

# Stages of Bilingual Development in a Foreign–Language Environment: A Theoretical Model\*

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## Introduction

In this paper a model of second–language learning is presented. It consists of five stages of bilingual development: (1) formative period of pure compound bilingualism, (2) formative period of compound–dominant bilingualism, (3) an interlude: ‘culture shock’, (4) period of coordinate–dominant bilingualism, and (5) period of pure coordinate bilingualism, a residue. Our argument, then, is that all adolescents and adults learning a second–language in a foreign–language environment<sup>1</sup>, such as in the English classroom in a Japanese high school or university, are to follow these five stages in this order as they advance in learning the second–language.

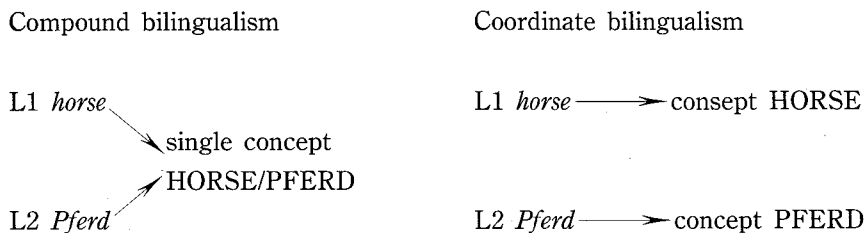
Only possible modification of this model concerns where to locate the third stage, an interlude. This stage is one in which the learner visits a country where the target language is spoken as a native language, and the learner experiences a direct contact with the language and culture in the country. Therefore, this stage may come in between some other stages, or may not exist at all. In other words, the learner may have the opportunity to go abroad at some other point of time while learning the language, or may have none, although in fact a far greater number of people of our country today are favored with such opportunities than before. At any rate, it may be self–evident that second–language learning by an individual learner is greatly fostered by his<sup>2</sup> experiencing the linguistic and cultural milieu of the language. Our model only represents that the third stage is a more preferable one than any other stage for the cultural ‘adventure’, if the learner should ever be given only one chance, the reasons for which will be presented later in Chapter 3.

It is a matter of course, furthermore, that the pace of advancing through these five stages—or four in case the third one is skipped over—varies from learner to learner, depending on the learner’s individual and environmental variables. Some learners remain longer than others in one stage, and many learners never go beyond the first or second

stage. However, 'successful' learners advance through each stage and into the fourth stage of coordinate-dominant bilingualism, even though those who attain the fifth stage are quite exceptional. Also, in an individual learner, it is rather common that only a part of his bilinguality is coordinate, while all the rest is still compound. That is to say, any two of the five stages overlap each other in the process of bilingual development in the learner. This is natural because a language consists of innumerable components and their sub-components which are all different in learnability. Another reason, which seems quite plausible, is that, for the same individual learner of a second-language, "the degree of semantic overlap in two languages (i.e. the learner's first and second languages) is not the same for concrete and abstract words . . . . Generally speaking a bilingual subject will have a more compound organization for concrete words, and a more coordinate one for abstract words" (Hamers and Blanc : 1989 : 95). Such is the degree of overlap between two stages that it is often difficult to tell whether the learner is in one stage or the next. With all these complications stated above, we argue that bilingualism develops in an individual learner by following the five stages represented in the model.

As is already seen, our argument is concerned with the compound-coordinate distinction of bilingualism, so reviewing the distinction will be due here. Ervin and Osgood (1954) distinguished between two types of bilingualism<sup>3</sup>. They argue that compound bilinguals have a language system in which "two sets of linguistic signs, one appropriate to language A, and the other appropriate to language B, (i.e. translation equivalents) come to be associated with the *same* set of . . . meanings" (op. cit. : 139-40); on the other hand, coordinate bilinguals have a language system in which "the set of linguistic signs . . . appropriate to one language come to be associated with one set of [meanings], but the set of linguistic signs . . . appropriate to the other language become associated with a *somewhat different* set of [meanings]" (op. cit. : 140). To put it in our own terms, for languages A and B, compound bilinguals have one and the same meaning-processing channel used for both languages A and B, whereas coordinate bilinguals have two independent meaning-processing channels, one for language A and the other for language B. Therefore, from either of a pair of translation equivalents, say, English *horse* and German *Pferd*, compound bilinguals elicit one and the same meaning or concept; whereas coordinate bilinguals elicit two different meanings or concepts from the pair. This distinction is schematized in Figure 1.

Figure 1. Schematic representation of the compound-coordinate distinction (Adapted from Ervin and Osgood (1954))



Ervin and Osgood (1954 : 140) state as to the causes of this distinction that a compound development “is typical of learning a foreign language in the school situation. It is obviously fostered by vocabulary lists, which associate a sign from language B with a sign and its meaning in language A.” In contrast, a coordinate development characterizes “the second-language learner, who, relying as little as possible on translation. . . , comes to speak a second-language well” (ibid.)<sup>4</sup>. The authors go on to argue that “for any semantic area we would expect speakers of more than one language to distribute themselves along a continuum from a pure compound system to a pure coordinate system. . . . At one extreme, the meanings of translation-equivalent signs are identical, and at the other the meanings of translation-equivalent signs are different” (op. cit. : 141).

Our argument in this paper partly agrees and partly disagrees with Ervin and Osgood’s (1954). First, the compound-coordinate distinction itself admits no question. In order to illustrate this distinction, however, Ervin and Osgood’s illustration by *horse* and *Pferd* is not very appropriate. It is true that “semantic differences involved tend to be connotative rather than denotative” (ibid.), but what difference in connotation is there between these translation equivalents? The authors are silent about this. Instead of them, we propose a pair of sentences as an illustration:

- (1) Ten seki koke musazu.  
(Rolling stone moss gather-not, i.e. A rolling stone gathers no moss.)
- (2) A rolling stone gathers no moss.

These word-for-word translation-equivalent sentences do not necessarily mean the same to Japanese and Americans. To Japanese the Japanese version (1) means (3):

- (3) One who is always changing his work, or place of work, does not succeed or become wealthy.

whereas to many Americans the English version (2) means (4):

- (4) One who is always on the move can stay fresh forever.

This difference seems to come primarily from the difference in attitude toward moss between Japanese and Americans. Japanese think highly of moss as on a stone in the garden, while Americans commonly show a negative attitude toward it. Thus, it is likely that a compound bilingual of Japanese (L1) and English (L2) construes both (1) and (2) as (3), while a coordinate bilingual of the same languages construes (1) as (3), and (2) as (4). In turn, it is likely that a compound bilingual of English (L1) and Japanese (L2)<sup>5</sup> construes both (1) and (2) as (4), while a coordinate bilingual of the same languages construes (1) as (3), and (2) as (4).

Next, see the two quotations from Ervin and Osgood (1954) above. One of them states what they argue to be the causes of the compound-coordinate distinction. It is tantamount to saying that teaching a foreign-language by an indirect method, i.e. by using the learner's mother tongue, makes the learner compound, whereas teaching it by a direct method, i.e. without using the learner's mother tongue, makes the learner coordinate. We are against this, and our argument thereof constitutes Chapter 1. Finally, it seems from the other quotation above that the authors think that every bilingual speaker is fixedly compound or coordinate, in a greater or lesser degree, according to how the speaker has acquired his second-language. The authors seem to have no conception of an individual speaker changing from compound to coordinate bilingual. We are against this. We argue, instead, that a foreign-language learner first becomes a compound bilingual, regardless of the teaching method the learner is taught by, and then changes gradually, as the learner advances in learning, into a coordinate bilingual. This argument constitutes Chapters 2 to 5.

### 1. First Stage: Formative Period of Pure Compound Bilingualism

Let us consider, to begin with, how sounds of a foreign-language come to have meanings in the mind of the learner. Suppose the learner—a Japanese student in our case—sitting in an English classroom for beginners. The student watches the teacher, who is a direct-methodist, show a book, saying “A book” or “This is a book.” Or, the student listens to the teacher, who is an indirect-methodist, say in Japanese, “*Hon* is *book* in English” or “*Book* is *hon* in Japanese.” In either case, it should be noted, the learner will certainly say to himself, “OK, *book* is *hon*, I'll remember.” Even if the direct-methodist teacher demonstrates actions, saying only English words or sentences that designate the actions, the student instantly seeks Japanese words or sentences he thinks synonymous with the English expressions, and makes equations between them. The student thus goes on so far as to think that to equate this way and memorize those equations is to learn a foreign-language. Indeed, many people believe that foreign-language learning is in this sense just a matter of memory.

The learner at the initial stage of foreign-language learning seems to assume that every word or sentence in a foreign-language has its counterpart in his mother tongue, and vice versa, and that one is related to the other in a one-to-one fashion. This is often indicated by the form of questions students ask in their English classroom: “What is the English for this?” or “What do you call this in English?” Questions like “How do you say this in English?” are rare. However, the articles and prepositions in English constitute two major obstacles to this assumption by the learner. Japanese has no explicit forms corresponding to the English articles, and it has a different system of postpositions instead of prepositions. Therefore, the learner is at a loss what to equate with what. This is why Japanese students have problems in learning how to use them, e.g. article omission errors, overuse of articles, misuse of prepositions, etc. (In this respect the reader is referred to Hatch (1983 :

104), Takatsuki (1975)).

What else could the beginner student do, however, in order to approach foreign meanings? The teacher who is a direct-methodist would certainly encourage the student to rely as little as possible on his mother tongue, repeating "Associate foreign words directly with things, actions, or qualities designated by the words." The student, too, would certainly try hard to follow the instruction. But how could he prevent words and sentences of his mother tongue from coming to his mind?<sup>6</sup> Or, rather, could the student approach the meanings of foreign words and sentences without using his mother tongue as a clue to those meanings? It is true that there are many words the meanings of which are so simple or concrete that the learner can 'catch' at once. But it is also true that there are many words of which the learner first makes approximation to their meanings, and after encountering their uses in various contexts several times, comes to 'grasp' their core meanings. This is indicated by the fact that "during the initial stages of . . . second-language learning, nouns are acquired in much greater numbers than are verbs" (Hatch : 1983 : 63). Meanings cannot be learned in a vacuum. The learner's mother tongue serves as a clue to the approximation to foreign meanings in this sense.

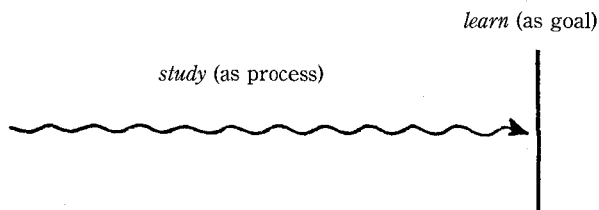
The equation of translation equivalents, or near-equivalents as is often the case, by the learner between his first- and second-languages is fostered by bilingual dictionaries, glossaries attached to textbooks, tests and exercises by means of translation. Those equated meanings (designated by the learner's first-language words) are, as a matter of course, just approximations to the foreign meanings. Therefore, a student at this stage who equates *study* with *benkyo-suru* and *learn* with *narau*<sup>7</sup> may appear to be all right insofar as he is saying "I'm studying English" or "I'm learning English," intending to mean as is meant by its Japanese counterpart. But he is in all probability unable to tell which of the following English sentences are acceptable and which are not, because the Japanese versions are all acceptable.

- (5) a. I study English very hard.
- b. Watashi wa eigo wo isshokemmei benkyo-shimasu.
- (6) a. \* I learn English very hard.
- b. Watashi wa eigo wo isshokemmei naraimasu.
- (7) a. I study English every day.
- b. Watashi wa eigo wo mainichi benkyo-shimasu.
- (8) a. \* I learn English every day.
- b. Watashi wa eigo wo mainichi naraimasu.
- (9) a. I've studied English, but I can't speak or read it.
- b. Watashi wa eigo wo benkyo-shimashita, ga sore wo hanasu-koto mo yomukoto mo dekimasen.
- (10) a. \* I've learned English, but I can't speak or read it.
- b. Watashi wa eigo wo naraimashita, ga sore wo hanasu-koto mo yomu-koto

mo dekimasen.

It is not until the next stage at least that the learner attains the meanings of *study* and *learn*, which may be represented schematically as Figure 2.

Figure 2. Schematic representation of the meanings of *study* and *learn*



## 2. Second stage: Formative Period of Compound-Dominant Bilingualism

Somewhere in the initial stage of foreign-language learning, the learner must necessarily be made aware of differences in semantics between his mother tongue and the target language, when he is at the start of his second stage of bilingual development. First of all, the practice of equating translation equivalents between the two languages, which the learner has followed during his first stage, is blocked by discrepancies between equivalents from the two languages. These are of two kinds. One is such that the learner's mother tongue has more than one translation equivalent for one target language word, e.g. Japanese *ani* and *otohto* for English *brother*. The other is just the reverse of this: for one mother tongue word the target language has more than one translation equivalent, e.g. Japanese *ohkii* for English *big* and *large*. (We ignore cases in which one language has no translation equivalent(s) for a word in the other, because we do not intend to make a contrastive semantic analysis per se in this paper.)

The first kind of discrepancy seems much easier for the learner to overcome than the second. When equating *ani* or *otohto* with *brother*, the learner has only to ignore a concept that serves to distinguish between *ani* and *otohto* from each other, i.e. 'born before or after (the other),' which is irrelevant to *brother*. This concept corresponds, technically, to a 'distinctive semantic feature' and is represented as '[+/-AFOREBORN]'; that is, [+AFOREBORN] characterizes *ani* and [-AFOREBORN] *otohto*. All the other concepts that characterize *ani* or *otohto* remain unaffected when it is equated with *brother*. The second kind of discrepancy, on the other hand, is more difficult to overcome because the learner must find a distinctive semantic feature (or features) that serves to distinguish those foreign words from each other. When it comes to an abstract meaning as of an adjective, it is all the more difficult because often more than one distinctive feature is involved. In the case of *big* and *large*, therefore, the learner must find, first, [+/-FORMAL] that distinguishes between *a* and *b* in

(11):

- (11) a. Sir Henry was feeling decidedly sleepy after a large [?big] lunch.  
 b. Mummy, can I have a big [?large] lunch today?

and, secondly, [+/-EMOTIONAL] that distinguishes between *a* and *b* in (12):

- (12) a. You big [\*large] fat cow!  
 b. (In a geography textbook) Biwa is the largest [?biggest] lake in Japan.

and, thirdly, [+/-QUANTITY (=amount or number)] as seen in (13a, b):

- (13) a. I paid a large [\*big] amount for this radio-cassette.  
 b. Quite a large [\*big] number of people believe in ghosts.<sup>8</sup>

but not necessarily in this order.

It is only gradually that the learner comes to be aware of a more subtle kind of relationship between native and foreign words (or phrases) that constitute 'partial translation equivalents'. There are so many instances of this that it should suffice to give a few examples here. First, consider *beautiful*, which Japanese students of English usually equate with *utsukushii*. Insofar as the learner hears or says 'beautiful flower', 'beautiful lady', 'beautiful music', etc., it is quite all right, because the Japanese versions of these phrases (i.e. *utsukushii hana* [*fujin*, *ongaku*, etc.]) are acceptable, too. The learner thus far appears to know the meaning of *beautiful* well enough. But when it comes to sentences like (14) and (15), equations fail.

- (14) a. (As to football, tennis, etc.) What a beautiful game!  
 b. \* Nanto utsukushii shiai da!  
 (15) a. Your soup was really beautiful, Vandy.  
 b. \* Kimi no suupu wa hontohni utsukushikatta yo, Vandy.

Through experiencing a number of unequatable instances, such as (14) and (15), the learner is supposed to become aware of subtle differences in meaning between native and foreign words. Then he will ultimately learn that, in the case of *beautiful* and *utsukushii*, although both of the words refer to qualities that (1) give pleasure to the senses and/or (2) lift up the mind or spirit, *beautiful* puts more emphasis on the second aspect (2) than *utsukushii* does.

Let us see one more instance of 'partial equivalents', *Good morning*, which is a common greeting. The learner at his first stage equates it with *Ohayo(-gozaimasu)* and says it when meeting, or is met by, his acquaintance in the morning. So far, so good. But he will soon be surprised to hear *Good morning* again said to him by the same person when leaving.

*Ohayo(-gozaimasu)* is in no way used as a farewell.

As a reaction to cases like this, two alternatives are open to the learner. One is to try to memorize mechanically these two ways of using *Good morning*, i.e. as a greeting and a farewell. In fact, the learner at this stage still has a strong inclination for a 'mechanistic attitude' toward foreign-language learning, that is, he regards foreign-language learning simply as a matter of memorization. The other alternative he can possibly take is to seek the meaning of the phrase which is common to its superficially different uses. Certainly, we are not always conscious of their meanings when we are saying a hackneyed formula of greeting like *Good morning*, but introspection would tell us what we want to have them mean to the addressee. Then, more people will agree than not that the meaning of *Good morning* is something like (16):

(16) I wish you a Good morning.

Accordingly, it is quite natural to say 'Good morning' not only when we meet but also when we depart from each other.

It should be noticed, furthermore, that this meaning, 'The speaker wishes a happy event to happen or a happy state to come to the addressee in the future' is shared by many other greetings and formulaic expressions in English. All of them can be regarded as abbreviations of their full forms beginning with *I wish you*, as in (17):

(17) I wish you a Good afternoon [Good evening, Good night, Good luck, Good health, Merry Christmas, Happy New Year, Happy Birthday, Many happy returns (of your birthday), Happy Anniversary, etc.].

In contrast, consider Japanese *Omedeto(-gozaimasu)* which is usually equated with many of these phrases in (17): *Kurisumasu* (=Christmas) *Omedeto*, *Shinnen* (=New Year) *Omedeto*, *O-Tanjobi* (=birthday) *Omedeto*, etc. The meaning of *Omedeto* here is 'The speaker expresses his pleasure for a happy event which has already happened to the addressee.' Therefore, it is not until the day—New year's Day, birthday, or whatever—has actually come that *Omedeto* can properly be said. In other words, when Japanese are saying 'Omedeto,' they are thinking of the present time or looking back into the past, whereas English-speaking people saying 'Merry Christmas,' 'Many happy returns of the day,' etc. are looking forward into the future.

So far, we have looked into words and phrases, the meanings of which the learner can no longer seize by relying upon his mother tongue meanings. Encountering these words and phrases, it is supposed, brings pressure on the learner to revise his learning strategy, i.e. the practice of equating native and foreign words. Trying to memorize usage of words one after another—what we have called a 'mechanistic attitude'—is of little avail. Memorizing every use of words is far beyond human memory. It is unlikely, also, that memorized



pieces of language turn into competence. Instead, the learner is required to be sensitive enough and inquisitive enough to be able to infer the meanings of words from their usage, combinations with other words, and context. He is required to have a 'mentalist attitude' in this sense, in order to advance beyond the first stage of foreign-language learning.

### **3. Third Stage: An Interlude: 'Culture Shock'**

The learning of a language includes not only its phonology, syntax and semantics, but also pragmatics, i.e. how to use language. Language groups each possess a unique repertoire of linguistic behavior, and it is commonly regarded as part of its culture. Learning pragmatics, therefore, should inevitably constitute an integral part of language learning.

There are, indeed, some exceptions to this. If the purpose of learning a language is only to read or write, say, medical theses and books in that language, the importance of learning its pragmatics will be reduced to the lowest minimum. Instead, if the purpose is to acquire a means of intercultural communication, learning the pragmatics of the target language is of vital importance. In this sense, "language learning implies and embraces culture learning . . . to become bilingual means to become bicultural to some degree" (Damen : 1987 : 4).

In view of learning pragmatics, accordingly, it goes without saying that for the learner to plunge into a cultural milieu in which the target language is spoken, makes an epoch in his learning the language. Let us think of staying there for one year, or half a year at least, possibly including a 'homestay', rather than a two-week sightseeing trip. Experiencing a 'real' use of the target language may make him feel confident of his current state of competence, thereby encouraging him to study further. Or it may make him feel disappointed with his incompetence, but will nevertheless provide him with opportunity to be aware of what he has yet to learn.

But when should he go ? Krashen (1985 : 2) argues that "humans acquire language . . . by understanding input that contains structures at our next 'stage'—structures that are a bit beyond our current level of competence"<sup>9</sup>. This implies that, in terms of the amount of 'comprehensible input' to the learner, going abroad at the initial stage is of no great benefit. The adult beginner in a foreign country will not be able to understand much of what he hears around him. Natural language use is often too fast and too complex for him, and can be difficult to utilize for language acquisition. (Notice, here, that Krashen's locution 'comprehensible input' is an awkward redundancy: if *incomprehensible*, it is not 'input' but sheer noise!) Therefore, the learner should go abroad, given only one chance, at a more advanced stage, but not much later, if he wants to make the experience a spurring incentive for learning the language.

Anyhow, now that the learner is alone in a foreign country—in the United States, for instance,—surrounded by the new and strange, he may be able to find the state he is in endurable and even enjoyable in time, or he may by no means find it endurable, as is often

the case with newcomers. In case he cannot stand it, his feeling of loneliness may quickly be followed by dislike of the new and strange, ill feelings toward people around him, discouragement, despair, and then ungovernable longing to be back home—symptoms of what is often referred to as ‘culture shock’<sup>10</sup>.

Here, we are not interested in these serious symptoms of neurosis. We are interested rather in those innumerable ‘small surprises’ the learner experiences concerning use of language in the ordinary course of life. They are ‘surprises’ because they tell him totally new ways of using language. By way of illustration, the difference between Japanese and English in addressing a person, as in (18), may surprise the learner.

(18) A student addressing his teacher:

<i>Japanese</i>	<i>English</i>
‘Sensei.’	*‘Teacher.’
‘Smith sensei.’	*‘Teacher Smith.’
? ‘Ohayo-gozaïmasu, Smith sensei.’	‘Good morning, Miss Smith.’

A teacher addressing her student:

<i>Japanese</i>	<i>English</i>
*‘Yah, Sadao.’	‘Hello, Sadao.’
‘Sadao-san (-kun).’	*‘Mr. Sadao.’

When saying greetings, Americans often add the addressee’s name at the end of them, as ‘Good morning, Miss Smith’ in (18). This practice of referring to the addressee’s name, very often to express the speaker’s friendly feeling, is quite unfamiliar to Japanese people. This may be the reason why Americans learn very well the names of persons they meet for the first time, while Japanese often fail to do so, but do learn their occupations or social statuses instead. In this connection, Barnlund (1989) presents an interesting report. He asked 423 Japanese and 444 American college students to identify the three strangers with whom they had talked most recently and to report what they learned about each of the strangers. He obtained the result as follows:

The most frequent information acquired by the Japanese (55.9 percent of all cases) concerned the occupation of the stranger; for Americans the most frequently acquired information, again in over half the cases (55.6 percent), was the name of their partner, followed closely by their activities and interests (54 percent). (op. cit. : 67)

Also interesting is his comment added to this result: “That occupation figured so prominently among the Japanese may affirm the critical importance of status in regulating communicative behavior in a vertical society” (op. cit. : 67–8).

Another example of differences in pragmatics between Japanese and English concerns

saying thank-you. Usually, Americans say thank-you just for one occasion when they feel obliged to, as when receiving a gift. Japanese say thank-you usually twice: at the time of receiving a gift and the next time when they meet—even if it is days or weeks after. Therefore, the Japanese language has expressions for such repeated thanks, which do not exist in English.

<p>(19) <i>Japanese</i></p> <p>‘Arigato-gozaïmashita.’ (-<i>ta</i> at the end denotes the past; its present version is <i>Arigato-gozaïmasu</i>.)</p> <p>‘Konoaida wa arigato-gozaïmashita.’</p>	<p><i>English</i></p> <p>*‘Thanked you.’</p> <p>*‘Thank(ed) you the other day.’</p>
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Certainly, having wide communicative contacts with the target culture greatly helps the learner develop his communicative competence by reinforcing his ability in the pragmatics of the target language. But it provides a pitfall, too. Often those who have developed a certain degree of communicative competence feel, erroneously, that they have ‘learned’ enough and have no need to attain linguistic mastery any more because their cultural adaptation is sufficient. Such a person is unlikely to achieve full formal linguistic mastery. Examples of this ‘quasi-bilingualism’ are often provided by those who have somehow been ‘getting along’ in a carefree way in the second culture, probably with nonverbal signals plus a kind of fractured version of the target language, but spent a minimal amount of time and effort on formal language learning<sup>11</sup>.

#### **4. Fourth Stage: Period of Coordinate-Dominant Bilingualism, and Fifth Stage: Period of Pure Coordinate Bilingualism, a Residue**

The learner, having advanced in the learning of a second-language along the continuum of stages 1, 2, and 3, now reaches the fourth stage: period of coordinate-dominant bilingualism. (We would like to conceive of the fourth and fifth stages as ‘states’ of the learner’s bilingualism rather than its formative periods, because either of the stages is assumed to last much longer than any of the other preceding stages. Indeed, the fourth stage is a terminal one for most second-language learners, the reason for which will be given later in this chapter.) The learner at this stage is supposed to be a good speaker of the target language, though he may possibly have a foreign accent. He is supposed to be able to read well with a good appreciation of minute nuances of meaning, and to write well making very few, if any, grammatical mistakes. In terms of semantics, it will be safe to say that he has already got rid of that conscious or subconscious practice of equating his first-language meanings with his second-language ones, except perhaps when dealing with highly technical terms, or other words denoting concepts which are still difficult for him to

understand. He now has a greater awareness and understanding of similarities and differences in semantics between the two languages.

In terms of culture learning, although his experience and knowledge of the target culture is not yet complete, the learner has acquired an 'emic', as opposed to 'etic'<sup>12</sup>, point of view through learning two cultures. An 'emic' point of view refers to one from which one perceives instances of human behavior, trying to judge which of them are meaningful—i.e. valued, positively or negatively—and which are not meaningful, in one specific culture. An 'etic' point of view, by contrast, is one from which one perceives every instance of human behavior as it is; it does not concern its value judgment. An illustration follows. Japanese people usually spit out the seeds while eating watermelons, which Americans never do. Americans take out all seeds carefully before eating watermelons, and if they nevertheless feel one left in the mouth, they bite it and eat it. Once put in the mouth, whatever it is, taking it out is regarded as rude in American culture—but suppose it is a piece of fish bone! On the other hand, Americans sometimes sit on a desk, instead of a chair, just for a bit of relaxation. Sitting on a desk has almost no meaning in American culture, whereas in Japanese culture it is strictly forbidden. A person having an 'emic' point of view is sensitive to culture, and able to distinguish instances like the 'watermelon' case from ones like the 'sit-on-desk' case in regard to human behavioral patterns. Consequently, it will be easy for him to understand, tolerate, or accept anything new and strange in the second culture.

Let us now turn to the question: Can the adult learner reach the final stage: period of pure coordinate bilingualism? In order to answer this question, some preliminaries are necessary. As Hamers and Blanc (1989 : 8) state, the compound-coordinate distinction of bilingualism primarily "has to do with a difference of cognitive organization and not to a difference in the degree of competence." However, in the case of adults' foreign-language learning treated in this paper, pure coordinate bilingualism does imply native-speaker competence. This is a necessary consequence that follows from its preceding process of bilingual development. It is impossible, or rather contradictory, to conceive of an adult learner whose competence in his second-language is limited but yet whose bilingualism is pure coordinate. (It may be possible for a child in a second-language environment to be a pure coordinate bilingual with limited second-language competence. In this case, the child's first-language competence also is limited.)

Then, a pure coordinate bilingual, if ever one exists, is a person who possesses two types of native-speaker competence in him. But what is native-speaker competence? Stern (1983 : 346) characterizes 'knowing a language', 'competence', or 'proficiency' in the first- or second-language as follows:

1. the intuitive mastery of the *forms* of the language,
2. the intuitive mastery of the linguistic, cognitive, affective and sociocultural *meanings*, expressed by the language forms,
3. the capacity to use the language with maximum attention to *communication* and

- minimum attention to form, and  
4. the *creativity* of language use.

This list of Stern's suggests that competence in a language is multifaceted and it would, therefore, be more reasonable to assume that it can best be grasped by identifying more than one component rather than to expect it to be expressed in a single concept. No doubt the components of linguistic competence include the phonology, vocabulary, syntax and semantics, and the components of communicative competence include the pragmatics as well as discourse and narrative construction. And linguistic and communicative competence manifests itself, though indirectly, in language behavior receptively and productively in listening, speaking, reading, and writing. Here, we should not overlook the fact that different speakers of a first-language show different degrees of mastery of these four skills. This suggests that different speakers are likely to have competence in their first-language to a different degree.

It should now be clear what is meant by being a pure coordinate bilingual. It means possessing two types of native-speaker competence in the sense of the term explicated above. A language learner, whether of a first- or second-language, develops the four basic skills (i.e. listening, speaking, reading, and writing) to the levels required by the environment. But an environment in which an identical level is needed for each skill is rare. Such is especially the case with a second-language environment, and even more so with a foreign-language environment. Most bilinguals use their languages for different purposes and in different situations. No society needs two languages for one and the same set of functions. Therefore, pure coordinate bilinguals, or 'balanced' bilinguals (that is, bilinguals who use both their languages equally and equally well in all contexts), are probably the exception and not the norm<sup>13</sup>.

Certainly, pure coordinate bilingualism is a necessary point of reference for the second-language proficiency concept used in language teaching theory, but caution is needed against the idea that a perfect speaker of a second-language is always an ideal speaker in all contexts of the language. A person who is proficient in a language is assumed to be one who is also socioculturally competent in the community of the language. This assumption, however, does not hold for many foreign-language learners. Very often, because of their restricted contact with the 'real' target culture, their sociocultural competence in it is still limited, even if they are fluent speakers of the language. These learners, who are bilingual but not yet fully bicultural, are sometimes unable to behave properly in the target culture, contrary to the assumption held by the native speakers of the language. On that occasion, the learners, because they are fluent speakers of the language, cannot possibly have any 'allowances' for making sociocultural errors.

Such being the case, it is necessary for a foreign-language learner to know, in the linguistic and cultural milieu of the language, how to conduct himself as someone whose sociocultural competence is limited, that is, to know how to be a 'foreigner'. This is a ques-

tion well worth looking at, but we do not go into it here, leaving it for future study.

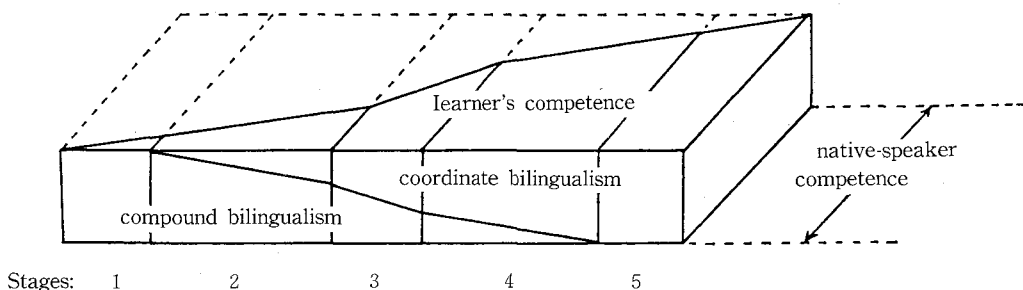
## Conclusion

In this paper we have attempted to present a five-stage model viable for describing the bilingual development in the adolescent or adult learning a second-language in the foreign-language environment, and to characterize each of those five stages by looking at its linguistic manifestations and its cognitive consequences.

This model is based upon the compound-coordinate distinction of bilingualism proposed by Ervin and Osgood (1954). Since this distinction is concerned primarily with a difference of cognitive organization in the bilingual speaker, our model represents the semantic aspect, rather than the phonological or syntactic aspect, of bilingual development. We have also paid attention to the pragmatic aspect which has a closer relationship with semantics than with the other aspects of language.

This model of ours is analogous to what Selinker (1972) and others call *interlanguage*<sup>14</sup>. Interlanguage is conceived of as an intermediate system between the first- and the second-language, composed of rules built on different second-language learning strategies, e.g. simplification, overgeneralization, and transfer. To put it another way, it is a series of approximative systems which evolve from the first-language systems, and resemble more and more the system used by the native speakers of the second-language. At any given time, an interlanguage is a complex of different types of rules. The concept of interlanguage has been applied to the phonological and syntactic aspects, whereas our model is conceived of to capture the semantic aspect, of bilingual development. Our argument is that the learner's cognitive organization of the second-language meanings starts from the first-language meanings assigned to second-language forms, and then approaches nearer and nearer that of native speakers'. In other words, its development is a continuous separation from the first-language semantics toward the second-language semantics. At any given time from the second through the fourth stage, the learner's 'interlanguage semantics' is a

Figure 3. Schematic representation of bilingual development in the foreign-language environment



complex of two different types. It can be represented schematically as a continuum as Figure 3.

During the formative period of pure compound bilingualism (Stage 1) and the succeeding periods (Stages 2, 3 and possibly, but not necessarily, 4) of departure from the first-language semantics, the central strategy employed by the learner for acquiring the second-language semantics is hypothesis testing. This strategy consists of five steps:

1. identifying the characteristics (not necessarily exactly) of a particular target concept by observing uses of the second-language word denoting the concept or by looking into a bilingual dictionary or glossary,
2. forming a hypothesis—i.e. equating the second-language word denoting the concept with a seemingly corresponding first-language word, or vice versa—based on that identification,
3. testing the hypothesis, i.e. equation, by producing an utterance or listening for a similar example,
4. receiving feedback on the hypothesis, and
5. deciding whether to continue accepting this hypothesis, or rejecting it on the basis of the feedback.

Feedback for the learner can be in the form of correction or comprehension by the interlocutor, reconsideration of the hypothesis by the learner himself, upon encountering other word(s) seemingly synonymous with the word, encountering new uses of the word, or some other indicator that leads the learner either to keep his hypothesis or reject it and form a new one.

This practice of hypothesis testing, i.e. making equations and testing them, will be continued until the learner's competence in the second-language semantics is well-developed enough to operate itself without reference to the first-language. When the learner has thus attained the self-sufficient and autonomous second-language semantics, somewhere later in his fourth stage of bilingual development, then he might have already been aware, as was Edward Sapir (1956 : 69), that "no two languages are ever sufficiently similar to be considered as representing the same social reality. The worlds in which different societies live are distinct worlds, not merely the same world with different labels attached."

## Notes

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Of course I accept full responsibility for the shortcomings of this paper, but I hope that I have done their serious and thoughtful comments justice.

1. There is consensus among researchers today that it is necessary to make a distinction between a non-native language learned and used *within* a country where the language is spoken as a mother tongue, to which the term 'second-language' has been applied, and a non-native language learned and used *outside* the country, to which the term 'foreign-language' has been applied. Certainly, "a foreign-language usually requires more formal instruction and other measures compensating for the lack of environmental support. By contrast, a second-language is often learnt informally ('pick up') because of its widespread use within the environment" (Stern : 1983 : 16). However, for the adolescent or adult learner we are concerned with, 'foreign-language' is essentially a variant of 'second-language' in the sense that it is a language learned after his first-language has been learned. Therefore, we will use both terms synonymously in the remainder of this paper unless otherwise indicated. The same will be the case with 'first-language' and 'mother tongue', 'learner' and 'student'.
2. While I accept the principle of 'non-sexist language' commonly recommended in recent years, I have avoided in this paper unesthetic 'he/she, him/her, himself/herself', etc. and have used masculine 'he/his/him' as forms unmarked for sex.
3. Originally, Weinreich (1953) proposed three types of bilingualism, which were modified and reconstructed by Ervin and Osgood (1954) into two types. Ervin and Osgood's paper was edited later in Osgood and Sebeok (1965). The pages indicated in this paper are Osgood and Sebeok's.
4. Beside what is cited here, Ervin and Osgood (1954 : 140) state concerning the causes of the distinction: "A compound system can . . . also be characteristic of bilingualism acquired by a child who grows up in a home where two languages are spoken more or less interchangeably by the same people and in the same situations . . . [A coordinate system] is typical of the 'true' bilingual, who has learned to speak one language with his parents, for example, and the other language in school and at work."
5. Assume this compound bilingual person and the following coordinate bilingual person to be Americans. British people construe this proverb in the same way as Japanese do.
6. As early as in 1899, Henry Sweet presented a similar argument: "We cannot think in a foreign language till we have a thorough and ready knowledge of it; . . . when we begin to learn a new language we cannot help thinking in our own language. Thinking in [a foreign-language] implies that each idea is associated directly with its expression in the foreign language instead of being associated first with the native expression, which is then translated into the foreign language. This has led many into the fallacy that if we were only to get rid of translation in teaching a foreign language, substituting pictures or gestures, we should get rid of the cross-associations of our own language. But these cross-associations are independent of translation. They arise simply from the fact that each idea that comes into our minds instantly suggests the native expression of it, whether the words are uttered or not; and however strongly we may stamp the foreign expression on our memories, the native one will always be stronger" (Sweet: 1899 : 197).
7. These equations are taken from a glossary attached to a textbook in current use.
8. Examples (11a, b) and (12a) are cited from Swan (1980 : 109-10); (13a, b) are from Heaton and Turton



(1987 : 34).

9. Krashen (1985 : 2) argues that “humans acquire language *in only one way*—by understanding messages, or by receiving ‘comprehensible input’” (The italics are mine.). It is concerning this point that Krashen’s ((1982), (1985), Krashen and Terrell (1983)) ‘Input Hypothesis’ has recently been criticized by several psycholinguists: “How does the learner progress from understanding to acquisition? Here the [i.e. Krashen’s] theory is silent” (McLaughlin : 1987 : 38). “There is no way of determining what such input would be, and hence no way of testing the hypothesis” (op. cit. : 40). “It is not clear why some of us are better at [learning a foreign–language] than others when we are all exposed to the same input . . . . The second problem with the input hypothesis is how it explains the process of acquisition or the getting of knowledge [of language] itself” (Seliger : 1988 : 35).

No one can doubt, however, that it is not noise but comprehensible language material (i.e. input) that is in some way relevant to language acquisition.

10. Damen (1987 : 225–6) lists symptoms of culture shock, such as “excessive washing of the hands, excessive concern over the water, food dishes, and bedding; fear of physical contact with attendants; the absent–minded stare, a feeling of helplessness, and a desire for dependence on long–term residents of one’s own nationality; fits of anger over minor frustrations; great concern over minor aches and pains and skin eruptions; and finally ‘that terrible longing to be back home’.”
11. This ‘pitfall’ phenomenon is analogous to what Selinker (1972) calls *fossilization*. Fossilization is the state of affairs that exists when the learner stops elaborating some aspects (e.g. pronunciation) of the target language, no matter how long there is exposure, new data, or new teaching. McLaughlin (1987 : 61) states that fossilization may occur when “strategies of communication. . . dictate to some individuals that they stop learning the language once they have learned enough to communicate.”
12. The terms, *emic* and *etic*, are abbreviated versions of the terms, *phonemic* and *phonetic*, respectively. In phonological analysis, the term *phonetics* is used to indicate the physical sounds and their descriptions, while *phonemics* is reserved to indicate the sound system and categories of distinctive, abstract sound units in a given language.
13. Grosjean (1982 : 235) reports of a survey she conducted of thirty bilinguals from eight different countries and involving thirteen language pairs (such as Portuguese–English, Japanese–English, Urdu–English, Farsi–English, American Sign Language–English). She says: “I found only seven (23 percent) who estimated that they were equally fluent in all four skills in both languages. Almost half felt they were equally fluent in speaking and listening but only eight (27 percent) felt they were equal in reading and writing. These percentages would probably have been even lower if the population surveyed was not college educated.”
14. The term *interlanguage* was first used by Selinker (1972). Various alternative terms have been used by different researchers to refer to the same phenomenon: Nemser (1971) refers to *approximative systems*, and Corder (1971) to *idiosyncratic dialects* and *transitional competence*.

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