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### Access to meaning: The anatomy of the language/ learning connection

David C. Skinner<sup>a</sup>

<sup>a</sup> Hispanic Training Institute, Santa Monica, CA, 90402, U.S.A.

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# ACCESS TO MEANING: THE ANATOMY OF THE LANGUAGE/LEARNING CONNECTION<sup>1</sup>

David C. Skinner

*Hispanic Training Institute, Santa Monica,  
CA 90402, U.S.A.*

**Abstract.** In this Part II the author examines the most common assumptions about second language acquisition by means of the anatomical model created in Part I. The examination includes a review of the most widely-used second language acquisition methods, and shows how they owe their basic assumptions to those embodied in the Direct Method — a century-old approach to teaching second languages.

The two most basic assumptions — that people acquire a second language in the same manner as they acquired their first; and that the most appropriate language of instruction is L2 — are shown to be inconsistent with the views of Cummins, Vygotsky, Piaget and Chomsky. Furthermore, when these assumptions are subjected to analysis with the anatomical model they are found potentially to retard and/or delimit both the development of second language proficiency and the learning process of the typical student.

The analyses that the model permits provide many clearer explanations for the empirical results generally experienced by students who receive second language instruction through the methods in most common use. Based upon the model, and the resulting analyses, the author outlines some of the principal characteristics that a more effective second language acquisition approach would incorporate. These characteristics appear to be quite consistent with the principles of bilingual instruction.

## **PART II: SOME IMPLICATIONS FOR SECOND LANGUAGE ACQUISITION**

### **Introduction**

Part I of this article identified and established the connections between

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primary language acquisition, learning and language proficiency. This second part looks at the implications of those connections for second language acquisition. It reviews some of the most commonly-accepted notions about second language acquisition; and then it compares those notions with the principles inherent in the language/learning connections, as illustrated by the Part I 'anatomy'.

At the conclusion of Part I four questions were raised, and these will be addressed here, once the basic premises of second language acquisition have been set forth and analysed.

Finally, those characteristics of a second language acquisition strategy that would be consistent with the 'anatomy' of the language/learning unity will be described. Instructional methods that incorporate those characteristics should enhance and accelerate the language/learning process. They should better assist students in acquiring a second language and in achieving more academic success in that second language.

### **Background on Second Language Acquisition Methods**

A fundamental problem in describing second language acquisition arises from the lack of a theoretical basis for the methodology that is employed. Most second language acquisition strategies rely upon empirical data, assumptions, hypotheses and specific techniques as a means for conceptualising the practice. In point of fact, the majority of such programmes — and certainly those which have received most attention and acceptance — are rooted in a methodology that is over a century old.

The so-called 'Direct Method' of teaching a second language first emerged in France in the nineteenth century and has continued to this day as the most widely-used instructional strategy. Over its long life it has appeared in so many guises and under so many different names that it often escapes recognition. It will undoubtedly come as a surprise to many that some of the current methods that have been hailed as 'new' and 'different' are, fundamentally, variations of the Direct Method.

#### **The basic assumptions of the direct method**

There are two basic assumptions that underlie the Direct Method: first, that a learner acquires a second language in the same way that he/she acquired his/her first, or primary, language; and second, that because of the first assumption the proper way to conduct instruction is to teach the student solely by use of the second language. (From this point on the first, or primary, language will be designated as L1 and the second language — the language to be acquired — will be called L2.)

A more recent assumption made by many practitioners is that L2 should be introduced to the learner in a sequence that roughly resembles the sequence in

which the learner first developed L1 skills. Thus, first emphasis is placed on naming objects and responding to commands; and an understanding of syntax, phonics and grammar gradually emerges through exposure to the language rather than through a highly structured, formal instructional process. (Some practitioners believe that grammar should be taught formally — but in L2.)

### Common examples of the direct method

Following are some examples of programmes that are known by a variety of names, but which are variations on the basic Direct Method. They differ from that method only in degree, not in kind. This is not to say that there have been no improvements in the application of the Direct Method in the past century; rather it is to clarify the fundamentals of the present conditions in the field of second language acquisition.

#### *Berlitz*

The Berlitz name is the most famous in the field of second language teaching. For over 100 years Berlitz schools have provided foreign language courses to a wide variety of clients; and all those courses are exemplars of the Direct Method. Because of their renown Berlitz has had many imitators, and many firms in the language training field are little more than Berlitz under a different name.

#### *Suggestopaedia*

This variation of the Direct Method was developed by a Bulgarian, and owes a certain amount of its notoriety to its Iron Curtain origins. This method places great emphasis on memorised dialogues and repetition. It incorporates some unique features, such as the use of Baroque music and other techniques that are designed to help the learner achieve an 'Alpha' state of mind as an aid to memorisation. The method also employs extensive use of 'realia' and other aids to vocabulary building. Despite its extra frills and memorisation techniques it is, essentially, another version of the Direct Method because it adheres to the two fundamental assumptions of that method.

#### *The Natural Approach*

In California, at least, the Natural Approach has received a great deal of attention and acclaim. The Natural Approach seeks to improve upon the Direct Method in two ways.

1. *Sequencing* – The Natural Approach incorporates some evidence that learners tend to acquire a second language in about the same sequence as they acquired their first language. For this reason, the Natural Approach tries to sequence the language exposures in a way

that facilitates inferences of meaning. The sequencing also tries to relate language usage to the learner's needs and interests. Finally, the sequencing attempts to approximate the 'natural' unfolding of grammar and syntax.

2. *Teaching Techniques* – The specific teaching techniques deviate significantly from the Direct Method. Under the typical Direct Method the students are constantly required to respond in some way that produces language. Under the Natural Approach students are not asked to produce language until they are ready to do so voluntarily. Students listen, observe and participate physically. They participate *orally* when they feel ready. The idea here is that when the requirement to produce language is removed student anxiety is thereby reduced.

Despite these variations the Natural Approach remains as an example of the Direct Method because it rests on the same two basic assumptions of that method.

#### *Total Physical Response (TPR)*

Total Physical Response (TPR) is not so much a method as it is an instructional technique. It relies quite heavily on the use of contextual clues and the use of commands. Students are required to respond physically to commands, given in L2, as a means for aiding in comprehension and retention of L2.

The emphasis on commands stems from two assumptions: first, that commands are the prevalent form of grammar that a child hears ('Stop crying and eat your pablum!'; 'Don't kick the dog again!'); and second that the command form is the most basic grammatical structure in most languages. (The second assumption is a bit suspect. In Spanish, for example, the command forms are exceptions to the general usages for verb conjugations and positioning of object pronouns.)

Again, underneath these variations lie the two basic assumptions of the Direct Method: that L2 is acquired in the same way as L1, and that the language of instruction must be L2.

#### **The Language Equivalency Assumption**

Given that there are variations in the application of the Direct Method, and that some of these variations are very beneficial, the basic assumptions of the Direct Method must still be examined to see how they hold up on a conceptual basis. The assumption that L2 is acquired in the same way as L1 merits first attention because it appears to be the assumption that dictates all other assumptions that surround the Direct Method. For ease in discussion you can think of it as the 'language equivalency' assumption.

This section compares that assumption with the findings about the anatomy of learning, language acquisition and language proficiency. If the 'language equivalency' assumption is valid then one would expect to find that assumption supported by the findings in Part I.

In this, and in future sections, assume that the discussion deals with students of school age or above, which is the relevant context for the discussion.

## Piaget

A comparison of the 'language equivalency' assumption with Piaget's views requires some further elaboration of his ideas. Two of his key concepts are the developmental stages mentioned in Part I, and what Piaget calls 'equilibration'.

### *Developmental Periods*

Piaget says that all people progress through four discrete developmental periods:

1. The Sensorimotor period: Ages 0 – 2 years;
2. Pre-operational Thought: Ages 2 – 7 years;
3. Concrete Operational Thought: Ages 7 – 11 years; and
4. Formal Operational Thought: Ages 11 – 15 years.

It requires little analysis to observe that the school age child has already passed through two stages of development by the time he/she has entered school. For that reason alone the child's construction of the world will differ greatly from the point at which that child first began to acquire L1 at his/her mother's knee. Clearly, the older the child the greater are those differences. The 'language equivalency' assumption appears to be inconsistent with Piaget's developmental stages.

### *Equilibration*

The 'language equivalency' assumption finds little comfort in the company of Piaget's notion of equilibration.

Equilibration denotes the succession of discrete steps by which a child constructs knowledge and perceptions about the world. When new experiences fail to fit current hypotheses disequilibrium occurs. The learner then adjusts his/her hypothesis until the new 'reality' fits the revised hypothesis. At that point the learner has reached equilibration.

Of particular importance here is the very specific assertion by Piaget that a period of disequilibrium *never* results in a return to a previous level of equilibration. This is so because otherwise the hypothesis associated with that lower state of equilibrium would reflect *less* understanding about the world than the child already has.

With reference to the 'language equivalency' assumption a major problem presents itself. If that assumption is true then the learner would have to begin at the most basic level of equilibrium. This means that the learner would have to backtrack to the most basic levels of hypotheses, which is to say that the learner must employ the mental operations of a 2 year old child.

In fact, this is precisely what happens when the 'language equivalency' assumption is put into practice. Learners are *forced* by the method itself to function at a conceptual level far below their actual state of equilibrium in L1. The effect of that upon the students may be visualised quite easily. In Figure 1 the same kind of nomograph that was developed in Part 1 illustrates the situation.

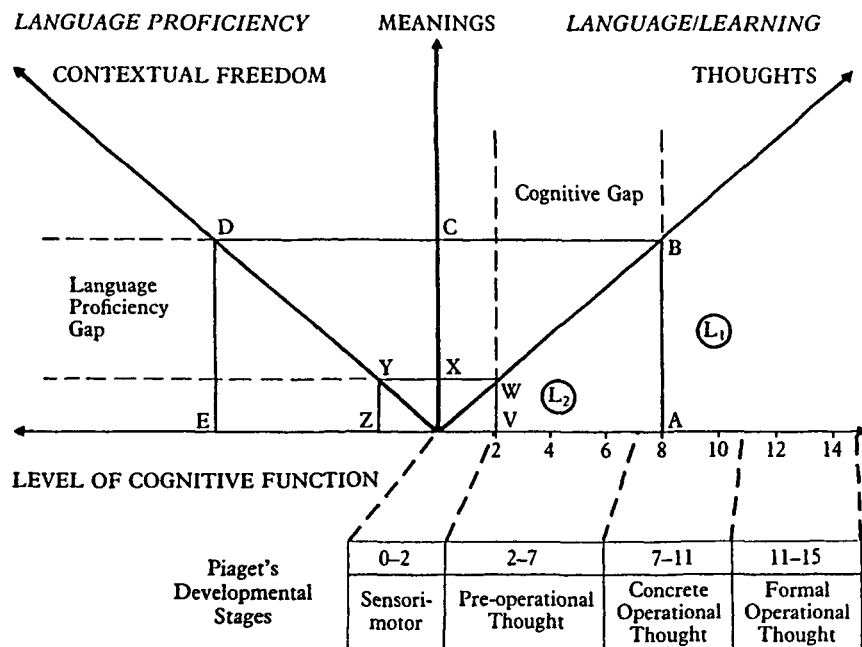


Figure 1

Figure 1 plots an L1 line (A,B,C,D,E) for an 8 year old child, and an L2 line (V,W,X,Y,X) for that same child. The learner, who has grown to the L1 dimensions must, under the 'language equivalency' assumption, retreat to the L2 dimensions. This forces the learner to function at a much lower level of cognitive/concept usage. The learner has a much higher level of thought at

L1, but is unable to unify those thoughts with L2 words, thus creating the 'Cognitive Gap', as exemplified by Line W,B. That same gap may be expressed as a 'Language Proficiency Gap' because of the connections between language proficiency and learning.

In Piagetian terms, the learner who is confronted by instruction in L2 is forced back from 'Concrete Operational Thought' to at least the 'Pre-operational Thought' stage. Thus, a phenomenon that *never* occurs (according to Piaget) in the normal learning process is imposed upon the learner by the 'language equivalency' assumption.

The psychological and learning implications of this phenomenon should be readily apparent. One may strongly suspect that enforced disequilibrium and the 'Cognitive Gap' and 'Language Proficiency Gap' created thereby lie at the heart of student anxieties and frustrations in acquiring a second language in this manner. It should be noted carefully that these 'affective' learning difficulties stem directly from the enforced 'cognitive' disfunction or disorientation imposed by the methodology.

### Chomsky

The 'language equivalency' assumption fares much better in comparison with Chomsky's theories. Chomsky believes that interactions with the world trigger an innate, pre-programmed linguistic capacity. He does not limit that capacity to one language. Rather, he believes in a 'universal grammar' that relates to, or encompasses, *all* languages.

Studies have shown that there appears to be a natural unfolding process that follows the same sequence — from the point of view of formal grammar — for most languages. The studies indicate that this holds true for a given individual who is acquiring a second language. Indeed, as noted earlier, this natural, unfolding process is a key empirical ingredient in the Natural Approach.

Despite the apparent consistency between the 'language equivalency' assumption and Chomsky's views, two problems emerge upon closer examination. First, not even Chomsky would argue that an innate linguistic element is triggered in L2 by the same language experience that triggered the equivalent L1 element. The mere fact that the learner already possesses L1 will modulate whatever language experiences the learner may have in L2. Furthermore, in acquiring L1 the learner was not subjected to any semantic or syntactic interferences from another language.

The second problem concerns the distinction between process and sequence. Even if the sequence of acquisition for L2 were precisely identical to the sequence of acquisition for L1 that does not mean, necessarily, that the *ways* in which those sequences may be acquired are identical. Clearly, the *process* of acquisition *cannot* be identical. Neither the early learning environment nor the lower level of earlier mental operations nor the fact that the L1 learner possesses no other language proficiency can be replicated for the L2 learner.



### Vygotsky

The implications of the 'language equivalency' assumption in terms of Vygotsky's concepts are already illustrated in the Figure 1. 'Meaning' stems from the unity of 'Thought' and 'Word'. Because the learner knows relatively few words in L2 the learner can only connect a limited number of thoughts to those words. The line X,C indicates the reductions in meanings that are available to the learner, and, therefore, the reduced communicative function that the learner can employ for purposes of receiving instruction or conveying ideas.

### Cummins

The 'Language Proficiency Gap' (see Figure 1) dramatises the impact on language proficiency of the 'language equivalency' assumption. It further highlights a notion that will be reinforced later in the section on the use of L2 as the language of instruction: Point Y on the 'Contextual Freedom' axis shows that the learner's freedom from contextual clues has been drastically reduced from the L1 level represented by Point D. Query: does the use of contextual clues as an instructional device in teaching L2 arise from sound learning practices, or does the use of L2 force the student to rely on contextual clues in order to achieve meaning? In short, is the instructional methodology imprisoned by its own assumptions?

### Time and the 'Language Equivalency' Assumption

Before proceeding to a consideration of the use of L2, the issue of time — time for instruction — merits some attention. A close look at the implicit terms of the 'language equivalency' assumption reveals that the assumption does not find support in the real world. The average child receives something like 20,000 hours of language exposure prior to entrance into a school setting at age 6. According to the 'language equivalency' assumption the average child will then require 20,000 hours of exposure to L2 in order to reach the same level of proficiency in L2 as the child has in L1 — at age 6.

If a child received 5 hours daily of L2 exposure for 180 days a year (during a normal school year), it would require over 20 years for the child to receive 20,000 hours of L2 exposure — and achieve the proficiency of a child of 6. Many children are lucky to receive 5 hours a week of L2!

As a practical matter most students do, in fact, acquire/learn L2 at a faster rate than the 'language equivalency' assumption predicts. Rates of learning L2 depend on many factors, such as age and L1 proficiency. Indeed, one study concludes that '... older learners, who are more cognitively mature and whose L1 proficiency is better developed, ... acquire cognitively-demanding aspects of L2 proficiency more rapidly than younger learners, (Cummins,

1981: 29). This same study indicates that immigrant students who arrive after age 6 need 5 – 7 years to reach grade norm proficiency in L2.

It is evident, then, that most students learn/acquire L2 proficiency at a much more rapid rate than the 'language equivalency' assumption suggests. This fact imperils the validity of this most basic of assumptions. If that assumption is not, in fact, valid, then it cannot possibly account for the learning that does take place.

### **The Use of L2 as the Language of Instruction**

In reality, many of the main implications of the use of L2 as the language of instruction have already been discussed in the consideration of the 'language equivalency' assumption. However, some aspects of that discussion merit a closer look.

#### **Vygotsky**

Figure 1 demonstrates that when L2 is used as the language of instruction both a 'Language Proficiency Gap' and a 'Cognitive Gap' are the immediate result. Both gaps reflect the reductions in 'Meanings' (Line C,X) that are available to the student. Because meaning comes from the unity of word and thought it seems logical to suggest that the most direct way to increase meanings would be to use L1 as a means for explaining L2. Thus, if by use of L1 the learner can more quickly connect thoughts and words to increase meaning, then it makes sense to do so.

The Direct Method and its variations prohibit the use of L1 for this purpose. It is instructive to note that many teachers will, in fact, lapse into L1 in order to explain things, thereby casting a vote of agreement with Vygotsky.

The exclusive use of L2 not only forms an obstacle to connecting thoughts and words, but it limits those thoughts that seek unity with words. Yet, it is growth in thought — growth in concept development — that permits increased language proficiency and acquisition of knowledge. When L2 becomes the sole source of instructional content not only does immediate learning suffer, but future learning may suffer because concept development has been retarded.

#### **Cummins**

The use of L2 as the language of instruction results in an immediate reduction in 'Contextual Freedom' (see Figure 1). Quite clearly, then, language proficiency in L2 (for the learner) is at a very low level. The student cannot use L2 for any cognitively demanding purpose beyond Point Z. The student will begin, of course, to develop increased language proficiency in L2

as meanings begin to emerge from language exposure. When contextual clues form the main avenue for arriving at meaning — for helping the student to connect thoughts and words — there will be some kind of upper limit of utility.

The nomograph shows how, as meanings increase, the number of thoughts that are associated with language must also increase. At some point there is a limit to the number of thoughts that can be associated with a given contextual clue, particularly physical or visual clues. Thus, at some point there must be a transition in instructional method from the 'Contextual Freedom' vector to the 'Level of Cognitive Function' vector. Otherwise, continued reliance upon contextual clues will limit growth in meanings.

That transition means that L2 itself must be used as the principal means for acquiring more proficiency in L2. In Cummins' terms the learner must be able to think in L2 in order to acquire the meanings in L2 that lie beyond the limitations of contextual clues. This point is neither theoretical nor esoteric. We do exactly the same thing in L1 when we require English speaking students to take several years of classes in English. In that case the language itself provides the principal means for acquisition of cognitive function in the language; and, as the nomograph shows, a higher level of cognitive function in the language relates directly to a higher level of meanings, and to more advanced learning.

The central issue here is this: when, under Direct Method principals, the student receives instruction only in L2, and grammar and syntax and vocabulary are not taught (in many cases) in a formal manner but only by exposure, is the transition to the cognitive axis made either too difficult or too prolonged? Indeed, this is the very issue that caused Cummins to launch his investigations because he found that students were being transferred to the cognitive axis prematurely and were failing academically as a result. If the use of L2 prolongs the period needed for transition, and if, at the same time, transition to the cognitive axis has been mandated by some arbitrary time limit, then many students will be trapped in a 'no-win' situation where academic failure is the inevitable result.

In Figure 2, the solid lines that are plotted there represent an actual assumed situation. A child of age 10 would be in a 4th Grade class (X), and the academic requirements for that age level assume concept development to Point Y and meanings available for academic usage at the level of Point Z. If, however, that child has cognitive language function at Point A, then that child's level of meanings is actually at Point C. The Line C,Z represents the deficiency gap in language proficiency, based upon the requirements for academic usage in Grade 4. Not until the student's cognitive language proficiency has reached Point R will he/she be ready to tackle the academic requirements of Grade 4, in L2.

### Piaget

Figure 2 underscores the impact of using L2 as the language of instruction.

The student whose actual level of language proficiency is represented by Line A,B,C will have language proficiency equivalent to that of a person of about age 6 — a person who is still in Stage 2 of learning development. If that student has been placed in Grade 4, that student must be able to receive instruction that is designed for Stage 3 students. Although the student has language skills that are appropriate for ‘Pre-operational Thought’ the student will not have the language skills in L2 that are needed to form hypotheses at the Stage 3 level of instruction — ‘Concrete Operational Thought’.

This comparison illustrates again the importance of using L1 instruction so that the student’s concept development can continue to grow in tune with the child’s natural developmental stages.

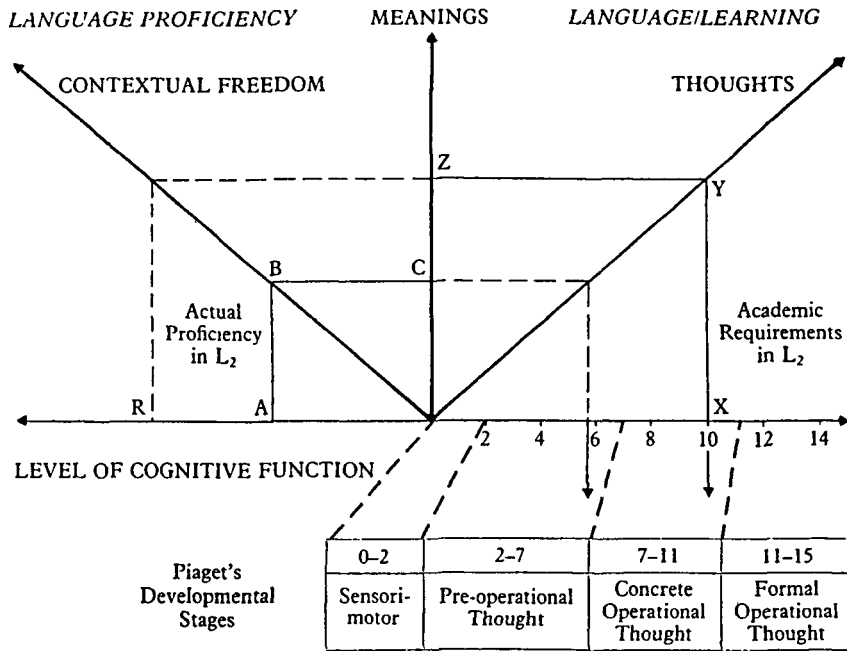


Figure 2

**The dual character of contextual clues for comprehension**

The early use of contextual clues ('realia'; body language; TPR-type activities) to provide access to meaning in L2 can be highly useful. When only L2 is used to teach L2 contextual clues are especially helpful as an aid to comprehension. From the foregoing analysis it should be clear, however, that as students gain in L2 proficiency the continued use of context-laden physical

clues reaches a point of marginal utility. As noted above, learners reach a level where they must turn to cognitive function in L2 in order to achieve greater 'Contextual Freedom' and, therefore, higher levels of L2 proficiency.

The dual character of a teaching strategy that relies upon contextual (physical/visual) clues, such as TPR, must be recognised. Although such a strategy may be quite beneficial at the lowest levels of L2 proficiency, it can also restrain progress to higher levels of L2 proficiency. Thus, in response to the question raised earlier (see p. 376), the use of L2 as the instructional language almost creates a dependency upon contextual clues for access to meaning; but this dependency soon evolves from an avenue to learning into an obstacle to higher proficiency in L2.<sup>2</sup>

A few experts in the field of second language acquisition recognised immediately the pitfalls of the duality. Their early warnings were often swept aside by the widespread enthusiasm for the easy charm of contextual clues. It is encouraging to note that even some of the leading proponents of the Natural Approach have now begun to recognise these same pitfalls. Where once they extolled the simple virtues of 'comprehensibility of input' there is growing recognition that 'comprehension' is a highly complex matter; that heavy reliance on contextual clues is useful primarily at the earlier stages of L2 proficiency; and that higher levels of L2 proficiency will, for most students, grow out of a more programmatic approach to development of cognitive function in L2.<sup>3</sup>

#### **The common underlying proficiencies of L1 and L2**

A final matter concerning the use of L2 as the language of instruction concerns what Cummins calls 'Common Underlying Proficiency'. In his efforts to identify the nature of language proficiency he attempted to deal with a key issue in second language acquisition: what is the relationship between L1 and L2? Does L2 supplant L1? Or, do L1 and L2 co-exist in separate intellectual realms? Or, do L1 and L2 harmoniously co-inhabit the same realm? Put another way, is L1 a help or a hindrance to the acquisition of L2?

Cummins came to the conclusion that there is a 'Common Underlying Proficiency' that is highly transferable from one language to another. According to this Chomskian view, it is largely the surface features of languages which differ, one from another. The fundamentals of languages — the basic grammatical and syntactical mechanics of languages — are common; and, therefore, they may be readily transferred from L1 to L2.

Given this conception, a strong foundation in L1 may be seen as a distinct and valuable asset for the learner who is trying to acquire L2. The higher the proficiency in L1, goes the argument, the greater the potential for transfer to L2. By contrast, the lower the proficiency in L1 — the greater the reliance on surface features as a means for communication — the less potential there is for transfer.

The notion of 'Common Underlying Proficiency' has several implications for the discussion in hand:

—First, the term 'Common Underlying Proficiency' is a mis-nomer (unless one accepts Chomsky's theories of 'innate grammar' without question). From the anatomical model of the relationships between language proficiency and meaning one can see that *what is truly common is thought, or concept*. For example, it is the concept of 'table' that is transferable from L1 to L2 rather than the word itself.

A learner knows the word 'table' (and its various meanings) in L1, but may not know the equivalent word(s) for 'table' in L2. Thus, the learner can transfer the thoughts associated with the word 'table' but cannot transfer the proficiency in the absence of the equivalent L2 word(s).

—This understanding of the nature of 'Common Underlying Proficiency' leads to a second point that specifically addresses the use of L2 as the language of instruction. It seems clear that the most rapid and efficient way to permit — to stimulate — transfer from L1 to L2 would result from the immediate connection of 'L1 thought' with L2 words. That way lies rapid access to meaning; and, therefore, to L2 proficiency.

The question is, are those connections better accomplished through use of L1, or through use of L2, as the language of instruction?

A complete answer to that question requires some detailed specification as to whether or not the learner has sufficient proficiency in L2 to comprehend explanations in L2. It depends on the level of abstraction required for comprehension, and on the manner of explication as well. However, it should be clear from the analyses on previous pages, and from the anatomical model itself, that the use of L1 to connect thoughts to L2 words should accelerate the transfer of 'common underlying concepts' from L1 to L2.

That conclusion rests on a further caveat: once the connection has been made for the learner, *the learner should be required to articulate that connection by its use in L2 in some meaningful communication*. There are many reasons for this requirement, reasons that lie at the heart of the learning process. Suffice it to say here that it accomplishes two things: first, it confirms to the teacher that the connection — the transfer — has, in fact, been made by the student; and second, it begins (or supports) the process of building true L2 proficiency by causing the learner to communicate his/her *own thoughts* in L2.<sup>4</sup>

—The need to transfer to the cognitive axis in order to develop higher levels of L2 proficiency has already been discussed. In school settings there is an urgency for transition, an urgency that is often dictated by both financial and legislative considerations.

It appears that the use of L2 as the sole language of instruction neglects the potential for accelerating transfer of L1 thought to L2

proficiency. Yet, rapid transfer of these 'common underlying concepts' represents the quickest route to the cognitive axis in L2.

—Many examples may be cited where learners develop high levels of L2 proficiency in a relatively short time, despite the use of L2 as the language of instruction. This phenomenon seems to contradict the anatomical model, and it deserves further comment. It seems likely that the transfer of L1 thoughts to L2 proficiency plays a major role in such achievements. It was noted earlier (pp. 376–377) that older students with more highly-developed L1 proficiency do, in fact, acquire/learn L2 more rapidly.

Such examples seem to represent a relatively small percentage of those who are trying to learn a second language. The concern of this paper, and of any educational policy, must address the predominant majority of students.

The role that other factors (such as intelligence, motivation and personality) may play in these cases is not self-evident. Some readers may be familiar with the book *Hunger of Memory* by Richard Rodríguez. This autobiographical work includes a detailed account of the agonies and frustrations experienced by Rodríguez in his efforts to learn English. In his case, the language of instruction was solely L2 (English); and he received a very considerable amount of special tutoring and personal help to aid him in his efforts.

If Rodríguez, a person of obvious high intelligence and unyielding determination, found it so difficult to learn L2 — even with the extra help that most students do not receive — then one must ask whether or not a healthy dose of L1 might not have been of some benefit to him. Although his success in finally learning English is a tribute to his intelligence, motivation and fortitude, the pain and suffering he experienced suggest that these worthy attributes do not fully account for the phenomenon under discussion.

—The distinction between 'common underlying *proficiency*' and 'common underlying *concepts*' holds far less importance for those students who have little L1 proficiency. The anatomical model illustrates that the most beneficial strategy for such learners would be to focus on their concept development, and to do so in whichever language may be most practical in a given situation.

### Summary of the Analysis and Some Conclusions

From the foregoing analyses of the basic assumptions of second language acquisition that are reflected in the Direct Method, certain conclusions seem clear:

#### 'Language Equivalency' Assumption

This most basic of assumptions is not sustainable on either theoretical or

practical grounds.

*Theory* – The assumption finds no support from the theories and research of Piaget, Vygotsky and Cummins. It has some measure of consistency with Chomsky's ideas, but only in the broadest senses.

*Practice* – As a practical matter students acquire L2 at a far faster rate than the assumption would predict, based upon the equivalency of number of hours of exposure to language.

### **Sole use of L2 for instruction**

This second basic assumption does not stand up to careful scrutiny. Rather than assisting the acquisition process, the sole use of L2 as the language of instruction appears to inhibit that process:

- It obstructs the rapid connection of words with thoughts, and thereby it slows acquisition of meaning in L2.
- By retarding acquisition of meaning, L2 limits growth in concept development and cognitive language proficiency.

### **Some conclusions**

Based upon these findings, one overall conclusion is inescapable. *Most students learn/acquire a second language by some means other than those assumed by the Direct Method programmes.* This is not to say that some of the teaching techniques employed in such programmes may not be useful. What this conclusion does say is that the assumptions upon which those programmes are based do not account for the learning that does take place. There must be other factors that do account for the learning, but these lie outside the concepts in which these methods are rooted.

### **Comments on Part I Questions**

The Part I article ended with four questions. From the analyses conducted in Part II, these questions may now be addressed in a systematic way.

#### *Question No. 1*

This question deals, essentially, with the validity of the 'language equivalency' assumption. It appears that this premise cannot be sustained.

#### *Question No. 2*

This question concerns the efficacy of using L2, to the exclusion of L1, as the language of instruction. The analyses presented earlier indicate quite vividly that this practice is probably not only a hindrance to acquiring L2, but may stunt concept development and future learning.



*Question No. 3*

Question Number 3 inquires about the strengths and limitations of contextual clues as an instructional technique. The analyses show the dual character of this teaching strategy, and they indicate an upper limit of utility, beyond which the use of clues constricts development in cognitive academic language proficiency.

*Question No. 4*

The question posed here is whether or not a second language acquisition strategy designed for children should be equally applicable for adults. Certainly with respect to the Direct Method the answer is 'no'.

The various 'gaps' that were identified in the nomographs apply with even greater intensity to adults who are farther along in their own development in L1. The forced retreat to earlier developmental stages will be felt even more strongly by adults. Furthermore, adults will be even more confused and frustrated by the process because they have so many more thoughts that they are attempting to connect with given words in order to arrive at some meaning.

Offsetting these difficulties are the greater analytical tools and abstract thinking skills that an adult brings to the learning situation. Unfortunately, the Direct Method approach serves to blunt those tools rather than put them to work.

The use of certain techniques to reduce anxiety, such as removing the requirement for producing language, may provide some comfort in the short run (and extend the time needed to reach some level of proficiency) but these techniques do not address the central causes of anxiety, namely, the cognitive disfunction and/or disorientation that result from the impact of the instructional methodology itself.

Finally, one needs to distinguish between an instructional method and the ways in which a method may be implemented. Any method should try to tailor concepts, vocabulary, language usages, levels of abstraction and actual materials to a given learner population, whether child or adult. However, the methodology itself can have far different effects on learners of different ages. Learner differences in concept development and L1 proficiency probably are the most critical in terms of the impact of a particular method on a child as against the impact of that same method on an adult. Figure 2 dramatises that conclusion by pictorial means.

## **Some General Conclusions and Comments**

### **General Conclusions**

The central conclusions to be drawn from the anatomy of the language/

learning connection seem to be:

1. There is a lot of work that lies ahead. The 'solutions' that use Direct Method programmes to tackle the process of second language acquisition are highly problematic. The fact that they are founded on empirical assumptions that fail to account for the learning that takes place adds emphasis to the need to seek alternative explanations and solutions.
2. Those who use various of the Direct Method approaches, such as the Natural Approach, must do so with a fuller understanding of the problems and limitations that are inherent in the method itself. And those who are committed to such methods must seek to develop other techniques that will help to ameliorate those aspects of the method that have the most counter-productive effects on learners.
3. This article demonstrates quite clearly the intimate connections and relationships between learning and language, and the mutual dependencies of one upon the other. For these reasons it would seem to be more advantageous to reverse some current thinking that attempts to isolate language acquisition from the learning process.

#### **Some characteristics of an alternative approach**

The nomographs used in this article, and the analyses that they make possible, provide a conceptual framework for the development of alternative approaches. From this framework it is possible, at least, to begin to describe the characteristics of an approach to second language acquisition that would accelerate and enhance development of L2 proficiency. These characteristics should include the following ideas that this new framework, or anatomy, suggests:

1. *Connecting Word and Thought* – A methodology that consciously attempts to help the learner connect thoughts with words as quickly as possible should be highly productive. That implies that L1 will be used as an instructional device, at least in the earlier stages of instruction. This characteristic would seem to be particularly important for adult learners who have an overabundance of thoughts seeking unity with words.
2. *Cognitive Transfer* – Because cognitive competency is such a key factor in determining the level of language proficiency and the ability to think in the language, a programme that attends to the transfer of concepts from L1 to L2 should result in more rapid development of language proficiency along the cognitive function axis.

3. *Contextual Clues* – The use of contextual clues to impart meaning can be a most helpful technique in the earliest stages of L2 proficiency, particularly with children. With respect to physical clues, they may be more beneficially used as a supplement for reinforcement rather than as a primary means for connecting words with thoughts. (Examples abound of learners who connect the wrong thoughts with a given word and then find it extremely difficult to correct the error later.)
4. *Age Appropriate Instruction* – Any effective methodology will tailor instructional content and sequence and explanation to the level of concept development that the student has in L1. This will minimise the ‘shock’ that inevitably occurs when the learner experiences the gaps that appear between L1 and L2 language proficiency. Again, adults deserve particular attention, especially those whose professions depend upon proper language usage, such as teachers. The Natural Approach already recognises this requirement because it emphasises the uses of materials and topics that are relevant to given learner populations.
5. *Concept Development* – For children and teenagers it is critically important that concept development be maintained at age appropriate levels. Without concept development there will not be the range of thoughts that can be connected to words, either old words or new. Without those thoughts there cannot be a full range of meanings; and the student cannot advance along the cognitive axis of language proficiency.  
This characteristic denotes the need to use L1 as a means for assuring concept development for some considerable period of time while the student ‘catches up’ in L2 cognitive function.
6. *Standards of Performance* – An effective methodology must incorporate standards of performance. The public and private treasuries cannot afford to subsidise ‘open-ended’ programmes which cannot specify what gains in language proficiency will be made during some period of time under some set of conditions. Indeed, it may be the lack of such standards that has caused funding agencies to set their own.

#### Some preliminary evidence

These characteristics are not hypothetical speculations. There is already documented evidence that alternative programmes which have incorporated these characteristics, in whole or in part, have produced demonstrable (and replicable) gains in second language acquisition. In one such programme over 70% of the adult learners have been able to halve the time needed to achieve higher levels of proficiency in a second language.<sup>5</sup>

These results lend credence not only to the characteristics that have been suggested but also to the framework and analysis on which those characteristics are based.

### Reality and Compromise

The analyses, framework and proposed characteristics represent a 'logical purity' that will, inevitably, be sullied by the harsh realities of actual teaching situations. For example, there are two typical situations where it is not realistic to expect that L1 be used as a language of instruction:

- There are many classes where the teacher does not speak the L1 language of the students.
- There are many instances where one finds a mixture of L1 languages in the same class, and it would be impossible for any single teacher to provide L1 instruction to all students.

The important thing to keep in mind when reality requires compromise is that a compromise has been made. Rather than trying to rationalise the compromise by means of some theoretical construct, an effort should be made to acknowledge the compromise for what it is. To do otherwise is to deflect attention from the need for better alternatives.

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### Notes

1. The ideas and analyses that are contained in this article are excerpted from a book that is currently in preparation. That book, *Quantum Learning*, proposes a new theory of learning, and shows how that theory applies to learning in general, and to language acquisition in particular.

This article demonstrates how certain basic concepts in the fields of language acquisition, learning and language proficiency may be usefully related as a means for better understanding both the learning process and the nature of language acquisition.

Because these relationships stand on their own, without reference to *Quantum Learning*, and because there is much current debate on the issues of second language acquisition, the author believes that these findings may represent a useful contribution to that debate.

2. There may be a connection here with the distinctions between 'believing that' and 'knowing that' made by Scheffler. He points out that the former is susceptible to error whereas the latter is not (in usual cases). There is a wealth of empirical evidence — evidence encountered daily by teachers of second languages — that the most frequent errors made by students are

founded on beliefs. Students think that 'such and such words mean so and so' because they lack the actual knowledge of the connections between words and meanings.

A common error made by English speakers who are learning Spanish (through L2 instruction) is the phrase 'Me llamo es...'. Many students believe that this statement means 'My name is...'. In fact, 'Me llamo es...' is totally ungrammatical and may be translated as 'I call myself it is...' Obviously this erroneous belief arises from an attempt to apply English syntax ('knowing that') to Spanish.

The point to be made is that reliance upon contextual clues with L2 instruction tends to foster and reinforce such erroneous beliefs.

3. A clear reading of the anatomical model predicts that such a shift in emphasis is inevitable if higher levels of proficiency are to be attained. The potential to predict consequences is the hallmark of any sound theoretical construct; and this particular instance supplies some evidence of the fundamental character of the model.
4. Also, in Scheffler's terms, it assists the learner in crossing over that all-important line separating 'believing that' from 'knowing that'.
5. A programme known as 'Bi-Modal Language Acquisition' has documented these results for teaching Spanish to several hundred adults. A paper reporting these findings is in preparation.

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