

Curriculum Vitae

Stanislas DEHAENE

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Carrière professionnelle

- 2005- Professeur au Collège de France, chaire de Psychologie Cognitive Expérimentale
- 2002- Directeur de l'unité mixte INSERM-CEA 562 de Neuroimagerie Cognitive, Service Hospitalier Frédéric Joliot, Orsay, France.
- 1997-2005 Directeur de Recherches à l'INSERM
- 1992-1994 Séjour post-doctoral, Institute of Cognitive and Decision Sciences, University of Oregon (USA), directeur Michael Posner
- 1989-1999 Chargé de Recherches INSERM au Laboratoire de Sciences Cognitives et Psycholinguistiques, Paris (directeur J. Mehler)
- 1984-1989 Ecole Normale Supérieure, section mathématiques.
- 1982-1984 Ecole préparatoire Ste Geneviève, Versailles (section mathématiques).

Diplômes

- 1998 Habilitation à diriger des recherches, Ecole des Hautes études en Sciences Sociales (E.H.E.S.S.).
- 1989 Thèse de troisième cycle en psychologie cognitive, Ecole des Hautes études en Sciences Sociales (E.H.E.S.S.).
- 1986 Diplôme d'Etudes Avancées en psychologie cognitive, Ecole des Hautes Etudes en Sciences Sociales (E.H.E.S.S.).
- 1985 Maîtrise de Mathématiques appliquées et Informatique, Université de Paris VI.
- 1985 Licence de Mathématiques appliquées et Informatique, Université de Paris VI.

Distinctions et prix scientifiques

- 2008 Dr A.H. Heineken Prize for Cognitive Science
- 2008 Membre de l'Académie Pontificale des Sciences
- 2008 Chevalier de l'Ordre national du mérite
- 2007 Grande médaille d'or, Association Arts-Sciences-Lettres
- 2005 Membre de l'Académie des Sciences
- 2003 Grand Prix de la Fondation Louis D. de l'Institut de France (avec D. Le Bihan)
- 2002 Médaille Pie XI de l'Académie Pontificale des Sciences
- 2002 Prix Boehringer-Ingelheim de la Fédération des Sociétés des Neurosciences Européennes (FENS)
- 2001 Prix Jean-Louis Signoret de la Fondation Ipsen
- 2000 Prix Villemot de l'Académie des sciences
- 1999 Centennial Fellowship de la Fondation McDonnell
- 1997 Prix Jean Rostand pour le livre *La Bosse des Maths*
- 1996 Prix Fanny Emden de l'Académie des sciences

Responsabilités administratives

- 2008- Membre du Conseil Scientifique en Neurosciences, University College London
- 2008- Membre du Conseil Scientifique de l'INSERM

- 2005- Comité de pilotage du programme Neurosciences de l'ANR
 2001- Conseil de l'International Association For The Study Of Attention And Performance
 2001-2005 Conseil d'administration de la Société française des Neurosciences
 2001-2005 Commission Avenir de l'INSERM
 1999- Conseil scientifique de l'IFR 49 de neuroimagerie
 1999-2005 Conseiller scientifique, programme « Cerveau et Education » de l'OCDE
 1997-2005 Conseil scientifique de la Fondation Fyssen
 1990-2000 Fondateur et animateur avec L. Cohen du Club Parisien de Neuropsychologie à l'hôpital de la Salpêtrière
 1990-1992 Enseignant au D.E.A. de Sciences Cognitives

Responsabilités éditoriales

- 2007- Editorial board, revue *frontier* (Human Frontiers Science program)
 2006- Editorial board, revue *Mind Brain and Education*
 2003- Conseiller éditorial, revue *PLOS Biology*
 2001- Conseiller éditorial, revue *Neuroimage*
 1999-2005 Editeur associé, revue *Cognition*
 1998-2003 Editeur associé, revue *Cognitive Neuropsychology*
 1996- Conseiller éditorial, Editions Odile Jacob
 1991-1997 Conseiller éditorial, revue *Mathematical Cognition*

Dix principales publications

DEHAENE-LAMBERTZ, G., & DEHAENE, S. Speed and cerebral correlates of syllable discrimination in infants. *Nature*, 1994, **370**, 292-295.

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., 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.

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.

DEHAENE-LAMBERTZ G., HERTZ-PANIER, L., DUBOIS, J., MERIAUX, S., ROCHE, A., SIGMAN, M., & DEHAENE, S. Functional organization of perisylvian activation during presentation of sentences in preverbal infants. *PNAS*, 2006, **103**, 14240-14245.

DEL CUL, A., BAILLET, S., DEHAENE, S. Brain dynamics underlying the non-linear threshold for access to consciousness. *PLOS Biology*, 2007, 5(10), e260

Liste complète des publications

Articles originaux dans des revues à comité de lecture

1. 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. Reproduit dans *Spin glass theory and beyond*. Mézard, M., Parisi, G., & Virasoro, M.A. (Eds.). World Scientific Publishing (Singapour), 1988, pp. 432-435.
2. NADAL, J.P., TOULOUSE, G., CHANGEUX, J.P., DEHAENE, S. Networks of formal neurons and memory palimpsests. *Europhysics Letters*, 1986, **1**, 535-542.
3. 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.
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. 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.
8. COHEN, L., DEHAENE, S. Neglect dyslexia for numbers? A case report. *Cognitive Neuropsychology*, 1990, **8**, 39-58.
9. DEHAENE, S., CHANGEUX, J.P. The Wisconsin Card Sorting Test: Theoretical analysis and modelling in a neuronal network. *Cerebral cortex*, 1991, **1**, 62-79.
10. DEHAENE, S., COHEN, L. Two mental calculation systems. *Neuropsychologia*, 1991, **29**, 1045-1074.
11. DEHAENE, S., MEHLER, J. Cross-linguistic regularities in the frequency of number words. *Cognition*, 1992, **43**, 1-29.
12. KERSZBERG, M., DEHAENE, CHANGEUX, J.P. Stabilization of complex input-output functions in neural clusters formed by synapse selection. *Neural Networks*, 1992, **5**, 403-413.
13. DEHAENE, S. Temporal oscillations in human perception. *Psychological Science*, 1993, **4**, 264-270.
14. DEHAENE, S., BOSSINI, S., & GIRAUX, P. The mental representation of parity and numerical magnitude. *Journal of Experimental Psychology: General*, 1993, **122**, 371-396.
15. DEHAENE, S., & CHANGEUX, J.P. Development of elementary numerical abilities: A neuronal model. *Journal of Cognitive Neuroscience*, 1993, **5**, 390-407.

16. 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.
17. 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.
18. 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.
19. 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.
20. DEHAENE, S., POSNER, M.I., TUCKER, D.M. Localization of a neural system for error detection and compensation. *Psychological Science*, 1994, **5**, 303-305.
21. COHEN, L., DEHAENE, S. Amnesia for arithmetic facts: a single case study. *Brain and Language*, 1994, **47**, 214-232.
22. DEHAENE-LAMBERTZ, G., DEHAENE, S. Speed and cerebral correlates of syllable discrimination in infants. *Nature*, 1994, **370**, 292-295.
23. 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.
24. 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.
25. COHEN, L., DEHAENE, S. Number reading in pure alexia: The effect of hemispheric asymmetries and task demands. *NeuroCase*, 1995, **1**, 121-137.
26. DEHAENE, S. Electrophysiological evidence for category-specific word processing in the normal human brain. *NeuroReport*, 1995, **6**, 2153-2157.
27. 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.
28. KOPERA-FRYE, K., DEHAENE, S., STREISSGUTH, A.P. Impairments of number processing induced by prenatal alcohol exposure. *Neuropsychologia*, 1996, **34**, 1187-1196.
29. 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.
30. COHEN, L., DEHAENE, S. Cerebral networks for number processing: Evidence from a case of posterior callosal lesion. *NeuroCase*, 1996, **2**, 155-174.
31. PERANI, D., DEHAENE, S., GRASSI, F., COHEN, L., CAPPA, S.F., DUPOUX, E., FAZIO, F., MEHLER, J. Brain processing of native and foreign languages. *NeuroReport*, 1996, **7**, 2439-2444.

32. 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.
33. DEHAENE, S., COHEN, L. Cerebral pathways for calculation: double dissociation between Gerstmann's acalculia and subcortical acalculia. *Cortex*, 1997, **33**, 219-250.
34. 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.
35. DEHAENE, S., CHANGEUX, J.P. A hierarchical neuronal network for planning behaviour. *Proceedings of the National Academy of Sciences USA*, 1997, **94**, 13293-13298.
36. COHEN, L., VERSTICHEL, P., DEHAENE, S. Neologistic jargon sparing numbers: A category-specific phonological impairment. *Cognitive Neuropsychology*, 1997, **14**, 1029-1061.
37. KOECHLIN, E., DEHAENE, S., MEHLER, J. Numerical transformations in five month old human infants. *Mathematical Cognition*, 1997, **3**, 89-104.
38. 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.
39. COHEN, L., DEHAENE, S. Competition between past and present. Assessing and explaining verbal perseverations. *Brain*, 1998, **121**, 1641-1659.
40. 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.
41. 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.
42. 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.
43. DEHAENE, S., SPELKE, L., PINEL, P., STANESCU, R., TSIVKIN, S. Sources of mathematical thinking : behavioral and brain-imaging evidence. *Science*, 1999, **284**, 970-974.
44. 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.
45. SPELKE, E., DEHAENE, S. Biological foundations of numerical thinking. *Trends in Cognitive Sciences*, 1999, **3**, 365-366.

46. 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.
47. 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.
48. 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.
49. 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.
50. 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.
51. COHEN, L., DEHAENE, S. Calculating without reading : Unsuspected residual abilities in pure alexia. *Cognitive Neuropsychology*, 2000, **17**, 563-583.
52. STANESCU, R., PINEL, P., VAN DE MOORTELE, P.-F., LE BIHAN, D., COHEN, L., DEHAENE, S. Understanding dissociation 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.
53. DEHAENE, S., NACCACHE, L. Towards a cognitive neuroscience of consciousness : Basic evidence and a workspace framework. *Cognition*, 2001, **79**, 1-37.
54. 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**(2), 79-93.
55. DEHAENE, S. Subtracting pigeons : Logarithmic or linear ? *Psychological Science*, 2001, **12**, 244-246.
56. NACCACHE, L., DEHAENE, S. Unconscious semantic priming extends to novel unseen stimuli. *Cognition*, 2001, **80**, 215-229.
57. 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.
58. 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.
59. 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.

60. 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.
61. SIMON, O., MANGIN, J. F., COHEN, L., DEHAENE, S. Topographical layout of hand, Eye, calculation, and language-related areas in the human parietal lobe. *Neuron*, 2002, **33**, 475-487.
62. 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.
63. 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 Psycholog* , 2002, **55**, 705-731.
64. MOLKO, N., COHEN, L., MANGIN, J. F., CHOCHON, F., LEHERICY, S., BIHAN, D. L., DEHAENE, S. Visualizing the neural bases of a disconnection syndrome with diffusion tensor imaging. *Journal of Cognitive Neuroscience*, 2002, **14**, 629-636.
65. PAPPATA, S., DEHAENE, S., POLINE, J. B., GREGOIRE, M. C., JOBERT, A., DELFORGE, J., FROUIN, V., BOTTLAENDER, M., DOLLE, F., DIGIAMBERARDINO, L., SYROTA, A. In vivo detection of striatal dopamine release during reward: a PET study with 11C-Raclopride and a single dynamic scan approach. *NeuroImage*, 2002, **16**, 1015-1027.
66. 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.
67. DEHAENE-LAMBERTZ, G., DEHAENE, S., HERTZ-PANNIER, L. Functional neuroimaging of speech perception in infants. *Science*, 2002, **298**, 2013-2015.
68. NACCACHE, L., BLANDIN, E., DEHAENE, S. Unconscious masked priming depends on temporal attention. *Psychological Science*, 2002, **13**, 416-4214.
69. HAUSER, M.D., DEHAENE, S., DEHAENE-LAMBERTZ, G., PATALANO A.L. Spontaneous number discrimination of multi-format auditory stimuli in cotton-top tamarins (*Saguinus oedipus*). *Cognition*, 2002, **86**, B23-B32.
70. PALLIER, C., DEHAENE, S., POLINE, J.B., LEBIHAN, D., ARGENTI, A.M., DUPOUX, E., MEHLER, J. Brain imaging of language plasticity in adopted adults: can a second language replace the first ? *Cerebral Cortex*, 2003, **13**, 155-161.
71. GREENWALD, A.J., ABRAMS, R.L., NACCACHE, L. DEHAENE, S. Long-term semantic memory versus contextual memory in unconscious number processing. *Journal of Experimental Psychology: Learning Memory and Cognition*, 2003, **29**, 235-247.
72. PIAZZA, M., GIACOMINI, E., LE BIHAN, D., DEHAENE, S. Single-trial classification of parallel pre-attentive and serial attentive processes using functional magnetic resonance imaging. *Proceeding of the Royal Society, London B*, 2003, **270**, 1237-1245.

73. DEHAENE, S., PIAZZA, M., PINEL, P., COHEN, L. Three parietal circuits for number processing. *Cognitive Neuropsychology*, 2003, **20**, 487-506.
74. COHEN, L., MARTINAUD, O., LEMER, C., LEHERICY, S., SAMSON, Y., OBADIA, M. SLACHEVSKY, A. DEHAENE, S. Visual word recognition in the left and right hemispheres : Anatomical and functional correlates of peripheral alexias. *Cerebral Cortex*, 2003, **13**, 1313-1333.
75. LEMER, C., DEHAENE, S., SPELKE, E., COHEN, L. Approximate quantities and exact number words: Dissociable systems. *Neuropsychologia*, 2003, **41**, 1942-1958.
76. MOLKO, N., CACHIA, A., RIVIERE, D., MANGIN, J.F., BRUANDET, M., LE BIHAN, D., COHEN, L., DEHAENE, S. Functional and structural alterations of the intraparietal sulcus in a developmental dyscalculia of genetic origin. *Neuron*, 2003, **40**, 847-858.
77. DEHAENE, S., SERGENT, C., CHANGEUX, J.P. A neuronal network model linking subjective reports and objective physiological data during conscious perception. *Proceedings of the National Academy of Sciences USA*, 2003, **100**, 8520-8525.
78. DEHAENE, S., ARTIGES, E., NACCACHE, L., MARTELLI, C., VIARD, A., SCHÜRHOFF, F., RECASENS, C., PAILLIERE-MARTINOT, M.L., LEBOYER, M., MARTINOT, J.L. Conscious and subliminal conflicts in normal subjects and patients with schizophrenia: The role of the anterior cingulate. *Proceedings of the National Academy of Sciences, USA*, 2003, **100**, 13722-13727.
79. JACQUEMOT, C., PALLIER, C., LE BIHAN, D., DEHAENE, S., DUPOUX, E. Phonological grammar shapes the auditory cortex: Functional magnetic resonance imaging study. *Journal of Neuroscience*, 2003, **23**, 9541-9546.
80. BRUANDET, M., MOLKO, N., COHEN, L., DEHAENE, S. A cognitive characterization of dyscalculia in Turner syndrome. *Neuropsychologia*, 2004, **42**, 288-298.
81. PINEL, P., PIAZZA, M., LEBIHAN, D., DEHAENE, S. Distributed and overlapping cerebral representations of number, size, and luminance during comparative judgments. *Neuron*, 2004, **41**, 983-993.
82. COHEN, L., DEHAENE, S. Specialization within the ventral stream: the case for the visual word form area. *NeuroImage*, 2004, **22**, 466-476.
83. DEHAENE, S., JOBERT, A., NACCACHE, L., CIUCIU, P., POLINE, J.B., LE BIHAN, D., COHEN, L. Letter binding and invariant recognition of masked words: Behavioral and neuroimaging evidence. *Psychological Science*, 2004, **15**, 307-313.
84. MOLKO, N., CACHIA, A., RIVIERE, D., MANGIN, J.F., BRUANDET, M., LEBIHAN, D., COHEN, L., DEHAENE, S. Brain anatomy in Turner syndrome: Evidence for impaired social and spatial-numerical networks. *Cerebral Cortex*, 2004, **14**, 840-850.
85. PICA, P., LEMER, C., IZARD, V., DEHAENE, S. Exact and approximate arithmetic in an Amazonian indigene group. *Science*, 2004, **306**, 499-503.
86. PIAZZA, M., IZARD, V., PINEL, P., LE BIHAN, D., DEHAENE, S. Tuning curves for numerosity in the human intraparietal sulcus. *Neuron*, 2004, **44**, 547-555.

87. SIMON, O., KHERIF, F., FLANDIN, G., POLINE, J. B., RIVIERE, D., MANGIN, J. F., LE BIHAN, D., DEHAENE, S. Automatized clustering and functional geometry of human parietofrontal networks for language, space, and number. *NeuroImage*, 2004, 23, 1192-1202.
88. COHEN, L., HENRY, C., DEHAENE, S., MARTINAUD, O., LEHERICY, S., LEMER, C., FERRIEUX, S. The pathophysiology of letter-by-letter reading. *Neuropsychologia*, 2004, 42, 1768-1780.
89. MARQUES, J.F., DEHAENE, S. Developing intuition for prices in Euros: Rescaling or relearning prices ? *Journal of Experimental Psychology: Applied*, 2004, 10, 148-155.
90. SERGENT, C., DEHAENE, S. Is consciousness a gradual phenomenon ? Evidence for an all-or-none bifurcation during the attentional blink. *Psychological Science*, 2004, 15, 720-728.
91. COHEN, L., JOBERT, A., LE BIHAN, D., DEHAENE, S. Distinct unimodal and crossmodal regions for word processing in the left temporal cortex. *Neuroimage*, 2004, 23, 1256-1270.
92. COHEN, L., LEHERICY, S., HENRY, C., BOURGEOIS, M., LARROQUE, C., SAINTE-ROSE, C., DEHAENE, S., HERTZ-PANNIER, L. Learning to read without a left occipital lobe: A single case of right-hemispheric shift of the visual word form area. *Annals of Neurology*, 2004, 56, 890-894.
93. FEIGENSON, L., DEHAENE, S., SPELKE, E. Core systems of number. *Trends In Cognitive Sciences*, 2004, 8,307-314.
94. SERGENT, C., DEHAENE, S. Neural processes underlying conscious perception: Experimental findings and a global neuronal workspace framework. *J Physiol Paris* 2004, 98, 374-384.
95. DEHAENE-LAMBERTZ, G., PALLIER, C., SERNICLAES, W. SPRENGER-CHAROLLES, L., JOBERT, A., DEHAENE, S. Neural correlates of switching from auditory to speech mode. *NeuroImage*, 2005, 24, 21-33.
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Films

1. DEHAENE, S., & GIBRAT, J.P. *La bosse des maths*. Film documentaire de 52 minutes coproduit par ARTE/Transeurope Film, diffusé sur ARTE en 2000.
2. DEHAENE, S., & GIBRAT, J.P. *Dans le secret de nos émotions*. Film documentaire de 52 minutes, coproduit par ARTE/Transeurope Film, diffusé sur ARTE le 2 avril 2004 (Primé au festival international Telecienca 2003 de Vila Real, Portugal ; Premier prix au Festival International 2004 du Film de Santé de Liège, Belgique) ; Prix de la réalisation au 17^{ème} Festival International du Film Scientifique d'Orsay 2004.

Principales conférences invitées

Stanislas Dehaene a donné des conférences dans la plupart des grandes universités et instituts de recherche. Seules les plus importantes sont listées ici.

Conférence "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.

Conférence « 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 (ESCOP), 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.