age change in childhood and history. In J. Macnamara (ed.). *Language ought*. New York. Academic Press.
study of early language awareness. In A. Sinclair, R. J. Jarvella, and eds.). 1978. 45-54.
peated path between transparency and opacity. In U. Bellugi and nedy: *Signed and Spoken Language: Biological Constraints on Linguistic* . Verlag Chemie. 229-246.
igurative language and the two-code hypothesis. In R. Fasold and R. *lyzing Variation in Language*. Washington, D.C. Georgetown University

exical processing during sentence comprehension: effects of higher order mplications for representation. In T. Myers, J. Laver, and J. Anderson *itive Representation of Speech*. Amsterdam. North-Holland.
tler. 1979. The access and processing of idiomatic expressions. *Journal ng and Verbal Behavior*. 18.523-534.
ficité de l'énonciation didactique dans l'apprentissage de l'anglais par des phones. *Encrages*. Numéro spécial de Linguistique Appliquée. 44-52.
ntics. Oxford. Blackwell.
nguages in Contact. The Hague. Mouton.
n, and D. Hermans. 1981. Trying to see the "would" for the trees. th Conference on Polish-English Contrastive Linguistics, Blażejewko, r.
nistic iconism. *Language*. 47/2.416-428.
guistic hybridization and the "special case" of pidgins and creoles. In *Pidginization and Creolization of Languages*. Cambridge. Cambridge 91-116.
odels and fictions. *Applied Linguistics*. 1/2.165-170.
al errors made by Finnish and Swedish senior secondary school students: per given at the Interlanguage Symposium, Hanasaari, Helsinki, Finland,

vs. L2 acquisition of English interrogation. *Working Papers on* 37-57.
mal and developmental selectivity of L1 influence on L2 acquisition. *g*. 30/1.43-57.
mental and transfer errors: their common bases and (possibly) differential uent learning. *TESOL Quarterly*. 14/4.469-479.

Krashen, S. 1983. Newmark's "ignorance hypothesis" and current second language acquisition theory. In S. Gass and L. Selinker (Eds.) Language Transfer in Language Learning. New York: Newbury House. pp. 135-153.

9

NEWMARK'S "IGNORANCE HYPOTHESIS" AND CURRENT SECOND LANGUAGE ACQUISITION THEORY[1]

Stephen D. Krashen

My goal over the last few years has been the formulation of a workable theory of second language acquisition, a theory with consistent and interrelated hypotheses that would account for all phenomena in second language acquisition research and practice. This is an ambitious and dangerous undertaking. It requires, at least, that all experimental data be analyzable in a way that is consistent with the theory, with no counterexamples. Scientific method, however, demands more, that counter-evidence exists for all possible alternative formulations or explanations.

My goal is this chapter is to achieve a weaker objective in the area of first language influence on second language performance, to show that the phenomena we have discovered in this area of inquiry are at least consistent with the set of hypotheses known as "Monitor theory," without eliminating all possible alternatives. In addition, I will maintain that Newmark's (1966) original view of L1 influence is still a very good hypothesis–it is consistent with the rest of Monitor theory and accounts for the "interference" phenomena nicely. As we shall see, however, the original form of Newmark's hypothesis is in need of some repair. As stated by Newmark (1966) and as restated in Krashen (1977), it is somewhat too strong, as several other scholars have pointed out, notably Zobl (1980a, 1980b, 1980c).

The first part of this chapter briefly restates some of the central hypotheses in Monitor theory. Subsequent sections assume the correctness of these hypotheses and examine:

1. How Newmark's characterization can be restated in terms of the Monitor theory.

2. Constraints on syntactic transfer–in this case, I will be reporting on the work of others, such as Zobl (1980a, 1980b, 1980c), Wode (1978), and Kellerman (1978).
3. The role of the conscious Monitor in dealing with transfer-type errors.

My hypothesis here is that the Monitor can repair errors caused by the use of the first language in cases where the rule is learned but not yet acquired. This cure, however, is only short-term. The Monitor may also play a role in "avoidance": when a rule has been learned but has not yet been acquired, the performer may avoid the structure rather than go to the trouble of repairing it with the Monitor.

MONITOR THEORY: HYPOTHESES

I present here five hypotheses that capture the fundamentals of Monitor theory, focusing on points not covered in earlier papers. Evidence supporting the hypotheses is not presented here, since it has been discussed elsewhere in detail (e.g., Krashen 1981).

THE ACQUISITION-LEARNING HYPOTHESIS

The claim here is that there are two different and independent ways of developing ability in a second language. Second language acquisition is similar if not identical to the way children develop ability in their first languages. It is a subconscious process in two ways. First, the *process* of acquisition is subconscious–while we are acquiring, we have the impression that we are doing something else. We are not necessarily aware we are acquiring language; we are only aware of the fact that we are conversing, reading a book, listening to the radio, etc., with our focus on the message, or topic of discussion. Second, the *product* of acquisition is represented subconsciously in the brain, in the sense that we typically do not have access to knowledge that has been acquired. Students' reactions to introductory syntax courses reveal this– well-taught syntax courses reveal or make explicit our subconsciously acquired knowledge of our first language. While some people "know" (consciously) some rules they have acquired, most people do not. When an acquirer hears a sentence with a violation of an acquired rule, it "feels" wrong, even if the acquirer cannot describe the rule.

Learning, on the other hand, is conscious, in terms of both product and process. We know we are learning while we are doing it, and we are also consciously aware of it when we use this knowledge in performance. Some people enjoy both the process of learning and the actual use of conscious rules, but, it is my guess, many more people do not.

It is hypothesized that error correction affects conscious learning but not acquisition, in that it helps the learner arrive at the proper mental representation of the rule.

THE NATURAL ORDER HYPOTHESIS

According to this hypothesis, grammatical structures are acquired in a predictable order. I have, in many places, pointed out that this hypothesis does not mean

strict invariance, nor does it deny the possibility that transitional forms occur, predictable errors "along the way." It will be helpful to employ some formalism here. The natural order of acquisition

$$R_1 \ldots R_i R_{i+1} \ldots R_{932}$$

where R_1 is the first rule acquired and R_{932} the last in acquiring any language, first or second. (Of course, the number 932 is arbitrary.) I am, for the moment, ignoring the possibility that rules may be acquired in blocks, and I am pretending that we all stop at the same place, at 932, maintaining these fictions for clarity of presentation.

R_i represents the most recent rule acquired, or the acquirer's current state of competence, while R_{i+1} indicates the rule (or member of a group of rules) that the acquirer is "ready" to acquire next.

Representations such as these are incomplete in that they give the impression that we acquire one mature form after another. This is not so. Acquirers typically go through stages on their way to rule mastery, making what are termed transitional errors along the way. A major discovery of linguistics is that these transitional forms are predictable and fairly similar across acquirers in both first and second language acquisition (Dulay, Burt, and Krashen 1982). There are marked similarities in transitional forms for second language acquisition even among acquirers with different first language backgrounds. We can represent transitional forms as follows:

$$R_{i\,t_1 \cdots t_i t_{i+1} \cdots t_n\,R_{i+1}}$$

where the t's represent transitional forms between rules R_i and R_{i+1}, or more properly, forms leading up to R_{i+1}. Similarly, t_i = the acquirer's current stage and t_{i+1} the acquirer's "next" stage. t_n, the "final" stage, is identical to R_{i+1}.

The natural order hypothesis, as well as this characterization of transitional forms, applies only to subconscious acquisition and is posited to hold for all language acquisition. The actual orders for first and second language acquisition may differ, and it is also possible that transitional forms for L1 and L2 may differ, although clear similarities have been noted in the literature (reviewed in Dulay, Burt, and Krashen (1982). The hypothesis as stated here ignores the role of the first language, which we discuss later.

THE MONITOR HYPOTHESIS

This hypothesis claims that "normal" second language fluency results from use of the acquired system, while conscious learning is only available as a Monitor, or editor. The research strongly suggests (Krashen forthcoming, chapter 4) that it is quite difficult for most people to use conscious rules in performance. Three constraints, necessary but not sufficient conditions on Monitor use, have been proposed:

1. Time: The performer must have enough time to utilize conscious rules (cf. Lawler and Selinker 1971). For most people, ordinary conversation does not provide enough time for more than minimal Monitoring.

2. Focus on form: To use the Monitor, a performer must be thinking about correctness. Contrary to what some language teachers believe, this does not happen all the time.
3. Know the rule.

All three of these conditions must be met for effective Monitor use. Conditions 1 and 2 limit the situations in which the Monitor can be used, while 3 limits the rules that can be used, and as I have said earlier, there is individual variation among performers—not everyone is an effective Monitor user (Krashen 1978).

In Krashen (1978) I proposed that the ideal use of the Monitor is as a supplement to acquisition. The "optimal" Monitor user uses rules to raise the accuracy of his or her output when such rule use does not interfere with communication.

Typically, Monitor use raises accuracy of items that are learned but not yet acquired. Thus, we see a rise in rank order and in accuracy of rules that tend to be late-acquired and that are "learnable" (easy), in Monitored conditions as compared with unmonitored. For example, the third person singular and regular past in ESL acquirers show increases in accuracy when conditions for Monitor use are met, disturbing a "natural" accuracy order for morphemes.

This hypothesis does not deal with the use of the first language in second language performance, but as we shall see, the Monitor does have some role to play in dealing with interlingual errors.

THE INPUT HYPOTHESIS

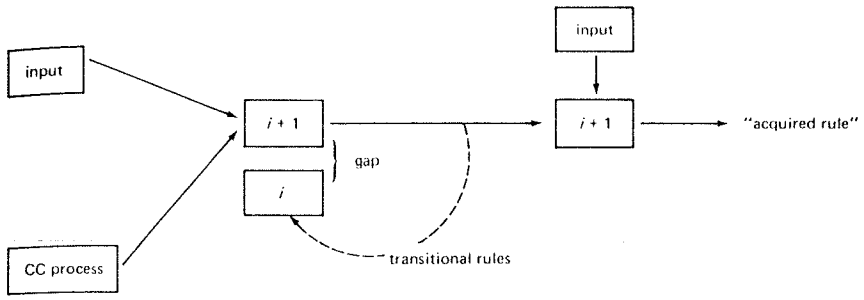
This hypothesis attempts to answer the question of how we acquire, how we move from R_i to R_{i+1}. This has been discussed in previous papers (Krashen 1980, for example), in three parts:

1. Acquisition of R_{i+1} requires input containing R_{i+1} that the acquirer *understands* (the message, not the form). This happens with the aid of context and extralinguistic information.
2. Speaking "emerges." Speaking is not taught directly but occurs on its own after enough comprehensible input has been obtained.
3. $i+1$ need not be deliberately programmed. If the acquirer gets enough comprehensible input in terms of quantity and variety, $i+1$ will automatically be provided. I have argued that if this hypothesis is true, natural (but comprehensible) input is far superior to the use of any grammatical syllabus if acquisition is the goal.

It will be helpful to go into somewhat more detail than I have done in previous work. Figure 1 diagrams what might be going on in the subconscious mind of the acquirer (initial steps in setting up this diagram were done with Elaine Andersen).

Again, for the moment, we assume the L1 plays no role at all.

New forms may be presented to the language acquirer in two ways. One is via input—in this case, the acquirer understands a message using a form he or she has not yet acquired, and at some subconscious level connects this form with a meaning. The second is the operation of what has been termed the creative construction process. This process produces new forms without the benefit of input by



(see text for explanation)
CC: creative construction process
i: current rule (already acquired)
i + 1: candidate for acquisition

Figure 1 Internal Process in Language Acquisition (Krashen-Andersen Schema)

reorganizing the rules that have already been acquired in more general ways. Either of these processes can present the acquirer with an "*i*+1," a potential new rule.[2]

For acquisition to occur, acquirers need to notice a difference between their current level of competence *i*, and the new structure or form presented by either input or the creative construction system.

Constraints are built into all parts of this device that apparently interact to give rise to the natural order phenomena. First, not every unacquired structure is eligible to enter the system—certain built-in principles, it has been hypothesized, filter the input. Some of Slobin's operating principles (Slobin 1973, Clark and Clark 1977) do just this, focusing attention on certain parts of the input. An example is the operating principle: "Pay attention to the ends of words." Other operating principles describe the activity of the creative construction process, very powerful ones being: "Avoid exceptions" and "Avoid interruption or rearrangement of linguistic units." These principles produce potential *i*+1 rules that may not appear in the actual input.

There may also be constraints on the comparison process itself; *i* and *i*+1 may not be too far apart and can differ only in limited ways. As we shall see later, this may explain the presence and utility of transitional forms for language acquisition.

If the comparison of *i* and *i*+1 shows a gap, the *i*+1 form becomes a candidate for acquisition. Whether it actually survives depends on whether it turns up in the input again: hence the second input box in Figure 1. If it does turn up with some minimum frequency, it can be confirmed and acquired. If it does not turn up, it is a "transitional form" and will eventually be discarded. Before this happens, however, the transitional form may usefully serve as *i*, as we shall see.

Here is a simple example. Let us assume that an acquirer has not yet acquired the morphology of the English past tense, his or her *i* being either the present

tense and/or the present tense plus some free marker or lexical item for the past. He or she then hears and understands forms using the past marker, i.e., "walked," "talked" (I ignore allomorphic variation). Forms with the /-ed/ marker become the candidate for i+1 and are compared with the current i. Since the acquirer continues to hear such forms in the input, this rule may eventually become acquired. Our acquirer's creative construction system, seeking to avoid exceptions, will then attempt to apply this new rule to other verbs. It thus may produce a form such as "sweeped." This contrasts with "swept," a lexical item holistically acquired before the past tense rule was acquired. We thus see a new i+1/i comparison, between "sweeped," the new form, and "swept," the old form. This particular i+1 (sweeped) will not survive, however, since it is not confirmed by subsequent input and is therefore a transitional form. Before it dies, however, it may occupy the i box.

With "sweeped" as the temporary i, the acquirer (again) may notice (at a subconscious level) *swept* in the input and may note the differences between "swept" and "sweeped." The new i+1, *swept*, will survive, since it is confirmed by subsequent input. In a sense, the creative construction source temporarily overwhelmed the evidence from input.[3]

Note that communicative success plays no role in this model. There is no evidence I know of that leads me to place it in the Krashen-Andersen schema (cf. Figure 1) directly, and some counterevidence from child language acquisition exists (Brown 1973, Brown and Hanlon 1970) against the hypothesis that communicative success is a fundamental motivating force in language acquisition. This is *not* to say that the use of language for communication is unimportant. It may be the only way to get the right input for acquisition. Also, communicative success may play a large role in conscious *learning*. Learners engage in conscious inductive learning (figuring out what the rules are as a problem-solving exercise, as in a syntax class), on the basis of the feedback they get, either in the form of explicit error correction on form, or whether they feel their output has had the desired effect.

Note that the framework presented here predicts that transitional forms may be useful in the language acquisition process. Since there probably are constraints on the i/i+1 matching, i.e., the two structures have to be fairly similar, the temporary use of a transitional form may help "close the gap." In other words, if we are moving from R_{14} to R_{15}, a pure R_{14}/R_{15} comparison might not produce the desired results. A transitional form produced by the creative construction process may be closer to R_{15}, close enough to permit comparison.

THE AFFECTIVE FILTER HYPOTHESIS

This last hypothesis claims that the effect of negative attitudes, low motivation, being "on the defensive," is having a high affective filter, something that keeps the input away from the language acquisition device (LAD) (Krashen 1981; Dulay, Burt, and Krashen 1982). It is an open question whether the filter operates to block both input entrances in Figure 1.

Performers with a high affective filter may understand the input directed at them but because of this mental block will not be able to utilize the input for further acquisition.

SUMMARY

The five hypotheses predict that the real cause of language acquisition is comprehensible input presented to an acquirer with a low affective filter. I have argued elsewhere that every other factor hypothesized to relate to second language acquisition reduces to input plus low filter, including instruction, exposure, and age (Krashen forthcoming).

The theory also predicts that we will see individual variation in rate of acquisition (for discussion of individual variation in learning, see Krashen 1978); faster acquirers are those who obtain more comprehensible input and/or who have lower affective filters. Similarly, fossilization is hypothesized to be due to either a lack of comprehensible input or to the strength of the filter.

THE ROLE OF THE FIRST LANGUAGE

I will now attempt to describe the role of the first language in a way fully consistent with the five hypotheses stated above. In most cases, there is evidence consistent with this description, but as stated earlier, this constitutes only a first step in that all alternatives are not eliminated.

The fundamental hypothesis presented here is that first language interference in the syntactic domain is the use of a rule of the first language in place of some transitional form or mature form of the L2. It occurs when the acquirer has not yet acquired some t_i+1 and substitutes a first language rule for it.

This is, I think, identical to Newmark's view: according to Newmark, grammatical interference is not interference at all, not something "getting in the way," not proactive inhibition, not the result of competing rule systems struggling against each other, but the result of a failure to acquire a rule or to proceed to the "proper" transitional form. It is the result of substituting previous and often inappropriate knowledge for gaps in the (subconscious) knowledge of the second language. To paraphrase Newmark, its cure is acquisition of the new knowledge, of the "real" t_i+1.

To state this in terms of the formalism presented earlier, we can outline the possibilities as follows. For an acquirer at stage t_i, somewhere "between" rules R_i and R_i+1, we may see:

1. Movement to the "real" t_i+1, or normal progress, as presented earlier.
2. The substitution of an L1 structure for t_i+1, with the following possibilities:

a. The L1 structure may happen to be identical to a transitional stage t_i+1. An example is the use of the *no+v* form of negation for Spanish speakers acquiring English. *No+v* is an attested transitional stage for English as a first and second language, and also reflects the L1 rule. The question then arises whether this pseudo-transitional form may play the same

role, serving as a temporary *i* for noticing the gap between *i* and new structures presented to this portion of the LAD. I would like to hypothesize that the answer to this question is *no*; when an L1 form happens to be identical to a transitional form, it does not help the acquisition process along. Schumann's survey (Schumann, 1979) of negation in interlanguage is consistent with this view. Schumann reports that the *no+v* stage is clear and strong for ESL acquirers who have this structure in their first language (e.g., Spanish, Italian) but is fleeting for those whose L1 does not do negation in this way (e.g., Japanese, French). An interpretation of this is that the clear and strong *no+v* is really the result of two different phenomena—in early stages, it is the use of the L1 rule in place of t_{i+1}. In later stages it is the genuine t_{i+1}, the "real" *no+v*, and it is only this latter that can help the acquirer move on. Zobl (1980b) has noted that in cases where the L1 rule is similar to an attested interlingual or transitional form, fossilization seems to occur. This may be because the L1 rule, despite its formal similarity to the t_{i+1}, does not function in the same way in language acquisition.

b. The L1 structure need not be identical to t_{i+1}. If this is the case, it could correspond to no mature or transitional L2 form, or it could be similar to some "later" R_{i+n}, some rule of the second language that the acquirer is not yet "ready" to acquire. This is positive transfer and is a way of "beating the natural order." It is, I submit, a hollow victory, not true acquisition.

The pseudo-acquisition nature of positive transfer is often revealed by closer analysis of the apparently correct structure—it may be formally correct, but in the wrong register. It may be too polite, too informal, or too verbose (Levenston 1971). Real acquisition eventually "catches up" with the positively transferred structure. This results in, I predict, a stage with transfer "errors," a structure that is formally correct but with, perhaps, register errors, coexisting with the use of the transitional forms and even the correct form of the target language structure.

What is suggested, in other words, is that an L1 rule substituted for either a transitional form or a target language rule cannot operate as *i*. The reasons for this may either be that the L1 rule is never really totally identical to the L2 transitional form or mature rule (i.e., there really is no "perfect transfer") or, possibly, even if the rule is totally identical, L1 rules simply do not have the same psychological reality as L2 rules do in the brain.

It could further be hypothesized (as suggested by Corder, this volume; Tarone 1977; and Newmark 1966) that L1 use is simply a production strategy, something acquirers appeal to when they need to express something in the L2 but do not have the syntactic form they need. According to this hypothesis, the L1 rule is not a stable part of second language competence.This hypothesis predicts that L1 rules would not be helpful in comprehension, would not interfere with comprehension, and that performers would not utilize them in making grammaticality judgments. Evidence on these questions is scant. Ulijn and Kempen (1976) present evidence suggesting that L1-L2 differences do not appear to present a problem in reading, a conclusion that is also consistent with the hypothesis that syntactic processing is in general less important in perception than in production. Schachter, Tyson, and Diffley (1976) investigated whether the L1 played a role in grammaticality judgments, whether ESL students would accept L2 sentences as grammatical that conformed to L1 rules but that were ungrammatical in the second language. Speakers of Farsi and Arabic showed clear signs of accepting such sentences, but speakers of Chinese and Japanese did not. Gass (1980) reported that speakers of languages with pronoun retention in relative clauses ("The woman whom I saw her is my sister") were more likely to accept ungrammatical sentences in English pronoun reflexes. Ioup and Kruse (1977) did not find evidence for L1 use in grammatical judgments of relative clauses, however. The question is thus still open.[4]

CONDITIONS ON TRANSFER

Newmark's ignorance hypothesis remains, for me, the most promising one to pursue. Several scholars have pointed out, however, that in its current form it is too strong. It predicts that L1-influenced errors can occur whenever the acquirer has not yet acquired a rule of the second language, or any time short of full competence. This is not so. L1-influenced errors do not occur anywhere, on any rule or any time. In this section, I will describe some of the constraints on transfer that have been discovered in recent years, and then give some examples of how they predict both occurrence and nonoccurrence of interlinguistic forms in syntax.

Condition I: *The Motivator.* There must be some force that encourages the performer to use an L1 structure, rather than continue the normal second language acquisition process. Zobl (1980a, 1980b) hypothesizes that two sorts of forces can do this:

1. A universal operating principle, in the sense of Slobin's operating principles.
2. A language-specific tendency in the target language, either a powerful synchronic tendency in the L2 or a historical direction the language is taking. In either case, the principle guides the acquirer to a preexisting L1 rule before the normal acquisition process has a chance to operate.

Universal operating principles are relatively easy to detect, as we shall see when we examine the examples later. Language-specific trends in the L2 may or may not be obvious. One way of telling whether the use of a given L1 rule is the result of a language-specific strategy is to see whether the interlanguage was going in that direction "anyway." In other words, if an L1-influenced rule is identical to an attested transitional rule of the interlanguage, we can infer that there is some language-specific tendency in the L2 in that direction. (Note again I am hypothesizing that the acquirer's use of an L1 rule that is identical to or similar to a transitional or mature L2 rule is *not* the same as using the "real" rule. A Spanish speaker producing *no+v* in English is using *either* the L1 or a genuine transitional form. Only the latter, I am hypothesizing, is useful. In actual practice, in analyzing output data, it may be difficult or even impossible to tell them apart.)

Condition II: *The State of the L1 Rule.*

1. Zobl (1980a, 1980b) points out that an "interfering" first language rule must be productive—it must be a structure that is in fairly frequent use in the L1 and one that is not "on the way out," historically speaking. It must, in other words, be healthy.
2. Another condition on the L1 rule, according to Kellerman (1978), is that it be perceived, by the performer, to be unmarked, or potentially language-universal. Kellerman points out,

for example, that Dutch students of ESL were not willing to accept a literal translation into English of the Dutch equivalent of

This book reads well.

apparently because the intransitive use of *read* was perceived to be language-specific and infrequent (see also Jordens and Kellerman 1981).

3. A third part of this condition deals with what the L1 rule can *donate* to the acquirer's second language performance. As several studies indicate, the L1 tends to contribute word order and free morphology, but not bound morphology (Weinreich 1953, Krashen 1977). In other words, when utilizing an L1 rule, performers take over the L1 word order (in a sense, any transformations are "already performed" in the L1) and insert L2 morphemes in spaces provided by the corresponding free L1 morphemes and words, but they rarely utilize actual L1 bound morphemes. Thus, the L1 donates the "slots" of its surface structure, minus the bound morphemes.

Condition III: *The "Crucial Similarity Measure."* This condition comes from the work of Wode (1978) and accounts for the findings that interlingual errors do not occur at any and all stages of the acquirer's interlanguage. Wode states that for an interlinguistic error to occur, the L1 and L2 structures must meet a "crucial similarity measure" (p. 116). Wode's data come from child second language acquisition of English, with L1 = German. First-language-influenced errors such as

John go not to the school.

with postverbal negation occur, but only after the child has reached the English aux-neg stage, at which time the child apparently overgeneralizes (see condition I) post-aux negation to postverbal, and uses the L1 rule. This does not seem to happen in earlier stages.

To restate this condition in terms of the formalism, we can say that for an L1 rule to be utilized, it must be preceded by a t_i of the second language that differs from it only in minimal ways. Let us consider, for the moment, any t_i to t_{i+1} transition to be analogous to a grammatical transformation, in the sense of Chomsky (1965), where t_i is a structural description and t_{i+1} a structural change. This is *not* to be taken as a hypothesis that interlinguistic stages are grammatical transformations or that constraints on transformations are identical to constraints on movements between transitional stages. The point is that there *are* constraints on possible structural changes from structural descriptions; transformations can only do certain things and make certain limited changes.

While it remains an empirical question just what changes are possible, for now it is enough to say that there are a limited number of elementary transformations that can occur between transitional stages or from t_i to the use of a first language rule.[5]

Table 1 gives some actual examples of attested cases of first language transfer, showing, in each case, how all three conditions are met. Table 2 presents cases that the unconstrained ignorance hypothesis predicts should occur but apparently do not. We will see that in each such case, one or more of the three conditions are not met. Following Chomsky's (1957) advice on methodology, I have applied the derived will be useful in analyzing more difficult cases.

Table 1 Interlinguistic Errors and the Three Conditions

	*German/English**
Error type	Postverbal negation "John go not to school" Wode 1978
Condition I	Operating principle: Avoid exceptions. If acquirer has already acquired post-aux negation, this OP encourages generalization to verbs
Condition II (see text)	1. Postverbal negation in German is productive 2. And is not considered a marked rule 3. L1 use manifested as L1 word order for lexical items and L2 morphemes that correspond to L1 free morphemes
Condition III	t_i = aux-neg stage in ESL. This explains why this error does not occur in earlier stages. Wode's subjects produced typical early transitional stage negation earlier, e.g., "no play baseball"
	Spanish/English
Error type	*no V* "I no understand" Schumann 1979
Condition I	Language-specific tendency in English, as evidenced by attested transitional form in L1 (Klima and Bellugi 1966) and in ESL with a variety of L1s
Condition II (see text)	1. *no* + *V* is productive in Spanish 2. Apparently perceived as potentially non-Spanish 3. As above (see previous example)
Condition III	t_i is simply the acquisition of subject-predicate sentences. This structural description is met early, which explains why this error occurs nearly from the beginning
	English/French
Error type	Auxiliary use "J'ai resté"† committed by the author in casual speech. He knows the rule but has not yet acquired it
Condition I	OP: Avoid exceptions. Use of *avoir* in passé composé is the general rule. (Zobl [personal communication] points out that overgeneralized *avoir* is an attested transitional form in L1, e.g., "J'ai grand" on the model of "J'ai peur")
Condition II (see text)	1. English present perfect is productive 2. Present perfect with *have* is not considered language-specific by the subject 3. As in first example
Condition III	t_i = acquisition of passé composé using avoir with other verbs
	English/French
Error type	Postverbal pronoun objects "Je vois elle."‡ Selinker, Swain, and Dumas 1975; Ervin-Tripp 1974. This analysis from Zobl 1980c.
Condition I	Zobl (1980c) suggests there is a language-specific tendency in French for SVO order, which normal French pronoun order violates ("Je la vois"). Zobl cites Lightbown (1977) as evidence, noting that children acquiring French as L1 or L2 prefer SVO syntax and avoid use of the clitic. Zobl (personal communication) also notes that such forms are attested transitional forms in French as L1 ("je n'ai pas elle," age 3.0, in Gregoire).
Condition II (see text)	1. SVO order is productive in English 2. English speakers perceive SVO to be not language-specific 3. As in first example
Condition III	t_i = previous acquisition of SVO forms in French without pronouns, e.g., "Je vois la fille"

Table 1 *continued*

	Chinese/English Japanese/English
Error type	"Transfer at the discourse level" Transfer of topic-comment structure of L1 "*Most of the food which is served in such a restaurant* have cooked already" Schachter and Rutherford (1979)
Condition I	OP: Givon (1979) proposes that under conditions of communicative stress, the acquirer will revert to the "pragmatic mode," which is characterized by topic-comment structure. There thus may be a universal tendency toward topic-comment in all early SLA
Condition II	1. Topic-comment structures are productive in Japanese and Chinese 2. Speakers of topic-prominent languages probably consider pragmatic order as natural/fundamental as English speakers regard subject-predicate. 3. As in first example
Condition III	t_i = acquisition of SVO order in English without the morphological trimming, e.g., without subject-verb agreement. This requirement is easy to meet, which explains why topic-prominent language speakers use these constructions early
	Hmong/English
Error type	Omission of definite article in subject position (only). Huebner (1979) interprets this as utilization of topic-comment structure of L1, in which topics need not be (redundantly) marked as known to hearer or previously mentioned
Condition I	OP: As in previous example
Condition II	1. Topic-comment structure is productive in Hmong 2. And probably regarded as not language-specific 3. Word order of the L1 used with lexical items from the L2
Condition III	t_i = acquisition of the form of the definite article and its use (when reference is known to hearer and/or not previously mentioned). Structural change is lack of marking of topics with *the* in English

*L1/L2
†Literally "I have stayed." Correct French is "Je suis resté."
‡Literally "I see her." Correct French is "Je la vois."

MONITOR USE AND FIRST LANGUAGE INFLUENCE

One possible temporary cure for L1-type errors is the use of the conscious Monitor. If the performer has consciously learned a rule R_{i+1} that has not yet been acquired, and if the performer substitutes an L1 rule for R_{i+1}, the performer can "repair" the situation by conscious Monitoring. This was referred to as the "Monitor mode" in previous work.

This is indeed a cure, but not a very permanent one. It is limited by the fact that all conditions for Monitor use must be met in order for it to work, and these conditions are severe. When the Monitor is not "on," the L1 error will recur. Moreover, only a limited number of L1 errors can be covered up in this way, since the Monitor is not efficient at dealing with complex rules.

Conscious Monitoring need not always result in the full repair of an L1 error. If the repair job appears to be too complex for the Monitor to deal with, the

Table 2 Nonoccurring Interlinguistic Errors Predicted by the Ignorance Hypothesis

Error type: We do not see	*Condition(s) violated*
	*French/English**
John comes-he? (from Jean vient-il?) (Zobl 1980a, 1980b, 1980c)	II. 1. Zobl (1980c) maintains that this rule is not productive in present-day French. Citing Terry (1970), Zobl says that it is mainly limited to present-tense contexts, and "there is strong independent evidence from early Modern English (Zobl 1978) that the restriction in the scope of a rule to present-tense contexts is a reliable indicator that the rule is becoming unproductive. (p. 54). Condition II. 3 may also be violated. Pronouns such as *il* in "Jean vient-il?" are, in a sense, bound morphemes, as they cannot appear in isolation (Zobl 1980c)
	French/English
I it see. (from Je le vois.) Zobl (1980b)	II. 1. Zobl (1980b) argues that this rule is not healthy in French: "The preverbal object clitics are a conservative reflex of an earlier language state. In Old French, dative objects—after certain verbs—and emphatic pronouns could occur in preverbal position (Foulet 1966, cited in Zobl 1980b). Since then the changes in French have been toward a more rigid syntactification of SVO order so that today only the weak pronouns can still occur preverbally." (p. 15) 3. Zobl (1980c) notes "the object pronoun in both Spanish and French is a preverb clitic that has the status of a bound morpheme . . . " (p. 53)
	Japanese/English
Sentence-final negation. I saw the boy no	II. 3. Zobl (1980c) points out that this marker in Japanese is a particle attached to the verb (a bound morpheme). Schumann (personal communication) reports that this error does occur but is quite rare

*L1/L2

performer may simply abort the entire sentence and try to express the idea in a simpler way. This may be one of the bases for the avoidance phenomena, first reported by Schachter (1974).

In Schacter's study, it is shown that Chinese and Japanese speakers produce fewer relative clauses in English as a second language than do Farsi and Arabic speakers, but are more accurate. Schachter relates this result to L1 - L2 differences: Chinese and Japanese relative clauses are constructed to the left of the head noun, while Farsi and Arabic, like English, have relative clauses to the right of the head noun.

One possible interpretation is that the Chinese and Japanese speakers in Schachter's study consciously knew the correct English relative clause rule but had not acquired it. Also, in their production of English, they utilized their L1 rule (conditions II and III may be easily met here; it is not clear to me how condition I is met). Their Monitor was thus presented with the task of moving relative clauses around a head noun, a very complex operation. In many cases, subjects simply

decided that it was not worth the effort! When they did produce relative clauses, however, they were accurate. These were the cases when they went to the trouble of applying a difficult rule.

Avoidance is thus predicted in cases where a rule has been consciously learned, but not acquired, when the conditions for L1 use are met, and when the L1 and L2 rules are quite different, where "repair" by the Monitor requires difficult mental gymnastics.

Avoidance is also predicted in cases where performers consciously know the rule imperfectly, not well enough to make the necessary change but well enough to see a mismatch between the L1 rule they have used and the correct target language rule. Since they cannot repair but know there is an error, they can exercise their option to avoid the structure. Kleinmann's (1977) avoidance data fit this description. His Arabic-speaking subjects showed evidence of avoiding the passive in English, and his Spanish- and Portuguese-speaking subjects avoided infinitive complements and direct object pronouns in sentences with infinitive complements (e.g., "I told her to leave"). In both cases, according to Kleinmann, contrastive analysis predicts errors. These subjects, unlike Schachter's, were not unusually accurate with these constructions when they produced them. In this case, it is possible that the subject's knowledge of the rule was not complete enough to effect a perfect repair; so avoidance was the result. Table 3 summarizes the two types of avoidance.

In both cases, conscious rules serve a filtering function, telling the performer where the L1 rule differs from the L2 rule. In one case, repair is possible but difficult, and in the other the conscious rule does not permit repair.

SUMMARY AND CONCLUSIONS

I have tried to make the following points, or, rather, I have made the claim that the following hypotheses are at least plausible:

1. Hypotheses compatible with transfer data are also compatible with hypotheses of the Monitor theory.
2. Use of an L1 rule in place of a true transitional form is not "real" progress. It may be merely a production strategy that cannot help acquisition (i.e., it serves as a temporary *ij*).
3. The strong form of Newmark's ignorance hypothesis predicts more errors than actually occur. Several conditions on transfer are necessary to make the correct predictions.
4. While the Monitor can repair L1 errors, the cure is temporary, since severe constraints on Monitor use exist. The Monitor's spotting of L1 - L2 rule conflicts may underlie the avoidance phenomenon.

Transfer, according to this view, can still be regarded as padding, or the result of falling back on old knowledge, the L1 rule, when new knowledge (the real t_i+1) is lacking. Its cause may simply be having to talk before "ready," before the necessary rule has been acquired. When this happens, if the conditions are met, the performer may very well fall back on old knowledge.[6]

The real cure for first language influence, according to Newmark, is not drill at the points of contrast between the two languages (Newmark and Reibel

Table 3 Two Types of Avoidance

	Avoids if:
1. The performer consciously knows the rule well enough to make the repair	The repair is too difficult to make, i.e., it involves complex movements
2. The performer knows only enough of the rule consciously to note a difference between the L1 rule and the (unacquired) L2 rule	An L1–L2 difference is noted, since repair is not possible

Schachter (1974) is an example of 1, and Kleinmann (1977) is an example of 2.

1973, p. 239). Drill will, at best, produce learning, and, as we have seen, this is only a short-term cure. The real cure "is simply the cure for ignorance" (Newmark 1966, p. 81): in our terms, real language acquisition. This can only happen with comprehensible input presented to an acquirer who is "open" to it, i.e., one who has a low affective filter.[7]

NOTES

1. I thank William Rutherford, Robin Scarcella, Helmut Zobl, Elaine Andersen, and Tracy Terrell for discussion and comments on drafts of parts of this paper.

2. Input pushes the acquirer toward what Hakuta (1975) calls external consistency, while the creative construction system pushes the acquirer toward what Hakuta calls internal consistency.

3. Elaine Andersen has pointed out to me that forms produced by the creative construction system which are not verified by subsequent input do not always fall away. Some of them stay, in child language acquisition, and are the basis for language change.

4. The hypothesis that L1 rules cannot contribute to real progress implies that fossilized use of a L1 rule is the "end of the line" for acquisition. Does this mean that a single L1 error, a single prolonged substitution of some t_i+1 halts all acquisition? It implies this only if we accept a strictly linear view of the natural order hypothesis, that there is only one stream of progress $R1 \ldots R932$ that acquirers follow in strict sequence. Clearly, this is not the case. If it were, acquirers would always show us just one transitional error at a time! Of course, individuals show us many error types at once. This indicates that several streams of development are taking place at the same time. These streams appear to be correlated; a performer at a given R_i in one stream (a real chance to introduce new notation here; R_{ij} could mean R_i for stream *j*) will usually be at a predictable stage in another stream. Schumann (1980) provides good evidence for this, noting that his subjects who were at the *no+v* stage in negation produced few relative clauses or relative clauses without relative pronouns. For L1 acquisition, Shipley, Smith, and Gleitman (1969) report that verb-phrase-related items are correlated fairly highly for order of acquisition, and noun-phrase-related items are correlated, but agreement across the groups is not high (see also Krashen, Madden, and Bailey 1975; and Andersen 1978 for similar suggestions). Of course, it is quite possible that transitional forms or rules from one stream may help out those in any other by serving as *i*. If say 10 parallel streams of development occur at any given time in an acquirer, it may be the case that a given stream will interact with some, but not all, of the others in this way.

If actual production plays no necessary role in language acquisition (the input hypothesis), and if L1 use is indeed a production strategy, it follows that L1 influence will be minimized if performers are allowed a silent period, a period during which they are not forced to speak but are provided with comprehensible input. The existence of the silent

period is well attested in both L1 and child L2 literature. In child second language acquisition, it can last anywhere from 2 to 6 months. Adults are not allowed a silent period in many second language classes (and in many real-world situations), and this may be the reason first-language-influenced errors appear to be more prevalent in adults. We have no data showing that allowing a silent period reduces L1 errors, but we do have evidence indicating that the silent period causes no harm and may even be beneficial in cases where comprehensible input is provided (Gary 1975, Postovsky 1977).

Based on Hyltenstam's data on the acquisition of negation by adult acquirers of Swedish (Hyltenstam 1977), Hammarberg (1979) argues that acquirers may begin at different developmental stages depending on their first language. The normal course of development in the acquisition of negation in Swedish consists of the following transitional stages:

1a. Acquirers place the negative marker before all other parts of the VP, before the aux and the main verb

1b. Acquirers place the negative marker after the aux but before the main verb

2. Postverbal negation

In subsequent stages, acquirers move closer to the Swedish rule of postverbal negation in main clauses and preverbal negation in subordinate clauses.

According to Hammarberg, speakers of languages that have preverbal negation (Serbo-Croatian) typically start this developmental sequence at the beginning, at stage la. English speakers, however, appear to begin at lb. We do not see English speakers, in Hyltenstam's data, who produce neg + aux structures. Since lb "is an English-like solution" (p. 10), one can hypothesize that English speakers skipped the la transitional stage.

There are several possibilities here. First, Hammarberg's suggestion may be true. If so, if acquirers can skip a transitional stage t_j when their language has a rule identical to t_j+1, this implies that t_j was not essential—it did not have to serve in the i box in Figure 1. This does not rule out the possibility that t_j would have been useful.

A second possibility is that t_j was present but escaped the observer's notice. Indeed, it may have been present as t_j but never uttered. Adult performers who have consciously learned the target language rule, or who have even learned parts of it, may be able to use the conscious Monitor to detect transitional errors and either avoid them in performance or repair them (see discussion in text on avoidance). They may, however, have more of a tendency to accept such transitional forms when they coincide with an L1 rule, even if they are errors (Schachter et al. 1976; see discussion of grammatical judgments in text). This could explain why transitional forms that are unlike L1 rules are less frequently seen in performance. It should be noted, however, that the Serbo-Croation speakers in Hyltenstam's study did show clear signs of stage 1b, which does not correspond to any rule in Serbo-Croatian.

There are thus at least two possibilities—the English speakers did indeed skip a stage, which implies that the skipped stage may not have been crucial to further development, or the stage was "there" but undetected because of its short duration and/or its having not been used in the performer's output. Consistent with Schumann's findings (Schumann 1979), the transitional stage that coincides with the L1 rule was quite evident, in the case of both Serbo-Croatian speakers (stage 1a) and English speakers (stage 1b). As suggested in the text, this stage may have, in each case, been two stages in one, first the L1 rule, and then the "real" transitional stage, with only the latter helping real progress to continue.

5. Several studies suggest that transfer errors decrease with proficiency; that is, more advanced acquirers show fewer interlinguistic errors (Taylor 1975, Dommergues and Lane 1976, Seliger 1978). Why should this be? In my previous work, in which I accepted a (too) strong version of the ignorance hypothesis, I interpreted L1 influence as evidence of overall low acquisition, and lesser interference in advanced performers as the effect of more acquisition. If L1 influence is, however, constrained in the ways described here, it should be able to occur at any stage, with a late R as easily as an early one. Condition II 3 may account for this phenomenon—earlier acquired rules tend to involve word order, while bound morphology tends to be acquired later. Thus, earlier rules may fit the structural conditions for L1 influence more easily.

6. According to this view, transfer, even positive transfer, is not helpful. There are some *indirect* ways, however, in which use of the first language helps language acquisition. First, as mentioned in Krashen (1977), use of L1 rules, even if wrong, allow the performer to participate in conversation, and thus obtain the comprehensible input necessary for acquisition. Second, the existence of cognates helps make input comprehensible. These factors will increase the rate of acquisition but not alter the order.

7. Note that according to the theory, even communicative exercises aimed at acquisition of the real R_i+1 will not be successful at combating interference, since the natural order hypothesis claims that the student's order of acquisition is determined by factors that are independent of instruction. Also, any exercises devoted to one particular structure have difficulty meeting the requirements for acquisition (Krashen 1980, forthcoming). The best solution remains an acquisition-rich environment, with plenty of comprehensible, interesting input presented in such a way as to keep the student "off the defensive."

REFERENCES

Andersen, R. 1978. An implicational model for second language research. *Language Learning.* 28.221-282.

Brown, R. 1973. *A First Language.* Cambridge, Mass. Harvard University Press.

Brown, R., and C. Hanlon 1970. Derivational complexity and order of acquisition in child speech. In J. Hayes (ed.). *Cognition and the Development of Language.* New York. Wiley. 155-207.

Chomsky, N. 1957. *Syntactic Structures.* The Hague. Mouton,

Chomsky, N. 1965. *Aspects of the Theory of Syntax.* Cambridge, Mass. MIT Press.

Clark, H., and E. Clark. 1977. *Psychology and Language.* New York. Harcourt Brace Jovanovich.

Dommergues, J-Y., and H. Lane. On two independent sources of error in learning the syntax of a second language. *Language Learning.* 26.111-123.

Dulay, H., M. Burt, and S. Krashen. 1982. *Language Two.* New York. Oxford University Press.

Ervin-Tripp, S. 1974. Is second language learning like the first? *TESOL Quarterly.* 8.111-127.

Foulet, L. 1966. Petite syntaxe de l'ancien français. *3me* edition. Paris. Honoré Champion.

Gary, J. 1975. Delayed oral practice in inital stages of second language learning. In M. Burt and H. Dulay (eds.). *On TESOL '75: New Directions in Second Language Learning, Teaching, and Bilingual Education.* Washington. TESOL. 89-95.

Gass, S. 1980. An investigation of syntactic transfer in adult second language learners. In R. Scarcella and S. Krashen (eds.). *Research in Second Language Acquisition.* Rowley, Mass. Newbury House. 132-141.

Givón, T. 1979. From discourse to syntax: grammar as a processing strategy. In T. Givón (ed.). *Syntax and Semantics.* vol. 12. New York. Academic Press. 81-112.

Hakuta, K. 1975. Learning to speak a second language: What exactly does the child learn? In D. Dato (ed.). *Developmental Psycholinguistics: Theory and Applications.* Georgetown University Round Table on Languages and Linguistics. Georgetown University School of Languages and Linguistics. 193-207.

Hammarberg, B. 1979. On intralingual, interlingual and developmental solutions in interlanguage. In K. Hyltenstam and M. Linnarud (eds.). *Interlanguage.* Stockholm. Almqvist and Wiksell.7-24.

Huebner, T. 1979. Order of acquisition vs. dynamic paradigm: a comparison of method in interlanguage research. *TESOL Quarterly.* 13.1.21-28.

Hyltenstam, K. 1977. Implicational patterns in interlanguage syntax variation. *Language Learning.* 27.383-411.

Ioup, G., and A. Kruse. 1977. Interference versus structural complexity as a predictor of second language relative clause acquisition. In C. Henning (ed.). *Proceedings of the Second Language Research Forum.*

Jordens, P., and E. Kellerman. 1981. Investigations into the "transfer strategy" in second language learning. In J. Savard and L. Laforge (eds.). *Actes du 5e congres de l'AILA.* Quebec. Les presses de l'université de Laval. 195-215.

Kellerman, E. 1978. Giving learners a break: native language intuitions as a source of predictions about transferability. *Working Papers on Bilingualism.* 15.59-92.

Kleinmann, H. 1977. Avoidance behavior in adult second language acquisition. *Language Learning.* 27.93-107.

Klima, E., and U. Bellugi. 1966. Syntactic regularities in the speech of children. In J. Lyons and R. J. Wales (eds.). *Psycholinguistic Papers.* Edinburgh. Edinburgh University Press.

Krashen, S. 1977. Some issues relating to the Monitor Model. In H. D. Brown, C. Yorio, and R. Crymes (eds.). *Teaching and Learning English as a Second Language: Trends in Research and Practice.* On TESOL '77. Washington. TESOL. 144-158.

Krashen, S. 1978. Individual variation in the use of the Monitor. In W. Ritchie (ed.). *Principles of Second Language Learning.* New York. Academic Press. 175-183.

Krashen, S. 1980. The input hypothesis. In J. Alatis (ed.). *Current Issues in Bilingual Education.* Georgetown University Round Table on Languages and Linguistics. Georgetown University Press. 168-180.

Krashen, S. 1981. *Second Language Acquisition and Second Language Learning.* London. Pergamon Press.

Krashen, S. Forthcoming. *From Theory to Practice in Second Language Acquisition.*

Krashen, S., C. Madden, and N. Bailey. 1975. Theoretical aspects of grammatical sequencing. In M. Burt and H. Dulay (eds.). *On TESOL '75. New Directions in Second Language Learning, Teaching, and Bilingual Education.* Washington. TESOL. 44-54.

Lawler, J., and L. Selinker. 1971. On paradoxes, rules, and research in second language learning. *Language Learning.* 21.27-43.

Levenston, E. 1971. Over-indulgence and under-representation–aspects of mother tongue interference. In G. Nickel (ed.). *Papers in Contrastive Linguistics.* Cambridge. Cambridge University Press. 115-121.

Lightbown, P. 1977. Consistency and variation in the acquisition of French: a study of first and second language development. Ph.D. dissertation, Columbia University.

Newmark, L. 1966. How not to interfere with language learning. *Language Learning: The Individual and the Process. International Journal of American Linguistics.* 40.77-83.

Newmark, L., and D. Reibel. 1973. Necessity and sufficiency in language learning. In M. Lester (ed.). *Readings in Applied Transformational Grammar.* New York. Holt Rinehart and Winston. 220-244.

Postovsky, V. 1977. Why not start speaking later? In M. Burt, H. Dulay, and M. Finocchiaro (eds.). *Viewpoints on English as a Second Language.* New York. Regents. 17-26.

Schachter, J. 1974. An error in error analysis. *Language Learning.* 24.205-214.

Schachter, J., A. Tyson, and F. Diffley. 1976. Learner intuitions of grammaticality. *Language Learning.* 26.67-76.

Schachter, J., and W. Rutherford. 1979. Discourse function and language transfer. *Working Papers on Bilingualism.* 19.1-12.

Schumann, J. 1979. The acquisition of English negation by speakers of Spanish: a review of the literature. In R. Andersen (ed.). *The Acquisition and Use of Spanish and English as First and Second Languages.* Washington. TESOL.

Schumann, J. 1980. The acquisition of English relative clauses by second language learners. In R. Scarcella and S. Krashen (eds.). *Research in Second Language Acquisition.* Rowley, Mass. Newbury House. 118-131.

Seliger, H. 1978. On the evolution of error type in high and low interactors. *Indian Journal of Applied Linguistics.* 4.22-30.

Selinker L., M. Swain, and G. Dumas. 1975. The interlanguage hypothesis extended to children. *Language Learning* 25.139-155.

Shipley, E., C. Smith, and L. Gleitman. 1969. A study in the acquisition of language: free responses to commands. *Language.* 45.322-342.

Slobin, D. 1973. Cognitive prerequisites for the development of grammar. In C. Ferguson and D. Slobin (eds.). *Studies in Child Language Development.* New York. Holt Rinehart and Winston. 175-208.

Taylor, B. 1975. The use of overgeneralization and transfer learning strategies by elementary and intermadiate students in ESL. *Language Learning.* 25.73-109.

Tarone, E. 1977. Conscious communication strategies in interlanguage: a progress report. In H. D. Brown, C. Yorio, and R. Crymes (eds.). *On TESOL '77. Teaching and Learning English as a Second Language: Trends in Research and Practice.* Washington. TESOL. 194-203.

Terry, R. 1970. *Contemporary French Interrogative Structures.* Montreal. Editions Cosmos.

Ulijn, J., and G. Kempen. 1976. The role of the first language in second language reading comprehension–some experimental evidence. *Proceedings of the Fourth International Congress of Applied Linguistics.* Stuttgart. 495-507.

Weinreich, U. 1953. *Languages in Contact.* New York. Linguistic Circle of New York.

Wode, H. 1978. Developmental sequences in naturalistic L2 acquisition. In E. Hatch (ed.). *Second Language Acquisition.* Rowley, Mass. Newbury House. 101-117.

Zobl, H. 1978. Second language acquisition and language change. Paper presented at the 2nd Annual Conference of the Atlantic Provinces Linguistic Association, Halifax, Nova Scotia.

Zobl, H. 1980a. Developmental and transfer errors; their common bases and (possibly) differential effects on subsequent learning. *TESOL Quarterly.* 14.469-479.

Zobl, H. 1980b. Contact-induced language change, learner-language, and the potentials of a modified CA. Paper presented at the Los Angeles Second Language Acquisition Research Forum, UCLA.

Zobl, H. 1980c. The formal and developmental selectivity of L1 influence on L2 acquisition. *Language Learning.* 30.43-57.