

LINGUISTIC THEORY AND 'COMMUNICATIVE' MODERN LANGUAGE TEACHING: THE FUTURE SHOWS CHANGE

JAMES W. NEY

Arizona State University

According to one of its foremost proponents the influence of transformational generative linguistics (TGG) is waning. This waning influence can be noticed largely in disciplines related to linguistics such as psychology but not among many professional linguists and language teachers. If this is so, two questions might be asked before a look into the future can be attempted: (1) *What was transformational grammar?* and (2) *How did it affect language teaching in general and TESL in particular?* These two questions are related to two other questions. (1) *What was the extent of the influence of TGG on language teaching?* and (2) *How long will this influence remain?* The answers to these two questions are largely speculative but are nevertheless interesting and hence are the focus of this report.

TRANSFORMATIONALISM AS A PARADIGM SHIFT

To sympathetic commentators who have viewed the event after the fact, there is little doubt that Chomsky occasioned a paradigm shift or a revolution in linguistics with his epoch-making, 1957 work, *Syntactic Structures* (Newmeyer 1983, Lieber 1975). Even though not every linguist or language theoretician believes that Chomsky had such a revolutionary effect on linguistics and language study (Koerner 1983, Murray 1980). Besides, other commentators such as John B. Carroll simply shrug the whole matter off with a reference to the "... so-called Chomskyan revolution..." (1980:49). Even Chomsky himself denies that there has been such a paradigm shift (Kean 1984:602). But some language teaching methodologists, nevertheless, have referred to a "...revolution in teaching strategies..." (Underwood as quoted in Brandson 1986:160) and have attempted to apply Chomskyan constructs to language teaching. For instance, Richards and Rodgers (1986:64) give credit to Chomskyan constructs for the widespread acceptance of communicative language teaching stating that the situational approach had run its course:

...partly (as) a response to the sorts of criticisms the prominent American linguist Noam Chomsky had leveled at structural linguistic theory in his now classic book *Syntactic Structures* (1957). Chomsky had demonstrated that the current standard structural theories of language were incapable of accounting for the fundamental characteristic of language — the creativity and uniqueness of individual sentences. (Richards and Rodgers 1986:64)

They later, however, suggest a similar, though British, source for some aspects of communicative language teaching when they state: "The focus on communicative and contextual factors in language use also has an antecedent in the work of the anthropologist Bronislaw Malinowski and his colleague, the linguist John Firth."

Perhaps, the most optimistic statement on the influence of TGG on language teaching has come from Ghaddesy (1981:93):

The effect of Transformational Grammar on EFL/ESL teaching methods, Chomsky's statement notwithstanding (Chomsky, 1966), has been noticeable in the last twenty years and will, no doubt, be much in evidence in the future.

Similarly, methodologists such as Burt and Dulay have found support for their work in studies occasioned by the theories of Chomsky and his disciples citing work by Berko (1958) and others for support of their 'creative construction' theory of language learning. Morley (1986:7) states this doctrine from the generativists in the following terms: "...the focus of language learning is on learners as active creators, not as passive recipients." All of this started from Chomsky's own comments on "...the ability of a speaker of English to produce and understand new utterances..." (1957:23), the creative aspect of language use.

From the viewpoint of other methodologists, however, there is some doubt that the paradigm shift in linguistics caused a comparable shift in language teaching (Raimes 1983, Brown 1975) and Brumfit and Johnson (1979:3) believe that TG has had little effect on language teaching. Whether or not transformationalism caused a paradigm shift in language teaching it nevertheless created a climate of change. On the other hand, Newmeyer (1982:102) refers to the "...dramatic changes in second-language teaching practice ushered in by the Chomskyan revolution..." and suggests that a list of ten constructs, which are non-controversial today, were a matter of debate 25 years ago:

Implication 1: It is not enough to teach a language learner to respond automatically to predetermined stimuli; language instruction must lead to creative language use in new situations.

Implication 2: Language can be acquired by active listening (listening and doing) even better than by listening and repeating.

Implication 3: Programmed language instruction will have limited results in language teaching.

Implication 4: The teacher or textbook writer will not be able to find a complete grammar of the language he is teaching. He will need to be able to draw on all available materials and to prepare his own.

Implication 5: When you learn a language, you have to learn its semantic system too; accepting word-by-word translation obscures this.

Implication 6: The learning of fundamental syntactic relations and processes will not be accomplished by drill based on analysis of surface structure alone.

Implication 7: A language learner will need to be able to recognize the phonological distinctions made by speakers of the language and to produce recognizable distinctions. The more he masters the language, the less important phonology will be in this recognition.

Implication 8: Knowledge of the structure of the learner's native language will help the teacher.

Implication 9: Systematic errors (saying *I goed* instead of *I went*) are useful evidence to the teacher that the student is learning major rules.

Implication 10: Presentation of material should encourage formation of rules rather than memorization of items. (Quoted from Spolsky 1970: 150-152)

Newmeyer feels that "...all follow from the correctness of the generativists' conception of linguistic competence..." and that "...the burden falls upon any language specialist who rejects generative theory to construct a truly alternative theory..." which is consistent with Spolsky's ten points.

From the point of view of this observer, Newmeyer has overstated his case. It would appear that implications 2, 3, 4, 5, 7, 8 and 9 are not necessarily related to transformational linguistics. Newmeyer's assignment of implication 8, that teachers should know about the languages of the students, is especially blatant since this construct was espoused by the structuralists in their use of contrastive analysis. Besides this, any reasonable language teacher or grammarian would hold to implication 4; certainly, no structural linguist ever claimed to have fully described a language and it is unlikely that any of the great scholarly traditional grammarians had made such a claim. In a different vein, transformational linguistics can scarcely claim credit for any emphasis on semantics, implication 5, since its devotees adhere to the autonomous syntax position. (See Newmeyer 1983:2). Neither can they claim sole credit for implication 2, which owes as much to the Labovian attention to data on the part of psycholinguists and to Asher's language teaching methodology (1964, 1966) as it does to transformational linguists and their views on language. Insofar as the data gathering is concerned, the same could be said of Implication 9. Implications 2 and 7 became accepted without help from the transformationalists. Programmed language learning died of its own weight, aided by a shift from behavioral to cognitive psychology in the 'cognitive sciences'. Implication 7 is simply a common sense observation. Thus it is incorrect of Newmeyer to claim for transformational linguists the consensus of language teachers for all of the ideas expressed in implications 1 through 10. Furthermore, the philosophical support from transformational linguistics for the remainder of the above implications may be ebbing since some commentators feel that the influence of generative grammar is diminishing.

THE WANING INFLUENCE OF GENERATIVE GRAMMAR

That transformational generative linguistics or grammar (TGG or TG) is in a period of decline is admitted even by one of the movement's most enthusiastic apologists. He states:

...as the 1970s progressed the star of transformational generative grammar began to wane. Increasingly it was realized that the earlier applications were inadequate, premature, or based on a faulty understanding of the theory. The seeming inability of the theory to lead to payoffs in a wide variety of areas led to the suspicion that the Chomskyan view of language was fundamentally flawed... (Newmeyer 1983:131).

Perhaps this state of affairs could be expected. Chaika (1985: 157) has reminded her linguistic colleagues that the decline of transformationalism was predicted by Hymes as early as 1973. She views this as having happened because of the view of data which the discipline of sociolinguistics has forced on the collective consciousness of linguists. Thus "...discourse studies render null the Chomskyan ideal of context-free grammar..." in a manner analogous to the way in which early transformational studies obviate the structural view (Chaika 1985: 157).

As a result of this, Newmeyer's view of the plight of transformationalism is almost enough to evoke pity from members of opposing schools. For instance, he complains that a number of prestigious universities including Berkeley, Columbia, Harvard, Rice and others are non-generativist (1983: 12). He also states that the Ford Foundation prefers to support non-generativists, that the SIL has the greatest resources at its disposal, that the LSA is not dominated by generativists since only two of its presidents have been members of this school. He finally complains that only a third of the articles in *Language* are generativist (1983: 13). Although the former statements might be true, the latter was not true in 1976 but has become true only recently. (See Table I)

Table I
ORIENTATION OF *LANGUAGE*

	Date of Issue				
	June 1976	Sept. 1976	Dec. 1976	Dec. 1985	March 1986
TG Articles ¹	170 pp. 79%	91 pp. 72%	127 pp. 62%	44 pp. 33%	53 pp. 34%
NON-TG Articles ²	44 pp. 21%	35 pp. 28%	77 pp. 38%	89 pp. 67%	101 pp. 66%
TG Articles & Reviews	179 pp. 70%	116 pp. 60%	132 pp. 58%	53 pp. 31%	57 pp. 28%
NON-TG Art. & Reviews	73 pp. 30%	75 pp. 40%	96 pp. 42%	118 pp. 69%	148 pp. 72%

¹Articles in *Language* which have a transformational viewpoint as determined by explicit statements of the author(s) and by theoretical orientation of citations in the text.

²Articles in *Language* which do not have a transformational viewpoint as determined by explicit statements of the author(s) and by theoretical orientation of citations in the text.

A careful perusal of Table I shows that Newmeyer is roughly correct for the last three issues of the journal; he certainly was not correct for three of the issues in 1976. The fact that fully two thirds of the articles in 1976 issues of *Language* were transformational in orientation but only one third in 1986 also suggests that the influence of transformationalism is declining. On this point, however, not all linguists agree. Langacker who might be described as one who has recently left the school does not seem to think that the influence of TGG is waning. In fact, he refers to "...the generative juggernaut..." which can hardly be stopped in its tracks (1986: 157). Perhaps the difference in viewpoint can be attributed to the differing focus of the two linguists—Newmeyer looks at the influence of TGG on related disciplines; Langacker looks at the status of TGG in departments of linguistics. In any case, however strong the influence of TGG might have been and however well or misdirected its emphasis, there are some signs now that its influence is fading. For example, Brandson (1986: 160) recently stated that there are problems in trying to find support for 'communicative' language teaching in transformational theory. In a review of the work of John Underwood he stated that

Underwood argues that 'behaviorist-drill-and-practice exercises' are an antiquated and counterproductive instructional tool which must be purged from the second-language teacher's repertoire of teaching aids, to be replaced by a currently more fashionable approach which emphasizes 'communicative activities and meaningful practice' (p. ix). This revolution in teaching strategies, we are told, is motivated not by pedagogical principles but by linguistic theory. Unfortunately, the linguistic arguments in favour of the proposed instructional strategy are problematic.

So it is, then, that with the general lessening of the influence of transformationalism some of the ideas that grew out of the movement are also fading. The question then arises: If the influence of TGG is fading, where shall the teachers of foreign languages, the teachers of ESL among them, go for support of their practices? Methodologists such as Krashen and Terrell would answer this question by not looking at linguistic theory at all (Krashen and Terrell 1983: 1. See Richards and Rodgers 1986: 130-131). Rather they would look at studies of second language acquisition for support of their theory of language teaching. Krashen and Terrell see these studies as supporting the natural approach, an approach where the need to communicate dictates the form of each class. From the first, code switching and use of the native language are not only tolerated but encouraged. The question is, however, do studies in first and second language acquisition support the Krashen and Terrell suggestions for second language teaching? Lightbown (1985: 182) states unequivocally that "...communicative language teaching is not based on language acquisition research..." and I would suppose that this would include the communicative language teaching of Krashen and Terrell. Richards and Rodgers (1986: 71) state that although Terrell and Krashen are "...not directly associated with Communicative Language Teaching..." they "...have developed theories cited as compatible with the principles of CLT..."

Besides this, there may be some question on which interpretation of studies on language acquisition lends support to the language teaching enterprise. For instance, Elaine Tarone (1983: 145-159) in her survey of the literature on second language acquisition, especially that part of the literature that deals with interlanguage, considers three models, including a TGG based model, as an explanation of the phenomena that she encounters. In her conclusion, she rejects the model based on Chomskyan notions. She then also rejects the model based on Krashen's theorizing and settles for one based on Labovian concepts from sociolinguistics. As a result, from Tarone's point of view, there could be some question on whether the Krashen-Terrell natural method best represents the findings from either first or second language acquisition.

Similarly, Hatch and her colleagues (1986: 19-20) explicitly reject the Chomskyan model in their attempt to formulate a model of language learning/teaching. In comments on Chomskyan nativism, they describe the futility of building from a nativistic base by stating that attributing language growth to innate structures is pure speculation. They also point out what Piaget (1967) had noted years ago. Stating that innate networks determined the learning and structure of language is no explanation at all. And with these statements, Hatch and her colleagues go on to develop their own model, the experience model, based on first and second language acquisition studies.

Furthermore, in studies from first language acquisition, researchers such as van der Geest (1977) and Ervin-Tripp (1973: 227) find a dual role for infants in language learning: first, that, since the children learn to preserve order in imitations, these help

in the mastering of word order, and second, that, since this is true, imitation also helps the infants "...to retain order specifications in determining structural meanings." Van der Geest (1977: 100) finds that the tendency for young children to imitate is so strong that his son Mark used question intonation when looking at pictures of animals in a book—he was obviously naming but used the question intonation as a mimicry of his parents. Furthermore, he states that:

Piaget's (1951) theory may cast light on this developmental process. Initially the child's imitation is characterized as occurring without the child being aware that he is imitating. Rather, it is as if the child tends to repeat the act believing it to be his own. This characterization suggests that the child does not differentiate between his model and his 'self' as yet. The final development occurring at the sixth stage of the sensori-motor period is, according to Piaget, 'deferred imitation'... meaning that the imitation does not take place directly after the model act. (1977: 102)

Moerk (1977: 105) also finds imitation in early language acquisition to be extremely important. Moerk says "In the broader and common-sense usage of the term, imitation is, without doubt, one of the most important principles involved in language acquisition." He also finds it to be working in two directions (1977: 245). "Mothers not only employ the principle of imitation intentionally in correcting and expanding their children's utterances, they also employ modeling and elicited imitation as a teaching technique." In addition, Greenfield (1982: 2) finds that, not only do children use a lot of imitation in learning a language but that they "...will selectively imitate the variable element..." in word groups and sentences. It would appear from this that imitation is extremely important in language acquisition and may well lay the basis for rule formation. Further support for this kind of thinking comes from the Larsen-Freeman survey of morpheme order acquisition studies. She finds that the order in which morphemes are acquired is a function of their frequency in the language being learned. In her own words (1976: 132):

...morpheme frequency of occurrence in native-speaker speech is the principle determinant for the oral production morpheme order of second language learners...

She even states:

It would appear that the S-R (stimulus-response) theorists have been vindicated at least with regard to morpheme acquisition—the more frequently a stimulus is encountered, the more rapidly it will be acquired. (1976: 133)

Yet, Krashen and Terrell make little, if any, mention of imitation in their theory of language acquisition and allow no systematic place for it in their approach to foreign language learning. Besides this, the nature of language itself would point to the necessity of imitation as a means of memorization. Students of foreign languages remember with pain the irregular verbs of any number of Indo-European tongues. Thus, it is easy for them to see how Spanish *compran* and *compraron* can be related to each other by rule but it is difficult to see how *ponen* and *pusieron* can be related by the same rule. Similar things could be said for English *need* and *needed* when they are compared with English *go* and *went*. In the same way, students of non-Indo-European languages such as Japanese might wonder at the irregularity in the verbs *suru*, 'do', and *kuru*, 'come'. (See Hetzron (1975) for any number of phenomena such as these.) The fact of

the matter is that the irregular forms of a language must be memorized and it is quite likely that they are learned in a different manner from the regular forms which can be related to each other by rule. All languages have both regular and irregular forms and it would seem that such evidence would also indicate the necessity of mimicry and imitation in language acquisition since the irregular forms of language must of necessity be memorized and stored as memorized items while the great bulk of language is produced by rules which govern the structure of sentences in utterances and may be acquired through understanding. But there is much of language, too, which is irregular and must be learned by memorization through practice and drill, two methods of learning despised by the transformationalists.

It might be expected, however, that these means of learning are becoming more popular with the general decline in the influence of transformationalism and with the fading of some of the ideas that grew out of the movement. For instance, ever since Brown's (1973) statement of the concept, it had been believed that mothers corrected children largely in the area of semantics, dealing with the truth value of sentences. Brown made his statement from a rather narrow definition of what constituted 'correction'. If maternal repetitions which are designed to correct usages of the child are included in the count then there are "...many hundreds of instances of correction..." in the 20 hours of tape that Brown and, later, Moerk (1983: 84), analyzed. For instance, when Eve says "...Mommy book..." her mother offers a correction in the form of imitation saying "...Mommy's book..." (Moerk 1983: 182). Thus, Moerk takes Brown and his colleagues to task for misleading other researchers during the height of the transformational movement (1983: 104-5). In the same vein, Demetras, Post and Snow (1986: 285) reinforce Moerk's findings. In particular, these researchers found that repetitions are 69% of the responses. They also found that usually exact repetitions follow well-formed utterances and that extended or contracted repetitions follow ill-formed utterances. They also state that "...contracted and expanded repetitions provided a syntactic or morphological correction..." (1986: 285). On the basis of this, they make the conclusion that:

...negative responses are more likely to follow IF than WF child utterances. Thus, the axiom of learnability theory—that the model of the learner must be powerful enough to operate without negative feedback—seems ill-founded. (1986: 286)

Another dictum of language learning suggested by the transformationalists, namely, that language learning is hypothesis testing, is also being questioned by researchers in the field of second language acquisition. Moerk (1983) rejects the concept in his re-evaluation of the tapes that R. Brown (1973) used to present some aspects of the system. In his words,

Since the input is so abundant, and since the child progresses relatively gradually in her mastery as was strongly emphasized by Brown (1973), any hypothesis testing explanation applied to most aspects of language acquisition is in serious theoretical trouble. (Moerk 1983: 104)

On the other hand, Schachter (1986) argues that the phenomenon of variability in the interlanguage of a language learner is no occasion for rejecting the view of language learning as hypothesis testing. In addition, researchers such as Schmidt reject the

constructs usually associated with the view that language learning is hypothesis testing. In particular, both Schmidt and Frota (1986: 308) and Bailey (1983: 214) reject the view that language learning is "...instantaneous..." Besides this, Schmidt and Frota also partly reject the stress on the creative aspect of language use pointing out that the routine aspects of language use are of more use to the language learner than the creative aspects, stating:

Creativity exists ...But routine aspects of language also exist, and we think that considering the role of routine in language and learning may also lead to progress in explaining the puzzles we face in SLA theory." (Schmidt and Frota 1986: 308)

Finally he concurs with Snow (above) in abandoning the view that language learning occurs without negative feedback.

So then, the influence of TGG is waning and researchers such as Larsen-Freeman (1976) and Faerch and Kasper (1986) concede small points to the environmentalist: the one on the frequency of the stimulus in the input and the other on the manner of learning. What then of the future? Undoubtedly, the role of the teacher in the classroom is going to loom much larger. I can only agree with Hatch and her colleagues when she states:

The more we attribute the growth of the mental system to innate predetermined systems, the more speculative and the less interesting our explanations become. (Hatch et al. 1986: 19)

And by saying this, she and her colleagues write an epitaph for transformationalism in the classroom. Then they state:

If development is predetermined by the structure of innate networks, there is nothing left for us to explain, no role for experience as teacher, no role for the student as learner, and variability in learning is a minor problem to be handled by resetting some syntactic networks in slightly different ways. (Hatch et al. 1986: 19-20)

And by saying this, Hatch and her colleagues lend new importance to the role of the teacher in the classroom. From this point, it would appear to this observer that studies such as that of Moerk (1983, 1985) will begin to take hold since these studies have shown that one reason, and probably the greatest reason, for the success of the child as language learner is the fact that mothers and other caretakers are such fine language teachers. This fact alone will give more hope, more respect and more activity for the language teacher. As Oller and Richard-Amato (1983:1) state:

For at least two decades now this pragmatic approach to language teaching has had to run against the current of popular opinion. Happily, it seems now that the tide may be turning and a new consensus may in fact be developing.

REFERENCES

- ASHER, J.J. 1964. Toward a neo-field theory of behavior. *Journal of Humanistic Psychology* 4: 85-94.
 ASHER, J.J. 1966. The learning strategy of the total physical response. *The Modern Language Journal* 50: 79-84.
 BAILEY, C-J.N. 1983. An apparent paradox concerning the nature of language. *Language and Communication* 3: 205-218.
 BERKO, J. 1958. The child's learning of English morphology. *Word* 14: 159-177.

- BRANDSON, R.L. 1986. Review of *Linguistics, computers and the language teacher*. By J. H. Underwood (Rowley, Mass.: Newbury House, 1984). *The Canadian Journal of Linguistics* 31, 2: 160-162.
- BROWN, H.D. 1975. The next 25 years; shaping the revolution. In M.K. Burt and H. Dulay (eds.), *ON TESOL'75*. Washington, D.C.: TESOL. 80-85.
- BROWN, R. 1973. *A first language: The early stages*. Cambridge, Mass.: Harvard University Press.
- BRUMFIT, C. and K. JOHNSON. 1979. *The communicative approach to language teaching*. Oxford: Oxford University Press.
- CARROLL, J.B. 1980. The tale of a linguistic psychologist. In B.H. Davis and R.V. Cain (eds.), *Papers from the Conference on an Oral Archive for the History of American Linguistics*. Amsterdam: John Benjamins B.V. 31-52.
- CHAIKA, E. 1985. Review of *Conversational style*. By D. Tannen. (Norwood, N.J.: Ablex, 1984. Pp. xix, 188). *Language* 62: 157-160.
- CHOMSKY, N. 1957. *Syntactic structures*. 'S-Gravenhage: Mouton.
- CHOMSKY, N. 1965. *Aspects of the theory of syntax*. Cambridge, Mass.: The M.I.T. Press.
- DEMETRAS, M.J., K.N. POST and C. SNOW. 1986. Feedback to first language learners: The role of repetitions and clarification questions. *The Journal of Child Language* 13: 275-292.
- ERVIN-TRIPP, S.M. 1973. Some strategies for the first two years. In A.S. Dil (ed.), *Language acquisition and communicative choice*. Stanford, CA.: Stanford University Press. 204-238.
- FAERCH, C. and G. KASPER. 1986. Cognitive dimensions of language transfer. In E. Kellerman and M.S. Smith (eds.), *Crosslinguistic influence in second language acquisition*. London: Pergamon. 49-65.
- FILLMORE, L.W. 1985. When does teacher talk work as input? In S.M. Gass and C.G. Madden (eds.), *Input in second language acquisition*. Rowley, Mass.: Newbury House. 17-50.
- FRIES, C.C. 1954. Meaning and linguistic analysis. *Language* 30: 57-68.
- GHADDESY, M. 1981. Implications of error analysis for second/foreign language teaching. *IRAL* 18(2): 93-104.
- GREENFIELD, P.M. 1982. The role of perceived variability in the transition to language. *Journal of Child Language* 9: 1-12.
- HATCH, E., V. FLASHNER and L. HUNT. 1986. The experience model and language teaching. In R. Day (ed.), *Talking to learn: Conversation in second language acquisition*. Rowley, Mass.: Newbury House. 5-22.
- HETZRON, R. 1975. Where the grammar fails. *Language* 51: 859-872.
- ITKONEN, E. 1974. *Linguistics and metascience*. (Studia Philosophica Turkuensia, 2.) Kokemaki: Risteen Kirjapaino.
- KEAN, M.L. 1984. Review of *On the generative enterprise: A discussion with Riny Huybregts and Henk van Riemsdijk*. By N. Chomsky. (Dordrecht: Holland and Cinnaminson. N.J.: Foris). *Language* 60, 3: 600-605.
- KOERNER, K. 1983. The Chomskyan revolution and its historiography: A few critical remarks. *Language and Communication* 3, 2: 147-169.
- KRASHEIN, S.D. and T.D. TERRELL. 1983. *The natural approach: Language acquisition in the classroom*. Oxford: Pergamon Press.
- KOHN, K. 1986. The analysis of transfer. In E. Kellerman and M. Sharwood Smith (eds.), *Crosslinguistic influence in second language acquisition*. London: Pergamon. 21-34.
- LADO, R. 1957. *Linguistics across cultures*. Ann Arbor: The University of Michigan Press.
- LANGACKER, R.W. 1986. Review of *Word grammar*. By R. Hudson. (Oxford and New York: Blackwell, 1984. Pp. ix, 267). *Language* 62: 157-160.
- LARSEN-FREEMAN, D.E. 1976. An explanation for the morpheme acquisition order of second language learners. *Language Learning* 26(1): 125-134.
- LIEBER, J. 1975. *Noam Chomsky*. Boston: Twayne Inc.
- LIGHTBOWN, P. 1985. Input and acquisition for second-language learners in and out of classrooms. *Applied Linguistics* 6(3): 263-273.
- MOERK, E.L. 1977. *Pragmatic and semantic aspects of early language development*. Baltimore, Md.: University Park Press.

- MOERK, E.L. 1983. *The mother of Eve —as a first language teacher*. Norwood: Ablex Pub. Co.
- MOERK, E.L. 1985. Analytic, synthetic, abstracting, and word-class-defining aspects of verbal mother-child interactions. *Journal of Psycholinguistic Research* 14: 263-287.
- MORLEY, J. 1986. Current directions in second language learning and teaching: Networks, contexts and TESOL. Plenary Session Speech delivered at the AZ-TESOL Conference, Flagstaff, Arizona, April 5, 1986. Summarized in the *AZ-TESOL Newsletter*, June 1986, p. 7.
- MURRAY, S.O. 1980. Gatekeepers and the 'Chomskyan revolution'. *Journal of the History of the Behavioral Sciences* 16: 73-88.
- NEWMAYER, F.J. 1982. On the applicability of transformational generative grammar. *Applied Linguistics* 3(2): 89-120.
- NEWMAYER, F.J. 1983. *Grammatical theory*. Chicago: The University of Chicago Press.
- NEWMAYER, F.J. 1986. Has there been a 'Chomskyan revolution' in linguistics? *Language* 62: 1-18.
- NEY, J.W. 1984. An alternative to Chomsky's radical nativism. *Language Sciences* 6, 1: 157-172.
- OLLER, J.W. Jr. and P. RICHARD-AMATO. 1983. *Methods that work: A smorgasbord of ideas for language teachers*. Rowley, MA: Newbury House.
- PIAGET, J. 1951. *The origins of intelligence in children*. New York: W.W. Norton.
- PIAGET, J. 1967. *Six psychological studies*. New York: Random House.
- PICA, T. and C. DOUGHTY. 1985. Input and interaction in the communicative language classroom: A comparison of teacher fronted and group activities. In S.M. Gass and C.G. Madden (eds.), *Input in second language acquisition*. Rowley, Mass.: Newbury House. 115-132.
- POSTAL, P. 1964. Underlying and superficial linguistic structure. *Harvard Educational Review* 34: 246-266.
- RAIMES, A. 1983. Tradition and revolution in ESL teaching. *TESOL Quarterly* 17, 4: 535-549.
- RICHARDS, J.C. and T.S. RODGERS. 1986. *Approaches and methods in language teaching: A description and analysis*. London: Cambridge University Press.
- ROMAINE, S. 1981. On the status of variable rules in sociolinguistic theory. *Journal of Linguistics* 17: 1-119.
- ROMAINE, S. 1985. Review article: Why the problem of language acquisition cannot be explained logically. *Logical problems of language acquisition*. In N. Hornstein and D. Lightfoot (eds.), *Studies in Language* 9(2), 255-270. London: Longman, 1981.
- SCHACHTER, J. 1986. In search of systematicity in interlanguage production. *Studies in second language acquisition* 8: 119-134.
- SCHMIDT, R.W. and S. NAGEM FROTA. 1986. Developing basic conversation ability in a second language: A case study of an adult learner of Portuguese. In R. Day (ed.), *Talking to learn: Conversation in second language acquisition*. Rowley, Mass: Newbury House. 237-326.
- SPOLSKY, B. 1970. Linguistics and language pedagogy—applications or implications? In J. Alatis (ed.), *Report of the 20th Annual Round Table Meeting on Linguistics and Language Sciences*. Washington, D.C.: Georgetown University Press. 143-155.
- SPOLSKY, B. 1985. Formulating a theory of second language learning. *Studies in Second Language Learning* 7: 269-288.
- TARONE, E. 1983. On the variability of interlanguage systems. *Applied Linguistics* 4, 2: 142-163.
- VAN DER GEEST, T. 1977. Some interactional aspects of language acquisition. In C. Snow and C. Ferguson (eds.), *Talking to children: Language input and acquisition*. Cambridge: Cambridge University Press.