

Does Gender Matter?

John Gilbert analyzes the evidence behind the theory that girls acquire language skills earlier than boys

The 1970s produced a body of research that suggested girls

learn faster than boys. Although this data has since been dismissed as a language learning legend, new research indicates that gender differences do affect the reading abilities in males and females. It appears that girls become proficient in language skills sooner than boys. Results from multiple studies conducted throughout the 1990s imply that girls "on average score higher on tasks that require rapid access to and use of phonological and semantic information in long-term memory, production and comprehension of complex prose, fine motor skills, and perceptual speed." (Halpern, 1997, 1091-102) They also seem to demonstrate superiority over boys in verbal ability, because studies have shown that during adolescence girls surpass boys in verbal fluency. (Boyle, 1987, 273-283)

The linguistic advantage that girls appear to have over boys is not linked to intellect, but to a tendency in boys to be late bloomers in language acquisition. This late start is attributed to socialization differences in males and females. What results from these differences is "that girls tend to communicate to a much higher extent in the important stages in language acquisition, while the boys' interest refers more to "wrestling on the carpet or watching sports. (Hinz, 1999) Additionally, "mothers may talk more to daughters than to sons, more longer utterances, more questions, and more repetitions of the child's utterance can be found in the mother's speech to girls opposed to boys," thus providing the girls an advantage not given the boys. (Hinz)

Despite the results of many studies that seem to provide convincing proof that girls lead boys in linguistic skills, there are many in the field of education who are not convinced of the accuracy of these outcomes. Research conducted in 1998 by the Department of Phoniatrics at the

University of Oulu in Finland concluded that there was no substantial evidence to support the superiority of girls in linguistic skills. (Luoton, 1998, 28-34) Oulu's study consisted of evaluating the possible differences in linguistic skills and academic achievement between boys and girls. A total of 1,936 second-grade Finnish girls and boys were "appraised" according to the teacher's rating (Luoton), and it was in regard to this point that researchers uncovered a flaw that might be responsible for influencing other previous studies that had put the girls in the linguistic driver's seat. What the Finnish researchers discovered was that the teachers' evaluations were influenced by the gender of the pupil. (Luoton)

Such biases could be international because teachers outside Finland may also believe that girls are superior to boys in language and as a result "spend more time on it with the girls, and the girls probably live up to the teachers' expectations." (Boyle) While the Oulu study is noteworthy, it does little to explain why boys make up three quarters of all children with language difficulties, especially in the area of reading. (Harasty, 1998)

Although reading is not an intuitive process, girls are ahead of boys in reading proficiency. However, this lead is not generated by a natural linguistic gender advantage, but by what appears to be a genetic disposition in males toward reading disorders. Studies conducted at the University of Warwick in Great Britain suggest that boys are more likely to suffer from dyslexia than girls. (Reinberg, 2004) According to co-researcher Julia Carroll, the Warwick studies revealed "gender differences in reading, with boys commonly having more reading difficulties than girls." (Reinberg)

The Warwick research conducted four reading studies on 9,799 school aged children ages seven to 15. With each study, consisting of an equal mix of both genders, Carroll and her team discovered that "across all the



studies, about 20 percent of the boys had reading disabilities compared with about 11 percent of the girls." (Reinberg) From their research they concluded that dyslexia is genetic and that boys have a higher susceptibility to it.

Additional research done by Michael Rutter and his colleagues at King's College London supports Carroll's findings. In his April 2004 report published in the Journal of the American Medical Association (JAMA), Rutter suggests that boys are twice as likely to have dyslexia when compared to girls. He based his conclusions on data involving over 10,000 children between ages seven to 15, who had been given standard reading tests in New Zealand and Great Britain. (Rutter, 2004, 2007-2012) As a result, dyslexia was found in about 22 percent of the boys compared with 13 percent of the girls. (Rutter) Rutter insists that his results are strong because "the studies did not rely on children who were already known to have learning difficulties — a weakness that plagued some previous research." (Rutter)

However, both Carroll's and Rutter's findings have been challenged, because opponents suggest that the reason why reading disabilities have been found to be more common in boys is because teachers tend to recognize the problem in boys more often. Dr. Richard K. Olson, a professor of psychology from the University of Colorado, speculates that maybe "teachers and parents care more about boys' progress in reading, or maybe the boys act up more and attract attention." (Reinberg)

Sheldon Horowitz, director of professional services at the National Center for Learning Disabilities, agrees with Olson. He suggests girls' reading problems are more likely unnoticed by the teacher and notes, "Boys who are sitting in class and not getting it are going to be acting out with greater frequency than girls because that is not 'girl' behavior." (The Foundation for People with Learning Disabilities [TFPLD], 2004) Horowitz

believes that before Carroll and other researchers can conclude that there is a genetic link between boys and dyslexia, research must be done to determine if there are any sex-linked genes that support this hypothesis.

While Horowitz thinks that genetic research could put the controversy to rest, many researchers are turning to brain study to help end the ongoing debate. Functional brain imaging studies have shown that males and females exhibit different patterns of brain activation during phonological processing. (Lambe, 1999, 521-36) Detailed knowledge about such differences may shed new light on the phonological deficits that characterize dyslexia because "animal studies have shown that lesions, similar to those seen in postmortem studies of dyslexia, affect rapid auditory processing in males, but not females." (Lambe, 1999)

Perhaps brain study can provide more accurate data and more solid proof in determining if girls are better at language than boys. Dr. Jenny Harasty, neuroscientist, at the University of New South Wales, Australia began conducting such research in the early 90s. She was interested in the grey cortex cells of the brain, where thought is processed. Driven by a curiosity as to how much volume of the cortex was devoted to language, Harasty dissected 30 brains. After a slow and tedious process of creating a three-dimensional map. Harasty was completely baffled because some brains had large language areas, while others had smaller. She explains, "It didn't make sense. Until late one night, I sat up in the middle of the night thinking, 'oh my goodness,' what was that extra result down there? . . . and rushed back to the lab and had a look, and yes, for the first time there was this difference in the cortex of males and females. (Harasty)

To her amazement, Harasty discovered "that the language areas in both male and female brains are actually the same size — even though female