

The Asian EFL Journal

May 2018

Volume 20, Issue 5



Senior Editor:
Paul Robertson



Published by English Language Education Publishing

Asian EFL Journal
A Division of TESOL Asia Group
Part of SITE Ltd. Australia

<http://www.asian-efl-journal.com>

©Asian EFL Journal 2018

This book is in copyright. Subject to statutory exception no reproduction of any part may take place without the written permission of the Asian EFL Journal Press.

No unauthorized photocopying

All rights reserved. No part of this book may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying or otherwise, without the prior written permission of the Asian EFL Journal.

editor@asian-efl-journal.com
Publisher: Dr. Paul Robertson
Chief Editor: Dr. Paul Robertson
Associate Production Editor: Ramon Medriano Jr.
Assistant Copy Editor: Eva Guzman

ISSN 1738-1460

Title

Bilingualism: The Beneficial and Contradictory Findings

Author

Muhammad Ahkam Arifin

Universitas Islam Negeri (UIN) Alauddin Makassar

Bio-Profile:

Muhammad Ahkam Arifin is a teaching assistant at English Education Department, Teaching and Science Faculty of *Universitas Islam Negeri (UIN) Alauddin Makassar* (Alauddin State Islamic University of Makassar). He took his Master`s degree at MSc TESOL Programme at the University of Edinburgh, United Kingdom. He can be contacted via *ahkam.arifin@gmail.com*.

Abstract:

Historically bilinguals were often associated with low intelligence, high mental confusion, and limited number of vocabularies. In their seminal work Peal and Lambert (1962), however, reported that bilingual children significantly outperformed monolinguals on verbal and nonverbal intelligence tests. This paper first reviews the benefits that bilinguals have when acquiring an additional language. Secondly, the cognitive benefits will be explored, particularly the bilingual advantage in executive functioning (EF), empirically linked with general intelligence and the ability to better cope with brain damage (e.g., dementia) mostly known as “cognitive reserve”. This paper culminates with presenting speculations why some studies report contradictory findings.

Keywords: *bilingualism, multilingualism, metalinguistic awareness, executive functions (EF), cognitive reserve*

Introduction

In the past, some psycholinguists and linguists expressed concern over perceived intellectual disadvantages of bilingualism. Saer (1923) and Smith (1923), for instance, revealed

that monoglot (monolingual) children had a better intelligence, higher number of vocabularies, and lower mental confusion than did bilingual children (see also Jones & Stewart, 1951; Darcy, 1963 for review). Seemingly, however, it was Peal and Lambert (1962) who, initially, showed researchers the opposite direction by showing that bilingual children performed significantly better on both verbal and nonverbal intelligence test than did monolingual children.

Currently, researchers from such different fields as cognitive psycholinguistics, sociolinguistics, neurolinguistics, education, and others are actively focusing on studying the beneficial implications of being bilinguals and multilinguals (e.g., Calvo, A., & Bialystok, 2014; see Bialystok, 2009 for review). Considering most second language acquisition (SLA) studies still define multilingualism as a synonym of bilingualism (e.g., Saville-Troike, 2012), in this paper I will refer bilingualism as the ability to use two languages (R. Ellis, 1994) and multilingualism as the ability to use three or more languages (McArthur, 1992). Bilinguals and multilinguals may not have equal proficiency in their languages (Kemp, 2009).

Linguistic Changes

One of the implications of being bi/multilinguals is the enhancement of metalinguistic awareness (Cenoz, 2013) as a result of structural knowledge of more languages (Jessner, 1999) and focusing upon the similarities and differences between languages (Lado's Contrastive Analysis) (James, 1999). Metalinguistic awareness is generally considered to be able to facilitate language learning (Ringbom, 1987; Lasagabaster, 1997; Cenoz & Valencia, 1994). However, there appears diversity in defining the term metalinguistic awareness. Jessner (2006) uses metalinguistic awareness, language awareness, and linguistic awareness synonymously, while Masny (1997) offers a distinction between language awareness and linguistic awareness, or metalinguistic awareness (for further discussion, see Kemp, 2001). Metalinguistic awareness tends to be associated with explicit knowledge about language (Ellis, 1993; Roehr, 2008), but can also be implicit (Kemp, 2001). Metalinguistic ability manifests itself in the form of phonological awareness, word awareness, syntactic awareness, or pragmatic awareness (Yopp, 1988).

Interestingly, though, only certain conditions may enhance the metalinguistic awareness of bilinguals and multilinguals such as having literacy in the first and second language (Kemp, 2001; Sanz, 2000 Cenoz, & Valencia, 1994) and being highly proficient in both languages (Ricciardelli, 1992). It is related to the threshold theory proposed by Cummins (1976, 1991), that is, high level proficiency in two languages may bring beneficial effects

(upper threshold), whereas low level of proficiency may bring no changes and even negative effects (lower threshold). Nonetheless, this speculation may not also apply in all contexts, for Yelland et al. (1993) found that English children learning Italian within only six months – one hour of instruction per week – were shown to have a significantly higher level word awareness than their monolingual counterparts. Furthermore, bilingualism may result in negative consequences if the first language is in danger to be replaced by the second language (subtractive bilingualism), as opposed to additive bilingualism (Lambert, 1974, 1981; Cenoz, & Valencia, 1994).

After controlling age, socioeconomic class, gender, parents' education, Kang (2012) reported that bilingual children having literacy both in Korean as their native language (L1) and English as a foreign language (L2) outperformed Korean monolingual children who also had literacy in Korean in the test of phonological awareness in Korean. In their study, Loizou and Stuart (2003) also indicated that bilingual English-Greek children had significant superiority over monolingual English children in phonological awareness, but no significant difference between bilingual Greek-English children and monolingual Greek children. They concluded that the bilingual enhancement effect might apply only if the second language is phonologically simpler than the first language. Although most studies have so far shown the bilingual advantage in metalinguistic tasks, yet not necessarily in all tasks (see Bialystok, 2001 for review).

Having more language learning strategies is said to be another advantage for bilinguals and multilinguals as a result of their previous learning (Nayak, Hansen, Krueger, & McLaughlin, 1990). Kemp (2007) for example showed that learners who had more languages in their repertoire know more strategies in learning grammar and more frequently apply those strategies. Examining undergraduate students, Psaltou-Joycey and Kantaridou (2009) also asserted trilinguals had better flexibility in using more language learning strategies than individuals who are bilinguals, with advanced trilinguals using strategies more frequently. Although Kemp (2007) and Nayak, Hansen, Krueger, and McLaughlin (1990) emphasized there was no direct link between the use of more strategies and being a better language learner, successful language learners are always associated with having and using more strategies in language learning (Oxford, 1994).

Becoming more sensitive to the communicative needs of their interlocutors, and being able to apply a variety of strategies in maintaining the conversation, appears to be an additional edge to bilinguals (Thomas, 1992: see also Cenoz, 2003 for review). Observing her own husband and her two children using English and Korean in their daily lives, Chung (2006)

concluded codeswitching, as a communication strategy within her family, functioned as lowering language barriers and consolidating cultural identity. She defined codeswitching as the ability to switch from one language to another and as a synonym for codemixing (see Muysken, 2000 for a distinction). Some scholars may refer codeswitching to the ability of using more than one variety in a single conversation (Toribio & Bullock, 2012) or style (Romaine, 1995): there emerges fuzzy boundaries between languages and varieties (Kemp, 2009). If codeswitching may help maintain the conversation, then it should also benefit language learners in learning language, as is the case in Task Based Language Teaching (TBLT), learners are said to acquire language through output (Ellis, 2003; Nunan, 2004). Furthermore, codeswitching may also become a language learning strategy (Arnfast & Jørgensen, 2003). Codeswitching is, also, regularly associated with scaffolding (Saville-Troika, 2006; 2012). That is, language learners may get scaffolded (support) by their peers in the classroom in learning language or performing tasks by codeswitching (Swain & Lapkin, 2013).

Some other self-evident benefit of being bilinguals or multilinguals is having the opportunity to speak with people from different communities, strike new friendships, and have the opportunity to build good mutual understanding among different communities. For example, currently, being able to speak more than one language enables me to live abroad and study in a university, where a language different from my native language (Indonesian) is used as its medium of instruction. Now I realise more the importance of having another language as I can get more information by reading resources written not only in Indonesian language but also in English language. It means I can acquire more knowledge, i.e. through reading journal articles in two different languages. Moreover, with the opportunity to meet and get to know people from around the world, I can learn additional cultures, different from my own. Conversely, I can introduce my native culture to others that may contribute to the increase of cultural sensitivity (intercultural awareness) and, of course, to bring about mutual understanding. Language learners, including myself, may also get benefits with the ability to do translation from one language to another language. Not only is translation important regarding sharing information or knowledge to others, but it has also been perceived to be an effective means of language learning, protecting learners' linguistic and cultural identity (Hall, and Cook, 2012)

Cognitive Changes

As a result of codeswitching which requires monitoring in selecting appropriate language, activating the selected language, and inhibiting the other language(s), bi/multilinguals seem to benefit from learning languages in executive processing (EP), also called executive function (EF), that is, the ability to inhibit those that are not irrelevant and competing (inhibition), to switch from one task to a completely different task (task-switching), and to monitor goal-setting cues (attention) (Marian & Shook, 2012; Paap & Greenberg, 2013). EP has been empirically shown to be linked with general intelligence (Kyllonen, 2002; Gray & Thompson, 2004).

For example, Bialystok, Craik, and Luk (2008) showed the overall superiority of young and older bilinguals in inhibitory control over young and older monolingual by applying Simon, Stroop and Sustained Attention to Response (SART) task. Furthermore, Blumenfeld and Marian (2014) also found that university-age bilinguals performed better than monolinguals in cognitive control tasks of Simon and Troop tasks. Additionally, in Flanker task, after controlling culture (socio-economic) variable, Yang, Yang, and Lust (2011) also showed bilingual children's advantage.

Regarding task-switching ability, Prior and MacWhinney (2010) reported the advantage of female fluent bilinguals with diverse native languages studying in an American university over English monolinguals in a non-linguistic task switching paradigm. Controlling age and gender, Garbin et al. (2010) in their study using color-shape switching task (a non-linguistic task switching paradigm) also reported fluent Catalan-Spanish university students advantage over Spanish monolinguals. Again with a similar task-switching paradigm, Prior and Gollan's report (2011) exhibited smaller task-switching costs experienced by fluent Spanish-English bilinguals than monolingual English speakers.

To find out whether or not bilinguals have better attention, Bialystok (1999) carried out a study of sixty preschool children who had not received any formal instruction on reading. Half of those children were Chinese-English bilinguals and the rest were English monolinguals. Both groups include children of middle-class provenience. By using Visually-Cued Recall Task, Moving Word Task, Dimensional Change Card Sort Task, she found that bilingual children outperformed monolinguals through showing better abilities in solving problems that were based on conflict and attention. Similarly, Soveri et al. (2011) highlighted such stance with their study, where both 30-50-year-olds and 60-74-year-olds bilinguals were more skilled in focusing attention and ignoring task-irrelevant stimuli.

Amazingly, language learners may get benefits from learning languages with cognitive reserve, that is, the efficiency and capacity of the brain to actively deal with brain damage through the implementation of cognitive processes, leading to the enhancement of brain function during aging (La Rue, 2010; Marian & Shook, 2012). Bialystok, Craik, and Freedman (2007) conducted a study on the records of monolingual (with the average age of 75.4) and bilingual patients (with the average age of 78.6) with cognitive complaints who had been diagnosed with various kinds of dementia (e.g., Alzheimer's diseases and a series of strokes). They found that the bilinguals were shown to have delayed symptoms of dementia for 3 – 4 years later than the monolinguals (see also Craik, Bialystok, & Freedman, 2010). Mitchell et al.'s study (2004) confirmed that learning languages and actively using them may increase the density of grey matter, that is, part of the brain responsible for information processing (Cheshire, 2006) as well as the density of white matter (Li, Legault, & Litcofsky, 2014), which functions as a connector of grey matter regions and responsible for transmission information (Cheshire, *ibid*).

Nevertheless, there have also been some studies that see no coherent evidence for the superiority of bilinguals in EP (see Hilchey & Kellin, 2011 for review). For instance, Paap and Greenberg (2013) reported no advantage of highly fluent bilinguals over monolinguals in EP. The authors applied the task anti-saccade, Simon, and flanker, colour-shape switching, and Ravens Advanced Matrices. Controlling sociocultural variables, Kousaie and Phillips (2012) also reported no bilingual advantage both in young and older adults. The participants of their study were English-French bilinguals who had learned both French and English simultaneously from birth (early and simultaneous bilingualism) and actively used both of their languages on a daily basis (see also Morton & Harper, 2007).

Regarding Alzheimer's disease, Chertkow et al. (2010) found no overall significant bilingual advantage in relation to age at diagnosis or age at symptom onset, yet indicated the advantage of multilinguals. Furthermore, as a result of the activation of the two consistently competing languages (Marian & Shook, 2012), bilinguals tend to be associated with harmful implications both in a smaller vocabulary size in each language and lexical retrieval (e.g., naming picture slowly, tip-of-the-tongue experiences) (see Bialystok, 2009 for review). Nonetheless, Bialystok (*ibid*) argued that the exact causes of the experience of deficits in lexical have not been clear. One proposed reason of this experience is the fact that bilinguals use both of their languages not as often as do monolinguals (Weaker Link Hypothesis) (Michael & Gollan, 2005).

Metacognitive Changes

Learning languages has been shown to be able to increase language learners' metacognitive awareness. Le Pichon Vorstman et al. (2009) reported children's metacognitive awareness could be enhanced by having them experience learning a language in a formal setting. They continued that the similar enhancement of metacognitive awareness was not shown in children who had no specific experience learning English in a formal context. The authors defined metacognitive awareness as self-awareness of one's own learning strategies and mental activities to self-regulate the process of learning involving cognitive processes (e.g., memory, comprehension, learning and attention). Metalinguistic and metacognitive awareness seem to be fuzzy boundaries. For example, Kabuto (2011) stated that metacognitive can be enhanced by comparing similarities and differences of language structure (for further discussion, see Kemp 2011). Importantly, also bi/multilingualism now has been associated with creativity, or divergent thinking (Kharkhurin & Wei, 2015).

Conclusion

Although most of studies now have shown the bi/multilingual advantage over their monolingual counterparts, there are also studies that find no coherent evidence of this advantage. Some speculations of the problems in methodology of each study have been put forth. Kemp (2001), for example, has highlighted at least two conditions that may block this advantage: (1) if acquiring an additional language may replace the learner's native language (subtractive bilingualism), and (2) if the learner is not literate in his native language(s). Nonetheless, such speculation may not be true, to the extent that some studies have shown no bilingual advantage after controlling socioeconomic and cultural variables, and even with participants who have literacy in both of their languages. Clearly, there is a need to conduct a holistic study in the sense that it can cover all potential variables that may influence the result of the studies. A longitudinal study may be needed.

References

- Antoniou, M., Liang, E., Ettliger, M., & Wong, P. C. (2015). The bilingual advantage in phonetic learning. *Bilingualism: Language and Cognition*, 18(04), 683-695.
- Arnfast, J. S., & Jørgensen, J. N. (2003). Code-switching as a communication, learning, and social negotiation strategy in first-year learners of Danish. *International Journal of Applied Linguistics*, 13(1), 23-53.

- Bialystok, E. (1999). Cognitive complexity and attentional control in the bilingual mind. *Child development, 70*(3), 636-644.
- Bialystok, E. (2001). Metalinguistic aspects of bilingual processing. *Annual Review of Applied Linguistics, 21*, 169-181.
- Bialystok, E. (2009). Bilingualism: The good, the bad and the indifferent. *Bilingualism: Language and Cognition, 12*, 3-11.
- 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.
- Blumenfeld, H. K., & Marian, V. (2014). Cognitive control in bilinguals: Advantages in Stimulus–Stimulus inhibition. *Bilingualism: Language and Cognition, 17*(03), 610-629.
- Calvo, A., & Bialystok, E. (2014). Independent effects of bilingualism and socioeconomic status on language ability and executive functioning. *Cognition, 130*(3), 278-288.
- Cenoz, J. (2003). The additive effect of bilingualism on third language acquisition: A review. *International Journal of Bilingualism, 7*(1), 71-87.
- Cenoz, J. (2013). The influence of bilingualism on third language acquisition: Focus on multilingualism. *Language Teaching, 46*(01), 71-86.
- Cenoz, J. and J. Valencia (1994) Additive trilingualism: Evidence from the Basque Country. *Applied Psycholinguistics 15*, 255–74.
- Chertkow, H., Whitehead, V., Phillips, N., Wolfson, C., Atherton, J., & Bergman, H. (2010). Multilingualism (but not always bilingualism) delays the onset of Alzheimer disease: evidence from a bilingual community. *Alzheimer Disease & Associated Disorders, 24*(2), 118-125.
- Cheshire Jr, W. P. (2006). Neuroscience, nuance, and neuroethics. *Ethics & Medicine, 22*(2), 71.
- Chung, H. H. (2006). Code switching as a communicative strategy: A case study of Korean–English bilinguals. *Bilingual research journal, 30*(2), 293-307.
- Craik, F. I., Bialystok, E., & Freedman, M. (2010). Delaying the onset of Alzheimer disease Bilingualism as a form of cognitive reserve. *Neurology, 75*(19), 1726-1729.
- Cummins, J. (1976). The influence of bilingualism on cognitive growth. *Working Papers on Bilingualism, 9*, 1– 43.
- Cummins, J. (1978). Bilingualism and the development of metalinguistic awareness. *Journal of Cross-Cultural Psychology, 9*, 1131–1149.

- Darcy, N. T. (1963). Bilingualism and the measure of intelligence: Review of a decade of research. *Journal of Generic Psychology*, 82, 259 - 282.
- Ellis, N. (1993). Rules and instances in foreign language learning: Interactions of explicit and implicit knowledge. *European Journal of Cognitive Psychology*, 5(3), 289-318.
- Ellis, R. (2003). *Task-based language learning and teaching*. Oxford: Oxford University Press.
- Garbin, G., Sanjuan, A., Forn, C., Bustamante, J. C., Rodríguez-Pujadas, A., Belloch, V., & Ávila, C. (2010). Bridging language and attention: Brain basis of the impact of bilingualism on cognitive control. *NeuroImage*, 53(4), 1272-1278.
- Gray, J. R., & Thompson, P. M. (2004). Neurobiology of intelligence: science and ethics. *Nature Reviews Neuroscience*, 5(6), 471-482.
- Hall, G., and Cook, G. (2012). Own-language use in language teaching and learning: state of the art. *Language Teaching*, 45(3). pp. 271-308. ISSN 0261-4448.
- Hilchey, M. D., & Klein, R. M. (2011). Are there bilingual advantages on nonlinguistic interference tasks? Implications for plasticity of executive control processes. *Psychonomic Bulletin & Review*, 18, 625–658.
- James, C. (1999). Language Awareness: Implications for the Language Curriculum, *Language, Culture and Curriculum*, 12:1, 94-115, DOI: 10.1080/07908319908666571
- Jessner, U. (1999). Metalinguistic awareness in multilinguals: Cognitive aspects of third language learning. *Language Awareness*, 8(3-4), 201-209.
- Jessner, U. (2006). *Linguistic awareness in multilinguals: English as a third language*. Edinburgh University Press.
- Jones, W. R., & Stewart, W. A. C. (1951). Bilingualism and verbal intelligence. *British Journal of Statistical Psychology*, 4(1), 3-8.
- Kabuto, B. (2011). *Becoming biliterate: Identity, ideology, and learning to read and write in two languages*. NY: Routledge.
- Kang, J. Y. (2012). Do bilingual children possess better phonological awareness? Investigation of Korean monolingual and Korean-English bilingual children. *Reading and Writing*, 25(2), 411-431.
- Kemp, C. (2001). *Metalinguistic awareness in multilinguals: Implicit and explicit grammatical awareness and its relationship with language experience and language attainment* (Doctoral dissertation, University of Edinburgh).
- Kemp, C. (2007). Strategic processing in grammar learning: Do multilinguals use more strategies?. *International Journal of Multilingualism*, 4(4), 241-261.

- Kemp, C. (2009). Defining multilingualism. In L. Aronin & B. Hufeisen (Eds.), *The exploration of multilingualism: Development of research on L3, multilingualism, and multiple language acquisition* (pp. 11–26). Amsterdam, the Netherlands: John Benjamins.
- Kharkhurin, A. V., & Wei. L. (2015). The role of code-switching in bilingual creativity. *International Journal of Bilingual Education and Bilingualism, 18*:2, 153-169, DOI: 10.1080/13670050.2014.884211.
- Kousaie, S., & Phillips, N. A. (2012). Ageing and bilingualism: Absence of a “bilingual advantage” in Stroop interference in a nonimmigrant sample. *The Quarterly Journal of Experimental Psychology, 65*(2), 356-369.
- Kyllonen P., C. (2002). g: Knowledge, speed, strategies, or working-memory capacity? A systems perspective. In: Stemberg R. J., Grigorenko E. L., (Eds.). *rs. The general factor of intelligence: How general is it?* Mahwah, NJ: Lawrence Erlbaum Associates.
- Lambert, W. E. (1974). Culture and language as factors in learning and education. In F. E. Abour & R. D. Meade (Eds.), *Cultural factors in learning and education* (pp.91–122). Bellingham, Washington: 5th Western Washington Symposium on Learning.
- Lambert, W. E. (1981). Bilingualism and language acquisition. In J. Winitz (Ed.), *Native language and foreign language acquisition* (pp. 9-22). New York: The New York Academy of Sciences.
- Le Pichon Vorstman, E., De Swart, H., Ceginkas, V., & Van Den Bergh, H. (2009). Language learning experience in school context and metacognitive awareness of multilingual children. *International Journal of Multilingualism, 6*(3), 258-280.
- Li, P., Legault, J., & Litcofsky, K. A. (2014). Neuroplasticity as a function of second language learning: anatomical changes in the human brain. *Cortex, 58*, 301-324.
- Loizou, M., & Stuart, M. (2003). Phonological awareness in monolingual and bilingual English and Greek five-year-olds. *Journal of Research in Reading, 26* (1), 3-18.
- Marian, V. & Shook, A. (2012). The cognitive benefits of being bilingual. *Cerebrum 13* (online). Available at: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3583091/>
- Mechelli, A., Crinion, J.T., Noppeney, U., O’Doherty, J., Ashburner, J., Frackowiak, R.S., Price, C.J. (2004). Structural plasticity in the bilingual brain. *Nature 431*(7010): 757.
- Michael, E. B., & Gollan, T. H. (2009). Being and becoming bilingual. Individual differences and consequences for language production. In Kroll & de Groot (eds.), pp. 389-407.
- Morton, J. B., & Harper, S. N. (2007). What did Simon say? Revisiting the bilingual advantage. *Developmental science, 10*(6), 719-726.

- Muysken, P. (2000). *Bilingual speech. A typology of code-switching*. Oxford: Cambridge University Press
- Nayak, N., Hansen, N., Krueger, N., & McLaughlin, B. (1990). Language-Learning Strategies in Monolingual and Multilingual Adults. *Language Learning*, 40(2), 221-244.
- Nunan, D. (2004). *Task-based language teaching*. Cambridge: Cambridge University Press.
- Oxford, R. L. (1994). *Language learning strategies: An update*. ERIC Clearinghouse on Languages and Linguistics, Center for Applied Linguistics.
- Paap, K. R., & Greenberg, Z. I. (2013). There is no coherent evidence for a bilingual advantage in executive processing. *Cognitive psychology*, 66(2), 232-258.
- Peal, E., & Lambert, W. E. (1962). The relation of bilingualism to intelligence. *Psychological Monographs: general and applied*, 76(27), 1.
- Pratt, C. & Grieve, R. (1984). Metalinguistic awareness and cognitive development. In W. E. Tunmer, C. Pratt & M. L. Herriman (eds), *Metalinguistic awareness in children*. New York: Springer-Verlag.
- Prior, A., & Gollan, T. H. (2011). Good language-switchers are good task-switchers: Evidence from Spanish–English and Mandarin–English bilinguals. *Journal of the International Neuropsychological Society*, 17(04), 682-691.
- Prior, A., & MacWhinney, B. (2010). A bilingual advantage in task switching. *Bilingualism: Language and cognition*, 13(02), 253-262.
- Psaltou-Joycey, A., & Kantaridou, Z. (2009). Plurilingualism, language learning strategy use and learning style preferences. *International Journal of Multilingualism*, 6(4), 460-474.
- Roehr, K. (2008). Linguistic and metalinguistic categories in second language learning. *Cognitive Linguistics*, 19(1), 67-106.
- Romaine, S. (1995). *Bilingualism (2nd edition)*. Oxford: Blackwell.
- Saer, D. J. (1923). The effect of bilingualism on intelligence. *British Journal of Psychology. General Section*, 14(1), 25-38.
- Sanz, C. (2000). Bilingual education enhances third language acquisition: Evidence from Catalonia. *Applied psycholinguistics*, 21(1), 23-44.
- Saville-Troika, M. (2006). *Introducing second language acquisition: first edition*. Cambridge University Press.
- Saville-Troika, M. (2012). *Introducing second language acquisition: second edition*. Cambridge University Press.
- Smith, F. (1923). Bilingualism and mental development. *British Journal of Psychology. General Section*, 13(3), 271-282.

- Soveri, A., Laine, M., Hämäläinen, H., & Hugdahl, K. (2011). Bilingual advantage in attentional control: Evidence from the forced-attention dichotic listening paradigm. *Bilingualism: Language and Cognition, 14*(03), 371-378.
- Swain, M., & Lapkin, S. (2013). A Vygotskian sociocultural perspective on immersion education: The L1/L2 debate. *Journal of immersion and content-based language education, 1*(1), 101-129.
- Thomas, J. (1992). Metalinguistic awareness in second- and third-language learning. In R. J. Harris (Ed.), *Cognitive processing in bilinguals* (pp. 531–545). Amsterdam: North Holland.
- Toribio, A. J., & Bullock, B. E. (Eds.). (2012). *The Cambridge handbook of linguistic code-switching*. Cambridge University Press.
- Yang S, Yang H, Lust B. (2011). Early childhood bilingualism leads to advances in executive attention: Dissociating culture and language. *Bilingualism: Language and Cognition, 14*, 412–422.
- Yelland, G. W., Pollard, J., & Mercuri, A. (1993). The metalinguistic benefits of limited contact with a second language. *Applied psycholinguistics, 14*(04), 423-444.
- Yopp, H. K. (1988). Metalinguistic Awareness and Bilingualism. *Journal of Educational Issues of Language Minority Students, 3*, 49-56.