

BILINGUALITY AND SOCIOECONOMIC STATUS (SES): APPROACHING NON-SINGULAR FACTOR TO A CHILD'S COGNITIVE DEVELOPMENT

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ABSTRACT

Article attempted to argue that bilingualism have positive contributions toward a child's cognitive development. By applying library research the discussion is focused on the contribution bilingualism had in mitigating socioeconomic detrimental effects on a child's learning. Article started with discussing aspects of cognition, especially those shown through speech productions, of a bilingual child, then moving forward to discuss previous findings and arguments from the research pertaining to the issue of low socioeconomic status (henceforth SES) and cognition. Finally, the discussion concluded that bilingualism should be discussed as a complex system of learning and not as separate strands of a child's learning.

Keywords: *bilinguality, sosioeconomic status, cognitive development, children*

ABSTRAK

Artikel menjelaskan bahwa bilingualisme mempunyai kontribusi positif terhadap perkembangan kognitif anak. Dengan menggunakan metode studi pustaka diskusi difokuskan pada sejauh mana kontribusi bilingualisme yang mampu meringankan dampak kerusakan sosial ekonomi terhadap pembelajaran anak. Artikel dimulai dengan mendiskusikan aspek kognitif, khususnya yang ditunjukkan kemampuan berbicara anak yang mempunyai bilingual, kemudian mendiskusikan hasil penelitian terdahulu, dan argumentasi riset terkait dengan isu status sosioekonomi yang rendah dengan kemampuan kognisi. Akhirnya, analisis menyimpulkan bahwa bilingualisme seharusnya didiskusikan sebagai suatu sistem pembelajaran yang kompleks, dan tidak terbatas pada pembelajaran anak.

Kata kunci: *bilingual, status sosial ekonomi, perkembangan kognitif, anak*

INTRODUCTION

Early 1970s marked the start of rigorous discussions on how socioeconomic labeling can be derived from speech-productions. Basil Bernstein's social psychological perspectives on restricted and elaborated code had triggered various reactions on the impediments to learning caused by socioeconomic factors (Labov, 1972; Danzig, 1995). The opponents argue that the notion is heavily biased to middle-class family and even may not be relevant to communities outside US, or white people (Labov in Douglas, 2013; and Bohlmann, 2013).

Within the discussion of bilingualism, Bernstein's theory acts as the proponent of the verbal-deficit approach, and identifies low socioeconomic conditions as detrimental to cognition (Bernstein, 1961). His words, 'preventing the wastage of working class educational potential' (Bernstein, 1961:368), was often misunderstood and later on labeled quite inseparably with 'cultural deficit' theory (Sadovnik, 2001:687). Growing out from Bernstein's controversial and misunderstood finding, the issue of low SES and cognition is worth studying, both as a part of sociological discussion on education and more specifically as part of the study of linguistics.

Article attempts to argue that bilingualism have positive contributions toward a child's cognitive development. In this occasion the discussion is focused on the contribution bilingualism has in mitigating socioeconomic detrimental effects on a child's learning. In doing so, article will start by discussing aspects of cognition, especially those shown through speech productions, of a bilingual child, then moving forward to discuss previous findings and arguments from the research pertaining to the issue of low socioeconomic status (henceforth SES) and cognition. Finally, the discussion will conclude that bilingualism should be discussed as a complex system of learning and not as separate strands of a child's learning.

METHODS

Article applied a library research as the approach for its arguments. It began by displaying major findings from the area of language acquisition. The next step was discussing research findings in cognition of bilingual children, which also included research in SES and bilingualism. Finally conclusion was drawn and further implication on research in this area was offered.

RESULTS AND DISCUSSIONS

Studies in Bilingualism discuss the issues of language acquisition and the development of cognition (Peal, 1962; McNab, 1979; Pinker, 1994; Baker, 2001, Bialystok, 2001; Goodz and Poulin-Dubois, 2001; Hamers & Blanc, 2004; Yip, 2007; Montrul, 2008; Adesope, 2010). Within the area of acquisition, research flourishes to explain how a child could manage the learning by negotiating the languages (Hamers & Blanc, 2004; Goodz & Poulin-Dubois, 2001). In explaining the child's cognition development, the works presented by Bialystok, a neuropsychologist, are often cited and her works have given more fundamental ground on how Bilingualism

process has been mapped in the brain of a child (Bialystok, 1997, 2001, 2010, 2011). More interestingly, the child's environment and whole aspects of life have been noted to be contributive to the overall cognition and language development (Pinker, 1994; Yip, 2007; Baker, 2001; Hamers & Blanc, 2004).

Connections between bilingualism and the child's socioeconomic environment become increasingly important area to be explored (Bialystok, 2010; Adesope, 2010; Leikin, 2013) and become the important assumption for any current bilingualism study. Following this assumption, a study by Poulin-Dubois and Goodz (2001) was initiated by the curiosity to find more evidence whether early exposure to two languages may have detrimental affect towards language acquisition. The study was conducted among middle-class SES babies. The babies were still in their babbling stage and the researcher found out that the babies were babbling in the dominant languages, English and French. The study suggested that there was no different functioning in either one of the languages and therefore no negative effect had been shown towards language acquisition caused by bilingualism.

In studies of bilingualism and bilinguality, the age of bilingual children has been known to be a success factor (Chomsky, 1981 in Bialystok, 2001; Hamers & Blanc, 1989, 2004). While there is a prevalent preference on early age, bilingualism in adults is an area of interest in the study of Bilingualism. Montrul (2008) discussed cases of adults acquiring new languages and discussed the validity of a biological or critical period (initially introduced by Chomsky). Her research also provided important explanation on the outcome of late bilingualism. Montrul's research correspondingly became the hallmark of adult L2 acquisition and behavior.

Another study conducted in 2010 provided data from previous 63 studies (involving 6,022 participants). The meta-analysis was the result of extraction of this vast pool of data, following some established protocols and procedures. The extracted data showed that bilingualism is reliably associated with several cognitive outcomes (Adesope, 2010). These outcomes include increased attentional control, working memory, metalinguistic awareness, and abstract and symbolic representation skills. (Adesope, 2010).

Following this study Leikin (2013) had examined the possible effect of bilingualism on creativity. The study was carried out involving nonmathematical and mathematical problem solving among very young bilingual and monolingual preschoolers (Leikin, 2013). The results showed that early bilingualism and bilingual education influenced the children's general and mathematical creativity with the differences were in favor of the bilinguals (Leikin, 2013). On the ground of these previous studies, I would like to discuss how SES would contribute in the overall discussion of bilingualism and cognitive development.

This is important to start with the definition on Bilingualism. Unlike many misconceptions posited by common people (among the myths are bilingualism will create semilingual children and bilinguals are people with split-personalities), Grosjean (2002, in an interview) says that:

“Bilingualism is the use of two (or more) languages in one’s everyday life and not knowing two or more languages equally well and optimally (as most laypersons think)” - http://www.francoisgrosjean.ch/interview_en.html

This statement is echoed by Hamers and Blanc (2004) by saying that bilingualism is simply “languages in contact” (2004:1). In more specific, Hamers and Blanc (2004) uses the term bilinguality to discuss bilingualism in personal level, which is related to the bilingual individuals. This natural position has previously been stated by Pinker (1994), saying that the acquisition of a language itself is indeed an innate capacity, an instinct. By this notion, there are various nuances of bilingualism, of whether it is consecutive or simultaneous bilingualism and aspects related to bilingualism, such as age, context and other socio-cultural factors.

Grosjean (2002) later added that bilinguals are unique and worth to be studied as such and not always in comparison with the monolinguals. This is because a bilingual “uses two languages - separately or together - for different purposes, in different domains of life, with different people” (Grosjean, 2002). Most often, because the needs and aims of the two languages being used are different, the language performed is rarely equally or completely of the same fluency. He said further that Bilingualism has become the norm in today’s world (in Hamers and Blanc, 2004). Hamers and Blanc (2004) underlines this notion and even commented that it will be the monolinguals which should be considered as unique or anomalies in this globalized world.

Moreover, commenting on Bernstein verbal-deficit perspective, Grosjean (2002) says that bilinguals use to find themselves at various points along a situational continuum which induce particular language modes, or with Bernstein’s term code. Therefore, occurrence of interference, code-switching, borrowing, and others are well served in their own contexts. This is therefore, should not be mistaken as linguistic or communication inability (Grosjean, 2002).

Following Hamers and Blanc (1989 in 2004) range of acquisition period of bilingual children, competence in both languages are often seen from the side of balanced bilinguals. These mean, studies done claiming bilingualism negative contribution to cognitive development are often biased, because these study only include children who are expected to show similar proficiency in two languages (Hamers and Blanc, 2004).

Similar concern has also been posited by Peal and Lambert (1962, in Hamers & Blanc, 2004) as well as McNab (1979 in Hamers & Blanc, 2004). They noted that selecting only to balanced bilingual subjects there could be biased in the findings. Hakuta and Diaz (1985 in Hamers & Blanc, 2004) showed that more balanced bilingual children scored higher on non-verbal intelligence tests. To this point, cognitive development showed no direct link to the children’s SES background, but rather their age of acquisition.

I therefore argue that SES becomes one of the factors for bilingualism. This previously has been mentioned by Grosjean (2002), saying that there are many possible reasons on why one becomes a bilingual.

Noble, Norman, and Farah reported their study in 2005 showing evidence of clear association between childhood SES and executive function performance. Aspects of this association are the family environment, particularly factors involving the quality of the parent-child relationship and the children ability to cope with stress. Although the research is still in its early stage, it is important to underline that the existence of SES-related differences in executive function and brain function may vary and may change according to situations (Noble, Norman, & Farah, 2005).

The findings on brain-related activities in bilingual children have been discussed in great competence by Ellen Bialystok. In one of her articles, Bialystok (2010) strongly presented the benefits of being bilinguals showing more dominant executive control in nonverbal tasks requiring conflict resolution. She also discusses the system in which bilingual children control the use of the language, borrowing the theories of binding from Noam Chomsky, which later develops into the development of

Dimension	Type of bilinguality	Comments*
1. according to competence in both languages	(a) balanced bilinguality	$L_{A,1}$ competence = $L_{B,2}$ competence
	(b) dominant bilinguality	$L_{A,1}$ competence > or < $L_{B,2}$ competence
2. according to cognitive organisation	(a) compound bilinguality	$L_{A,1}$ unit equivalent to $L_{B,2}$ unit = one conceptual unit
	(b) coordinate bilinguality	$L_{A,1}$ unit = one conceptual unit 1 $L_{B,2}$ equivalent = one conceptual unit 2
3. according to age of acquisition	(a) childhood bilinguality	$L_{B,2}$ acquired before age of 10/11
	(i) simultaneous	L_1 and L_2 = mother tongues
	(ii) consecutive	L_1 = mother tongue; L_2 acquired before 11
	(b) adolescent bilinguality	L_2 = acquired between 11 and 17
4. according to presence of L_2 community in environment	(c) adult bilinguality	L_2 = acquired after 17
	(a) endogenous bilinguality	presence of L_2 community
	(b) exogenous bilinguality	absence of L_2 community
5. according to the relative status of the two languages	(a) additive bilinguality	$L_{A,1}$ and $L_{B,2}$ socially valorised → cognitive advantage
	(b) subtractive bilinguality	L_2 valorised at expense L_1 → cognitive disadvantage
6. according to group membership and cultural identity	(a) bicultural bilinguality	double membership and bicultural identity
	(b) L_1 monocultural bilinguality	$L_{A,1}$ membership and cultural identity
	(c) L_2 acculturated bilinguality	$L_{B,2}$ membership and cultural identity
	(d) deculturated bilinguality	ambiguous membership and anomic identity

Figure 1 Summary table of psychological dimensions of bilinguality (Hamers & Blanc, 2004:26)

government-binding theory (Chomsky, 1981) and later simplifies it (Chomsky, 1995). She agrees by saying that there is universal and hypothetically applicability being involved in bilingual brains (Bialystok, 2010:38).

I argue that SES cannot be considered as a single factor but rather an integral part of a child's bilinguality, which has been shown from previous assumptions from a number of psychometric studies (Hamers & Blanc, 2004:87). Although sociocultural factors are often linked to many school achievements of ethnic minorities, other facts contributing to the school achievements may arise.

There are reports related to immigrant group of children coming from different cultural backgrounds with low SES. These children have performed linguistically and cognitively well as compared to their monolingual peers (Troike, 1984:96). The low SES however, may not be the single factor as other social factors may create the forces for both linguistic performance as well as the children wider academic performance.

Two of the factors linked to bilinguality are discussed by Hamers and Blanc (1989 in 2004). Those are the availability of L2 community and the valorization of the L2 (Hamers & Blanc, 2004). These factors move the discussion of SES and bilinguality to the wider dimensions of cognitive organization. In this point of view, the presence and valorization of L2 provide the membership and the cultural identity of the L2 (Hamers & Blanc, 2004). Accordingly, a child will acquire L2 much more easily when the L2 community is available and when the L2 is highly valued by the wider community (Hamers & Blanc, 2004).

In illustrating these interrelated factors, Hamers and Blanc (2004) propose the framework for socio-cognitive development, in order to explain the language functions or competence, as follows:

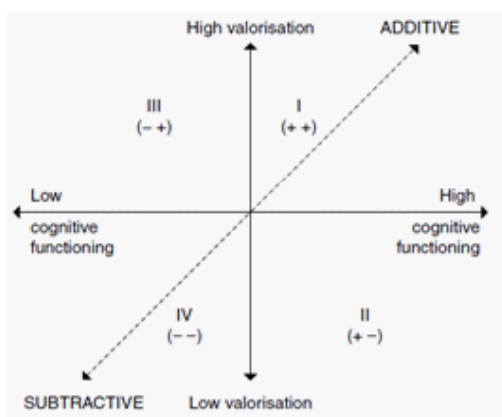


Figure 2 Sociocultural interdependence hypothesis (Hamers & Blanc, 2004)

It could be noted that in additive situation, both languages may have relevantly more opportunities to come as a complete supportive system to the children's academic challenges, whereas the subtractive situation could prevent a child to use both languages as repository for problem solving (Hamers & Blanc, 2004).

Meanwhile, others have questioned whether the performance is not caused by the children's bilinguality but rather by other 'limitations', such as accessibility to

knowledge (Hamers & Blanc, 2004). Other limitations may include access to counterparts or people as partners for study and communication, as well less equally supportive psychological conditions that could hinder children to be more confident, self-relying individuals (Hamers & Blanc, 2004; Baker, 2001; Yip, 2007).

A research done by Peal and Lambert in 1962 explores the socio-cultural dimension but not in specific to low SES. Meanwhile, Wei (2001) shows interesting reports in which low SES may contribute to the bilingual children's cognitive development. However, this is not the singular factor because the low SES may be caused by wider political stance, such as the presence of solidarity in Hemnesberget, Norway (Wei, 2001:111) which contributes positively to bilingualism.

Grosjean has also mentioned that other factors are equally determinative for a child's performance. "The reasons that bring languages into contact and hence foster bilingualism are many: migrations of various kinds (economic, educational, political, religious), nationalism and federalism, education and culture, trade and commerce, intermarriage, etc." (2002). As these factors trigger various linguistic activations, children would then use their languages to fulfill these needs.

Naturally, what Hamers and Blanc's (2004) has proposed is true: that socio-cognitive interactionist model should be established in explaining the lo-SES connection to bilinguality. Fundamental to this proposition is the non-academic strands that are amalgamated in the life of the children: security, friendship and interactions.

It is also well noted that for better understanding the connection between low SES and cognitive development in bilingual children, Bialystok's (2010) notion of the universal system (following Chomsky's Universal Grammar) and Grosjean (2002) mapping of form and function need to be carefully studied. This is because low SES can be detrimental when there is absence of security and valorization because according to Grosjean's (2002) argument, these will limit the children's ability to fulfill their needs through language. Moreover, as Bernstein has confessed to his readers and opponents, the use of codes or languages need not be seen as creating deficit, they only display how socio-economic and cultural norms work in the society (Bernstein, 1961). This will eventually put studies on bilingualism and cognition into the bigger map of societal planning.

CONCLUSION

It has been argued that bilinguality of a child and their cognitive development should not be exclusively linked to their (low) SES condition. It has also been proven from various researches that other factors, such as the availability of L2 community, interactions using L2, access to knowledge, as well as valorization of L2 are among the factors detrimental or beneficial for low SES children. Therefore, further researches that take these complexities into account and using wider population are needed to better explain the facets of bilinguality and bilingualism.

REFERENCES

- Adesope, et al. (2010). "A systematic review and meta-analysis of the cognitive correlates of bilingualism". *Review of Educational Research*, Vol. 80, No. 2, pp. 207-245.
- Bernstein, B. (1961). "Social class and linguistic development: a theory of social learning". In A. F. Halsey, *Education, economy and society* (pp. 288–314). New York: Free Press.
- Bialystok, E. (1997). "Effects of bilingualism and biliteracy on children's emerging concepts of print". *Developmental Psychology*, pp. 429–440.
- Bialystok, E. (2001). *Bilingualism in Development: Language, Literacy, and Cognition*. Cambridge: Cambridge University Press.
- Bialystok, E. (2010, February). "Cognitive and Linguistic Processing in the Bilingual Mind". *Current Directions in Psychological Science*, Vol. 19, No.1, pp. 19-23.
- Bialystok, E. (2011). "Reshaping the Mind: The Benefits of Bilingualism". *Canadian Journal of Experimental Psychology*, Vol. 65, No. 4, pp. 229-235.
- Bohlmann, N. H.-P. (n.d.). *Reflections on Rocontextualizing Bernstein's Sociology in Teachers' Instructional Strategies*. Retrieved October 16, 2013, from http://cerme8.metu.edu.tr/wgpapers/WG10/WG10_Bohlmann_Straehler_Pohl.pdf
- Bullock, B. a. (2009). *The Cambridge Handbook of Linguistic Code-Switching*. (B. a. Bullock, Ed.) Cambridge: Cambridge University Press.
- Chomsky, N. (1981). *Lectures on government and binding*. Dordrecht: Foris.
- Chomsky, N. (1995). *The minimalist program*. Cambridge, MA: MIT Press.
- Danzig, A. 1995. "Applications and distortions of Basil Bernstein's code theory". In A. Sadovnik, *Knowledge and Pedagogy: The sociology of Basil Bernstein*. Norwood, NJ: Ablex.
- Douglas, M. (n.d.). *A History of Grid and Group Cultural Theory*. Retrieved from <http://projects.chass.utoronto.ca/semiotics/cyber/douglas1.pdf>
- Goodz, N and Poulin-Dubois, D. (2001). "Language differentiation in bilingual infants". In J. a. Cenoz, *Trends in Bilingual Acquisition*, pp. 95-106. Amsterdam: John Benjamins.
- Grosjean, F. (2002, February). *Interview on Bilingualism*. (J. Navracsic, Interviewer) Retrieved from http://www.francoisgrosjean.ch/interview_en.html
- Hamers, Josiane. F and Blanc, Michel H. A. (2004). *Bilinguality and Bilingualism*. (1st Edition). Cambridge: Cambridge University Press.
- Labov, W. (1972). *Academic Ignorance and Black Intelligence*. Retrieved from <http://www.theatlantic.com/past/docs/issues/95sep/ets/labo.htm>
- Leikin, M. (2013). "The effect of bilingualism on creativity: Developmental and educational perspectives". *Journal of Bilingualism*, pp. 431-447.
- McNab, G. (1979). "Cognition and Biligualism: a reanalysis of studies". *Linguistics*, Vol. 17, pp. 231-255.
- Montrul, S. (2008). *Incomplete Acquisition in Bilingualism: Re-examining the age factor*. Amsterdam: John Benjamins.
- Noble, K. G., Norman, M. F., Farah, M. J. (2005). "Neurocognitive correlates of socioeconomic status in kindergarten children". *Developmental Science*, Vol. 8 No. 1, pp. 74–87.
- Peal, Elizabeth and Lambert, Wallace E. (1962). "The relation of bilingualism to intelligence". *Psychological Monographs*, Vol. 76, pp. 1-23.
- Pinker, S. (1994). *The Language Instinct*. New York: Basic Books.
- Sadovnik, A. (2001, vol. XXXI, no. 4, December). Basil Bernstein (1924–2000). *Prospects: the quarterly review of comparative education (Paris, UNESCO: International Bureau of Education)*, pp. 687-703.
- Treffers-Daller, J. (2009). Code-switching and transfer: an exploration of similarities and differences. In B. a. Bullock (Ed.). Cambridge: Cambridge University Press.
- Troike, R. (1984). "Social and cultural aspects of language proficiency". In C. Rivera, *Language Proficiency and Academic Assessment* (pp. 10). Clevedon: Multilingual Matters.
- Wei, L. (2001). *The Bilingualism Reader*. New York: Routledge.
- Yip, V. A. (2007). *The Bilingual Child*. Cambridge: Cambridge University Press.