

SCALP: Social and cultural aspects of language proficiency¹

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In a series of important papers in the past several years, James Cummins has proposed two major constructs as part of an effort to account for the phenomenon of low scholastic achievement commonly found among minority language children. Specifically, he has proposed (1979, 1980a) the existence of:

- a) a "*cognitive/academic language proficiency*" (CALP), differing from other aspects of language proficiency, which forms the basis for academic development; and
- b) a *threshold level* of proficiency in a first language (L1) which interacts with development of proficiency in a second language (L2).

The threshold concept was previously introduced by Skutnabb-Kangas & Toukoma (1976) in their study of Finnish immigrant children in Sweden. Cummins (1979) has integrated the CALP and threshold concepts in what he has called the "linguistic interdependence hypothesis", viz that the level of second language (L2) competence which a bilingual child attains is partially a function of the type of competence the child has developed in the first language (L1) at the time when intensive exposure to L2 begins (p. 233). An earlier formulation of this hypothesis was expressed by Toukoma & Skutnabb-Kangas (1977) as follows: "The basis for the possible attainment of the threshold level of L2 competence seems to be the level attained in the mother tongue" (p. 28).

The Finnish researchers and Cummins (1979) have suggested that *lower* and *higher thresholds* of proficiency should be recognized, with the lower threshold being minimally adequate for nonacademic purposes, and the higher threshold being a precondition for academic success. The lower

threshold would presumably have some similarity to what Cummins (1980a) has since called "basic interpersonal communication skills" (BICS).

Cummins and Swain (1980), as well as Lambert, Tucker, and others have been at great pains to distinguish the circumstances surrounding the successful achievement of middle-class English speaking students in French "immersion" programs in Canada from the more common situation of "submersion" of linguistic minority children in national-language-medium school programs. Cummins advances his "linguistic interdependence hypothesis" to explain the apparently contradictory findings that students in immersion programs satisfactorily learn the L2 and suffer no loss in their native language proficiency, while minority students in submersion programs frequently lose proficiency in their native language and at the same time fail to attain adequate proficiency in the school language, conditions Lambert (1975) has labelled "additive bilingualism" and "subtractive bilingualism" respectively.

At issue here will be several questions:

1. Is CALP a valid construct?
2. How do individual, social, and interactional factors bear on the interdependence hypothesis?
3. What is the significance of social and contextual factors in the development and assessment of language proficiency and academic achievement?
4. How do cultural factors affect academic achievement?

In one of Cummins' (1980b) most recent papers, he indicates that:

"with the exception of severely retarded and autistic children, everybody acquires basic interpersonal communicative skills (BICS) in a first language, regardless of IQ or academic aptitude" (p. 84).

He then adopts the "iceberg" metaphor to portray BICS as "surface-level" (manifestational) proficiency, while CALP is "deep level" (manipulative) ability. Bilingual competence is illustrated by a "dual iceberg model" (p. 87).

A minor caveat should be voiced in passing regarding the claim that "everybody acquires basic interpersonal communicative skills (BICS) in a first language". Hymes and others have pointed out that different language skills are differentially distributed in any community, and unless BICS is defined at an absolutely minimal level, there will be great variations in the extent to which individuals will be found to have mastered interpersonal

communicative skills. To deny that would be to deny personality differences and most of psychology along with them, as well as individual differences in all social interaction skills.

With regard to CALP, probably it would first of all appear to a large extent to be identified closely with Oller's (1980a) general language proficiency factor. (Parenthetically, let me add that since in many respects this resembles Spearman's (1927) *g* factor of intelligence, we may term it Oller's *glp*.) Oller shows that in two separate studies, quite diverse language skills test subscores intercorrelate quite closely and that an average of three-fourths of the variance in each test is attributable to a single general factor. It can be suggested here that this factor, if it exists, is equivalent to CALP and to Spearman's *g*, and is based on the frequently reported correlation between language ability and intelligence (Cummins, 1980b; Vellutino, 1977, 1979; Carroll, 1979). Oller (1980b) has in fact explicitly equated his *glp* and Spearman's *g*.

While all of this, if true, is very exciting, it is also subject to question on sociolinguistic grounds as to whether a procedural artifact or a pseudo-phenomenon is involved here. It has been suggested that language tests and intelligence tests are tapping the same factor. If this factor is itself language ability rather than a hypothesized meta-ability, then the whole suggestion reduces to a vacuous tautology.

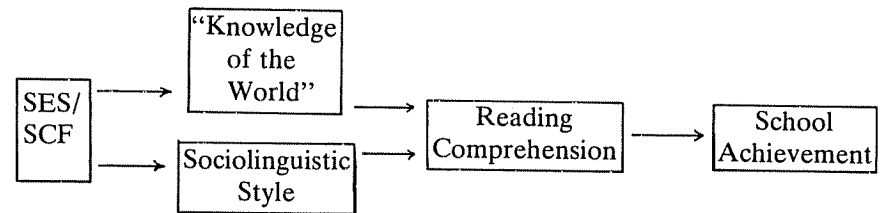
There are good reasons for suggesting why this may be so. Labov (1969) amply demonstrated the distorting sociolinguistic effects of a Bereiter and Engelmann-type interrogation of a Black child compared to an informal interview conducted in comfortable surroundings by a researcher of the same ethnic background. As is increasingly coming to be recognized, all testing is a social (and usually sociolinguistic; e.g. Upshur, 1973) event, constituted and constructed by the participants in the event. The extent to which this is reflected in test outcomes was shown several years ago in a study which found that when White and Black students were given a test by a human administrator versus by means of a computer, the White students' scores differed only marginally, while Black students' scores improved by one-third.

An even graver question arises with respect to the effect of reading ability on test scores. In general, it is assumed that reading ability measures will produce generally reliable results and that the ability tapped by the measures will show reasonable stability. However, various reading subskills have been shown to be subject to improvement by training, and even SAT scores have been raised through training. Furthermore, just changing motivation/incentive structures can produce improved reading achievement scores, as the *Reading Is Fundamental* (RIF) program has amply

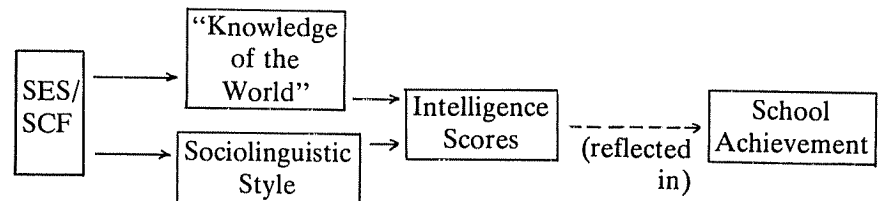
demonstrated. Merely by allowing children to choose books they wish to read and enabling them to buy them for a token price, their amount of reading and reading scores have increased, sometimes remarkably. A similar finding is reported from Austria (Bamberger, 1973).

Some of the training found to improve reading is admittedly largely linguistic in nature (e.g. the reading scores of a group of American Indian students rose after they were given lessons on vocabulary), and there is a well-known correlation between size of vocabulary and reading ability. However, reading researchers are increasingly coming to the realization that reading comprehension is highly affected by what they term "knowledge of the world".² Since this often correlates with socio-economic status (SES), reading achievement scores and school achievement generally are not surprisingly closely linked in many situations to SES, so much so that Karl Deutsch is reputed to have once said, "Tell me the father's income and I'll tell you the student's grades in school." The problematical work of Basil Bernstein (1975) also immediately comes to mind, showing linkages between discursive styles and social class, and raising questions regarding the possible causative connection between these styles and school achievement. Since this area of interpersonal sociolinguistic styles belongs by definition to BICS rather than to CALP, Cummins' formulation would presumably discount any explanatory nexus here.

The interrelationships among these factors cannot be easily dismissed, however. If SES or other socio-cultural factors (SCF) affect opportunities to gain "knowledge of the world" and sociolinguistic style, which in turn affect reading comprehension, then school achievement will certainly be affected (positively or negatively). This may be schematized as follows:



Further, some of these same factors affect intelligence measures:



The effects of sociolinguistic style may be realized in part through the social environment created by the linguistic interaction between examiner and examinee, or the interaction between the examinee and the language of the examination. All of this would suggest that reading comprehension scores and intelligence scores are not independent, but reflect in one way or another some of the same input factors.

One must also be conscious of the widely studied but often difficult-to-assess effects of the mutually interacting social (and sometimes linguistically mediated) attitudes of students and teachers. The well known "Pygmalion effect" (Rosenthal & Jakobson, 1968) clearly has powerful consequences for lower SES and minority children. Teachers' expectations regarding student achievement become translated into self-fulfilling prophecies through differential treatment of students and perceptions of student performance. Negative teacher attitudes and behaviors toward the speech of such children also undoubtedly affect student performance: This was the rationale behind the recent Ann Arbor, Michigan, court decision which required teachers to take an in-service course in sociolinguistics.

The other side of the coin has to do with student attitudes. Strong affective ties serve to perpetuate nonstandard language in many societies, as shown by Willis' (1977) study in England and Rickford's (1980) in Guyana. At the same time, these positive peer group attitudes come to be buttressed by negative attitudes towards the language and culture of the school, and a rejection of the middle-class values and academic goal orientation represented and rewarded by the teacher and the school. Contrary survival skills are cultivated (see Abrahams & Gay, 1972; Willis, 1977) and rewarded in the peer group, producing a true lower SES or minority group counter-culture in the schools (sometimes extending to the formation of gangs and the development of gang warfare). While the leaders of such groups often display considerable intelligence, their interests and energies are channelled into ways that reject the reward structure of the school, and that presumably lead to a lowered CALP.

These observations lead further to a consideration of the content and function of schooling itself, at least as practiced in the Anglo-American tradition. It is clear that most modern education is class-based and class-oriented, and seeks to perpetuate middle-class values and culture, and to recruit and assimilate the lower classes and minorities into the middle class, or at least to co-opt them into accepting the legitimate domination of the middle class. Not surprisingly, one consequence of what Cárdenas and Cárdenas have called the "incompatibilities" of school culture and lower-class/minority culture (including language), is that the school has been accused by radical critics of simply reproducing social structure

(Bowles & Gintis, 1976), a situation summed up colloquially in the traditional motto, "Them as has, gits."

Viewed in a slightly different perspective, the situation is essentially what has been referred to as "internal colonialism". The term is somewhat metaphorical when applied to class domination, but in the case of conquered or otherwise subordinated ethnic/linguistic minorities, it takes on a quite literal meaning. Educated middle-class (tautologically, "standard") English is the instrument of this colonialism, in which linguistic and racial boundaries often coincide.

If school achievement, intelligence scores, and CALP all agree to a remarkable extent, might it not be that what they are reflecting is not some general underlying ability, but simply degree of acculturation to a culture-specific set of norms, the culture being that of the dominant middle class as reflected in the school?

CALP, then, and "intelligence" (for which CALP may be a surrogate or an equivalent construct) may be simply INDICATORS OF ACCULTURATION rather than of an independent mental ability.

The Skutnabb-Kangas and Toukomaa/Cummins linguistic interdependence hypothesis is a very attractive one, and has a certain amount of research evidence supporting it, notably that on Finnish immigrants in Sweden, and some on Mexican immigrants in the U.S. (Kimball, 1968). However, there is strong counterevidence, albeit of an inferential sort, which raises serious questions regarding the validity of the hypothesis. As I have pointed out elsewhere (Troike, 1978, 1981) the counterevidence suggests that social and cultural factors may be much more powerful than purely linguistic factors in influencing educational achievement, and, indeed, that the linguistic factors may be simply a second or third order reflection of the social and cultural context of schooling.

On the issue of the "threshold" relations of L1 and L2 proficiency, Dillon Platero (1981) recently reported on the case of two Navajo students, one of whom possessed limited proficiency in Navajo but graduated from the University of New Mexico with honors and went on to Stanford to study graduate physics, while the other had such remarkable proficiency in Navajo that he astounded his elders but barely made it through the University even with tutorial assistance because of his weakness in English.

The Finnish data have been very persuasive to a number of researchers, but there is anecdotal evidence from Australia to suggest that the effects are confounded with social factors. Finnish immigrants in Sweden are viewed very negatively by Swedes, and a number of negative stereotypes exist (it must be remembered that Finland was formerly a "colonial" possession of Sweden). In Australia, however, Finns are viewed in terms of a number of

positive ("Scandinavian") stereotypes, and Finnish students do much better in school than do their counterparts in Sweden (Ilpola, 1979), once again demonstrating the Pygmalion effect.

Perhaps the most serious question regarding the linguistic interdependence hypothesis comes from school data in the U.S. Southwest and West which shows that in districts with Black, Hispanic, and Anglo children, there is a clear stratification of school achievement scores which places Blacks at the bottom, Anglos at the top, and Hispanics in between. Unless one wishes to adopt a Jensen-type genetic explanation, which I would strongly reject, the stratification can be interpreted as reflecting the existing social status of the three groups. However, since Blacks are native English speakers (albeit of a very distinctive variety) and most of the Hispanics involved have been "submerged" in English-medium education under classic conditions productive of subtractive bilingualism and semilingualism, nothing in the situation would lead to the prediction that Hispanics would score above Blacks in school achievement. It would certainly appear difficult to implicate language proficiency, particularly of the sort envisioned in CALP, as an explanatory factor, short of invoking genetics.

Language and culture may actually play an important role in determining such outcomes, though more in BICS-like ways than CALPish ones (ironically, the explanatory properties attributed to CALP might more appropriately attach to BICS). As suggested earlier, teacher (as well as community) attitudes toward a particular group may, via the Pygmalion effect, serve to raise or depress academic achievement. The home background effect has been ignored up to this point, other than the gross differentiation of SES by income levels. However, academic outcomes are always the complex results of interactions between the personal characteristics of the individual and his or her home/cultural background, and the physical, social, cultural, and human characteristics of the educational setting.

The interactive effects of home cultural background and school was shown in a study by Mace (1972) of the academic achievement of Hispanic, Filipino, and Chinese children in Seattle. Although all were at a comparably low income level, and had comparable entering knowledge of English at the first grade, by the third grade, Chinese children were well ahead of the others, and Filipinos were slightly ahead of Hispanic children. The traditional strong emphasis on academic achievement of Chinese families was probably an influencing factor, and no doubt this interacted with teacher expectations (and consequent behaviors) that Chinese children "always do well".

To summarize, it has been demonstrated that reading and text-processing skills play a major role in determining school achievement,

and that the development of these skills is affected in little-understood ways by home background, including SES, but may be interactionally stimulated or retarded both by pedagogical practices and by sociolinguistic/cultural attitudes, expectations, and behaviors manifested by the teacher and others (including peers and school administrators) in the school setting. The extent to which individual personality factors may be involved has only begun to be recognized (Wong-Fillmore, 1976; Edelsky & Hudelson, 1979, 1980), but the contribution of native endowment still remains to be isolated and identified.

I have suggested that sociolinguistic factors may play a much more important role than the "tip of the iceberg" status accorded them in Cummins' formulation. In addition, the general (language-mediated) cognitive-intellectual ability (Oller's *glp*) which he posits may be largely an artifact of test results that actually reflect acculturative approximations to middle-class Western cultural norms and behaviors. If we are to avoid reifying tautologies, we must be cautious about prematurely moving to draw conclusions or formulate models on the basis of inadequate and incompletely understood data. As Hamlet said to Horatio, "There are more things in heaven and earth than are dreamt of in your philosophies." We would do well to remember this precaution as we seek to understand the complex forces that shape children's cognitive and linguistic abilities.

Notes

1. If perceptive readers note a gentle spoof of Cummins' CALP in this title, it is their phenomenological right to such an interpretation, though I apologize in advance for it. I should like to note at the outset, that I am very sympathetic with one implication (or motivation) which I read into Cummins' proposal, viz that minority language children should be provided the opportunity to develop proficiency in their native language before being submerged or "transitioned" into the national language. In addition, I am in strong accord with the intent of his argument against utilizing superficial aspects of language proficiency as a basis for school placement or diagnosis of learning problems. Cummins (1982, 1984) has subsequently dropped the use of BICS and CALP as a result of discussions at the conference where this paper was given, and now employs a continuum from the context-embedded to context-reduced language interacting with a continuum of cognitively demanding to cognitively undemanding language. Nevertheless, many of the arguments herein are germane to his revised formulation.
2. The concept designated by the expression "knowledge of the world" is essentially problematic and rarely explicated. Presumably it consists largely of knowledge gained through participation in exposure to experiences typical of the middle class of the majority society. School rarely rewards knowledge gained through participation in activities typical of minority or lower SES groups (e.g. Taylor, 1977). (I am indebted to Benji Wald for bringing this issue to my attention.)

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