










Day 3: Shifts in techniques – how are we teaching, and why?









The brain, gender and language by Carol Lethaby

In this interactive talk Carol Lethaby explored the beliefs and myths about the brain, gender and language use and revealed what the evidence indicates. In doing so, she drew upon examples from *An Introduction to Evidence-based Teaching* as she encouraged participants' involvement.

References (in order they appeared on the slides)

Lethaby, C., Mayne, R. & Harries, P. (2021). <i>An Introduction to Evidence-based Teaching</i> . Shoreham-by-Sea: Pavilion Publishing and Media. https://pavpub.com/pavilion-elt/teaching-english/an-introduction-to-evidence-based-teaching-in-the-english-language-classroom	
Gray, J. (2009). <i>Men are from Mars; Women are from Venus</i> . New York: HarperCollins.	
Gray, J. (2020). <i>Beyond Mars and Venus</i> . Dallas: BenBella Books.	
Pease, A. & Pease, B. (2001). <i>Why Men Don't Listen and Women Can't Read Maps</i> . London: Orion Publishing Group Ltd.	
Pease, A. & Pease, B. (2014). <i>Why Men Don't Have a Clue and Women Always Need More Shoes</i> . London: Orion Publishing Group Ltd.	
Brizendine, L. (2008). <i>The Female Brain</i> . London: Bantam Books.	
Brizendine, L. (2011). <i>The Male Brain</i> . London: Bantam Books.	
Sax, L. (2006). <i>Why Gender Matters: What Parents and Teachers Need to Know About the Emerging Science of Sex Differences</i> . New York City: Broadway Books.	
Gurian, M. (2007). <i>Boys and Girls Learn Differently!: A Guide for Teachers and Parents</i> . Hoboken: Jossey-Bass.	
Gurian, M. & Annis, B. (2008). <i>Leadership and the Sexes: Using Gender Science to Create Success in Business</i> . Hoboken: Jossey-Bass.	
Barbera, D., Skipper, T. & Witham, I. (2016). <i>Women Matter: The Why and How of Gender Diversity in Financial Services</i> . New York City: WFW Publishing.	
Fine, C. (2011). <i>Delusions of Gender: How Our Minds, Society, and Neurosexism Create Difference</i> . New York City: W. W. Norton & Company.	
Rippon, G. (2019). <i>The Gendered Brain: The new neuroscience that shatters the myth of the female brain</i> . London: Bodley Head.	
Whipple, Tim (2019). 'Proof at last: women and men born to be different'. <i>The Sunday Times</i> . London: The Times Group. Available from https://www.thetimes.co.uk/article/proof-at-last-women-and-men-are-born-to-be-different-33k2lvtn5 (Last accessed 30 May 23).	

Tonkin, S. (2022). 'Men and women's brains really do work differently! Scientists find 1,000 genes that are more active in one gender than the other, making males sexually assertive and females more maternally protective'. <i>Mail Online</i> . London: Associated Newspapers Ltd. https://www.dailymail.co.uk/sciencetech/article-10426859/Men-womens-brains-really-work-differently.html	
Hines, M. (2004). <i>Brain Gender</i> , 6. New York City: Oxford University Press, Inc.	
Fine, C. (2010). <i>Delusions of Gender: How Our Minds, Society, and Neurosexism Create Difference</i> . New York City: W. W. Norton & Company.	
Joel, D. (2021). 'Beyond the binary: Rethinking sex and the brain'. <i>Neuroscience & Biobehavioral Reviews</i> 122 11. Amsterdam: Elsevier. DOI:10.1016/j.neubiorev.2020.11.018	
Eliot, L., Khan, H. & Patel, J. (2021). 'Dump the "dimorphism": Comprehensive synthesis of human brain studies reveals few male-female differences beyond size'. <i>Neuroscience & Biobehavioral Reviews</i> 125 11. Amsterdam: Elsevier. DOI:10.1016/j.neubiorev.2021.02.026	
"Oh, that explains the difference in our wages" GIF http://www.teara.govt.nz/files/hero-26380.gif	
Eliot, L. (2009). <i>Pink Brain, Blue Brain: How Small Differences Grow into Troublesome Gaps--and What We Can Do About It</i> . Boston: Houghton Mifflin Harcourt.	
Eckert et al, 2001, Harlaar et al, 2005 in Eliot, L. (2009). <i>Pink Brain, Blue Brain: How Small Differences Grow into Troublesome Gaps--and What We Can Do About It</i> . 195. Boston: Houghton Mifflin Harcourt.	
Eckert, M. A., Lombardino, L. J., & Leonard, C. M. (2003). 'Planar asymmetry tips the phonological playground and environment raises the bar'. <i>Child Development</i> 72 4: 988–1002. Hoboken: Society for Research in Child Development, Wiley Online. DOI:10.1111/1467-8624.00330	
Harlaar, N., Spinath, F. M., Dales, P. S. & Plomin, R. (2005). 'Genetic influences on early word recognition abilities and disabilities: a study of 7-year-old twins'. <i>Journal of Child Psychology and Psychiatry</i> 46 :373–384. Hoboken: The Association for Child and Adolescent Mental Health, Wiley Online. DOI: 10.1111/j.1469-7610.2004.00358.x	
Marzano, R. J. (2004). <i>Building Background Knowledge for Academic Achievement: Research on what works in schools</i> . Alexandria: Association for Supervision and Curriculum Development (ASCD).	
Cameron, D. (2015). 'Crap emails and female email'. <i>Language: a feminist guide</i> . Wordpress.com: Sexist Science. Available from https://debuk.wordpress.com/2015/12/ (Last accessed 31 May 23).	

Shaywitz, B. A., Shaywitz, S. E., Pugh, K. R., Constable, R. T., Skudlarski, P., Fulbright, R. K., Bronen, R. A., Fletcher, J. M., Shankweiler, D. P. & Katz, L. (1995). 'Sex differences in the functional organization of the brain for language'. <i>Nature</i> 373 , 6515:607–609. London: Nature Publishing Group. DOI: 10.1038/373607a0	
Sommer, I. E. C., Aleman, A., Bouma, A. & Kahn, R. S. (2004). 'Do women really have more bilateral language representation than men? A meta-analysis of functional imaging studies'. <i>Brain</i> , 127 , 8:1845–1852. Oxford: Oxford Academic. DOI: 10.1093/brain/awh207	
Lieberman, M. (2006). 'Sex-linked lexical budgets'. <i>Neuroscience in the service of sexual stereotypes</i> . Language Log: Institute for Research in Cognitive Science at the University of Pennsylvania. Available from http://itre.cis.upenn.edu/~myl/language-log/archives/003420.html (Last accessed 30 May 23).	
Mehl, M. R., Vazire, S., Ramírez-Esparza, Slatcher, R. B. & Pennebaker, J. W. (2007). 'Are women really more talkative than men?' <i>Science</i> 317 , 5834:82. Washington: American Association for the Advancement of Science (AAAS). DOI: 10.1126/science.1139940	
Cameron, D. (2009). <i>The Myth of Mars and Venus: Do Men and Women Really Speak Different Languages?</i> New York City: Oxford University Press, Inc.	
Eliot, L. (2000). <i>What's Going on in There? How the Brain and Mind Develop in the First Five Years of Life</i> . New York: Bantam.	
Mondschein, E. R., Adolph, K. E. & Tamis-LeMonda, C. S. (2000). 'Gender bias in mothers' expectations about infant crawling'. <i>Journal of Experimental Child Psychology</i> 77 4:304–316. Amsterdam: ScienceDirect, Elsevier. DOI: 10.1006/jecp.2000.2597.	
Agence France-Presse (AFP). Spain to end gender stereotypes in toy adverts. Dublin: Raidió Teilifís Éireann, Ireland's National Public Service Media (RTÉ). https://www.rte.ie/news/newslens/2022/0427/1294745-spain-toy-genders/	
Anon. (2022). <i>Queen Elizabeth: A Platinum Jubilee Celebration</i> . London: DK Children.	
Bian, L., Leslie, S.-J. & Cimpian, A. (2017). 'Gender stereotypes about intellectual ability emerge early and influence children's interests'. <i>Science</i> 335 , 6323:389–391. Washington: American Association for the Advancement of Science (AAAS). DOI: 10.1126/science.aah6524	
ParliamentLive.tv (2022). Science and Technology Committee. Broadcast on Wednesday 27 April 2022. Meeting started at 9.30am, ended 11.36am. Full stream here: https://parliamentlive.tv/Event/Index/f1ed4b79-08a1-44ca-9321-cb467ab919dd The clip shown is taken from 10:11:53 – 10:52:53. "Why would girls not want to do 'hard maths' any more than boys? Research generally ... people they say that's just a natural thing" Katharine Birbalsingh CBE. https://twitter.com/chrischirp/status/1519293906227183616?s=20	

Zad, A. I. & Mosivand, S. (2019). 'Iranian female faculties in physics'. *AIP Conference Proceedings* **2109**, 050020. American Institute of Physics (AIP), Melville: AIP Publishing. DOI: 10.1063/1.5110094



Li, J., Mclellan, R. & Forbes, K. (2020). 'Investigating EFL teachers' gender-stereotypical beliefs about learners: a mixed-methods study'. *Cambridge Journal of Education* **51**, 3:1–26. Abingdon-on-Thames: Taylor & Francis (Routledge). DOI:10.1080/0305764X.2020.1772720



Grounds, P., Guerrero, S., Lethaby, C., Moore, C. & van der Werff, J. (2014). *Primary Methodology Handbook: Practical ideas for ELT*. Oxford: Richmond.

Heywood, S. & Adzajlic, B. (2022). *Challenging Gender Stereotypes in the Early Years: Changing the narrative*. London: Routledge.

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