

Does The Monitor Theory Provide An Adequate Model For The Second Language Classroom ?

(3)

Interference

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1. INTRODUCTION

The Monitor Theory proposes a model for second language achievement which includes input, output, and the element of competence which relates the two. This model depends upon a distinction between the learned system and the acquired system, and attempts to define all aspects of second-language performance in terms of this distinction.

In previous studies, the effects of long-term memory, neurological factors, and adolescence upon language acquisition ability were combined to establish reasonable doubt concerning the existence of an acquisition-learning distinction. The relationship of meaning and form to competence and performance led to the conclusion that the notion contained in the Monitor Theory of an acquired system acting as utterance initiator is not within the bounds of a realistic second language experience. Alternatives to using the

acquired system as utterance initiator indicated that the pre-competent speaker would in fact use the learned system.

The output, or performance, aspect of the Monitor Theory introduces the problem of first-language interference. Krashen recognizes that interference is symptomatic of the pre-competent speaker, and asserts that syntax will be the area most strongly affected. Syntax, however, is only one subsystem which is present in second-language performance. The purpose of this paper is to examine Krashen's claims in terms of the grammatical, phonetic, lexical and cultural subsystems of language; to determine the effects of increasing competence, language variables, and biological factors upon interference; and to consider the second language classroom as regards the problem of interference as described in the Monitor Theory.

2. THE FIRST LANGUAGE AND THE SECOND LANGUAGE

A. Syntax and Morphology

Krashen states that "first-language influence appears to be strongest in complex word order and... is weaker in bound morphology."¹ He also states that L1 interference is strongest in acquisition-poor environments, but this should be obvious, since Krashen's alternatives to using the acquired system as a statement initiator include the use of first-language surface structure by pre-competent students.² An examination of syntax (phrases and word order) and morphology (words and parts of words) will shed light on the subject of interference.

Bloomfield spoke of syntax and morphology in terms of free forms and bound forms. He said that "a linguistic form which is never spoken alone is a *bound* form; all others are *free* forms."³ Examples of free forms include *wait* and *walk*, both of which can be used alone as statements. Bound forms

include *-ed* and *-ing*, which can be added to free forms, but cannot be used alone. Finocchiaro and Brumfit state that morphology results either from *inflection*, which produces grammatically distinct forms of single vocabulary items, for example *do*, *does*, *did*, *done*; or *derivation*, which adds a prefix or suffix to a word to create a different vocabulary item, for example *sad*, *sadly*, *sadden*, *sadness*.⁴ An “inflected language,” therefore, is a language, such as Latin, which can “express distinctions such as number and gender (for nouns) and tense, person, number, voice, and mood (for verbs) simply by changing the endings of words.”⁵ A “non-inflected language,” which partly describes English, indicates by word order whether a word is the subject, direct object, indirect object, or object of a preposition.⁶

Complex word order, or syntax, consists primarily of free forms, and can be defined as “the principles for combining words to form grammatical sentences.”⁷ Bloomfield, in speaking of syntax, said that words occupy positions in sentences according to their functions, and that all words which can fill any particular position belong to a group which he described as a *form-class*.⁸ Thus *nouns*, *verbs*, *adjectives* etc. occupy specific positions to convey meaning in a non-inflected language. Although it is sometimes assumed that these classes are universal, some languages, such as the Indo-European Family, have many classes, whereas other languages, such as Semitic languages, may have as few as three.⁹ The ease or difficulty of learning a second language partly depends upon the similarity of the class structure of the second language to that of the native language.¹⁰

It is upon this foundation of syntax and morphology that Krashen hopes to build a correlation of strong and weak interference among pre-competent second language performers. However the above-mentioned similarity of organization of the second language to the first language will affect not only the learning of the second language, but also the nature of the first-language

influence.

Since Krashen predicts that first-language influence will be strongest in complex word order, it must be assumed that the second language in question is highly dissimilar in class structure to the first language. This assumption would, of course, severely restrict the Monitor Theory in terms of its application to students of all but one language from among native speakers of only one language. Further restrictions are imposed by the failure of the Monitor Theory to discuss adequately the effects of varying degrees of inflection of the first and second languages upon interference. How strong is the interference, for example, of a highly inflected first language upon a non-inflected second language, or the interference of a non-inflected first language upon a highly inflected second language? Krashen neglects to mention the nature of the first and second language and whether it has any effect upon the strength or weakness of L1 influence.

Although Krashen claims that first-language interference is weaker in bound morphology, Kimizuka has shown that among Japanese students learning English, there is a very high degree of interference due to false analogy of second-language class structures and direct transfer of first-language morphemes.¹¹ In this case the second language depends heavily upon word order, whereas the native language is more flexible, except for the placement of the verb at the end of the sentence. (Form-class words are identified in Japanese by the use of particle-morphemes.) One would expect to find a high degree of syntactic interference in such a situation, and Kimizuka reports that this is so. Yet she also reports morphological errors which have their roots in the same soil as the syntactic errors; for example, Japanese has only one noun form, while English must distinguish between singular and plural, regular and irregular plural, mass and count nouns, animate and inanimate possessives, and so on.¹² This is in contrast to the

example of Czech nouns (which also do not distinguish between singular and plural) cited by Krashen as not representing first-language interference.¹³

Problems involving the acquisition-learning distinction also surface during the discussion of first-language interference. Krashen's claim that L1 influence is greatest in complex word order and acquisition-poor environments should lead to the conclusion that interference would be weaker in bound morphology and monitor-free environments. Yet he says that "aspects of the target language that may be learned (late acquired...e.g. bound morphology) are relatively free of L1 influence."¹⁴ If bound morphology is to be learned, it does not belong in a monitor-free environment, but rather in an acquisition-poor environment. This raises the question of whether interference may exist also in a monitor-free situation. Thus the pre-competent performer is likely to demonstrate first-language influence in bound morphology as well as complex word order. The competent speaker, on the other hand, is still likely to rely on the use of the Monitor to overcome strong first-language interference, if it happens that acquisition and learning do not align themselves as easily with relative strength of interference in terms of syntax and morphology as the Monitor Theory implies.

B. Phonetics

Krashen's treatment of interference largely overlooks the non-grammatical subsystems of language such as sound systems, cultural and lexical systems. Pronunciation is dealt with glancingly in a separate section on attitude, yet a negative attitude is a type of interference, and should be treated as such. Since children seem able to adopt a second sound system, but adults do not retain that ability, foreign accents result regardless of the

adult's ability to use the formal language system.¹⁵ Thus one of the greatest obstacles to adult second-language performance is pronunciation-related interference. In order to understand this problem, we should examine the first and second language in terms of attitude, motivation, and biological factors which can influence the acquisition of new sound systems.

Wilga Rivers states that an adult's ability "to distinguish sequences which are slightly familiar from the unfamiliar may also be affected by the emotional stress and anxiety which not infrequently accompany aural comprehension experiences in a foreign language."¹⁶ On the other hand, the learning of the native language is "not a strain because of the attitude of suspended judgment on the part of children."¹⁷ According to Krashen, the difference in stress and anxiety is a result of the *formal operations* stage, which is reached by many people at about age 12.¹⁸ Since formal operations allows the adult to make generalizations about language, there gradually appears a distinction between attitude and aptitude, and each influences language achievement in a different way. From this it might be concluded that acquisition of the first language is accomplished solely on the basis of attitude, and that second language achievement depends on both attitude and aptitude.

Krashen defines aptitude as the ability to memorize new language sounds, awareness of structural patterning, and the ability to establish relationships involving meaning or form. However, he ignores the first component, and relates the second and third to learning.¹⁹ Thus the Monitor Theory fails to recognize that phonetic coding ability is an important part of aptitude. Since the child is far superior to the adult in this ability, it is likely that aptitude plays an important part in first-language acquisition. If the first aspect of aptitude is present during childhood, are not the other two aspects at least partially involved? This also brings up the possibility that linguistic

aptitude in adults represents an incomplete closure of the Language Acquisition Device, contrary to the claims of the Monitor Theory, which attributes attitudinal factors to second-language success.

Krashen attributes attitudinal interference to a “socio-affective filter,” which limits the amount of input which the student is willing to receive. He claims that two types of motivation help to lower the affective filter. First is *instrumental* motivation, in which the student is learning a second language for practical purposes such as employment. Second is *integrative* motivation, in which the student desires to be accepted into the community in which the second language is spoken. He says that the latter predicts weak interference, while the former predicts strong interference. Here, strong interference takes place at an advanced level (supposedly high acquisition), and involves both morphology and accent.²⁰ This is due to cessation of progress when the instrumental learner perceives that communicative needs are met.

Earl Stevick points out that there is no dichotomy between integrative and instrumental motivation.²¹ However he goes on to say that there are instances in which a person's group identity will serve to interfere with proper pronunciation, even though the student is capable of producing a more accurate phonetic interpretation of the second language.²² Stevick actually expands the Monitor Theory to include social forces, which he says act upon both acquisition and learning, and which are also partially determined by reactions to output, reminiscent of the role of the listener in Bloomfield's stimulus-response-reinforcement model.²³ The strongest factor in social influences, however, takes place within the speaker. Krashen states that the adolescent, preoccupied with the impressions others have of him, retreats behind his newfound affective filter and the safety of a sound system which will produce the least ridicule from his peer group.²⁴ In this

way the first language, via speakers of the first language, interferes with second-language pronunciation in adult performers.

C. Culture and Vocabulary

The Monitor Theory relates interference directly to syntax and morphology, and indirectly to pronunciation. Two subsystems of language which can also be linked to interference are culture and vocabulary. Many linguists agree that language is in some way related to culture, and since vocabulary is a basic part of language, the cultural and lexical systems must also be related. In order to understand first-language interference further, a definition of culture, a study of socio-cultural meaning, and an examination of relationships of the various aspects of language to culture are necessary.

From the point of view of anthropology, language and culture are inseparable. Edward Sapir said that “language does not exist apart from culture, that is, from the socially inherited assemblage of practices and beliefs that determines the texture of our lives.”²⁵ These practices and beliefs include the child’s way of doing things, expressing himself, his values and despising, his expectations, attitudes, reactions and assumptions.²⁶ These are determined, in part, by a nation’s physical climate and historical background, and can be divided into three broad categories: moral values, aesthetic values, and utilitarian values.²⁷

First-language interference may result from mistakes in socio-cultural meaning, or the association which members of any single group make of words relating to similar experiences. Rivers says that even though words may correspond lexically in denotation, they may differ in connotation. In discussing the theory of language meaning, she maintains that an

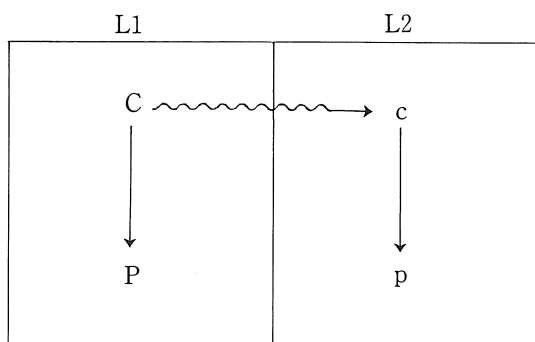
individual's cultural environment shapes his cumulative experience to produce the meaning of a word. Thus, members of a second cultural group may find that identical lexical items carry widely different meanings from what was intended.²⁸ For example, the word "high school" may commonly be understood to denote "an educational institution for persons aged 15-18." Yet the socio-cultural meaning may be determined by factors such as the overall educational system within which the high school is contained; the status of the high school as an institution in society; the relative importance of academic subjects compared with athletic and social events; study habits which are imposed upon students; dress codes and dating practices; and modes of transportation which students use to get to and from school.

Culture may affect the language of an individual, but not the language of the group of which he is a member. Sapir said that although a people's practices and beliefs may manifest themselves in an individual's behavior, the development of their language occurs independently of temperamental variations.²⁹ Of course, the *content* of a language is closely related to culture, as the society which has no system of formal education will probably have no word for "high school".³⁰ Sapir defined culture as *what* a society does and thinks; and language as *how* that society thinks; morphology is the collective *art* of thought.³¹ In terms of interference, the first language may exert lexical influence by way of socio-cultural meaning; syntactic influence by linguistic channels; and morphological influence by artistic means. Krashen considers this unnatural, resulting in first-language surface structure with L2 vocabulary inserted, and morphology added by the Monitor.³² However, evidence presented in the above discussion provides a very natural setting for first-language influence, although Krashen's model does indeed give an unrealistic picture of the true second-language

learning experience.

3. INTERFERENCE, ACQUISITION AND LEARNING

Based on Krashen's conclusions about the role of the first language, a model can be constructed showing the influence of L1 upon L2, when the student "has to produce in the target language but has not acquired enough of the L2 to do this."³³ In the illustration below, Monitor Theory competence is shown as "C and c" for L1 and L2, respectively; performance is shown as "P and p"; interference is shown as a wavy line:

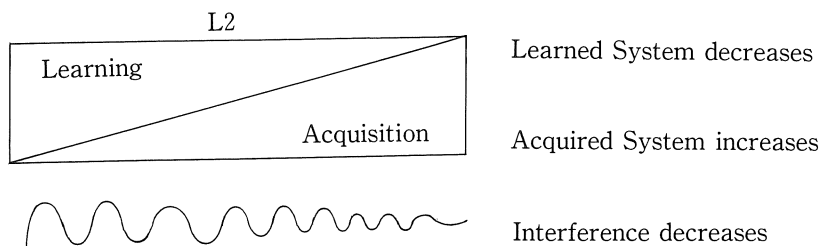


Interference According to the Monitor Theory

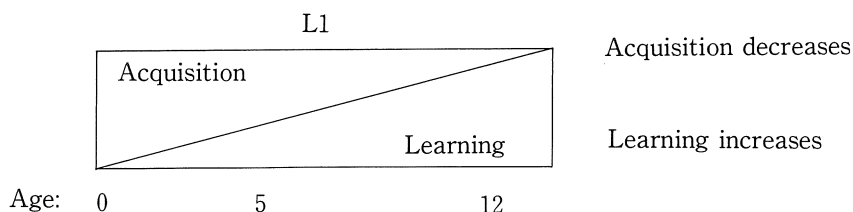
Krashen hopes to align the Monitor Theory with Chomsky's notions of *competence*, or the abstract knowledge a speaker has about his language, and *performance*, or the speaker's ability to put this knowledge to use.³⁴ Yet it has been shown that Monitor Theory "competence" is in fact the "ability" which Krashen equates with performance, and is not a true innate competence as Krashen supposes.³⁵

The Monitor Theory assumes that a performer utilizing the idealized acquired system as a statement initiator will not experience first language

interference. Accordingly, as an adult student becomes increasingly “competent” (gaining acquisition), the Monitor Theory predicts that interference will decrease:

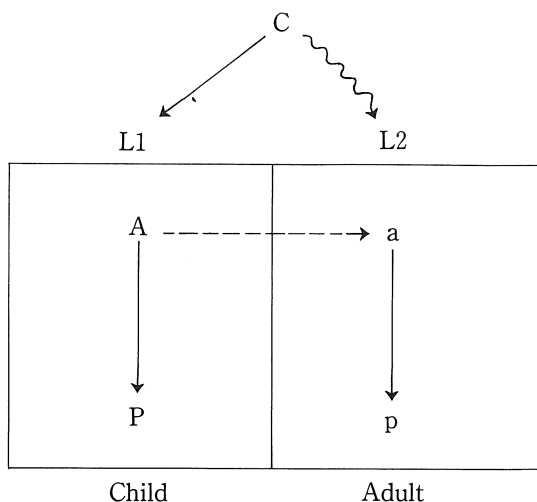


Yet Krashen, in his discussion of the development of cerebral dominance, cites evidence that in children, right hemisphere participation in language acquisition begins to lateralize shortly after birth, until about age 5, when most aspects of language processing are located in the left hemisphere, although some aspects are not lateralized until puberty.³⁶ This indicates that for the first language, “acquisition” gradually gives way to “learning”:



If this is the case, then the analogy between first and second language “acquisition” drawn by Krashen must be re-evaluated.³⁷ It also places a strain on Krashen’s proposed “first-language interference,” for if a wavy line is placed under the “L1” diagram, it will increase as the child grows older. If there is “interference” even in L1, its source must be something other than language ability. A better model for relating first and second

language achievement will place innate competence (C) *behind* both L1 and L2; ability (A, a) will act in each case to produce performance (P, p); and interference will no longer originate from the first language, but from the *innate competence* which is greatly reduced during adolescence:



Reduced Second Language Ability

The dotted line in the above illustration refers to first language influence which results from grammatical and socio-cultural prejudices. True interference, however, is the product of biological factors which affect phonetic coding ability and the “attitude of suspended judgment” which is present in children.

4. INTERFERENCE AND THE SECOND LANGUAGE CLASSROOM

The Monitor Theory presents interference in a somewhat graduated context, allowing the performer to move from the pre-competent to the competent level, experiencing gradually lesser degrees of interference.

According to this schema, taking into account modifications to allow for innate competence, the pre-competent speaker uses his L1 ability to deflect his intention toward L2 ability, resulting in high interference. Increasing acquisition allows the imminently competent performer to utilize memorized routines and patterns to initiate the statement, in other words, the speaker's intention is partially deflected off L1 ability. The Monitor-free environment theoretically produces a non-deflected channel, allowing the intention to be processed directly through L2 ability into L2 performance.

It has been shown that interference also operates on a different plane than these three "levels of competence," and affects each of the four subsystems of language, e.g. grammar, pronunciation, vocabulary and culture. A brief illustration of problems in each of these subclasses will add to the discussion of interference in the classroom.

In the area of vocabulary, the notion that a longer word necessarily connotes sophistication might lead to an incorrect usage of a word which can be used as a noun, a verb, or a noun modifier. A Japanese pet store owner, desiring to appear more sophisticated by using a longer English word, assumed that a synonym of one form-class of "pet" would also contain the other form-classes. Thus he placed an advertisement outside his shop, which read "Fondle Dogs".³⁸ "Fondle" has a similar meaning to the verb "to pet", but cannot be used as a noun modifier.

An example of using routines and patterns can be found in the case of the American student of French, who while living in Paris, was asked by her roommate if she would rather go to a movie or go to the theater one evening. To this she replied, "Je ne *care* pas," for lack of having mastered the idiomatic French expression, "*ca m'est egal*." ("I don't care.") The student used a second-language pattern to initiate the statement, then fell back upon her native language. It might be argued that she used her

first-language surface structure to initiate the statement, by translating the pattern “I don’t _____” to “*Je ne _____ pas*,” inserting “care” when she was unable to think of a French verb to complete the statement. More likely, her intention, which contained the deep structure components “I+care+not”, initiated the statement. Notice she did not attempt to insert a French verb into the English pattern “I don’t _____.” A fully “acquired” deep structure would have contained the French components “*ceci + cela + egal + a moi*”, (“this+that+equal+to me”), which would then have been reduced to the corresponding idiom.

As for pronunciation, Stevick speaks of the factor of peer-group interference which can affect non-native pronunciation. In many American schools, there is an atmosphere of anti-intellectualism, which urges students to euphemize a correct answer by adding “I think” or “or something like that” in order to avoid sounding too knowledgeable in front of their classmates. In the second language classroom, this is manifested as poor pronunciation.³⁹ Furthermore, an ethnic minority student will often suffer adverse reactions from his peer group and family members, who regard his acquisition of a standard English dialect as a betrayal of his heritage. On a different note, an Asian student, who has spent part of his childhood in an English-speaking country, might find himself being taught in his own country by a teacher whose pronunciation is far inferior to his own. The student’s sense of propriety will cause him to adapt an accent similar to those of his classmates. Group loyalty, social and economic security, and threats to group identity all contribute to pronunciation in adult performers.⁴⁰

Although social relationships are not, strictly speaking, interference originating from biological changes which affect language acquisition capability, they nonetheless can disrupt second language learning. Eugene

Nida speaks of the American lawyer, doing business in South America, who retained an interpreter for reasons of prestige, rather than linguistic necessity. Again, an American businessman in Bangkok found that his poor second-language ability got him referred to higher executives who spoke English, which permitted him to bypass many of the channels which would normally have to be followed in doing business. Likewise, there is a higher degree of tolerance for people in higher positions, who expect others to adjust to them, and are not as inclined to learn a second language.⁴¹

Upon reading the above illustrations, it becomes increasingly evident that interference in one subsystem involves factors from several other subsystems. Thus, the Japanese pet store owner, who was in all likelihood at the pre-competent level (at least he could use a dictionary), fulfilled Krashen's model of building an artificial language on the L1 surface structure.⁴² However his vocabulary mistake also involved cultural and grammatical elements. The American student of French experienced interference in a manner not predicted by Krashen, since her L1 surface structure, routines and patterns, and deep structure all came into play. The students who experienced pressure not to develop good pronunciation were subject not only to biological forces but to social forces. Yet the same social forces which influence pronunciation can also affect grammatical performance. The international businessmen, whose instrumental motivation predicted that they would learn enough language to get the job done, in fact did exactly that, by learning none. The interdependence of linguistic subsystems underscores the shortcomings of the Monitor Theory in assigning L1 interference to only the grammatical system.

The second-language classroom is a virtual jungle of interference factors, in which the teacher must locate a clearing, and proceed to establish a coherent, flexible and harmonious linguistic community. The grammatical

system consists of words which communicate function, number and time relationships. Robert Dixon states that “the *question-answer* technique is a dependable method of teaching all phases of a language.”⁴³ He also says that dictation can be adapted to teach many grammatical forms.⁴⁴ Stevick proposes that pronunciation be taught according to the “analytical” view, which emphasizes phonemic distinctions, and the “holistic” view, which regards pronunciation as a continuum, with no absolute rights or wrongs.⁴⁵ The language laboratory can offer students a sanctuary from peer pressures or other affective factors which influence pronunciation, but tape recordings should never substitute for a teacher. Other segments of language, such as emotional factors, are expressed in the paralinguistic features which accompany language, such as facial expressions, fillers, gestures, distances, and unarticulated sounds.⁴⁶ The students are likely to be culture-bound individuals, that is, their entire view of the world is shaped by their culturally singularistic environment. The teacher should attempt to bridge the gap between the students’ culture and that of the target language, although the native language speaker may not be aware of his own culture-bound judgments and reactions.⁴⁷ Lexical distinctions should always be taught in context, using a limited vocabulary, yet giving the students the means wherewith to use individual words.⁴⁸ Interference, which results largely from the effects of adolescence upon language learning ability, and related factors which are determined socially, can be controlled by the skillful second language teacher, and even manipulated to produce a desirable second-language experience.

5. CONCLUSION

First-language influence, according to the Monitor Theory, occurs pri-

marily at the beginning levels of second-language performance ability. The claim that L1 interference is strongest in complex word order is not consistent with evidence found in studies of morphology. This problem is intensified by the failure of the Monitor Theory to deal effectively with the inflection factor in the first and second language. Biological developments which lead to restricted language-learning ability are treated in the Monitor Theory as misconceptions, while in fact the discussion of early lateralization tends to discredit the basic analogy contained in the Monitor Theory of child-adult similarities. The notion of innate competence, which after adolescence is subject to a variety of interference and interference-related features such as culture, overshadows the simplistic view of first-language interference presented in the Monitor Theory. Finally, it has been shown that interference can be present at any level of linguistic ability, and in order to overcome these difficulties, the advanced student must resort to the use of the Monitor, a blatant contradiction in terms of the Monitor Theory. Thus the Monitor Theory falls short of providing an adequate model for the second language classroom as regards L1 interference.

NOTES

- 1 Stephen D. Krashen, *Second Language Acquisition and Second Language Learning*, (Oxford: Pergamon Press, 1981), pp. 65-66.
- 2 *Ibid.*, p. 111.
- 3 Leonard Bloomfield, *Language*, (Chicago: University of Chicago Press, 1933), p. 160.
- 4 Mary Finocchiaro and Christopher Brumfit, *The Functional-Notional Approach*, (Oxford: Oxford University Press, 1983), p. 121.
- 5 Norma Goldman and Jacob E. Nyenhuis, *Latin Via Ovid*, (Detroit: Wayne State University Press, 1977), p. xvii.
- 6 *Ibid.*
- 7 Ronald W. Langacker, *Language And Its Structure*, 2nd ed., (New York: Harcourt, Brace, Jovanovich, 1973), pp. 9-10.
- 8 Bloomfield, p. 185.
- 9 *Ibid.*, p. 198.
- 10 D.A. Wilkins, *Second-Language Learning And Teaching*, (London: Edward Arnold Publishers, 1974), p. 7.
- 11 Sumako Kimizuka, *Teaching English To Japanese*, (Moab, Utah: Neptune Books, 1977), pp. 61-73.
- 12 *Ibid.*, p. 61.
- 13 Krashen, p. 66.
- 14 *Ibid.*, p. 67.
- 15 Wilkins, p. 31.
- 16 Wilga Rivers, *Teaching Foreign Languages in Schools*, (Chicago: University of Chicago Press, 1968), p. 140.
- 17 Caleb Gattegno, *Teaching Foreign Languages in Schools: The Silent Way*, (New York: Educational Solutions, Inc., 1972), p. 11.
- 18 Krashen, pp. 34-35.
- 19 *Ibid.*, pp. 19-20.
- 20 *Ibid.*, pp. 22-23.
- 21 Earl W. Stevick, *Memory, Meaning and Method*, (Rowley, Massachusetts: Newbury House, 1976), p. 49.
- 22 *Ibid.*, p. 53.
- 23 Earl W. Stevick, *Teaching Languages: A Way And Ways*, (Rowley, Massachusetts: Newbury House, 1980), pp. 275-278.
- 24 Krashen, p. 35.
- 25 Edward Sapir, *Language*, (New York: Harcourt, Brace, Jovanovich, 1921), p. 207.
- 26 Rivers, p. 263.
- 27 Kimizuka, pp. 116-118.
- 28 Rivers, p. 265.
- 29 Sapir, p. 217.
- 30 *Ibid.*, p. 219.
- 31 *Ibid.*, p. 218.
- 32 Krashen, p. 68.
- 33 *Ibid.*, p. 67.
- 34 Stephen D. Krashen, *Writing: Research, Theory, And Applications*, (Oxford: Pergamon, 1984), p. 20.

- 35 Jackson Stewart, "Does The Monitor Theory Provide An Adequate Model For The Second Language Classroom?" Fukuoka: *The Economic Review of Daiichi Keizai Daigaku*, Vol. 15, No. 3 (December, 1985), pp. 45-63.
- 36 Krashen, *Second Language Acquisition And Second Language Learning*, pp. 75-76.
- 37 *Ibid.*, p. 1.
- 38 Jack Seward, *Japanese In Action*, 2nd ed., (New York: Weatherhill, 1983), p. 72.
- 39 Stevick, *Memory, Meaning and Method*, p. 52.
- 40 *Ibid.*, pp. 52-53.
- 41 Eugene A. Nida, "Sociopsychological Problems in Language Mastery and Retention," in *The Psychology of Second Language Learning*, ed. by Paul Pimsleur and Terence Quinn, (Cambridge: Cambridge University Press, 1971), pp. 60-62.
- 42 Krashen, *Second Language Acquisition and Second Language Learning*, p. 68.
- 43 Robert J. Dixson, *Practical Guide to the Teaching of English*, 2nd Ed., (New York: Regents, 1975), p. 41.
- 44 *Ibid.*, p. 54.
- 45 Stevick, *Memory, Meaning and Method*, p. 52.
- 46 Sapir, p. 39.
- 47 Rivers, pp. 268-270.
- 48 Kimizuka, p.136.