An Examination of Second Language Acquisition Theory

An Honors Thesis (HONRS 499)

by

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Purpose of Thesis

This examination of Second Language Acquisition Theory discusses the two main theories that encompass Second Language Acquisition Theory: the Behaviorist Theory of B. F. Skinner and the Rationalist Theory of Noam Chomsky. Following this will be a discussion of various branches of these theories and their authors. Criticisms of certain theories will be examined, and finally, ideas for future research will be suggested.
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As long as human language has existed, there have been teachers of language. Parents have taught their children, friends have discussed their language, and people from foreign places have taught their own languages to others. All humans have eventually acquired the ability to function in a human language of some sort. Although language had been studied extensively and language teaching methodologies have reached as far back as the middle ages (see the work of H.H. Stern (1983)), who gives an exhaustive history of language teaching), few times did anyone ever wonder how the learner actually learned the language. Researchers have only been wondering about the intricate mental processes that occur when a learner learns language since the 1940s or '50s. Whether learning one's native language is inherently different from learning a second language is a question that has yet to be resolved with certainty. However, researchers have assumed that this is true and consequently language learning has been viewed in two separate ways—that of first language acquisition, and that of second language acquisition.

In the recent past, several theories have been developed on Second Language Acquisition. These theories have been based on one
of two sets of assumptions: either on Skinner's adaptation of second language learning from Behaviorist Stimulus-Response Psychology or on Noam Chomsky's Universal Grammar Theory. The field of Second Language Acquisition has been researched by such diverse groups as neurologists, psychologists, educationalists, and linguists. This paper is a survey of the state of Second Language Acquisition theory. It will explore the practice of certain theories in the classroom, and where these practices fall short of the desired results of language learning. The paper will examine the criticisms that have resulted from these theories and the reactions to these criticisms. Finally, I will offer suggestions for future research.

Theories

The theories can be divided into two schools. There are the Behaviorists (also known as Empiricists or Environmentalists), and the Rationalists (also known as Mentalists or Nativists). Before the 1960s, language learning in the field of Psychology was still a subcategory of General Learning Theory in which the prevailing theory was behaviorism. The Behavioral school of learning posits that all learning is the assimilation of new habits. Teaching is considered by the Behaviorists to be based on habit formation, or "conditioning," of which there are three types: classical, operant,
and multiple-response. Pavlov’s experiments dealt with classical conditioning, in which an unconditioned (or natural) response (like salivating at the smell of meat) becomes associated with a conditioned stimulus (the ringing of a bell), so that after a number of trials, the conditioned response occurs because the conditioned stimulus has also occurred repeatedly alongside the response. According to the theory of classical conditioning, if a bell is rung every time a dog smells meat, eventually the dog will learn to salivate at the sound of the bell.

Operant conditioning does not assume a natural (unconditioned) response. The response to the stimulus is learned without having previously been a natural reaction. A rat in a cage with a bar may press the bar randomly at first, but if the rat is given a food pellet each time the bar is pressed, the rat will eventually learn to press the bar for food.

In multiple-response learning, the responses are multiple, that is, it is not a matter of simply pressing a bar but many different responses must take place in the proper order to get the reinforcement. For example, rats learn to perform a series of turns in a maze to end up in the correct spot and win the reinforcement of a food pellet.
B.F. Skinner described verbal learning as a function of operant conditioning. In effect, he thought that a language learner does not have a natural grammatically correct response to questions, rather, the language learner may first give the grammatically correct answer randomly, but the learner learns that this certain answer will win praise. The learner then begins consciously using the correct answer to get the reinforcement of praise. On the basis of this assumption, Skinner, like the applied linguists of the 1940s and '50s, maintained that language should be learned through multiple drills, without recourse to rationalistic explanation. Explanation was useless in his theory because he believed that since language is only a series of habits, any attempt to explain them rationally would only result in many rules confounded by many exceptions.

The Behaviorist school, based on the works of Skinner, maintains certain basic assumptions. These are:

- Human learning is similar to animal learning.
- There is no pre-programming at birth for language learning.
- Only that which is observed may be used as psychological data.
- All behavior is response to stimuli. All learning is associative, that is, it occurs in associative chains.
• Conditioning strengthens the response to stimuli by reinforcement.

• Human language is an intricate response system learned through operant conditioning.

To the Behaviorist, language is a set of behaviors that are learned the way laboratory animals learn, by operant conditioning. This assumes that language, the one function of the human mind that distinguishes it from the animal mind, is a function of a kind of learning that is seen in all animals. The assumption that human learning is like animal learning made it possible for Behaviorists in Psychology to experiment mainly on animals, generalizing their findings to the realm of human psychology. According to Behaviorists, humans have no innate sense of language. Since animals have yet to acquire language comparable to human language, animals must also lack this innate sense. The Behaviorists have laid out a theory on how human language is acquired, but they have failed to create a stipulation which would exclude animals and explain why animals do not acquire human language. To explore this topic fully is outside the realm of this paper. However, it is sufficient to note that the Behaviorists claim that human language learning is the system of learning to respond correctly to stimuli by the use of
reinforcement.

Take for instance the following conversation between parent and child:

PARENT: Who gave you that pencil?

CHILD: Tommy gived it to me.

PARENT: Tommy gave you the pencil?

CHILD: Yes, Tommy gave it to me.

Behaviorists would view this conversation as a series of child responses to parent stimuli. The parent asks a question and the child uses the same form to answer the question, however, the child incorrectly gives tense to the verb. The parent makes it obvious that this was incorrectly done and gives the correct form. The child then mimics the correct form. The parent’s goal is to reinforce the correct response and build an associative chain that will elicit the correct response and eliminate the incorrect responses.

Skinner was the first to suggest that Language Learning is a distinct subcategory of General Learning theory, dependent on the same principles and assumptions. However, he had no background in Linguistics, or even in language teaching, and his ideas reflect this narrow scope.

On the other hand, soon after the Behaviorist school of second
language acquisition stabilized, a scholar forging new ground in Linguistics began to look at the same problem of language learning. Noam Chomsky, with much to say about the structure of language but little psychological schooling, started writing about language acquisition from a completely different viewpoint. Although both Psychology and Linguistics are concerned with language learning, until this point they rarely discussed the same matters.

The initial promise of advancement offered by a dialogue between two separate disciplines focusing on the same problem never materialized. The opposition in assumptions opened a rift from the beginning. This is a chasm which has yet to be bridged between the two schools. Because the contending schools before this point had never shared theoretical assumptions, the collaboration of the two professions has not yet occurred.

Each of the two men were viewing the same problem on the basis of the assumptions of his own discipline. While Skinner was claiming that all language is learned and that language is not pre-programmed, Chomsky, schooled in language universals, posed in his *Syntactic Structures* (1957) that there must be an internal Language Acquisition Device (LAD) through which humans can formulate rules of grammar and speech from the language that they
Chomsky felt that language learning ability is uniquely human and needs only to be tapped. This ability, provided by the LAD, he called "Universal Grammar." Parents and other adults speaking the native language provide linguistic input, enough so that the child's LAD can begin functioning. The LAD, preprogrammed with universal linguistic laws, functions by hypothesizing about the language. Chomsky's Universal Grammar and LAD are the bases of the Rationalist camp (so-called because the Rationalists assert that language learning is a function of the rationalizing portion of the human mind whereas the Behaviorists believe that language is a series of behaviors that are learned).

The basic assumptions of Chomsky's Universal Grammar Theory, as listed by Omaggio Hadley (50), are:

- Language is a species-specific, genetically determined capacity.
- Language learning is governed by biological mechanisms.
- The ultimate form of any human language is a function of language universals, a set of fixed abstract principles that are innate.
- Each language has its own 'parameters' whose 'settings' are learned on the basis of linguistic data.
• There is a 'core grammar' congruent with universal principles, and a 'peripheral grammar,' consisting of features that are not a part of universal grammar.

• Core grammar rules are thought to be relatively easier to acquire, in general, than peripheral rules.”

In the hypothetical conversation discussed above (p. 6), Rationalists would say that the child is in the process of forming the rule of adding past tense to verbs. The child knows that an ending is added to the verb to create the past tense, and hypothesizes that that ending is the -ed suffix. The child then tests this theory by creating the past tense in that way. The parent then gives the correct form, and the child repeats it, adding this exception to the hypothesis.

Both Chomsky's and Skinner's theories attracted adherents, but the lines of conflict, based on irreconcilable theoretical assumptions, were to continue. Another Behaviorist, Robert Lado, states in *Linguistics across Cultures* (1957), that the mistakes that will be made by the second language learner can be predicted by noticing where the native language (L1) and the second language (L2) systems differ. He assumes, as a Behaviorist, that L2 is a set of behaviors that must be learned by the student. The set of behaviors
that are L1 must then be repressed and the new behaviors learned. Any behaviors that are the same in both languages (one of Chomsky's Universals) will be easy to accept because they have already been learned (as Chomsky would say, they are preprogrammed). Where the behaviors differ, however, the student will be forced to go through initial learning stages. Lado's theory became associated with Contrastive Analysis, the theory that the principal barrier to L2 acquisition is the interference of L1.

S. Pit Corder, "The Significance of Learners' Errors" (1967), takes a Rationalist standpoint in opposition to Lado. Corder asserts that both L1 and L2 learners make errors as they test hypotheses about the target language. In contrast to Lado, for whom errors are inevitable, Corder suggests that errors are necessary steps to learning because they are indications of the changing of a hypothesis (not the learning of new habits as Lado contends).

H. Dulay and M. Burt (1973) supported Corder's hypothesis and contradicted the Contrastive Analysis theory. Their data showed that only three percent of errors made by Spanish-speaking children learning English were L1 interference (that is, only three percent of the errors made were made because the learners were learning a new set of behaviors). Eighty-five percent were developmental
errors that can be made by a child learning L1, indicating that 85 percent of the errors were made because of the changing of hypotheses.

L. Selinker (1972) takes a Rationalist point of view and advocates that learners, through their mistakes, develop a systematic "interlanguage" which is neither L1 nor L2. The interlanguage is the transitional stage where the learner gradually replaces the form of L1 with the form of L2. Such interlanguage can be noted in households where two languages are spoken with equal fluency. There is a tendency to use whichever word or form comes to mind, whether L1 or L2, in the same sentence. This suggests that the language user is in a transitional stage, using whichever form comes easiest to the user's mind, regardless of the language the form is in.

The theory that is most prevalent in the field today is S. Krashen's Monitor Theory (of the Rationalist school) which assumes that second language learning is similar to L1 learning. In this he supports Corder and has been clearly influenced by the evidence found by Dulay and Burt. Using a theoretical approach that is opposite from that of Lado, he asserts that second language learning deals with the mind of the human and nothing else. The
Behaviorists, however, base their overall learning theories on experimentation with animals and extrapolate from these theoretical foundations to language learning. Regardless of these differences Krashen, in his Monitor Theory, is not far from Lado's assumption that the principal barrier to L2 acquisition is the interference of L1.

Krashen believes that learning L2 through the use of L1 is not productive. According to Krashen, the most natural and most lasting acquisition of L2 occurs when the learner learns L2 naturally, by using L2 to refer to real objects, rather than to the L1 translations. When a language learner is not using the new language naturally, there exists what Krashen calls the Monitor which is the knowledge of the new language in the form of rules and it is in opposition to a natural response to an environment. This Monitor edits what the language learner says, causing the learner to pause and change the response according to the learned forms and rules. Not only does the emphasis on rules and forms further remove the student from a natural experience of the language, but the student can compare in his/her own mind the L2 forms and rules to the forms and rules of L1. This Monitor, according to Krashen, slows the student's learning process by filtering the speech through forms and rules of L2 and
their comparisons to forms in L1; therefore, for Krashen, the two principal barriers to L2 acquisition are the excessive reliance on forms and rules and, surprisingly in agreement with Lado's conclusions (but not his assumptions), the interference of L1.

Krashen supports the findings of Dulay, Burt, and Corder and attempts to refute Lado and other Behaviorist viewpoints. Terrell (1986), Krashen's firm supporter and intellectual successor, conjectures that in a classroom using the Natural Approach (i.e., a classroom where the Monitor is restricted and language is not learned through rules and L1 translations, but through the use of real objects and L2 conversation), although some students will still make connections to the L2 word through L1, (the word in L2 may sound like the word in L1, or may sound like a related word in L1 or may even have some of the same letters), and L1 is still very much in the mind of the student, all students in Terrell's Natural Approach classroom will eventually succeed in processing in L2 directly and no longer think in L1 at all.

Until this point, the Behaviorists taught language by running the student through a series of drills which held no extralinguistic meaning, that is to say, the drills had no meaning outside of the fact that they taught new language behaviors. Krashen pulls away from
other Rationalists who thought language ought to be taught by replacing these Behaviorist drills with structured *meaningful* drills that should be practiced extensively in the hopes that certain subskills of language acquisition will eventually become automatized. Krashen assumes that language is learned only when there is a meaning to communicate and in the end it is the message that is remembered, not the language learning (i.e., the drill). For Krashen, even the drills advocated by other Rationalists were not useful because they did not convey significant meaning. Krashen maintains that language cannot be acquired if it is attempted only through drills that contain no lexical meaning in and of themselves and are not highly relevant to the student and the teacher. Krashen, basing his theory on the work of Chomsky, assumes the point of view that language learning ability is innate and the settings of the language are learned on the basis of linguistic data and are not merely learned habits. The Monitor Theory has five basic hypotheses. These are:

1. The acquisition-learning distinction
2. The Natural Order Hypothesis
3. The Monitor Hypothesis
4. The Input Hypothesis
5. The Affective Filter

The acquisition-learning distinction

Krashen says that acquisition is the subconscious absorption of language. In this, he makes a clear distinction between language acquisition (the process by which a person becomes competent in a language) and learning (the conscious accumulation of various grammatical and phonological rules within the language). Krashen states that acquisition of a second language is much like the acquisition of the first language where the rules are internalized without making a conscious effort to assimilate and use them. Krashen, a Rationalist, believes that people acquire language by testing different hypotheses rather than by learning behaviors. Krashen’s learning cannot become acquisition because the learning of the form needs to occur first in the subconscious, not the conscious. The Monitor Theory states that if a rule has been learned consciously first it can never become a subconscious reaction unless an effort is made to teach the same rule through the subconscious.

The Natural Order Hypothesis

In this hypothesis, Krashen states that we can predict, to a point, the order in which a student will acquire “parts” of the language. He claims that certain parts of language are assimilated
more quickly than others. He is vague on whether "parts" means grammatical rules, morphological types, or phonemes, but he insists that there is a natural order inherent in the human mind in which all language is assimilated.

The Monitor Hypothesis

Krashen insists that language teachers should focus on teaching language through acquisition instead of learning, since acquisition resembles first language learning and the knowledge becomes internalized. Learning does not help acquisition. Instead, it creates the Monitor, as Krashen has termed it. The Monitor is the learned rule that acts as a Monitor or editor of the spontaneous utterances produced by acquisition. This editing slows down the utterances and switches the learner out of the unconscious mode into the conscious, which is not desired. In effect, Krashen is saying that learning (which takes the form of the Monitor) hinders the acquisition process. The Monitor is, in fact, a negative force working against the successful acquisition of a second language. Krashen not only gives us a theory which posits how students best acquire language, but he also outlines what he thinks keeps the student from optimal acquisition--the Monitor. One would think that since Krashen names his theory after the Monitor, that the Monitor
would be a major factor in facilitating language acquisition, but the Monitor in fact interferes in language acquisition and its role is greatly restrictive. He believes that the Monitor can be evidenced working only in certain instances, such as when there is sufficient time given for the answer, when the focus is on form, and when the learner knows which rule is being applied.

Why Krashen chose to name his theory “the Monitor Theory” is perplexing; the name itself is very confusing. The fact that he names his theory of language acquisition by the very thing which opposes acquisition adds an unexpected and unnecessary level of complexity to the coherence of the theory. This name might be understandable if he were proposing a theory of how language acquisition is impeded, but this is not the case. Not only does he name his theory negatively, but the Monitor seems to be a relatively small impedence to acquisition. One would assume, regardless of the positive or negative importance of the Monitor, that if Krashen were to name his theory the Monitor Theory, the Monitor would be of great importance. However, the Monitor seems, as it is defined by Krashen, to be engaged very rarely, which further reduces its importance.
The Input Hypothesis

Krashen states that language can only be acquired when the emphasis is on the message that is being communicated, not the form in which it is being communicated. The student acquires L2 through "comprehensible input," that is, input that contains information that has a form slightly more complex than what the student already knows. He terms this comprehensible input "i+1" where "i" is what the student knows and "1" refers to the piece of new information that the student does not know. With the majority of the message understandable to the student, s/he can induce the rule that applies to the unknown information by use of context, knowledge of the world, and other extralinguistic cues. Krashen maintains that students will look for meaning first. The input, provided by the instructor, need not follow a specific order (contrary to the Natural Order Hypothesis); if there is enough successful conversation, the comprehension of the input will be automatic. Krashen posits that speaking fluency cannot be taught but that after a successful series of such "i+1" episodes, it will emerge over time.

The Affective Filter

The Affective Filter Hypothesis is concerned with what
psychologists have termed the "affect," the emotions, self-image, and mental state of a person. Krashen says that without a positive affect, students will not learn, or will have a hard time learning language. If there is a negative atmosphere, the students' affect will be clouded and the "affective filter" will be in effect. Krashen gives three examples of a lowered affective filter:

a. the acquirer is motivated
b. the acquirer has self-confidence and a good self-image
c. the level of anxiety is low.

Although Krashen does not go into great detail in explaining the workings of this "affective filter," it is a hindrance to optimal acquisition. Again Krashen posits as one of his five major principles a negative factor which interferes with successful acquisition.

In sum, Krashen's Monitor Theory consists of a set of definitions (acquisition, learning, comprehensible input, etc.), a hypothesis of a natural order of language acquisition, a hypothesis of the negative influence of rules and forms, and a common sense conjecture about student psychology. The definitions seem arbitrary, confusing and counterproductive to continued dialogue about learning. The Natural Order Hypothesis can apparently be ignored in his incremental Input Hypothesis which states that a
teacher need not order the input to be consistent with the order that the student will learn the parts of the language, and two of his five elements of acquisition affect acquisition negatively.

The Input Hypothesis seems viable by itself, but it does not fit in with the Natural Order Hypothesis. Of the two negative components, only one has few enough restrictions to be engaged often—the affective filter. The affect is a psychological term which is recognized in General Learning Theory to affect the way a student learns. Finally, to redefine terms so that he can state that language learning impedes language acquisition is baffling to the reader.

Practices

The consistency of terms in the foregoing discussion reflects Krashen's definitions, but they are not the definitions assumed in the rest of this paper. It is important to note that from this point onward, the terms learning and acquisition will reflect standard usage.

From these theories, two major practices have emerged—one from each end of the spectrum of theories. The Natural Approach was developed by Krashen himself, based on his Monitor Theory. On the other hand, out of the Behavioral school of thought comes what
is called the audio-lingual method.

The theory behind the audiolingual method is that learning language occurs when a student hears proper L2 conversation and imitates it. The imitation is the learning of new grammatical, lexical, and morphological behaviors. In practice, the instructor will read a dialogue which the students will repeat. Then the instructor will read one part of the dialogue while the students respond with the other part, taking care to use the same pronunciation and tone as the instructor. Then the students will take this same dialogue and speak among themselves, reading the different parts. Any errors that are made will be quickly corrected by the instructor. Errors are not a desired effect. What is sought is a conditioned behavioral response.

Students are supposed to be learning the correct way to say certain phrases by practice and drill. If they say something incorrectly, they are immediately corrected to insure that they do not condition the wrong response. Corrections are the negative reward to the wrong response to a stimulus. The audio-lingual method makes good use of limited time but it keeps the L2 student continually in what Buck et al. (1989) called the Novice mode (Omaggio Hadley 80). That is, the student has no room for
spontaneous phrase building, and therefore cannot practice and become proficient at native level conversation.

On the other hand, the Natural Approach is the practice of Krashen's Monitor Theory. It can be employed in the classroom by the use of "i+1" input. The teacher will begin the class by speaking in L2 about a real object (most often a picture). The teacher then begins to describe the picture. At this point, s/he does not ask questions of the students, as they are still acquiring the language through the input. After a few hours of class time, the teacher can begin discussing other things within the room. By this time, the students are comfortable enough with the instructor that the instructor can point to them and speak about the students in the L2 (in this way, the affective filter has not been raised early in the class).

After a few weeks of class, the instructor can begin asking the students one word questions or yes-no questions. A slow build up will finally lead to teacher-student conversations about relevant ideas. In the Natural Approach classroom, errors are seen as hypotheses that have failed. The behavior is not to be corrected, but instead, the instructor is to restate the student's utterance correctly to add this exception to the student's hypothesis.
Although the teaching act is identical in both cases (see example p. 6), the ideological differences force different interpretations of the action. And while the explanation of why this is done is different, the effect on the student is indistinguishable. The rationale exists in the mind of the teacher.

STUDENT: That is him book.

TEACHER: That is his book?

STUDENT: Yes, that is his book.

The student is not told that s/he is wrong and is not corrected (which would tend to raise quickly the affective filter), but instead is given more proper and correct input to rethink her/his hypothesis.

Krashen and Terrell both chastise L2 teachers for bringing grammar points too quickly into the discussion. By bringing grammar lessons into the picture, the teachers are teaching through conscious levels instead of the desired subconscious levels. According to Krashen and Terrell, this only increases the time that it will take to acquire these rules, since time has been wasted on telling the students the answers, instead of the students hypothesizing for themselves. Also, if the language is learned in the form of these grammar rules, a Monitor will be created which will further slow the student's acquisition.
The Natural Approach is not easily placed in the language classroom as it now exists because the language classroom very rarely has time to create a natural language acquisition atmosphere. Krashen theorizes that language input is finally at a workable level when the “Din in the Head” (words and phrases in L2 that are constantly heard in the learner’s mind) starts up. This may take up to three consecutive hours (1983). However, language classrooms are rarely scheduled to cater to this time need. Classes meet for an hour or two, two to three times a week, or 45 minutes five times a week, but rarely is there opportunity for the minimum of three hours.

Criticisms

Krashen’s theory has been well accepted by teachers of second language, and many of his ideas can be seen daily in the classroom. However, researchers have found serious faults with the Monitor Theory, primarily finding Krashen’s terms poorly defined. Krashen uses the term “acquisition” to refer to subconscious processes and “learning” to refer to conscious processes, but B. McLaughlin, among others, criticizes Krashen’s definition and use of these terms. McLaughlin, a professor of Psychology, shows that Krashen did not
define these terms "although he (Krashen) did operationally identify conscious learning with judgements of grammaticality based on 'rule' and subconscious acquisition with judgements based on 'feel'" (McLaughlin 21).

McLaughlin also criticizes Krashen's testing of these two terms. Krashen asked students to identify their L2 responses as being based on feel or rule. If they reported that their answers were based on rule, they were asked to give the rule. McLaughlin points out that the request for the rule overly emphasizes rule articulation and that students may be inclined to term their answer "feel" when they have trouble articulating the rule they are using. McLaughlin concludes that the testing strategies Krashen uses do not provide clear information, since the students should not be asked to term their own thought processes as they themselves do not know the difference between the two. If they did know the difference, the test results would be unreliable because the answers could be weighted based on the results the students thought the researchers would want.

Krashen's argument that language learning does not become acquisition (1982) is based on three claims: (1) Sometimes, individuals have acquisition without learning (considerable
competence with little knowledge of the rules). (2) Sometimes learning never becomes acquisition (the rule is known but is continually broken). (3) No one can know all the rules. McLaughlin accepts these assumptions but not Krashen’s conclusion: McLaughlin says, “(a)ll of these arguments may be true, but they do not constitute evidence in support of the claim that learning does not become acquisition” (McLaughlin 1987, 21).

Terrell responded to these criticisms by redefining the distinction between acquisition and learning by the implementation of the binding/access framework. “Binding” is the term used by Terrell to “describe the cognitive and affective mental process of linking a meaning to a form” (Terrell 1986, 214). That is, binding occurs when the word is used in conjunction with the object, idea, or motion itself, rather than with the translation of the word. Terrell relies on previous Natural Approach definitions of the three stages of language acquisition: comprehension (prespeech), early speech (one-word answers), and speech emergence. The comprehension stage allows the meanings to be properly bound to the forms without adding the pressure of having to use those forms in conversation or create those forms in speech. The expectations are then gradually elevated until the student is able to speak in full
sentences with the forms of the words intricately related in the student's mind to the meaning.

Terrell defines access as "the ability to express a particular meaning with a particular form" (1986, 215). He writes that access is tapping within the mind a form known by the student to hold the particular meaning for which s/he is searching. He redefines acquisition as accessing bound forms. According to Terrell, it is quicker to access a form which has been bound than one that has not, therefore, the response time is quicker for acquired language than for learned language. Terrell redefines learning as accessing a form which has not been properly bound. He says that in order to quicken the response time, a form must be bound. Learning cannot become acquisition, according to Terrell, because no matter how quick the response time, if a form has not been bound, it will still be slower than acquisition because it is still only learning.

On the surface, Terrell's argument seems to address the criticisms, because he refines the definitions of the terms. Terrell attempts to eliminate the terms "unconscious" and "conscious" by introducing in their place the terms "bound" and "unbound." Binding appears to be yet another psychological process, but its operation has not been specified, a method of testing has not been established,
and it seems to be based on ungrounded assumptions about neurological operations. He does not clear up the problem of "conscious" and "unconscious," he only piles obfuscation upon enigma.

McLaughlin also criticizes the Monitor, the heart of the Monitor Theory. Krashen had restricted the emergence of the Monitor to the times when there is enough time given for the answer, when the focus is on form, and when the learner knows which rule is being applied. McLaughlin writes that because the Monitor is restricted in application, it can be dispensed with as an integral part of gaining facility in a second language. This, however, is the heart of Krashen's theory. However, Krashen later changed his stance on the time requirement (1985, 2). Results of a study done by Hulstijn and Hulstijn (1984) showed that enough time alone does not elicit better responses and does not involve the use of the Monitor. Krashen agreed with their assessment of their findings and admitted that enough time alone does not involve the Monitor.

The second requirement for the emergence of the Monitor also came under fire from various studies. Houck et al. (1978) and even Krashen et al. (1978) made it clear that making students correct spelling and grammar in composition (form constraint) did not result
in the emergence of the Monitor. Krashen claimed, "I do reserve the right to change my hypothesis in the light of new data" (1979, 155) and he added another condition to the focus on form constraint, that the focus on form must be discrete and centered only on one form in narrow context (what Krashen calls "extreme" context). Nonetheless, other research still showed that even with a narrow focus on one form alone, the Monitor still was not necessarily used.

The findings of Hulstijn and Hulstijn (1984) also challenged Krashen's third condition, that the learner must know the rule in order for the Monitor to work. They assessed the rule knowledge of the learner in an interview before the subjects were tested. Students who could state the rule and those who could not, had no significant difference in their scores.

All of the conditions that Krashen set up as being necessary for the emergence of the Monitor have been tested, and in each case, the condition did not necessarily create the use of the Monitor, nor did the Monitor's absence consistently coincide with the absence of a condition. It is because of these tests that McLaughlin proclaims that the Monitor is a concept that has no theoretical use. Still Krashen claims that students do use the Monitor, but that it just so happens that it is very rarely used in normal conditions of language.
acquisition. According to Krashen, the one thing that pauses or stops the acquisition process is the conscious knowledge of language which occurs only in the Monitor. But if the Monitor is so rarely used, Krashen's theory on how the Monitor interferes with acquisition loses its prominence. McLaughlin asks, "if the Monitor is the only means whereby conscious knowledge of the rules of a second language ('learning') is utilized, then why make the learning-acquisition distinction?" (1987, 27).

Test results have reduced Krashen's Monitor to nothing more than an untestable idea. Considering that the Monitor was highly restricted in the first place, Krashen may have been creating a distinction between learning and acquisition where one need not be made.

The Natural Order Hypothesis, according to McLaughlin, is based mostly on methodologically invalid morpheme studies, which is the cause of most of McLaughlin's complaints. Krashen based his natural order largely on the morpheme study of Burt et al. (1975), based on eleven morphemes which they claimed to be learned in a specific order. The researchers lumped students with varying degrees of exposure to the second language together and tested them all on the eleven morphemes. Because this was not a longitudinal
study, and because there was no distinction made between those learners with much exposure and those with very little, McLaughlin claims that the researchers were not proving a natural order of acquisition, but instead, were merely measuring the correctness in the use of certain morphemes in different learners with different L2 exposure.

As far as the Input Hypothesis is concerned, Krashen stated that speaking on the part of the student does not help acquisition, but instead is simply an indication of acquisition. Krashen maintains that the only use of a student's speech is to provide yet more input. McLaughlin questions if comprehensible input alone can cause students to change their hypotheses. He points out that, "unless learners try out the language, they are unlikely to get the kind of feedback they need to analyze the structure of the language" (50). If students do not verbalize the hypotheses that they have made, they have no chance of getting responses specific to that hypothesis alone. This seems a reasonable assessment.

According to McLaughlin, the affective filter hypothesis is of questionable validity because Krashen offers no coherent explanation for the development of the affective filter and there is no relation of the affective filter to individual differences in
language learning. McLaughlin says "It seems extremely premature to posit an affective filter without specifying its nature and how one is to assess its strength" (55). Different students have different levels of criticism that they are able to accept before they become reluctant to give answers. Krashen takes the psychological term "affect" and incorporates it into his theory, but he does not take into account what psychologists have known, that students have varying levels of positive affect, and the same criticism does not elicit the same response from all students.

Again, because of the criticisms of McLaughlin, the validity of Krashen's Monitor Theory has been reduced. The only thing left standing of Krashen's theory is the "i+1" input. This hypothesis states simply that language (like all things) is learned in incremental stages.

**Future Directions for Research**

The direction that the field of second language acquisition theory should take is uncertain. Neither the theory given the most discussion (Monitor) nor the theory behind much of the practice used in the classroom (Behavioral) is wholly useful in the language classroom as it exists today, nor is either of them without major problems and flaws in reasoning.
Still the question of how humans learn human language has not been sufficiently answered. Faced with the same question, it seems we are still confronted with the same problem researchers found at the beginning. A search for the answer to this question could be made in the works of Skinner or Chomsky (as did Krashen), or it could begin with Krashen's work itself. But Krashen's theory, practices, and research methodologies have been seriously challenged. Although these criticisms are not easily dismissed, teachers and researchers continue to use Krashen's theory. McLaughlin says that, "(i)n their enthusiasm for the Gospel according to Krashen, his disciples do a disservice to a field when there are so many unresolved theoretical and practical issues and where so many research questions are unanswered" (58). When researchers should be able to state a theory coherently, test it to determine its validity, and suggest applications, Krashen has constantly changed his theory, complicating the researchers' work. Krashen's theory, under more rigorous research criteria, would be considered to have been invalidated and dismissed. Krashen proposed a theory, found research results to back up his claims, and as new research findings come out, he changes his theory without validating the new hypothesis, thereby confusing readers and
convoluting his own theory.

A new theory could be based on the works of Skinner or Chomsky, the icons of second language acquisition research, but they have both been superceded in their own fields. Psychology and Linguistics have both gone on to further theories based on neither of their works. Perhaps the field of second language acquisition should do the same. Because these two theorists have been dismissed in their fields, it might be best to look for answers to the question of how humans learn language by beginning at the beginning.

It might be best to take the logical step when answering the question “how is language learned?” and to first admit that we know nothing. We have only recently begun to study more precisely what language is, and Learning Theory has developed only lately. Even while language and learning are still being studied separately, the colossal task facing language acquisition theorists is to combine the two.

To assert that we can answer this question correctly and thoroughly at the present moment is nearly ludicrous, especially when based on the rather shaky assumptions of two separate ideologues. We must first admit that not only do we not know how language is learned, but we also know of no concrete way of going
about finding the answer. Before we answer the question that
plagues second language teachers, we must first go to the source of
second language learning, the classroom, students, and teachers, and
base our assumptions on what we find there.

In the study of second language acquisition, the theories have
clouded the issue. Chomsky and Skinner both came into a new field
of research with their backgrounds and opinions already intact.
Krashen, as well, developed a theory based on an ideology and then
found data to back up his claims. Although the theories of Skinner,
Chomsky, and Krashen have given us some vague notions of what we
may find language learning to be, we need to dismiss these for now
and begin to look specifically into the classroom for the basis of a
new hypothesis based on the observations of second language
acquisition alone. Perhaps it is time for those researchers and
theorists from the old school of these two separate disciplines to
agree on the only conclusion which emerges from the research in the
field: Language learning is something of which we as yet have no
real grasp.

There are several places where the search may begin for the
answer to how humans learn language. First of all, there have been
advances in the field of Learning Theory. H. Gardner (1983) has
written on the Linguistic Intelligence. Another group growing in numbers is that of Learning Style researchers (see the work of R. Oxford)--those who study the difference in learning in different students. Second language acquisition researchers have only begun to delve into the theory of learning styles.

Also, a new group has begun to study the neurology of language and the paths that language takes in the brain. This group, called Connectionists by others in the field, look at the very beginnings of language utterances. What they will find has yet to be determined, but their beginning appears more methodologically sound, and whatever theory may evolve will emerge from research and collecting the data first (see Omaggio Hadley for a Connectionist bibliography).

Skinner, Chomsky, and Krashen all fit research findings into their theories, but this is not scientifically sound. To let go of such unsound ideologies is surely the first step in answering the question which second language learning research seeks to answer.
Bibliography


