

A Letter to Editor:

Is Bilingualism a boon or bane for children with Communication Disorders?

Mahima Jayaram Shetty¹ All India Institute of Speech and Hearing, Mysore, Karnataka, India Abhishek Budiguppe Panchakshari² All India Institute of Speech and Hearing, Mysore, Karnataka, India

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With the recent advent in globalization and population explosion, a vast majority of the world population is now bilingual. More than half of the world's population is estimated to be bilingual (Grosjean, 2010). In India, according to the 2011 census, 26% of the population is bilingual. This often precepts the question if bilingualism has disadvantages as compared to monolingualism. In this regard, there exists substantial evidence that propagates the advantages that bilingualism provides as well, with the greatest difference seen in executive functioning (Bialystok 2009, 2017; Bialystok, Craig & Luk, 2012; Hilchey & Klein 2011; Kroll & Bialystok 2013; Leikin & Tovli, 2014; Paap, Johnson & Sawi, 2015; Valian 2015). Similarly, bilingual advantage is seen in cognitive flexibility (Adi-Japha, Berberich-Artzi & Libnawi, 2010), creative thinking (Lee & Kim 2010, 2011) and phonetic perception (Antoniou, Liang, Ettlinger & Wong, 2015) too.

However, there seems to be contradicting evidence. Many studies reveal that monolinguals seem to possess larger receptive vocabularies as compared to their bilingual counterparts (Bialystok, Luk, Peets & Yang, 2010), and that bilinguals are slower in picture naming tasks (Bialystok, Craig & Luk, 2008; Costa & Santesteban, 2004; Gollan, Montoya, Fennema-Notestine & Morris, 2005; Hernandez, Martinez & Kohnert, 2000). Bilinguals also show deficits in semantic fluency tasks when compared to monolinguals (Bialystok, Craig & Luk, 2008; Luo, Luk & Bialystok, 2010; Gollan & Ferreira, 2009)

Discussions regarding the effect of bilingualism in children with communication disorders too, are often rife with contraindications and provides mixed findings. For instance, a study by Blom & Boerma (2017), reveals that bilingualism may affect vocabulary knowledge in children with language impairment. However, a recent study (Barak, Degani & Novogrodsky, 2022) shows that bilingualism does not impede language learning even in children who have developmental language disorders. The age of acquisition of the second language also is assumed to make difference.

¹ Post-Graduate student, Department of Speech Language Pathology, All India Institute of Speech and Hearing, Mysore, Karnataka, India.

Corresponding author: mahimashetty00@gmail.com

² Assistant Professor in Language Pathology, Department of Speech Language Pathology, All India Institute of Speech and Hearing, Mysore, Karnataka, India

Howell (2009) suggests that early bilingualism (before the age of 5 years) is a risk factor for stuttering and its persistence into teenage years. However, Gahl (2023) suggests that the presence of associated factors is more likely to increase the risk by citing children with stuttering in specific. Children with Specific language Impairment who are sequential bilinguals have poorer scores in Second language (L2) than their monolingual peers (Paradis, Crago, & Genesee, 2006; Paradis, Crago, Genesee, & Rice, 2003). However, in a study done by Blom & Paradis (2013), simultaneous bilinguals with SLI perform the same as Monolinguals with SLI. This finding was further supported by many authors (Paradis, Schneider, & Duncan, 2013; Rezzonico et al., 2015). In regard to children with Autism Spectrum Disorder, bilingual (exposed to Chinese and English before the age of 3 years simultaneously) and monolingual children between the age of 43 to 73 and 45 to 98 months did not differ much in their language or communication ability (Petersen, Marinova-Todd, & Mirenda, 2011; Reetzke, Zou, Sheng & Katsos, 2015). Bilingual children with Down Syndrome performed much poorer than controls in expressive vocabulary (Feltmate & Kay-Raining Bird, 2008). In a study that compared monolingual and bilingual children with DS, no differences were found in terms of language, cognition, or adaptive functioning (Edgin, Kumar, Spano, & Nadel, 2011)

Majority of the presenting evidence suggests that the mixed effect of bilingualism, while we belive that, bilingualism may not hinder the rehabilitation of children with communication disorder to a great extent. Nonetheless, it would still be advisable to focus on intensive exposure to one language during the rehabilitation phase. This intensive focus would help in resolving the delays caused by code-mixing. As the child shows improvement in their language skills, the speech-language pathologist could introduce exposure to the L2, thus making sure that the child is well aware of the minority language (and in most clinical cases, the native language) as well which would alleviate parental discomfort (often associated with deprivation of their native language). Furthermore, baselines for bilingual children who avail services should be done in the languages they are exposed to and should not be limited to the Speech Language Pathologist's knowledge of language. Being bilingual would be an advantage to every child in the current world where knowledge of languages is necessary for smoother communication and advances in professional as well as social and personal life. Thus, advising against bilingualism would be ill-considered especially when its benefits far outweigh its supposed drawbacks.

References

- Adi-Japha, E., Berberich-Artzi, J., & Libnawi, A. (2010). Cognitive Flexibility in Drawings of Bilingual Children. *Child Development*, 81(5), 1356-1366. https://doi.org/10.1111/j.1467-8624.2010.01477.x
- Antoniou, M., Liang, E., Ettlinger, M., & Wong, P. C. M. (2014). The bilingual advantage in phonetic learning. *Bilingualism: Language and Cognition*, 18(4), 683-695. https://doi.org/10.1017/s1366728914000777



- Barak, L., Degani, T., & Novogrodsky, R. (2022). Influences of bilingualism and developmental language disorder on how children learn and process words. *Developmental Psychology*, 58(5), 821-834. https://doi.org/10.1037/dev0001324
- Bialystok, E., Craik, F., & Luk, G. (2008). Cognitive control and lexical access in younger and older bilinguals. Journal of Experimental Psychology: Learning, Memory, and Cognition, 34(4), 859-873. https://doi.org/10.1037/0278-7393.34.4.859
- Bialystok, E., Craik, F. I., & Luk, G. (2008). Lexical access in bilinguals: Effects of vocabulary size and executive control. *Journal of Neurolinguistics*, 21(6), 522-538. https://doi.org/10.1016/j.jneuroling.2007.07.001
- Bialystok, E. (2009). Bilingualism: The good, the bad, and the indifferent. Bilingualism: Language and Cognition, 12(1), 3-11. https://doi.org/10.1017/s1366728908003477
- Bialystok, E. (2017). The bilingual adaptation: How minds accommodate experience. *Psychological Bulletin*, 143(3), 233-262. https://doi.org/10.1037/bul0000099
- Bialystok, E., Craik, F. I., & Luk, G. (2012). Bilingualism: Consequences for mind and brain. *Trends in Cognitive Sciences*, 16(4), 240-250. https://doi.org/10.1016/j.tics.2012.03.001
- BIALYSTOK, E., LUK, G., PEETS, K. F., & YANG, S. (2009). Receptive vocabulary differences in monolingual and bilingual children. *Bilingualism: Language and Cognition*, 13(4), 525-531. https://doi.org/10.1017/s1366728909990423
- Blom, E., & Boerma, T. (2017). Effects of language impairment and bilingualism across domains. *Linguistic Approaches to Bilingualism*, 7(3), 277-300. https://doi.org/10.1075/lab.15018.blo
- Blom, E., & Paradis, J. (2013). Past Tense Production by English Second Language Learners With and Without Language Impairment. Journal of Speech, Language, and Hearing Research, 56(1), 281-294. https://doi.org/10.1044/1092-4388(2012/11-0112)
- Costa, A., & Santesteban, M. (2004). Lexical access in bilingual speech production: Evidence from language switching in highly proficient bilinguals and L2 learners. *Journal of Memory and Language*, 50(4), 491-511. https://doi.org/10.1016/j.jml.2004.02.002
- Edgin, J. O., Kumar, A., Spanò, G., & Nadel, L. (2011). Neuropsychological effects of second language exposure in Down syndrome. *Journal of Intellectual Disability Research*, 55(3), 351-356.

https://doi.org/10.1111/j.1365-2788.2010.01362.x

- Feltmate, K., & Kay-Raining Bird, E. (2008). Language learning in four bilingual children with Down Syndrome: A detailed analysis of vocabulary and morphosyntax. Canadian Journal of Speech-Language Pathology and Audiology, 32, 6–20
- Gahl, S. (2023). Bilingualism as a risk factor for false reports of stuttering in the Early Childhood Longitudinal Study (ECLS-K:2011). Frontiers in Psychology, 14. https://doi.org/10.3389/fpsyg.2023.1155895
- Gollan, T. H., Montoya, R. I., Fennema-Notestine, C., & Morris, S. K. (2005). Bilingualism affects picture naming but not picture classification. *Memory* & amp; Cognition, 33(7), 1220–1234. doi:10.3758/bf03193224

- Gollan, T. H., Montoya, R. I., & Werner, G. A. (2002). Semantic and letter fluency in Spanish-English bilinguals. *Neuropsychology*, 16(4), 562-576. https://doi.org/10.1037/0894-4105.16.4.562
- Gollan, T. H., & Ferreira, V. S. (2009). Should I stay or should I switch? A costbenefit analysis of voluntary language switching in young and aging bilinguals. Journal of Experimental Psychology: Learning, Memory, and Cognition, 35(3), 640-665. https://doi.org/10.1037/a0014981
- Grosjean, F. (2010). Bilingual. https://doi.org/10.4159/9780674056459
- Hernandez, A. E., Martinez, A., & Kohnert, K. (2000). In Search of the Language Switch: An fMRI Study of Picture Naming in Spanish-English Bilinguals. *Brain and Language*, 73(3), 421-431. https://doi.org/10.1006/brln.1999.2278
- Hilchey, M. D., & Klein, R. M. (2011). Are there bilingual advantages on nonlinguistic interference tasks? Implications for the plasticity of executive control processes. *Psychonomic Bulletin & Review*, 18(4), 625-658. https://doi.org/10.3758/s13423-011-0116-7
- Howell, P., Davis, S., & Williams, R. (2009). The effects of bilingualism on stuttering during late childhood. Archives of Disease in Childhood, 94(1), 42-46. https://doi.org/10.1136/adc.2007.134114
- Kroll, J. F., & Bialystok, E. (2013). Understanding the consequences of bilingualism for language processing and cognition. *Journal of Cognitive Psychology*, 25(5), 497-514.

https://doi.org/10.1080/20445911.2013.799170

- Lee, H., & Kim, K. H. (2010). Relationships Between Bilingualism and Adaptive Creative Style, Innovative Creative Style, and Creative Strengths Among Korean American Students. *Creativity Research Journal*, 22(4), 402-407. https://doi.org/10.1080/10400419.2010.523409
- Lee, H., & Kim, K. H. (2011). Can speaking more languages enhance your creativity? Relationship between bilingualism and creative potential among Korean American students with multicultural link. *Personality and Individual Differences*, 50(8), 1186-1190. https://doi.org/10.1016/j.paid.2011.01.039
- Leikin, M., & Tovli, E. (2014). Bilingualism and Creativity in Early Childhood. *Creativity Research Journal*, 26(4), 411-417.

https://doi.org/10.1080/10400419.2014.961779

- Luo, L., Luk, G., & Bialystok, E. (2010). Effect of language proficiency and executive control on verbal fluency performance in bilinguals. *Cognition*, 114(1), 29-41. https://doi.org/10.1016/j.cognition.2009.08.014
- Paap, K. R., Johnson, H. A., & Sawi, O. (2015). Bilingual advantages in executive functioning either do not exist or are restricted to very specific and undetermined circumstances. *Cortex*, 69, 265-278. https://doi.org/10.1016/j.cortex.2015.04.014
- Paradis, J., Crago, M., & Genesee, F. (2006). Domain-General Versus Domain-Specific Accounts of Specific Language Impairment: Evidence From Bilingual Children. Language Acquisition, 13(1), 33-62. https://doi.org/10.1207/s15327817la1301_32.
- Paradis, J., Crago, M., Genesee, F., & Rice, M. (2003). French-English Bilingual Children With SLI. Journal of Speech, Language, and Hearing Research, 46(2), 404-404. https://doi.org/10.1044/1092-4388(2003/er01)



- Paradis, J., Schneider, P., & Duncan, T. S. (2013). Discriminating Children With Language Impairment Among English-Language Learners From Diverse First-Language Backgrounds. Journal of Speech, Language, and Hearing Research, 56(3), 971-981. https://doi.org/10.1044/1092-4388(2012/12-0050)
 - Petersen, J. M., Marinova-Todd, S. H., & Mirenda, P. (2011). Brief Report: An Exploratory Study of Lexical Skills in Bilingual Children with Autism Spectrum Disorder. *Journal of Autism and Developmental Disorders*, 42(7), 1499-1503. https://doi.org/10.1007/s10803-011-1366-y
- Reetzke, R., Zou, X., Sheng, L., & Katsos, N. (2015). Communicative Development in Bilingually Exposed Chinese Children With Autism Spectrum Disorders. *Journal of Speech, Language, and Hearing Research*, 58(3), 813-825. https://doi.org/10.1044/2015_jslhr-l-13-0258
- Rezzonico, S., Chen, X., Cleave, P. L., Greenberg, J., Hipfner-Boucher, K., Johnson, C. J., Milburn, T., Pelletier, J., Weitzman, E., & Girolametto, L. (2015). Oral narratives in monolingual and bilingual preschoolers with SLI. *International Journal of Language & Communication Disorders*, 50(6), 830-841. https://doi.org/10.1111/1460-6984.12179
- Valian, V. (2014). Bilingualism and cognition. *Bilingualism: Language and Cognition*, 18(1), 3-24. https://doi.org/10.1017/s1366728914000522
- Van Dijk, M., Kroesbergen, E. H., Blom, E., & Leseman, P. P. M. (2018). Bilingualism and Creativity: Towards a Situated Cognition Approach. *The Journal of Creative Behavior*, 53(2), 178-188. https://doi.org/10.1002/jocb.238.