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On Linguistic and Epistemological Foundations of Language Pedagogy

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The central issues in pedagogy in general are inextricably bound to fundamental questions about the nature of knowledge and its attainment by humans. Language pedagogy in particular presupposes a coherent answer to basic questions about the nature of human language, its acquisition, and its use. The paper shows how basic assumptions about the structure and acquisition of language in generative grammar are gracefully consistent with constructivist theories of knowledge and learning and how this consistency contributes to a better understanding of the goals and tasks of language pedagogy.

Introduction

For in part obvious reasons, language pedagogy is intimately and naturally related to linguistic theory and epistemology. Since language pedagogy presupposes some understanding of what language is, it cannot fail to consider what linguistic theory has to say about it. This much, at least, seems fairly obvious. Equally clearly, language pedagogy, as well as pedagogy in general, will necessarily be based on some general assumptions concerning the nature of human knowledge and learning, to use the traditional term for processes involved in the attainment of knowledge by humans. Third, given that pedagogy involves verbal communication in various ways, it must be committed to some assumptions about the nature of human communication, an issue not discussed in any detail here.

Research into language and cognition has made important progress over the past few decades. Significant results in these areas of human understanding have important implications for pedagogy in general and for language pedagogy in particular, the topic of this essay. Given the intimate connection between a theory of language learning and education on the one hand and theories of language and cognition on the other, some of the implications of recent developments in the latter for language pedagogy are fairly obvious. Yet, it seems as if they are almost completely ignored in language education. The purpose of this paper is to clarify some aspects of the connections just mentioned

and their natural implications for our understanding of language education and learning.

From a conventional pedagogical perspective, the picture painted here may seem disappointing. Some may view it as a critical and pessimistic account of some general pedagogic principles and their consequences. But that is a misunderstanding. True, the present discussion is indeed critical of most, if not all, of the general assumptions apparently adopted in conventional pedagogy, but it is not pessimistic at all about the development of our understanding of the processes involved in education and learning. If anything, it is highly optimistic about possible, and apparently necessary, changes in pedagogical theory in general and in the theory of language education in particular.

For the purposes of this discussion, I follow the pedagogical-theoretic convention in assuming that questions of foreign language learning and teaching are part of the subject matter of pedagogy, as traditionally understood, although this is not at all self-evident. Whether or not learning processes in individuals and educational activities performed and controlled by teachers are to be accounted for in a pedagogical theory depends on what we consider to be pedagogy in the first place and, second, on how we regard the processes conventionally assigned to pedagogical theory. For a non-conventional approach to these issues and some interesting conclusions to the effect that pedagogical theory is essentially deprived of all its traditional subject matter, see Nahalka (1997a).

The traditional assumption is that educational theory is concerned with the learning and teaching of individuals, with a primary focus on institutionalized forms and contexts of instruction, i.e., learning and teaching in schools (cf. Falus 2005). Mental processes like learning conventionally fall within the subject matter of psychology. Teachers' behaviors and activities, like everyone else's, are a function of their knowledge and abilities, also the topic of psychological inquiry. If these processes are taken to constitute the subject matter of educational theory, as is traditionally assumed, then the natural conclusion to draw is that educational theory is a branch of human psychology. Indeed, as Nahalka (2005) points out, modern pedagogical theory has always borrowed all its central categories, including the concepts of knowledge, competence, attitude, etc., from psychology. This may be viewed by some as an unwelcome, perhaps even painful, consequence, a possible sign of crisis. It might be disappointing to see that the conventional areas of pedagogical theory actually belong in the domain of a different science.

Although pedagogy is indeed in a crisis, this is not because it falls into psychology. As a matter of fact, when it does, it falls into place, but I will not pursue this issue any further here. Regardless of one's views on this and some related questions, the crisis pedagogy faces is caused not by factors without, but by some factors within. In the light of recent developments in epistemology,

some of pedagogy's conventional assumptions about human knowledge and learning seem untenable. When a theory or science is faced with a crisis as deep as this, the standard solution is to radically revise its basic assumptions and construct an entirely different coherent theory.

Some central issues in language pedagogy

One of the two standard questions in education is what to teach. When that is answered, the second question that arises is how to teach that (cf. Falus 2005). Any answer to the first question is crucially determined by one's beliefs and assumptions about the learning process. These involve some serious questions about what actually happens when a learner "learns something" and about what it is that a learner learns.

An extremely naïve but apparently still very popular answer to the latter is that they learn what you say to them. On this assumption, the first major issue in education is reduced to the question of what to say to the learners. Although this question arises naturally and regularly in some form for any teacher or author of a textbook or any other teaching material, if taken to be a synonym of the question of what to teach, it implies that knowledge may be transferred from one individual to another through speaking to them, which is a serious misunderstanding of both the nature of knowledge and the nature of verbal communication. From a pedagogical perspective, one of the most important results in constructivist epistemology is the realization that knowledge transfer is impossible. This has serious implications for both of the standard questions in educational theory and raises some more general questions about the nature and possible goals of teaching.

If the central questions in educational theory are taken to be questions about what knowledge to transfer or 'give' to learners and how to transfer it to them, and if knowledge in a teacher's mind cannot be transferred into the learner's mind directly through verbal communication or in any other way, then both questions become meaningless. On this interpretation, both must be discarded as incoherent and replaced by new questions about the goals of education and possible roles of the teacher (for a detailed discussion of these general issues, see Ludányi 2001).

On constructivist assumptions, an individual's knowledge is entirely constructed in and by the individual's mind. None of it may come from any source external to a person's mind, contrary to traditional empiricist assumptions about it. Knowledge construction and the resulting knowledge states are highly subjective and personal matters, processes and states internal to an individual's mind (cf. Nahalka 1997a, b, c). Therefore, whatever questions arise in pedagogy about educational processes and their goals, they must be formulated in terms of the subjective process of knowledge construction in individuals (cf. Ludányi 2001).

The goal of foreign language teaching (FLT) is commonly formulated informally in terms of learners' knowledge of a particular foreign language (FL). The process whereby this knowledge is attained by a learner is conventionally called foreign language learning (FLL), our primary concern here, with a focus on some general assumptions about learning that bear directly on teachers' roles, expectations and possible goals of the teaching process. There is a range of related specific issues, such as questions about the now more-or-less standard distinction made between FLL and second language acquisition (cf. Krashen 1981), for example, which I will not address. Nor will I discuss the question of what counts as a foreign or second language in any detail. Instead, I will focus on the nature of the learning process and the resulting mental states subsumed under the label 'knowledge of FL.'

Whatever the distinctive features of foreignness of FL are, it is an instance of natural language (NL). It is clear, therefore, that a theory of FLT presupposes some understanding of what NL, or any particular language L, an instance of NL, is. From the perspective of language pedagogy, a theory of NL comes free: linguistic theory is concerned precisely with that. Without going unnecessarily deeply into matters of detail here, it will be highly relevant to consider, albeit very briefly and informally, some of the major findings in linguistic research over the past few decades, as they have important implications for some central assumptions in language pedagogy.

As is now well known, almost to the extent of a linguistic commonplace, a distinction is made between two aspects of language: its knowledge and its use. The former is taken to be an internalized rule system that enables a speaker of a particular language L to construct and understand an infinite number of different sentences in L. By the use of language, we mean the ability of speakers of L to perform acts of verbal behavior and what is sometimes called symbolic thought. It may be interesting to note in passing that it is arguably the latter, also called the language of thought, that is the primary function of NL, not its externalization in verbal communicative acts (cf. Chomsky 2007). A second, perhaps even more important, discovery about the nature of NL is that the only coherent notion of language is I-language (for internal language), a speaker's 'linguistic' knowledge or competence, sometimes also called a mental grammar (cf. Chomsky 2000, 2004, 2005). Briefly, language is a mental mechanism or organ. The rules and principles it contains, as well as the structures constructed by them, are mental constructs.

Given that any particular language is a form of knowledge in its speakers' minds, one of the two major goals of FLT must be to facilitate learners' attainment of the knowledge of FL, i.e., a mental grammar of FL. This immediately raises important questions about how a learner of FL attains that knowledge. This specific question takes us directly to the general epistemological problem of how any form of knowledge is attained by humans

and to an immediately relevant special variant of that: the problem of how knowledge of a language is attained.

The second major goal of FLT is to facilitate learners' attainment of the ability to use FL in verbal communication, sometimes called communicative competence. Although an important and reasonable goal, when it is (over)emphasized, sometimes resulting in misunderstanding, as is almost generally the case in what is known as the communicative approach to FLT (cf. Budai 2006), the heavy emphasis laid on it derives from the age-old traditional (false) assumption that communication is the primary function or use of language, very often accompanied by the equally false belief that the principles of the use of a particular language L are entirely specific to L. Surprisingly, nearly harmless in itself, when coupled with some other dubious or false assumptions about the nature and function of language, it may indeed lead to serious inefficiencies in FLT.

Take what is perhaps the most obvious example of a serious misunderstanding. Although a truism, the idea that linguistic performance presupposes linguistic competence, which clearly applies not only to every speaker of a language but also to any foreign language learner, is often overlooked, apparently (cf. Budai 2006). If, for example, a learner of English as a foreign language does not possess a reasonably elaborate mental grammar of English that enables them to construct meaningful expressions in the language, then, quite simply, there is nothing for that learner to use in verbal communication, in the ordinary sense of the term.

Perhaps less of a truism, though fairly straightforward, a human child is born not only with an innate faculty of language, but its biological endowments also include an innate understanding of logic and universal principles of human communication, among others. If correct, hypotheses about various kinds of innate faculties lead to the obvious conclusion that the knowledge that they represent need not (and cannot) be taught or learned. Crain and Khlentzos (2008) show, for example, that not only are all the elementary principles of what is otherwise known as classical logic innate in the human child, but they are unlearnable. If they were not there as part of the child's biological endowments, they could not be obtained by learning. To take the argument an obvious step forward, if such aspects of knowledge are unlearnable, they must also be unteachable. This follows from the truism that whatever is unlearnable is also unteachable.

Teachers often seem to have an intuitive understanding of elements of learners' innate knowledge of some general principles of language and logic. Principles of anaphoric binding, for example, are never taught in an EFL class or course, but are tacitly assumed as universally known. This is justified, since the binding principles are part of the child's innate universal grammar (UG) and as such apply to the relevant kinds of expressions (pronouns, anaphors, and other

sorts of noun phrases) in any language (cf. Chomsky 1981). Universal principles of language, logic, verbal communication, etc. are part of a learner's prior knowledge, as it is commonly called in constructivist learning theory, which they bring to any particular FL learning task. Regardless of the extent to which FL teachers may or may not be aware of it, every one of them makes some assumptions about their learners' prior knowledge and their ability to make use of that knowledge in learning, both, in fact, essential conditions for any learning as well as teaching. Clearly, the correctness or otherwise of such assumptions has a major effect on the efficiency of any kind of teaching.

Apparently, teachers sometimes assume too much, as in vocabulary teaching, for example, sometimes too little, as in teaching communication in FL. It is often assumed that the little that is generally taught about the form and meaning of lexical items, which is very rarely more than what you find in standard dictionaries, which already presuppose a lot about their users' knowledge and abilities, will suffice for the learner to construct acceptable meaningful expressions out of those items, supplemented by whatever else is required from their prior knowledge. Only too often, however, learners do not succeed, as any FL teacher can testify. A general reaction to such inaccuracies in learners' verbal performance, based on a complex of partly tacit dubious assumptions, is to dismiss them as insignificant deviations from an assumed standard, successful communication in FL being the primary concern.

It is often not assumed, in contrast, that learners have some prior understanding of general principles of verbal communication, like some fairly general strategies of making indirect directives or requests, for example. Such false assumptions may lead to a waste of some valuable teaching/learning time, or worse still, to confusion and loss of self-esteem in the learner.

Assume, for instance, that a Hungarian child grows up in a family where most requests and other directives are made indirectly, most typically "disguised" as questions, sometimes as statements. She may easily be fluent in making indirect requests by age three. Assume, further, that she goes to school around age six and begins to study English as a foreign language. Let us also assume that her English teacher is a standard representative of the profession, laying a heavy emphasis on polite interrogative forms of making a request, as something specifically English. So this gets taught at some stage, regularly repeated and practiced, preferably in (pseudo-)communicative situational exercises, as dictated by the communicative principle. It is easy to predict that this child may feel a little confused, perhaps bored. ("This is being taught to me. So it is probably something important I should learn. This is something I know already, since that is how I always make a request in my own language. But why would my teacher teach me something she knows I know already? So probably there IS something about it I don't know. I have no idea what that is. [Time goes by.] I still have no idea what that which I don't know could be. Maybe I'm not

that smart, after all?") When, of course, she is. She knows everything about it. That is what she has done all her young life every time she wanted somebody else to do something for her, i.e., made indirect requests. The only bit she could not have figured from her prior knowledge is what to do with the auxiliary and the subject in English, a matter of grammar, not of language use.

To judge from the performance of intermediate or advanced learners, such as college students of English, the pendulum of language pedagogic assumptions keeps swinging this way and that. Sometimes even the most obvious conclusions and truisms similar to and including the ones briefly discussed above do not appear to receive the amount of attention and respect they merit. The expected and attested result is poor performance, as documented in Budai 2006, for example, which discusses some similar problems and possible causes. I will not pursue issues of language use any further here but focus on some fundamental questions of knowledge and learning in general, their implications for questions of knowledge and acquisition of language, and their relevance for linguistics and language pedagogy.

As noted at the beginning, some understanding of what language is is central to language pedagogy. As has also been noted above, we do not have a coherent notion of language as such, divorced from its knowledge. What is informally called language is a form of knowledge, a state of a person's mental subsystem that accounts for their ability to construct and understand what we call linguistic expressions, ultimately pairs of meaning and sound. The focus of linguistic research is on how (representations of) meaning and sound are paired with each other in human minds. Thus, the topic of inquiry into the nature of language is not patterns in the verbal behavior of speakers or in the utterances they produce, as was the case in the structuralist-behaviorist era until about 60 years ago, but the apparently unique and domain-specific form of knowledge that enables speakers to form and use meaningful linguistic expressions.

A serious question that this raises is how linguistic knowledge is acquired, which naturally involves some fundamental questions about the nature of human knowledge in general and about how it is attained. The former is conventionally known as the problem of language acquisition (LA) and the latter is briefly called epistemology. Clearly, a satisfactory account of the former must be consistent with a (satisfactory) theory of the latter.

If specific questions about knowledge and acquisition of language and general questions of epistemology are pursued independently, as has in part apparently been the case over the past few decades in linguistics and philosophy (if that is the right word), then it will be particularly interesting to see whether an understanding of LA from a biolinguistic perspective is or is not consistent with constructivist epistemology, so far the most adequate and coherent account of human knowledge and learning. If a biolinguistic account of LA is consistent with a constructivist account of human knowledge and learning, it offers serious

justification for the adequacy of both. Otherwise, the adequacy of either is in doubt.

In general, in a pairing of some theory of LA and an epistemological theory, their adequacy or otherwise may be mutually tested by their consistency (or inconsistency) with each other. If one seems adequate as far as we know and is inconsistent with the other, the inadequacy of the latter follows. To take the example of a biolinguistic account of LA in contemporary linguistic theory, which seems adequate as far as we know, its inconsistency with empiricism may be taken as evidence for the inadequacy of the latter, and by the same token, its consistency with a constructivist understanding of human knowledge and learning may be regarded as mutually justifying the adequacy of both. It is worth noting at this juncture that the adequacy of any theory in general is ultimately tested by its consistency or otherwise with some set of assumptions.

The process of language acquisition continues to be one of the most important, and one of the most difficult, problems of linguistic theory. A theory of language meets what is known as the condition of explanatory adequacy if it offers a satisfactory account of LA. The now standard assumption in the biolinguistic approach to language is that LA is made possible by a more or less domain-specific innate form of knowledge, sometimes called the faculty of language FL (cf. Chomsky 2007, for example). It continues to be universally assumed in this approach that a human child's innate mental predisposition must, at least in part, be specific to language. This innate form of knowledge is commonly called universal grammar (UG), which contains general principles of natural language not derivable from any other language-independent faculty. The assumption that a newborn is innately endowed with UG is supported, almost dictated, in addition, by the observation that variation across languages appears to be restricted between rather narrow limits, a fact that calls for some explanation. UG accounts for that.

In a very brief summary of a theory of LA, it is a mental process whereby a child genetically endowed with the prerequisite knowledge containing UG constructs the grammar of a particular language, provided that some external conditions in the form of some linguistic stimuli that trigger the process obtain. To focus on the central idea now, setting aside all other detail, the grammar of a particular language is not learned from others, nor is it experienced in any sense of the term. The rules of a language are constructed by the child, on the basis and with the use of what may be called his prior (innate) knowledge. In other words, none of the child's knowledge of language comes from without; it all grows within the child's mind (cf. Chomsky 1993, 1995, 2000, 2005, 2007).

The innateness hypothesis in a biolinguistic account of LA could not be more consistent with a constructivist theory of knowledge and learning, where the central assumption is that no knowledge ever comes from conditions external to the mind, but instead, all human knowledge is constructed in and by the mind,

which possesses the innate biological prerequisites, such as FL in the case of language. (For more discussion of the pedagogically and linguistically relevant aspects of constructivist epistemology, see Nahalka 1997a, b, c, and Czeglédi 2008, respectively.)

If correct, the constructivist assumption that all new knowledge is constructed on the basis of some prior knowledge, including some innate genetic endowments, is crucial for language pedagogy (and for pedagogy in general). Notice that the assumption that (new) knowledge is constructed by (old or prior) knowledge implies that whatever knowledge the mind contains already, it will of necessity determine any subsequent knowledge construction. Put simply, old or prior knowledge is not only the prerequisite for knowledge construction, but completely accounts for the shape of any new knowledge that it constructs. It is significant that this is maximally consistent with the prediction UG makes about the highly limited variation in the structure of (the mental grammars of) languages.

Somewhat surprisingly perhaps, though it seems very natural in hindsight, one of the clearest expressions of the idea is in Barnlund's (s.a. [2003]) transactional theory of human communication, where he explicitly postulates that the evolution of meaning, as he calls the process of communication, is irreversible. Put more informally, it means that the construction of meaning or knowledge can only go forward, the knowledge already constructed determining at every stage the shape of any and all subsequently constructed knowledge. Its implication for pedagogy is straightforward: learning is irreversible. Whatever you have learned, or are innately endowed with, already is decisive about what you may (or may want to) learn next.

The effects of prior knowledge are complex. On the one hand, it is a condition that makes learning possible at all, but at times, and from certain perspectives, it may also be a hindrance. It is because the knowledge a person has at any stage of knowledge growth does not make learning just about anything possible, a truism that merits more attention than it traditionally receives. The knowledge a person possesses not only facilitates the acquisition of new knowledge, but imposes serious restrictions on the kind of knowledge that is attainable. Again, a particularly conspicuous example of this is the limited variation in attainable languages, restricted by innate UG.

If these assumptions are correct, the chief lesson for pedagogy to learn from them is that, regardless of the desirability or otherwise of the effect a learner's prior knowledge has on their learning, it cannot be ignored in any form of teaching. It raises some important questions about what prior knowledge a teacher of a foreign language may or may not assume in their learners' minds and how that may affect their learning. Traditionally, these questions have either been ignored completely, or at best, resolved by some tacit, and often false, assumptions in the intuition of some teachers, such as the baseless belief, for

example, that a person must study the grammar of their own language in order for them to be able to learn the grammar of another.

Although the question of what prior knowledge each learner brings to learning a foreign language is very difficult to answer, an important part of it may be safely assumed. By the time a child goes to school and perhaps begins to learn a foreign language, they will have constructed a mental grammar of their mother tongue, equivalent in all important ways to any adult's knowledge of the language. The role a person's mental grammar of their first language plays in the acquisition of a second may not be completely clear, but the fact that it is there cannot be ignored. Its presence in learners' minds must be assumed and, if understood, it may be exploited in various ways. At least this much is clear.

What seems a much harder question to answer is how much, if any, is left of UG in a person's mind, after its parameters have been set in LA, yielding the mental grammar of L1. Assuming that LA is a process of setting the values of the parameters represented in UG for any particular language, some questions, particularly important for language pedagogy, arise about how, if at all, some principles of UG/FL, the general principles responsible for the growth and maturation of mental grammars in speakers, remain functional after the acquisition of the first language is complete. Although its parameters have been set, with some of their values probably lost forever, it is unlikely that UG is entirely erased when LA is complete. Perhaps the opposite is true. Perhaps the process of setting the parameters in UG for the mental grammar of a particular language contributes to the retention of some of its principles. Although this is entirely speculative, some simple observations of second or foreign language acquisition appear to suggest that learners continue to have access to some general and unlearnable, therefore innate, principles of language throughout much of their lives.

No learner of a foreign language is surprised to see, for example, that the words of any language may be combined with each other into structurally complex expressions. In fact, this is precisely what any learner expects to be the case. What they would find surprising would be to see that "a foreign language," say English, did not have this property. An equally natural expectation of any learner of a foreign language L2 is that the L2 equivalent of "My husband is a bachelor" is just as anomalous as it is in English, violating some general semantic constraints. To mention one more example, it is part of everybody's implicit knowledge that the equivalents of personal pronouns like *he, they*, etc., reflexives like *herself*, and reciprocals like *each other* in English are subject to the same general syntactic and semantic restrictions in any other language where nominal expressions of this kind are part of the Lexicon, such as Hungarian, for instance. The principles of binding, as the restrictions just mentioned are technically known (cf. Chomsky 1981), are part of UG, the innate universal mental grammar of natural language, and apparently remain operative following

the completion of LA. That this is very likely the case, and that it is implicitly understood by Hungarian teachers of English as a foreign language, for instance, is suggested by the fact the binding principles are never explicitly taught to Hungarian learners of English either in class or in print, apparently causing little if any problem to learners in avoiding the structures whose generation is prevented by the same unlearned principles in both languages.

If correct, the assumption predicts that teaching the principles of binding as rules of L2 in teaching English as a foreign language to Hungarian learners, for example, would not only be time wasted, because all there is to be known is known already, but it might even be confusing to learners. The same applies to any other general principles of language or its use. A foreign language teacher may have a tacit understanding of their learners' implicit knowledge of some general principles of language, as is apparently the case with principles of binding, or/and she may develop an explicit awareness of some general principles of language and its use. As was already suggested above, the more a foreign language teacher is aware of universal principles of language and its use, which, importantly, they can confidently assume to be part of their learners' prior knowledge, the more efficient their teaching may be.

Something has always been assumed about learner's prior knowledge and abilities in pedagogy one way or another. One of the principal contributions of constructivism to a theory of learning and teaching is that a tacit understanding of the central role a learner's own knowledge plays in the learning process has been brought to the surface, formulated explicitly as a principle of knowledge construction, the idea that knowledge is irreversibly constructed by knowledge. If this is correct, a natural condition on teaching is easily derived: efficient and successful teaching presupposes an ideally explicit awareness of learners' prior knowledge. Otherwise the efficiency of teaching may suffer in various ways.

For one, learning potentials offered by learners' prior knowledge may remain partly unexploited. What is worse, teaching may redundantly, even harmfully at times, target areas of knowledge already present and fully developed in learners' minds.

As was suggested early on, and as was then derived from some simple principles of learning, teaching goals may and must be formulated with regard to the knowledge learners already have, in part as biological endowment. An explicit awareness of the latter may help avoid a number of misunderstandings, otherwise almost inevitable.

As was implicit throughout this discussion, an important part of the awareness just mentioned is understanding that no teacher may ever be completely aware of the prior knowledge of their learners, or of their own. What any teacher can do, though, is work out the assumptions about their learners' (and their own) prior knowledge, on which the formulation of particular teaching goals must be explicitly based. This will allow a teacher to evaluate those

assumptions and decide whether or not they are reasonable or justifiable. As was repeatedly pointed out above, at least some of the relevant assumptions have already been justified by independent research in linguistics and philosophy, for example. Equally importantly, all major empiricist assumptions conventionally adopted in pedagogy have been shown to be false. If taken seriously and applied consistently, these general conclusions may contribute in important ways to a radical reformulation of the general goals of language pedagogy and to enhancing the efficiency of FLT.

References

Barnlund, Dean C. s. a. [2003]. A kommunikáció tranzakciós modellje. In Horányi Özséb (szerk.), *Kommunikáció I.: A kommunikatív jelenség,* második, bővített és javított kiadás 26–42, General Press.

Budai, László. 2006. Idegennyelv-tudás vagy idegennyelv-sejtés? *Iskolakultúra*, 4:61–73.

Chomsky, Noam. 1981. *Government and Binding: The Pisa Lectures.* The Hague: Mouton de Gruyter.

Chomsky, Noam. 1993. A minimalist program for linguistic theory. In *The view from building 20*, ed. by K. Hale and J. Keyser, 1–52. Cambridge, Mass.: MIT Press.

Chomsky, Noam. 1995. *The minimalist program.* Cambridge, Mass.: MIT Press.

Chomsky, Noam. 2000. *New horizons in the study of language and mind.* Cambridge: Cambridge University Press.

Chomsky, Noam. 2004. *The generative enterprise revisited: Discussions with Riny Huybregts, Henk van Riemsdijk, Naoki Fukui and Mihoko Zushi.* Berlin: Mouton de Gruyter.

Chomsky, Noam. 2005. Three factors in language design. *Linguistic Inquiry* 36:1–22.

Chomsky, Noam. 2007. Of minds and language. *Biolinguistics* 1:9–27.

Crain, Stephen, and Drew Khlentzos. 2008. Is logic innate? *Biolinguistics* 2:24–56.

Czeglédi, Csaba. 2008. Constructive Linguistics. In *When Grammar Minds Language and Literature: Festschrift for Prof. Béla Korponay on the Occasion of his 80th Birthday*, ed. by József Andor, Béla Hollósy, Tibor Lackó, and Péter Pelyvás, 137–145. Debrecen: Institute of English and American Studies, University of Debrecen.

Falus, Iván (ed.). 2005. *Didaktika: Elméleti alapok a tanítás tanulásához.* Budapest: Nemzeti Tankönyvkiadó.

Krashen, Stephen. 1981. *Second Language Acquisition and Second Language Learning.* New York: Prentice-Hall.

Ludányi, Ágnes. 2001. A megváltozott tanárszerepek és korszerű értelmezésük a pedagógusképzésben. Doctoral dissertation, Budapest: ELTE.

Nahalka, István. 2005. A tanulás. In Falus 2005, 103–136.
Nahalka, István. 1997a. Konstruktív pedagógia – egy új paradigma a láthatáron I. *Iskolakultúra*, no. 2:21–33.
Nahalka, István. 1997b. Konstruktív pedagógia – egy új paradigma a láthatáron II. *Iskolakultúra*, no. 3:22–40.
Nahalka, István. 1997c. Konstruktív pedagógia – egy új paradigma a láthatáron III. *Iskolakultúra*, no. 4:3–20.