**BICS and CALP: Implications for SLA**

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**Abstract**—The BICS/CALP dichotomy, proposed by Cummins, has attracted the attention of many educators, syllabus designers, and various educational systems involved in the education of minority migrant children. Though not immune to criticism, this distinction has solved some of the enigmas concerning the education of such children. Nevertheless, its relationship with SLA on the whole is rather under-researched. To meet such an end the researchers of this paper, following Kumaravadivelu’s (2006, p. xiii) suggestion concerning creating a “pattern which connects”, have tried to investigate the status of this dichotomy in the SLA literature.

**Index Terms**—BICS, CALP, interdependence hypothesis, threshold hypothesis, common underlying proficiency

**I. INTRODUCTION**

The distinction between BICS (Basic Interpersonal Communicative Skills) and CALP (Cognitive Academic Language Proficiency) was first introduced by Cummins (1979a). According to Cummins (2013, p. 65), “BICS refers to conversational fluency in a language while CALP refers to students’ ability to understand and express, in both oral and written modes, concepts and ideas that are relevant to success in school”. Later, Cummins (2000c) used the terms conversational/academic language proficiency interchangeably with BICS/CALP. This distinction was largely made to draw attention to the reasons behind the low academic achievement of migrant children in comparison with their native peers.

**II. LITERATURE REVIEW**

**A. Background**

The BICS/CALP distinction was initially used to qualify John Oller’s global language proficiency proposed in 1979 (Cummins, 2008). Cummins (1979a) believes that such a view is too simplistic and cannot account for issues such as enormous differences observed between reading and writing abilities of two monolingual English-speaking siblings (aged 6 and 12) in comparison to the minimal differences observed between their phonology or basic fluency. Also, the idea of this dichotomy has been inspired by Skutnabb-Kangas and Toukomaa’s (1976) study which pointed to low academic and cognitive achievements of minority migrant children who possessed less than native-like ability in their L1 (Lyon, 1996).

These two researchers were among the pioneers who drew attention to the unequal achievements of migrant children in terms of their conversational fluency and their academic language proficiency. Based on their investigation it was observed that while such students were fluent in the former they lag behind their native peers in the latter (Cummins, 2008). Further evidence for the distinction between BICS and CALP was provided by Cummins (1981a) regarding the required time for achieving them. It was noticed that while BICS developed rather rapidly, on average a period of 5-7 years was needed for migrant students to catch up grade norms in academic aspects of English (Cummins, 2008). In fact, simple communication skills such as the ability to hold a simple conversation with a shopkeeper may conceal a child’s inadequate language proficiency required for academic achievements (Baker and Jones, 1998).

According to Cummins (1984, as cited in Cummins, 2000a), failure to take into account such a distinction has led to discriminatory psychological assessment of bilingual students and this, in turn, has resulted in their premature exit from language support programs. Cummins (1984) believes that the information so far provided by the evaluations of many bilingual education programs is unreliable and this has resulted in a confused state of language proficiency assessment in bilingual programs. To him this state stems from failures in developing an adequate theoretical framework for relating language proficiency to academic achievement.

**B. Four Quadrants Model**

Cummins (1981b) elaborated the BICS/CALP distinction into two intersecting continua that accentuated the range of contextual support and cognitive demands involved in specific language tasks or activities, i.e., context-embedded/context-reduced, and cognitively undemanding/cognitively demanding. From this, Cummins (2000b) proposed the four quadrants model (Figure 1).
In this framework the horizontal continuum ranged from context-embedded to context-reduced, and the vertical continuum ranged from cognitively undemanding to cognitively demanding (Cummins, 2013). Therefore, four quadrants were resulted which differed in the degree of contextual support and cognitive demand required for different language activities. Cummins believes that this framework has provided pedagogical implications for BICS/CALP distinction.

C. Two Hypotheses

As acknowledged by Cummins (1979b), research has provided little data on the dynamics of educational interactions used by bilingual children. He has ascribed such scarcity of information to overlooking the interrelationship between language and thought, believing that in determining such a relationship the level of L1 and L2 competence (among other factors) plays a substantial role. Therefore, to provide a theoretical framework for research on the interrelationship between language and thought in bilingual children and to give reasons for different outcomes of immersion and submersion programs, he has postulated two hypotheses: ‘Developmental Interdependence Hypothesis’ and ‘Threshold Hypothesis’.

1. Cummins’ Developmental Interdependence Hypothesis

This hypothesis has been inspired by studies which consistently indicated significant correlations between L1 and L2 reading abilities (Cummins, 2005, September). In short, the Developmental Interdependence Hypothesis “addresses the functional interdependence between the development of L1 and L2 skills” (Cummins, 1979b, p. 227). This hypothesis “proposes that the development of competence in a second language (L2) is partially a function of the type of competence already developed in L1 at the time when intensive exposure to L2 begins” (p. 222). In other words, as elaborated by Baker and Jones (1998), the more developed or proficient L1, the easier it may be to develop L2. That is, for those whose L1 is at a lower stage of growth achieving proficiency in L2 will be more difficult.

In Cummins’s (1979b) system, the Interdependence Hypothesis postulates that transfer of proficiency across languages will occur provided that there are sufficient exposure and motivation. This idea led Cummins to develop the notion of a Common Underlying Proficiency (CUP). He used the Dual Iceberg metaphor (Figure 2) to elucidate the relationship between proficiencies in two languages. According to him, common cross-lingual proficiencies underlie the different surface manifestations of each language. Of course, this figure only provides a general sense of what aspects of languages are interdependent and empirical research is needed to provide much more specific information (Cummins, 2005, September).

In fact, although the surface aspects of different languages (e.g. pronunciation, fluency, etc.) may be different, there is an underlying cognitive/academic proficiency that is common across languages. Therefore, this hypothesis posits that learning one language will facilitate the learning of the other. To elucidate this point, Cummins has used the balloon metaphor (Figure 3 and 4). In CUP (Figure 4) blowing either L1 or L2 into a balloon which comprises both L1 and L2 will affect both languages (Cummins).
Based on this notion, Cummins has managed to delineate the transfer of cognitive/academic or literacy-related proficiency from one language to another. In the same vein, Cummins, Swain, Nakajima, Handscombe, Green and Tran (1984) found correlations even across quite dissimilar languages (e.g. Japanese and English). This suggests that the CUP should be conceived not just as linguistic proficiency but also in conceptual terms (Cummins, 2005, September).

As mentioned by Cummins, in the case of cognate languages derived from similar source languages (e.g., Latin and Greek), transfer will involve both linguistic and conceptual elements. However, in the case of dissimilar languages, transfer will involve mainly conceptual and cognitive elements (e.g. learning strategies). By contrast, in the case of very dissimilar languages, transfer will only involve conceptual elements. This can explain higher correlations observed across similar as compared to dissimilar languages (Genesee, 1979). Depending on the sociolinguistic situation, five types of transfer may emerge:

- Transfer of conceptual elements (e.g. understanding the concept of photosynthesis);
- Transfer of metacognitive and metalinguistic strategies (e.g. strategies of visualizing, use of graphic organizers, mnemonic devices, vocabulary acquisition strategies, etc.);
- Transfer of pragmatic aspects of language use (willingness to take risks in communication through L2, ability to use paralinguistic features such as gestures to aid communication, etc.);
- Transfer of specific linguistic elements (knowledge of the meaning of photo in photosynthesis);
- Transfer of phonological awareness—the knowledge that words are composed of distinct sounds” (Cummins, 2005, September, p. 5)

2. Cummins’ Threshold Hypothesis

The Threshold Hypothesis deals with the cognitive and academic outcomes of different patterns of bilingual skills (Cummins, 1979b). This hypothesis, according to Cummins and Swain (1986, as cited in Lazaruk, 2007), proposes that the positive cognitive effects of bilingualism are dependent on the linguistic competence in both languages. Such a conclusion was based on Cummins’s (1979b) survey of the results of several studies on bilingualism, which revealed rather contradictory (both negative and positive) cognitive outcomes.

Skutnabb-Kangas and Toukomaa’s (1976) study is an example of the negative effect of bilingualism on academic and cognitive achievements of migrant children. Cummins concluded that the negative effects of bilingualism in this study may be attributed to their low levels of linguistic competence in both languages (Cummins, 1979b) although the roles of social and motivational factors as interfering cannot be not denied (Lyon, 1996). In the same vein, Lambert’s (1975) distinction between additive and subtractive bilingualism can help bridge the gap between socio-cultural elements and the actual process of cognitive development (Cummins, 2001). Cummins (1979b) noticed that studies reporting positive effects of bilingualism mostly involved subjects with additive bilingualism and those reporting negative effects with subtractive bilingualism. According to him, the analysis of such studies indicates that L1 and L2 competences act as an intervening variable which mediates the effects of bilingualism on cognition. The threshold hypothesis, therefore, “proposes that there may be threshold levels of linguistic competence which a bilingual child must attain both in order to avoid cognitive disadvantages and allow the potentially beneficial aspects of bilingualism to influence his cognitive and academic functioning” (Cummins, p. 222).

In this regard, Cummins (1978, as cited in Lyon, 1996), has posited that there are two thresholds (Figure 5). While the lower threshold is ample to avoid the negative effects of bilingualism, the higher threshold is necessary to obtain the positive benefits of bilingualism.

Those children who are below the first level will show a relatively low level of competence in both L1 and L2 and consequently, may experience negative cognitive effects. They can attain the first threshold by fostering age-appropriate competence in their L1 or L2, but not both. At this level, they can avoid the adverse effects of bilingualism but it is improbable to gain any cognitive advantage over monolingual children. The positive effects of bilingualism can be
achieved only when they reach the second level of threshold, which is ‘balanced’ bilingualism, or age-appropriate competence in both languages (Lazaruk, 2007).

In the Threshold Theory Cummins (1987, as cited in Lyon, 1996) has referred to three kinds of bilingualism: Proficient Bilingualism; Partial Bilingualism; and Limited Bilingualism. In the first one there are age-appropriate levels in both languages, in the second age-appropriate level in one of the languages, and in the third low levels in both languages.

D. Pedagogical Implications

All in all, it can be claimed that the BICS/CALP dichotomy can yield some insights into the bilingual education of the minority groups especially students with poor CALP. For instance, the four quadrants model recommends a pedagogical system in which more emphasis is placed on context-embedded and cognitively demanding tasks for such students (Cummins, 2008). In what follows other insights provided by this dichotomy which are in accordance with those of other theoretical perspectives in SLA have been mentioned.

1. Implications regarding relevance to the Multi-competence and Dynamic Systems Theory

The CUP model of bilingual proficiency proposed by Cummins (1979b) is reminiscent of the Multi-competence theory proposed by Cook (1991, as cited in Cook, 2008). Cummins (2007) acknowledges similarities between notions such as Multi-competence, Dynamic Systems Theory and CUP, believing that the theoretical constructs of such concepts are consistent with one another. In fact, as mentioned by him, all these constructs hold the view that the languages of bi- and multi-linguals interact in complex ways that can improve aspects of overall language and literacy development. Also all of them question the pedagogical basis of monolingual instructional approaches that minimize and inhibit the possibility of two-way transfer across languages. Nevertheless, he believes that the notion of CUP was utilized to account for a different set of issues and does not aim to provide the kind of elaborated cognitive model depicted by Dynamic Systems Theory.

Also following the ‘Developmental Interdependence’ and ‘Threshold Hypothesis’, Cummins (1979b) pointed to the beneficial cognitive and academic effects of a bilingualism which is developed based on L1 language skills. Therefore, it can be inferred that language pedagogies which utilize L1 or provide a medium for enhancing it would be more likely to result in cognitive and academic success of minority students. Consequently, it seems that employing teachers who share the same mother tongue as that of minority ethnic students can improve students’ poor command of CALP. This idea is in concordance with the recommendations concerning the use of non-native teachers in many theories including the Multi-competence Theory.

2. Implications regarding relevance to the Identity Theory

Utilizing L1 and non-native teachers, as recommended by the Multi-competence Theory and inferred from Cummins’ ideas, also fits well with identity approaches; hence in that case students can identify more with teachers and it will help improving identity formation in them. According to McKay (2011), investigating the second learners’ identity has recently gained momentum in SLA theories. Therefore, attention is turned towards the ways school discourses can position language learners within the educational context and give them a specific identity. As mentioned by her, language use today is often not just English but a mixture of a variety of languages that underline the speaker’s identity and proficiency. Holding this stance, it can be inferred that views such as the ‘Self-Other’ discourse (Pennycook, 2007) or ‘othering’ (McKay, 2011) should not have a place in pedagogy. So, curricula for L2 learners are encouraged to utilize examples of other varieties. It can also benefit from the rich repertoire which most bilingual speakers of English possess in order to signal their personal identity and social relationships. Code-switching, is consequently, a means to such an end.

It can be claimed that aside from the higher cognitive demands required for CALP which makes mastering it more difficult in comparison to BICS, the factor of identity, which is apparently rather dealt with differently in these two
proficiencies, plays a role in the minority students’ poorer command of CALP. It seems that while most BICS interactions take place among minority peers, CALP interactions usually take place between teachers and students who usually do not share the same ethnic background. Therefore, minority students’ poorer command of CALP may, in part, be due to the lower degrees of identity affirmation which these students receive in CALP in comparison to those of BICS. The importance of identity affirmation has been also pointed out by Cummins (2008); Cummins (2009); Cummins, Bismilla, Chow, Cohen, Giampapa, Leoni, Sandhu, and Sastri, (2006). For example, Cummins et al. (2006) have recommended students to create what they term ‘identity texts’ in multilingual classes where none of the languages are known by the teacher, i.e., the students invest their identities in written, spoken, visual, musical, dramatic, or combinations texts.

3. Implications regarding relevance to ‘language as ideology’

Cummins (1986) has attributed the vexed issue of the minority students’ school failure to power and status relations between minority and majority groups. To solve this problem, he has proposed a framework which assigns a central role to the following sets of interactions or power relations:

1) the classroom interactions between teachers and students,
2) relationships between schools and minority communities
3) the intergroup power relations within the society as a whole

Cummins has suggested an alteration and a redefinition of these relationships in order to promote the empowerment of such students so that they can achieve success in school. In this framework he has assumed that “the social organization and bureaucratic constraints within the school reflect not only broader policy and societal factors, but also the extent to which individual educators accept or challenge the social organization of the school in relation to minority students and communities” (p. 657).

In the same vein, Cummins (2009) has emphasized the leading role that power relation plays in minority education. He has encouraged collaborative rather than coercive relations of power. The former refers to the cases when power is conceived of not as a fixed quantity but as engendered through interaction with others. In fact, by emphasizing critical literacy, active learning, deep understanding, and the importance of building on students’ prior knowledge not only is Cummins echoing the principles of Freire’s critical pedagogy, but also he takes one step further to emphasize the importance of identity negotiation and identity investment for furthering academic expertise among marginalized students.

These ideas are reminiscent of the Kumaravadivelu’s (2006) notion of “language as ideology, which deals mainly with issues of how the social and political forces of power and domination impact on language structures and language use” (p. 24). So both Cummins and Kumaravadivelu conceive of language as a means for transporting and translating ideology. Considering ideology as “meaning in the service of power” (Thompson, 1990, as cited in Kumaravadivelu, 2006, p. 12), Kumaravadivelu has recommended ‘interaction as ideational activity’ in order to recognize language as ideology, where learners must be provided with some of the tools necessary for identity formation and social transformation. Therefore, such ideas are again in line with McKay (2011) and identity approaches to SLA. In fact, these ideas are echoing critical pedagogy whose followers according to Shor (1992, as cited in Kumaravadivelu, 2006, p. 72) call for an “empowering education” that relates “personal growth to public life by developing strong skills, academic knowledge, habits of inquiry, and critical curiosity about society, power, inequality, and change”. So, in line with such ideas, one way to solve the problems of minority students could be what Kumaravadivelu (1999) has referred to as ‘critical classroom discourse analysis’ (CCDA).

4. Implications regarding relevance to the World Englishes (WEs) Theory

The identity affirmation approaches are also in line with ideas put forward by WEs. In this regard, Y. Kachru (2011) has referred to a paradigm shift that teaching and learning WEs signals. Holding the idea that “it is neither possible nor desirable to impose any rigid linguistic norm on the entire world” (p. 163), she has welcomed the insight provided by WEs into using pedagogies that utilize other varieties and do not stick to one so-called standard version. B. Kachru (1997, as cited in Y. Kachru, 2011) has warned that nearly no teacher training program in the Inner Circle so far has incorporated WEs awareness programs. Therefore, it can be claimed that one of the ways of alleviating minority migrant students’ poor command of CALP can be provided by incorporating such programs.

III. Conclusion

Although the BICS/CALP distinction was developed partially in response to Oller’s simplistic view of unitary language proficiency (Cummins, 2008), Anderson (2011) believes that CALP itself is also suffering from the same flaw. Also, the distinction between BICS and CALP has been criticized by many scholars. Some of such criticisms are as follows:

- Conversational/academic distinction reflects an autonomous perspective on language which ignores its location in social practices and power relations.
- CALP or academic language proficiency represents little more than "test-wiseness." It is an artifact of the inappropriate way in which it has been measured.
The notion of CALP promotes a deficit theory insofar as it attributes the academic failure of bilingual/minority students to low cognitive/academic proficiency rather than to inappropriate schooling” (Edelsky, Hudelson, Altwerger, Flores, Barkin and Jilbert, 1983, as cited in Cummins, 2000c, pp. 67-68).

Cummins (2000c) provided a detailed response to these criticisms. By referring to the elaborated sociopolitical framework within which the BICS/CALP distinction was placed, he attributed the underachievement among subordinated students to coercive relations of power working in the society at large. So, power relations have not been ignored this dichotomy.

He has also referred to Biber’s (1986) and Corson’s (1995) study as evidence justifying the linguistic reality of the BICS/CALP distinction. Biber (1986) found enormous lexical differences between English speech and written text and Corson (1995) found differences between conversational interactions and academic or literacy-related uses. Moreover, Cummins (2000c) has also shown that the construct of CALP depends in no way on test scores as support for either its construct validity or relevance to education.

Duncan and De Avila (1979, as cited in Cummins, 1984), and Kessler and Quinn (1980, as cited in Cummins, 1984) can be considered as further support for Cummins views since they support the Threshold Hypothesis.

On the whole, it should be mentioned that, in spite of all criticisms leveled against the notion of CALP, this dichotomy has deepened our insight into the minority bilingualism. As mentioned by Hakuta, Ferdman and Diaz (1987), the important thing about Cummins’s theoretical framework is that it explicitly identifies the way in which linguistic and cognitive development must be perceived as occurring within a sociocultural context. Consequently, an apprehension of differences among these types of societal bilingualism can lead us to a variety of cognitive findings.

Moreover, despite objections to the notion of CALP, this term can be useful in a wide variety of circumstances as long as its particular sense for which Cummins originally used it is being taken into account and it is used bearing the cognizance that it may or may not transcend that specific sense (Anderson, 2011).

REFERENCES


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