, Academia Europae
2007	Grand Prix RTL-Lire, best science book for <i>Les neurones de la lecture</i> (French version of <i>Reading in the brain</i>)
2007	Gold medal, French Association Arts-Sciences-Lettres
2005	Member, French Academy of Sciences
2003	Louis D. Prize, Institut de France (with D. Le Bihan)
2002	Pius XI medal, Pontifical Academy of Sciences
2002	Boehringer-Ingelheim award, Federation of European Neuroscience Societies
2001	Jean-Louis Signoret Prize, IPSEN Foundation
2000	Villemot Prize, French Academy of Sciences
1999	James S. McDonnell Centennial Fellowship
1999	Jean Rostand Award for best general-audience scientific book for <i>La Bosse des Maths</i> (French version of <i>The Number Sense</i>)
1996	Fanny Emden Prize, French Academy of Sciences

Administrative responsibilities

2013-	Member, Dyslexia International scientific advisory panel
2011-2014	Kavli Price Committee in Neurosciences
2010-	Scientific Council of DGESCO (General Direction for Schooling and Education, French Ministry of Education)
2009-2010	Council for the Development of Humanities and Social Sciences (French Ministry of Higher Education and Research)
2009-	Board of Directors of the SARAH Network of Rehabilitation Hospitals (Brazil).
2009-	Scientific council of The Vision Institute, Paris
2008-2012	INSERM scientific council
2005-2007	Piloting committee, Neuroscience funding program of ANR (French NSF)
2001-	Advisory Council, International Association For The Study Of Attention And Performance
2001-2005	Administration Council, French Society for Neuroscience
2001-2005	Scientific council, program « Avenir » of INSERM
1999-2010	Scientific Council, Institut Fédératif de Recherches 49
1999-2005	Scientific Council, program “Brain and Education” of OECD
1997-2005	Scientific Council, Fyssen Foundation, Paris
1990-2000	Founder and co-organizer with L. Cohen of the Parisian Club of Neuropsychology at the hôpital de la Salpêtrière (monthly meetings)
1990-1992	Lecturer in Cognitive Science

Editorial responsibilities

2011- Editorial board, *Trends in Cognitive Science*
2008- Board of Reviewing Editors, *Science*
2006- Editorial board, *Mind Brain and Education*
2003- Editorial board, *PLOS Biology*
2001- Editorial board, *Neuroimage*
1999-2005 Associate Editor, *Cognition*
1998-2003 Action Editor, *Cognitive Neuropsychology*
1996- Editorial Advisor, *Editions Odile Jacob*, Paris
1991-1997 Editorial board, *Mathematical Cognition*

Past graduate students

STRAUSS Melanie Using Magneto-encephalography to Assess... Univ. Paris V 2011-2015
WACONGNE Catherine: Neuronal modeling of conscious and unconscious... Univ. Paris VI, 2010-2014
UHRIG Lynn: Cerebral mechanisms of general anesthesia. A hierarchy... Univ. Paris VI, 2009-2014
KING Jean-Remi: Decoding conscious and no-conscious mental states. Univ. Paris VI, 2010-2014
CHARLES Lucie: Brain mechanisms of conscious and unconscious error... Univ. Paris VI, 2009-2013
PEGADO Felipe: Illiteracy and the brain... Univ. Paris VI, 2008-2011
DEL CUL Antoine: Conscious and non-conscious processing in schizoph... Univ. Paris XI, 2007-2012
WYART Valentin: MEG signatures of attention and consciousness.... Univ. Paris VI, 2007-2010
REVKIN Susannah Investigating the processes involved in subitizing... Univ. Paris VI, 2007
GAILLARD Raphaël Unconscious semantic representation and valence... Univ. Paris VI 2007
LANDMANN Claire Prefrontal cortex and reward-guided learning... Univ. Paris VI 2007
SIMON Olivier Topographical relations between parietal lobe... Univ. Paris VI 2006
IZARD Véronique Interactions between numerical representations and... Univ. Paris VI 2006
SERGENT Claire Dynamics of conscious access: characterization of... Univ. Paris VI 2006
MOLKO Nicolas Applications of diffusion tensor imaging to the study ... Univ. Paris VI 2003
NACCACHE Lionel Subliminal number perception: properties and ... Univ. Paris VI 2002
PINEL Philippe Identification and parametric modulation of the cerebral ... Univ. Paris VI 2001

Current postdoctoral students

NELSON, Matthew (Pasadena): 2013-
HANNAGAN, Thomas (Paris): 2014-

Past Postdoctoral Students (selected list)

DE LANGE Floris 2009-2010; now permanent researcher at Donders Institute Nijmegen; Heineken Prize
KOUIDER Sid 2003-2005; now permanent researcher at CNRS and ENS Paris
MARTI Sébastien (Montréal): 2007-2015 ; now permanent researcher at INSERM
MARUYAMA Masaki (Riken, Japan): 2008-2011; now at NEC Japan
MEYNIEL, Florent (Paris): 2013-2015; now permanent researcher at CEA
NAKAMURA Kimihiro (U. Tokyo): 2008-2011; now professor at University of Tokyo
PARKKONEN Lauri (Helsinki): 2009-2011; now at professor at Aalto University.
PIAZZA Manuela 2003-2007; now professor at University of Trento, Italy
SACKUR Jérôme 2003-2007; now professor at Ecole Normale Supérieure, Paris
SALTI Moti (Tel Aviv) 2009-2012; now Scientific Head of the Brain Imaging Research Center (BIRC), Israel
SCHURGER Aaron (Princeton) : 2008-2012; now permanent researcher at INSERM
SIGMAN Mariano 2003-2007; now professor of physics, University of Buenos Aires
SITT Jacobo (Bueno Aires): 2010-2014; now permanent researcher at INSERM
SZWED Marcin (Weizmann) 2008-2011, now permanent researcher at Jagiellonian University, Poland
VAN GAAL Simon (Amsterdam) 2010-2012, now professor at University of Amsterdam
VAN OPSTAL Filip (Gent, Belgium) : 2008-2010; now researcher in Gent, Belgium.
WANG Liping (Shanghai): 2012-2015; now researcher at NYU, Shanghai
WILSON Anna 2004-2007; now professor at Christ Church, New Zealand

10 main publications

- DEHAENE, S., NACCACHE, L., LE CLEC'H, G., KOECHLIN, E., MUELLER, M., DEHAENE-LAMBERTZ, G., VAN DE MOORTELE, P.F., & LE BIHAN, D. Imaging unconscious semantic priming. *Nature*, 1998, **395**, 597-600.
- DEHAENE, S., SPELKE, L., PINEL, P., STANESCU, R., & TSIVKIN, S. Sources of mathematical thinking: Behavioral and brain-imaging evidence. *Science*, 1999, **284**, 970-974.
- DEHAENE, S., NACCACHE, L., COHEN, L., LE BIHAN, D., MANGIN, J. F., POLINE, J. B., & RIVIERE, D. Cerebral mechanisms of word masking and unconscious repetition priming. *Nature Neuroscience*, 2001, **4**, 752-758.
- DEHAENE-LAMBERTZ, G., DEHAENE, S., & HERTZ-PANNIER, L. Functional neuroimaging of speech perception in infants. *Science*, 2002, **298**, 2013-2015.
- PICA, P., LEMER, C., IZARD, V., & DEHAENE, S. Exact and approximate arithmetic in an Amazonian indigene group. *Science*, 2004, 306,499-503.
- SERGENT, C., BAILLET, S., & DEHAENE, S. Timing of the brain events underlying access to consciousness during the attentional blink. *Nature Neuroscience*, 2005, **8**, 1391-1400.
- DEL CUL, A., BAILLET, S., DEHAENE, S. Brain dynamics underlying the non-linear threshold for access to consciousness. *PLOS Biology*, 2007, 5(10), e260
- DEHAENE, S., IZARD, V., SPELKE, E., PICA, P. Log or Linear? Distinct intuitions of the number scale in western and Amazonian indigene cultures. *Science*, 2008, **320**,1217-1220.
- KNOPS, A., THIRION, B., HUBBARD, E.M., MICHEL, V., DEHAENE, S., Recruitment of an area involved in eye movements during mental arithmetic. *Science*, 2009, **324**, 1583-1585
- DEHAENE, S., PEGADO, F., BRAGA, L.W., VENTURA, P., NUNES FILHO, G., JOBERT, A., DEHAENE-LAMBERTZ, G., KOLINSKY, R., MORAIS, J., and COHEN, L. How learning to read changes the cortical networks for vision and language. *Science*, 2010, **6009**, 1359-1364.

Bibliographic information (Google scholar)

See <http://scholar.google.com/citations?user=2Dd5uoIAAAAJ&hl=fr>

Total of 68612 citations (as of February 2016)

h-index = 129

40 articles cited more than 500 times

Complete list of publications (in chronological order)

Original articles in peer-reviewed journals

1. NADAL, J.P., TOULOUSE, G., CHANGEUX, J.P., DEHAENE, S. Networks of formal neurons and memory palimpsests. *Europhysics Letters*, 1986, **1**, 535-542.
2. DEHAENE, S., CHANGEUX, J.P., NADAL, J.P. Neural networks that learn temporal sequences by selection. *Proceedings of the National Academy of Sciences, USA*, 1987, **84**, 2727-2731.
3. TOULOUSE, G., DEHAENE, S., CHANGEUX, J.P. Spin-glass models of learning by selection. *Proceedings of the National Academy of Sciences, USA*, 1986, **83**, 1695-1698. Reprinted in *Spin glass theory and beyond*. Mézard, M., Parisi, G., & Virasoro, M.A. (Eds.). World Scientific Publishing (Singapore), 1988, pp. 432-435.
4. DEHAENE, S. Discriminability and Dimensionality effects in visual search for featural conjunctions: A functional pop-out. *Perception & Psychophysics*, 1989, **46**, 72-80.
5. DEHAENE, S. The psychophysics of numerical comparison: a reexamination of apparently incompatible data. *Perception & Psychophysics*, 1989, **45**, 557-566.
6. DEHAENE, S., CHANGEUX, J.P. A simple model of prefrontal cortex function in delayed-response tasks. *Journal of Cognitive Neuroscience*, 1989, **1**, 244-261.
7. CHANGEUX, J.P., & DEHAENE, S. Neuronal models of cognitive functions. *Cognition*, 1989, **33**, 63-109. Reprinted in M.H. Johnson (Ed.), *Brain development and cognition: a reader*, pp. 363-402. Cambridge, Mass., Blackwell.
8. DEHAENE, S., DUPOUX, E., MEHLER, J. Is numerical comparison digital? Analogical and symbolic effects in two-digit number comparison. *Journal of Experimental Psychology: Human Perception and Performance*, 1990, **16**, 626-641.
9. COHEN, L., DEHAENE, S. Neglect dyslexia for numbers? A case report. *Cognitive Neuropsychology*, 1991, **8**, 39-58.
10. DEHAENE, S., CHANGEUX, J.P. The Wisconsin Card Sorting Test: Theoretical analysis and modelling in a neuronal network. *Cerebral cortex*, 1991, **1**, 62-79.
11. DEHAENE, S., COHEN, L. Two mental calculation systems. *Neuropsychologia*, 1991, **29**, 1045-1074.
12. DEHAENE, S., MEHLER, J. Cross-linguistic regularities in the frequency of number words. *Cognition*, 1992, **43**, 1-29.
13. KERSZBERG, M., DEHAENE, S., CHANGEUX, J.P. Stabilization of complex input-output functions in neural clusters formed by synapse selection. *Neural Networks*, 1992, **5**, 403-413.
14. DEHAENE, S. Varieties of numerical abilities. *Cognition*, 1992, **44**, 1-42.
15. DEHAENE, S. Temporal oscillations in human perception. *Psychological Science*, 1993, **4**, 264-270.
16. DEHAENE, S., BOSSINI, S., GIRAUX, P. The mental representation of parity and numerical magnitude. *Journal of Experimental Psychology: General*, 1993, **122**, 371-396.
17. DEHAENE, S., CHANGEUX, J.P. Development of elementary numerical abilities: A neuronal model. *Journal of Cognitive Neuroscience*, 1993, **5**, 390-407.
18. MAZOYER, B.M., DEHAENE, S., TZOURIO, N., MURAYAMA, N., COHEN, L., LEVRIER, O., SALAMON, G., SYROTA, A., MEHLER, J. The cortical representation of speech. *Journal of Cognitive Neuroscience*, 1993, **5**, 467-479.
19. COHEN, L., DEHAENE, S. Amnesia for arithmetic facts: a single case study. *Brain and Language*, 1994, **47**, 214-232.

20. COHEN, L., DEHAENE, S., VERSTICHEL, P. Number words and number non-words: A case of deep dyslexia extending to arabic numerals. *Brain*, 1994, **117**, 267-279.
21. COHEN, L., GRAY, F., MEYRIGNAC, C., DEHAENE, S., DEGOS, J.D. Selective deficit of visual size perception: Two cases of hemimicropsia. *Journal of Neurology, Neurosurgery, and Psychiatry*, 1994, **57**, 73-78.
22. DEHAENE, S., COHEN, L. Dissociable mechanisms of subitizing and counting: Neuropsychological evidence from simultanagnosic patients. *Journal of Experimental Psychology: Human Perception and Performance*, 1994, **20**, 958-975.
23. DEHAENE, S., POSNER, M.I., TUCKER, D.M. Localization of a neural system for error detection and compensation. *Psychological Science*, 1994, **5**, 303-305.
24. DEHAENE-LAMBERTZ, G., DEHAENE, S. Speed and cerebral correlates of syllable discrimination in infants. *Nature*, 1994, **370**, 292-295.
25. POSNER, M.I., & DEHAENE, S. Attentional networks. *Trends in Neuroscience*, 1994, **17**, 75-79.
26. COHEN, L., DEHAENE, S. La lecture des nombres dans l'alexie pure: Effets de la tâche et de la spécialisation hémisphérique. *Revue Neurologique (Paris)*, 1995, **151**, 480-485.
27. COHEN, L., DEHAENE, S. Number processing in pure alexia: The effect of hemispheric asymmetries and task demands. *NeuroCase*, 1995, **1**, 121-138.
28. DEHAENE, S. Electrophysiological evidence for category-specific word processing in the normal human brain. *NeuroReport*, 1995, **6**, 2153-2157.
29. DEHAENE, S., AKHAVEIN, R. Attention, automaticity, and levels of representation in number processing. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 1995, **21**, 314-326.
30. DEHAENE, S., & COHEN, L. Towards an anatomical and functional model of number processing. *Mathematical Cognition*, 1995, **1**, 83-120.
31. COHEN, L., DEHAENE, S. Cerebral networks for number processing: Evidence from a case of posterior callosal lesion. *NeuroCase*, 1996, **2**, 155-174.
32. DEHAENE, S. The organization of brain activations in number comparison: Event-related potentials and the additive-factors method. *Journal of Cognitive Neuroscience*, 1996, **8**, 47-68.
33. DEHAENE, S., TZOURIO, N., FRAK, V., RAYNAUD, L., COHEN, L., MEHLER, J., MAZOYER, B. Cerebral activations during number multiplication and comparison: A PET study. *Neuropsychologia*, 1996, **34**, 1097-1106.
34. KOPERA-FRYE, K., DEHAENE, S., STREISSGUTH, A.P. Impairments of number processing induced by prenatal alcohol exposure. *Neuropsychologia*, 1996, **34**, 1187-1196.
35. PERANI, D., DEHAENE, S., GRASSI, F., COHEN, L., CAPPÀ, S.F., DUPOUX, E., FAZIO, F., MEHLER, J. Brain processing of native and foreign languages. *NeuroReport*, 1996, **7**, 2439-2444.
36. DEHAENE, S., & CHANGEUX, J.P. Neuronal models of prefrontal cortical functions. *Annals of the New York Academy of Sciences*, 1996, **769**, 305-319.
37. COHEN, L., VERSTICHEL, P., DEHAENE, S. Neologistic jargon sparing numbers: A category-specific phonological impairment. *Cognitive Neuropsychology*, 1997, **14**, 1029-1061.
38. DEHAENE, S., CHANGEUX, J.P. A hierarchical neuronal network for planning behaviour. *Proceedings of the National Academy of Sciences USA*, 1997, **94**, 13293-13298.
39. DEHAENE, S., COHEN, L. Cerebral pathways for calculation: double dissociation between rote verbal and quantitative knowledge of arithmetic. *Cortex*, 1997, **33**, 219-250.

40. DEHAENE, S., DUPOUX, E., MEHLER, J., COHEN, L., PAULESU, E., PERANI, D., VAN DE MOORTELE, P.F., LEHERICY, S., LE BIHAN, D. Anatomical variability in the cortical representation of first and second languages. *NeuroReport*, 1997, **8**, 3809-3815.
41. KIEFER, M., DEHAENE, S. The time course of parietal activation in single-digit multiplication: Evidence from event-related potentials. *Mathematical cognition*, 1997, **3**, 1-30.
42. KOECHLIN, E., DEHAENE, S., MEHLER, J. Numerical transformations in five month old human infants. *Mathematical Cognition*, 1997, **3**, 89-104.
43. COHEN, L., DEHAENE, S. Competition between past and present. Assessing and explaining verbal perseverations. *Brain*, 1998, **121**, 1641-1659.
44. DEHAENE, S., KERSZBERG, M., CHANGEUX, J.P. A neuronal model of a global workspace in effortful cognitive tasks. *Proceedings of the National Academy of Sciences USA*, 1998, **95**, 14529-14534.
45. DEHAENE, S., LE CLEC'H, G., COHEN, L., VAN DE MOORTELE, E., LE BIHAN, D. Inferring behaviour from functional brain images. *Nature Neuroscience*, 1998, **1**, 549-550.
46. DEHAENE, S., NACCACHE, L., LE CLEC'H, G., KOECHLIN, E., MUELLER, M., DEHAENE-LAMBERTZ, G., VAN DE MOORTELE, P.F., LE BIHAN, D. Imaging unconscious semantic priming. *Nature*, 1998, **395**, 597-600.
47. PERANI, D., PAULESU, E., SEBASTIAN GALLES, N., DUPOUX, E., DEHAENE, S., BETTINARDI, V., CAPPA, S.F., FAZIO, F., MEHLER, J. The bilingual brain: Proficiency and age of acquisition of the second language. *Brain*, 1998, **121**, 1841-1852.
48. CHANGEUX, J.P., & DEHAENE, S. Hierarchical neuronal modeling of cognitive functions : From synaptic transmission to the tower of London. *Comptes-Rendus de l'Académie des Sciences (Paris)*, 1998, **321**, 241-247.
49. DEHAENE, S., DEHAENE-LAMBERTZ, G., COHEN, L. Abstract representations of numbers in the animal and human brain. *Trends in Neuroscience*, 1998, **21**, 355-361.
50. CHANGEUX, J.P., BERTRAND, D., CORRINGER, P.J., DEHAENE, S., EDELSTEIN, S., LENA, C., LE NOVERE, N., MARUBIO, L., PICCIOTTO, M., & ZOLI, M. Brain nicotinic receptors : structure and regulation, role in learning and reinforcement. *Brain Research Reviews*, 1998, **26**, 198-216.
51. CHOCHON, F., COHEN, L., VAN DE MOORTELE, P.F., DEHAENE, S. Differential contributions of the left and right inferior parietal lobules to number processing. *Journal of Cognitive Neuroscience*, 1999, **11**, 617-630.
52. DEHAENE, S., SPELKE, L., PINEL, P., STANESCU, R., TSIVKIN, S. Sources of mathematical thinking : behavioral and brain-imaging evidence. *Science*, 1999, **284**, 970-974.
53. KOECHLIN, E., NACCACHE, L., BLOCK, E., & DEHAENE, S. Primed numbers : Exploring the modularity of numerical representations with masked and unmasked semantic priming. *Journal of Experimental Psychology : Human Perception and Performance*, 1999, **25**, 1882-1905.
54. PINEL, P., LE CLEC'H, G., VAN DE MOORTELE, P.F., NACCACHE, L., LE BIHAN, D., DEHAENE, S. Event-related fMRI analysis of the cerebral circuit for number comparison. *NeuroReport*, 1999, **10**, 1473-1479.
55. SPELKE, E., DEHAENE, S. Biological foundations of numerical thinking. *Trends in Cognitive Sciences*, 1999, **3**, 365-366.
56. DEHAENE, S. & COHEN, L. Language and elementary arithmetic: Dissociations between operations. *Brain and Language*, 1999, **69**, 492-494.

57. DEHAENE, S., & CHANGEUX, J. P. Reward-dependent learning in neuronal networks for planning and decision making. *Prog Brain Res*, 2000, **126**, 217-29.
58. GISIGER, T., DEHAENE, S., & CHANGEUX, J.P. Computational models of association cortex. *Current Opinion in Neurobiology*, 2000, **10**, 250-259.
59. COHEN, L., DEHAENE, S. Calculating without reading: Unsuspected residual abilities in pure alexia. *Cognitive Neuropsychology*, 2000, **17**, 563-583.
60. COHEN, L., DEHAENE, S., CHOCHON, F., LEHERICY, S., NACCACHE, L. Language and calculation within the parietal lobe: A combined cognitive, anatomical and fMRI study. *Neuropsychologia*, 2000, **38**, 1426-1440.
61. COHEN, L., DEHAENE, S., NACCACHE, L., LEHERICY, S., DEHAENE-LAMBERTZ, G., HENAFF, M.A., MICHEL, F. The visual word form area: Spatial and temporal characterization of an initial stage of reading in normal subjects and posterior split-brain patients. *Brain*, 2000, **123**, 291-307.
62. LE CLEC'H, G., DEHAENE, S., COHEN, L., MEHLER, J., DUPOUX, E., POLINE, J.B., LEHERICY, S., VAN DE MOORTELE, P.F., LE BIHAN, D. Distinct cortical areas for names of numbers and body parts independent of language and input modality. *NeuroImage*, 2000, **12**, 381-391.
63. STANESCU, R., PINEL, P., VAN DE MOORTELE, P.F., LE BIHAN, D., COHEN, L., DEHAENE, S. Understanding dissociations in dyscalculia. A brain imaging study of the impact of number size on the cerebral network for exact and approximate calculation. *Brain*, 2000, **123**, 2240-2255.
64. CHANGEUX J.P., DEHAENE S. Hierarchical neuronal modeling of cognitive functions: from synaptic transmission to the Tower of London. *International Journal of Psychophysiology*, 2000, **35**, 2000
65. ANDRADE, A., KHERIF, F., MANGIN, J. F., WORSLEY, K. J., PARADIS, A. L., SIMON, O., DEHAENE, S., LE BIHAN, D., POLINE, J. B. Detection of fMRI activation using cortical surface mapping. *Human Brain Mapping*, 2001, **12**, 79-93.
66. DEHAENE, S. Subtracting pigeons : Logarithmic or linear ? *Psychological Science*, 2001, **12**, 244-246.
67. DEHAENE, S., NACCACHE, L. Towards a cognitive neuroscience of consciousness: Basic evidence and a workspace framework. *Cognition*, 2001, **79**, 1-37.
68. DEHAENE, S., NACCACHE, L., COHEN, L., LE BIHAN, D., MANGIN, J.F., POLINE, J. B., RIVIERE, D. Cerebral mechanisms of word masking and unconscious repetition priming. *Nature Neuroscience*, 2001, **4**, 752-758.
69. NACCACHE, L., DEHAENE, S. The priming method: imaging unconscious repetition priming reveals an abstract representation of number in the parietal lobes. *Cerebral Cortex*, 2001, **11**, 966-74.
70. NACCACHE, L., DEHAENE, S. Unconscious semantic priming extends to novel unseen stimuli. *Cognition*, 2001, **80**, 215-229.
71. PINEL, P., RIVIERE, D., LE BIHAN, D., DEHAENE, S. Modulation of parietal activation by semantic distance in a number comparison task. *Neuroimage*, 2001, **14**, 1013-1026.
72. SIMON, O., MANGIN, J. F., COHEN, L., BRUANDET, M., PINEL, P., HENNEL, F., POLINE, J. B., BIHAN, D. L., DEHAENE, S. Topographical arrangement of hand, eye, calculation, and language related areas in the human intraparietal sulcus. *Neuron*, 2001, **33**, 475-487.
73. DEHAENE, S. Précis of *The Number Sense*. *Mind and Language*, 2001, **16**, 16-36.
74. COHEN, L., LEHERICY, S., CHOCHON, F., LEMER, C., RIVAUD, S., DEHAENE, S. Language-specific tuning of visual cortex? Functional properties of the Visual Word Form Area. *Brain*, 2002, **125**, 1054-69.
75. DEHAENE, S., LE CLEC'H, G., POLINE, J. B., LE BIHAN, D., COHEN, L. The visual word form area: A prelexical representation of visual words in the fusiform gyrus. *NeuroReport*, 2002, **13** (3), 1-5.

76. DEHAENE, S., MARQUES, J. F. Cognitive Euroscience: Scalar variability in price estimation and the cognitive consequences of switching to the Euro. *Quarterly Journal of Experimental Psychology*, 2002, **55**, 705-731.
77. DEHAENE-LAMBERTZ, G., DEHAENE, S., HERTZ-PANNIER, L. Functional neuroimaging of speech perception in infants. *Science*, 2002, **298**, 2013-2015.
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12. DEHAENE S., DEHAENE-LAMBERTZ, G., GENTAZ, E., HURON, C., AND SPRENGER-CHAROLLES, L. *Apprendre à lire. Des sciences cognitives à la salle de classe*. Odile Jacob, 2011 [Learning to read: From cognitive science to the classroom]. Translated in Spanish (*Aprender a leer: De las ciencias cognitivas al aula*; Siglo XXI, 2015)
13. DEHAENE S. *Consciousness and the Brain: Deciphering How the Brain Codes Our Thoughts*. Viking, 2013 French version *Le Code de la conscience*, Paris: Odile Jacobs, 2014 ; Other translations in German (*Denken*, Knaus, 2014), Italian (*Coscienza e cervello*, Raffaello Cortina,), Spanish (*La conciencia en el cerebro*, Siglo XXI, 2015), Chinese (forthcoming), etc.

Book chapters

1. NADAL, J.P., TOULOUSE, G., MEZARD, M., CHANGEUX, J.P., & DEHAENE, S. Neural networks: Learning and Forgetting. In R.J. Cotteril (Ed.), *Computer Simulation in Brain Science*. Cambridge University Press, 1988, pp 221-231.
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Commentaries and Diffusion of knowledge

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45. DEHAENE S. The Eternal Silence of Neuronal Spaces. *Science* 2012, **336**:1507-8

Films

1. DEHAENE, S., & GIBRAT, J.P. *La bosse des maths [The number sense]*. 52 minutes documentary, coproduced by ARTE/Transeurope Film, broadcasted by ARTE in 2000.
2. DEHAENE, S., & GIBRAT, J.P. *Dans le secret de nos émotions [In the secret of our emotions]*. 52 minutes, coproduced by ARTE/Transeurope Film, broadcasted by ARTE on 2 April 2004 (Primé au festival international Teleciencia 2003 de Vila Real, Portugal ; Premier prix au Festival International 2004 du Film de Santé de Liège, Belgique) ; Prix de la réalisation au 17ème Festival International du Film Scientifique d'Orsay 2004.
3. GIBRAT, J.P., & DEHAENE, S. *Les chemins de la lecture [Pathways to reading]*. 52 minutes, coproduced by ARTE, broadcasted by ARTE on 21 March 2013.

Granted patents

Sitt, J.D., King, J.R., Naccache, L. & Dehaene, S. (2013) International Patent EP13305485: "A method to Monitor Consciousness"

Main invited lectures

Conference "Studies of language comprehension with PET scanning: Processing of French and Tamil stories by monolingual French subjects (J. Mehler & S. Dehaene). American Association for the Advancement of Science, Chicago, 8-10 February 1992.

Invited lecture "A model of acalculia and elementary number processing". World Congress on Neural Networks, Portland, Oregon, 14 July 1993.

Invited lecture "Neuronal models of prefrontal cortical functions". New Academy of Sciences meeting on "Structure and function of the human prefrontal cortex", New York, 2-4 March 1995

Conference « The number sense ». The Smithsonian Institute, Washington D.C., 29 October 1997.

Plenary lecture "Cerebral bases of number sense". CNRS Institute for Cognitive Science, Inauguration Meeting, Lyon, April 23-25 1998.

Two invited lectures on « Imaging conscious and unconscious arithmetic computations », Rutgers University, USA, October 19-21, 1998.

James S. McDonnell Centennial Fellowship Lecture on « The cognitive neuroscience of numeracy », National Academy of Sciences, Washington, April 8, 1999.

Invited Lecture on « Present and future of human neuro-imaging », European Molecular Biology Organization (EMBO), Heidelberg, Germany, June 12, 1999.

Plenary Lecture on « Contributions of brain imaging to the cognitive neuroscience of number processing », European Society for Cognitive Psychology (ESCP), Gent, Belgium, September 3, 1999.

Invited Lecture on « New images of the calculating brain: conscious and unconscious computations ». Vatican Jubilee Conference « Architectures of the mind, Architectures of the brain », Rome, September 8, 2000.

Invited Lecture on « Advances in cognitive neuroimaging: visualizing the cerebral circuits for conscious and subliminal reading ». Riken Institute, Tokyo, September 21, 2001

Two invited lectures at Harvard University (« Cerebral bases of number sense » and « Cerebral substrates of conscious and unconscious computations : the workspace hypothesis »). Boston, March 4-5, 2002.

4th Pinkel Lecture « Cerebral bases of number sense in the parietal lobe », University of Pennsylvania, Philadelphia, March 7, 2002.

Plenary lecture on “Visual masking and consciousness : Investigations with functional neuroimaging”. Federation of European Neuroscience Societies (FENS), Paris, July 14, 2002.

Invited lecture on “The neural bases of subliminal word priming and conscious word recognition”. MIND lectures series, Dartmouth University, Hanover, January 18, 2003.

Invited lecture on “Cerebral constraints on reading and arithmetic: Education as a “neuronal recycling” process”. Conference on Mind, Brain and Education, 400th anniversary of the Pontifical Academy of Sciences, Vatican, November 7-8 2003.

Two 4-hour invited courses on “Reading and calculating” et “Access to consciousness”. National Yang-Min University, Taipei, Taiwan, 8-13 May 2004.

Course on “The organization of the human non-verbal number system: Towards a complete mathematical theory”. 2004 Summer Institute in Cognitive Neuroscience, Hanover, New Hampshire, 28 June – 3 July 2004.

Two invited lectures on “The visual word form area” et “The number sense”. International Dyslexia Association meeting, Philadelphia, 3-5 Novembre 2004.

Invited lecture on “The sense of number in animals and humans”. Neuroscience Colloquium Series, University of Tübingen, Germany, 13 January 2005.

Presidential lecture “Timing conscious access”, Association for the Scientific Study of Consciousness, CalTech, 24 June 2005.

Invited address “Can cognitive neuroscience help design innovative education protocols? The case of arithmetic”, Joint colloquium of OCDE and the French Academy of Sciences on Brain and education, Paris, 9 November 2005.

Series of three invited lectures “Three conversations in mind, brain and behavior with Stanislas Dehaene and critics”, Harvard University, 3-4-5 April 2007.

Alfred Fessard annual lecture “Putting neurons in culture: explorations of the neuronal architecture for reading”. French Society for Neuroscience, Montpellier, France, 24 May 2007.

Two invited lectures “Recycling the visual brain for reading”, Carnegie-Mellon University, 7-8 November 2007.

Invited lecture “Human brain mechanisms of subliminal processing and conscious access”, 200th anniversary lecture series “The Enlightened Brain”, Nobel auditorium, Karolinska Institute, Stockholm, 21 November 2007.

Invited lecture “From animal number sense to human arithmetic: the cerebral foundations of mathematics”. Duke University, January 25th, 2008.

Series of three invited lectures on « Reading in the brain », University of Chicago, 27 January-2 February 2008.

11th Annual Brenda Milner Lecture in Cognitive Neuroscience “Frontal lobe, dual task and the limits of human consciousness”. Montreal Neurological Institute, May 26th 2008.

Invited lecture at the International Neuropsychological Society: “Cultural recycling of cortical maps: the example of reading and the visual word form area”. Tenerife, June 26th, 2008.

Heineken Prize in Cognitive Science lecture “Signatures of conscious access in the human brain: Ignition, oscillation, synchrony, causality”. Nijmegen University, September 30th 2008.

Pontifical Academy of Sciences lecture on “Cognition, consciousness, and culture: understanding human specificity and its grounding in a primate brain”. City of the Vatican, Oct 3rd 2008.

Invited lecture “Reconciling brain evolution and culture: the concept of neuronal recycling”. Fondation des Treilles meeting on brain evolution, April 27-May 2nd, 2009.

Keynote lecture “Conscious and non-conscious components of number processing”. Human Brain Mapping conference, San Francisco, June 18th, 2009.

Keynote lecture “Masking, conscious access, and the blind spot of introspection”. Heineken prize lecture, Cognitive Science Society meeting, Amsterdam, July 31st 2009.

Invited lecture “Imaging the cortical signatures of conscious access”. Gaia meeting on Brain function and repair, Athens, Greece, 19-21 October 2009.

“A taxonomy of conscious and nonconscious visual states and its neural correlate”. Nobel Symposium “The Enlightened Brain: Evolution and Development of the Human Brain”. 200th anniversary of the Karolinska Institute, 8 June 2010.

“How learning to read changes human brain networks”. Gordon conference on Cognitive Neuroscience, Waterville, USA, 2-6 Aout 2010.

“Cognitive Imaging: The Neural Bases of Human Brain Function”. Academia Europae, Leuven, 11 Septembre 2010.

“The brain mechanisms underlying mathematical operations”. University of Jyväskylä, Finlande, 1er Octobre 2010.

“The massive impact of literacy on the human brain”. Académie Pontificale des Sciences, 27-29 Octobre 2010.

“The visual word form area”. Conference and public debate with Cathy Price. Society for the Neurobiology of Language, San Diego, 12 Novembre 2011.

“Les neurones de la lecture”. Collège de Belgique, 18 Janvier 2011.

“Quantity coding and computation in the animal and human brain”. Conference COSYNE, Salt Lake City, 27 Février 2011.

“Physiological signatures of conscious access and the workspace model”. Conference COSYNE, Snowbird, USA, 28 Février 2011.

“Brain mechanisms of numeracy and consequences for education”. The Latin American school for education, cognitive and neural sciences (James S. McDonnell Foundation and Universidad de Chile). San Pedro de Atacama, 14 Mars 2011.

“How Math Comes to Mind: Intuition, Visualization, and Teaching”. Discussion with Stephen Strogatz. Princeton, 27 Avril 2011.

“Limits of Subliminal Processing and Signatures of Conscious Access”, Association for Psychological Science, Washington, 27 Mai 2011.

“How learning to read changes the visual system”, Rank prize lecture, European Conference on Visual Perception (ECVP), Toulouse, 28 August 2011.

“How literacy changes the brain” EARLI2011 Conference, Exeter , 31 August 2011

"The organization of the reading system: universal architecture and individual variability" Japan Society for Neurosciences, Yokohama, Japan, 15 September 2011

"Brain mechanisms of numeracy and consequences for educations", East China Normal University, Shanghai 19 September 2011

"Reading in the brain", Duke University, 7 October 2011

"How Reading Works", New York University, New York, 8 November 2011

World Science Forum, invited lecture on Cognitive Neuroscience at the Plenary session: "The Changing Landscape of Science: Emerging Fields of Science"; Budapest, 17 November 2011.

"The organization of the reading system: universal architecture and individual variability". MacQuarie University, Sidney, Australia, 9 December 2011.

"How the literate brain differs from the illiterate brain". International meeting on brain, development and education, organized with Pat Kuhl and G. Dehaene-Lambertz; NeuroSpin, Saclay, 20 January 2012.

"Reading as neuronal recycling". 2nd Latin-American School for Education, Cognitive and Neural Sciences. El Calafate, Argentina, 7 March 2012.

"Signatures of conscious processing in the human brain". 1st Seattle Brain Salon "Molecules and Mind", on the occasion of the inauguration of the Allen Institute for Brain Science, Seattle, April 19th, 2012

"Education matters: literacy, numeracy and the developing brain". Invited lecture at the Robarts Research Institute, London, Ontario, 7 May 2012.

"The brain circuits for reading: How literacy alters our cortical representations and their connections". Annual Lecture in honor of Norman Geschwind. Harvard Institutes of Medicine, Boston, 9 May 2012.

"How learning to read changes the brain". Stanford University, Palo Alto, California, 11 May 2012.

"In search of the neural encoding of constituent structure". Lorentz center, Leiden, 29 May 2012.

"Brain mechanisms of constituent structure in language and mathematics". Conference on Neuroscience of Language, Jülich, Germany, 29 June 2012.

Three invited lectures on Education and the Brain, Rio, Florianopolis and Brasilia, Brazil, 7-17 July 2012.

"How learning to read changes the brain". Invited lecture on the occasion of the Kavli Prize week. Trondheim, Norway, 6 September 2012.

"Electrophysiological signatures of conscious processing". Invited Address, International Society for Psychophysiological Research. New Orleans, 21 September 2012.

"Psychological and physiological signatures of consciousness". Keynote lecture at the Belgian Brain Congress, Liège, Belgium, 27 October 2012.

"Searching for Brain Mechanisms of Conscious Access and Introspection". International meeting "Neurosciences and the human person". Pontifical Academy of Sciences, City of the Vatican, 8-11 November 2012.

"How the brain learns to read, and how we can improve reading education". WISE Summit (World Innovation Summit for Education), Doha, Qatar, 14 November 2012.

"Signatures of consciousness". Italian Society for Psychophysiology. Venice, Italy, 24 November 2012.

“Signatures of Conscious Processing in the Human Brain”. Keynote lecture, NIPS (Neural Information Processing), Lake Tahoe, USA, 5 December 2012.

“Advances in understanding reading acquisition”. Keynote lecture, 2012 Budapest CEU Conference on Cognitive Development. Budapest, 12 January 2013.

“Signatures of consciousness in the human brain”. Keynote lecture, Annual Meeting of the Swiss Society for Neuroscience (SSN), Geneva, 2 February 2013.

“Advances in understanding reading acquisition”. 3rd Latin-American School for Education, Cognitive and Neural Sciences. Ilha de Comandatuba, Brazil, 8 March 2013.

“How the ventral pathway is changed by literacy”. Oxford Dyslexia Meeting, University of Oxford, 12 April 2013.

Three courses on Cognitive Neuroscience at the Institute of Advanced Studies of the University of Pavia, Italy, 19-25 May 2013.

“Using MEG to track conscious access and its non-conscious consequences”. Association for the Scientific Study of Consciousness, San Diego, 15 July 2013.

“From illiterate to literate brain”. East China Normal University, Shanghai, 26 August 2013.

“Cortical correlates of the acquisition of reading”. Plenary Lecture, EBBS meeting, Munich (Germany), 9 September 2013

“Dissociations between mathematical and language syntax”. Keynote address, Morris Symposium on Number and Quantification, Stony Brook (USA), 21-22 September 2013.

“The acquisition of literacy: Assembling a circuit for word reading”. Keynote lecture, Ascona meeting on brain circuits, Ascona (Switzerland), 30 September 2013.

“Blueprint for a human brain: 10 Hilbert problems for brain simulation”. Inaugural lecture, Human Brain Project. Lausanne (Switzerland), October 7th 2013.

“The Literate Brain”. Keynote lecture, Academy of Aphasia, Lucerne (Switzerland), October 21st, 2013.

The Baggett lectures (three invited lectures on Symbols and the brain: Reading, Numbers, Language). University of Maryland, 12-15 November 2013.

Invited lecture at the Israeli Academy of Sciences, Jerusalem, 17 February 2014.

The Heller lectures (two invited lectures on Reading and Consciousness). Hebraic University of Jerusalem (Israel), 25 and 27 February 2014.

“Understanding Consciousness: from the lab to the clinic”. Invited public lecture, Association for the Scientific Study of Consciousness annual meeting, Brisbane (Australia), July 19th, 2014.

“Temporal decoding of MEG signals: a window into conscious and non-conscious operations”. Keynote lecture, ICON meeting, Brisbane (Australia), July 30th, 2014.

“Brain and literacy”, Invited lecture, UNESCO International Conference on reading and dyslexia, Belo Horizonte (Brazil), 18-20 August 2014.

“How do monkeys and humans represent the abstract structure of sequences”. Invited lecture, University of Tokyo (Japan), December 6th, 2014.

“The brain mechanisms underlying mathematical intuition”. Invited lecture, Friedrich Miescher Institute (FMI), Basel (Switzerland), January 22nd, 2015.

“Decoding the time course of conscious and unconscious operations”. Inaugural lecture of the International Convention of Psychological Science (ICPS), Amsterdam, March 3rd, 2015.