

영어교육 33호
1987년 2월

Review of Applied Psycholinguistics: An Introduction to the Psychology of Language Learning and Teaching

by Renzo Titone & Marcel Danesi. 1985. University
of Toronto Press. 218 pages.

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O. *Applied Psycholinguistics* (AP) by Renzo Titone and Marcel Danesi (T&D) attempts to provide the language teacher with a comprehensive survey of psycholinguistic research. AP covers several different, yet inter-related, issues: linguistic theories (Ch.1), learning and teaching processes (Chs. 2 and 5), first and second language learning (Chs. 3 and 4), basic statistical concepts (Ch.6), and the glossodynamic model of learning and teaching (Ch.7).

1. The central theme of the book is that only through a convergence of theoretical perspectives can a truly effective approach to language teaching be developed (p. 174). This point is developed in a convincing manner in chapters 4 and 5, which are relatively well presented and coherently argued. In chapter 4, T&D examine differences and similarities between first and second language learning as well as the pedagogical implications of various neurological and psychological phenomena (the critical period hypothesis, learners' motivation, learning styles, or personality). Chapter 5 considers how different theories have been translated into teaching methodologies, taking note of dependence of the inductive method on behaviourism (psychology) and structuralism (linguistics) as well as the reliance of the deductive method on

cognitive psychology and transformationalism (linguistics), on the other.

2. A major assumption of AP is that the more theory teachers are exposed to, the better teaching strategy they can develop (p. 35). Nonetheless, the authors make it clear that AP is not a book about how to teach languages (p. ix). Rather, in the hope that a basic understanding of current work in psycholinguistics will allow the teacher to make informed choices vis-a-vis teaching strategy (p. ix), the authors attempt to outline the pedagogical implications of research in this area. Unfortunately, however, some of the pedagogical suggestions are so general and sketchy that the applicability of a theory is not always clear.

For example, after briefly discussing some fundamental notions of transformational grammar (TG), T&D remark that a tree diagram 'can become a helpful teaching device' (p. 17). In an attempt to support the statement, they cite Stockwell et al. (1965 : 306) who observed that diagrams utilize the visual capacity for learning which our society in general encourages. Obviously, what teachers need in this case is an explanation of how the 'visual' property of tree diagram can contribute to language teaching. Unfortunately, this problem is not dealt with in AP, even though various points could have been made. For instance, following the common practice of linguists, teachers could use the tree diagram to represent the ambiguity of structures such as 'Flying planes can be dangerous' and 'old men and women.'

This type of discussion is crucial to an introductory text like AP, because it is often difficult to identify the pedagogical implications of a new theory (for more on this, see Newmeyer (1983 : 134)). Moreover, as we have seen in the past, linguistic concepts have often been misapplied in the classroom. For example, it was once proposed that 'deep structure' be used in the classroom to teach students that they should understand the meanings of the sentences they learn (Jacobson 1966, Di Pietro 1968). Obviously, one does not need such a highly abstract notion to teach students that sentences have meanings. In order to avoid this type of misunderstanding, teachers need access not only

to theories themselves, but also to substantial proposals about their relevance to teaching problems.

3. When T&D do make relatively specific suggestions in relation to teaching (a rare occurrence), they are often unsubstantiated or based on the outdated studies. Thus, according to the authors, TG suggests that 'some types of sentences (e.g., passives) can perhaps be best learned as derivatives of simpler, more basic sentences (e.g., actives) (p.25) This seems to run counter to Chomsky's (1965 : 9) observation that TG is a model of linguistic knowledge which 'says nothing about how the speaker or hearer might proceed... to construct (a derivation of a sentence). Unfortunately, T&D do not attempt to reconcile their proposal with this position.

4. There are also serious problems with the authors' survey of current mainstream linguistics. For one thing, T&D report that concepts like native-speaker intuition and ideal speaker-hearer are being largely abandoned in favour of a more empirical, or ecological linguistics (pp. 35-6). This is simply not true. As the following citations indicate, these notions remain crucial to linguistic inquiry.

This methodological revolution of giving priority to introspective evidence has gained support on the positive side from the great success of generative grammar in discovering new facts about English syntax, developing new grammatical formulations, and uncovering deeper theoretical problems (Labov 1971 : 438).

This standard method of collecting data from native speakers intuition has been enormously successful; linguists have produced precise and interesting theories about syntax and semantics; and the bulk of the data on which these theories depend is undisputed and, we believe, undisputable (Carden & Dietrich 1981 : 1).

The ideal speaker-hearer idealization, on the other hand, simply hypothesizes that we must abstract away the effects of such grammatically irrelevant conditions as memory limitations, distractions, shifts of attention, etc. As Newmeyer (1983 : 75) notes, this idealization is 'as

old as the western grammatical tradition,' and 'has underlain virtually all modern grammatical research.' For example, some twenty years ago, Martinet (1964 : 164) stated:

To simplify our analysis, we shall assume that the language in process of evolution is that of a strictly monoglot community, perfectly homogeneous in the sense that observable differences represent successive stages of the usage and not concurrent usages..... we must disregard these social, geographical variations..... in the case of descriptive linguistics.

None of this is to say that these concepts are entirely uncontroversial, only that T&D's sketch of the current mainstream linguistics is inaccurate and thus misleading.

5. Still other problems arise in the authors' discussion (in chapter 3) of various issues in first language acquisition, including semantic development, pivot grammar, and the role of maternal speech (motherese). For one thing, T&D's conclusion pertaining to semantic development is apparently wrong.

With respect to phonological and grammatical development, one thing is clear about the acquisition of meaning: it occurs much later. In fact, a refined and sophisticated semantic system does not emerge until the child is eight or nine years old. Semantic development continues through the school years and even later. This is probably due to the fact that the semantic organization of experience is a very complex phenomenon (p.74).

Although the authors do not describe the refined and sophisticated semantic system, to which they refer, it is unlikely that their claim is correct. Certainly, the ability of preschool children to produce and understand sentences would suggest that they have very rich semantic systems, contrary to what T&D's claim. Moreover, certain aspects of phonological and syntactic development (e.g., English vowel shift rules and the syntax of anaphora) do emerge after the age of nine or ten (see Moskowitz 1973, Ingram and Shaw 1981 for details).

One could also take exception to the authors' uncritical discussion of

pivot grammar (PG) as a description of children's two-word utterances. Unfortunately, PG has been in disrepute among linguists for over fifteen years (see Bloom 1970, Bowerman 1973, Schlesinger 1982, and Atkinson 1982).

Another issue which deserves comment has to do with the authors' discussion of the role of the motherese in language learning. T&D consider adult speech to children to be the most significant environmental factor in language development, as seen in the following.

Perhaps the most significant environmental factor influencing language development is the language used by adults when speaking to children: expansion, modeling, and reduction..... it is not unusual to find that adults adjust their speech patterns to the stage of language development manifested by their children [fine-tuning hypothesis] (pp. 76--7).

There are two problems with this claim. For one thing, Newport et al. (1977 : 122-3) report that the mothers' speech to children is not always simple, and does not grow syntactically more complex in a fine-tuned correspondence with the child's growing linguistic sophistication. Moreover, as Wexler (1982 : 308) argues, if mothers did produce simple (reduced) sentences, the task of language learning could actually be more difficult since such sentences present less information about the language than more complex structures do.

T&D apparently fail to realize that simply demonstrating that speech to children has properties of its own does not provide an explanation for language development. For example, speaking of expansion, T&D state:

If a child says 'Johnny eat,' then the mother might answer him by saying 'Does Johnny want to eat?'. Such expansions are clearly intended to provide the child with an exemplary version of adult grammar (p.76).

There are a number of problems with this example. First, 'Does Johnny want to eat?' is not the adult version of 'Johnny eat.' If children did interpret it as such, they would erroneously conclude that one

indicates that one is hungry by saying 'Does Johnny want to eat?'.
 Second, the fact that some adult forms are expanded versions of the child's unacceptable utterances does not tell us anything about how this facilitates language acquisition. Newport et al. (ibid.:123) note:

The point is that demonstrating that speech to children is different from other speech does not show that it is better for the language learner. Most investigators have jumped... to the conclusion that motherese is somehow simple for inducing the grammar. But the finding that Motherese has properties of its own does not show that these give acquisitional support.

Indeed, Wexler (1982 : 311) claims:

To the extent that speech to children does have special properties, most of these properties are best understood as contributing toward other functions, not the function of inducing a grammar.

It is unfortunate that no mention is made of these considerations in T&D's discussions.

6. In the final chapter of AP, the authors briefly describe their so-called Glossodynamic Model (GDM) of language learning. According to the authors, this model is based on an integrated theory which 'blends together the behavioural, cognitive, and personality components of language learning' (p.168). The GDM involves four interconnected levels: tactics (the act of communicating), strategy (the ability to communicate), and ego-dynamics (the will to communicate), all of which are connected to a surface level associated with the actual use of verbal symbols for communication. The authors claim that the GDM 'attempts to account for both second-language learning and first language acquisition.' (pp.170-1).

The GDM is an interesting system for a number of reasons. First, the model synthesizes 'inductive, deductive, functional, and humanistic instructional practices in a complementary fashion' (p.173) with the help of the four interconnected levels stated above. Secondly, with regard to first language acquisition, the GDM includes only general cognitive

mechanisms such as rule-making processes, programming processes, etc., which, according to the authors, 'help organize linguistic data at the strategic level' (p.170). In this, it differs from much current work in linguistic theory which posits specific innate linguistic mechanisms. The GDM also differs from a nativistic account of language learning, assuming a fairly behaviouristic view of learning. The authors claim that conditioning is always involved in the development of the tactics (the act of communicating) and that the feedback mechanism 'appears to play a particularly important role in the early stages of speech (production)' (p.170).

With regard to the first language acquisition, it is not always clear how the GDM will solve the central question of how the child develops grammar in the absence of negative data often-called the 'logical problem of language acquisition' ('negative data' here involves feedback to children about the acceptability of their utterances). To take a simple example, it is well known that in the early stage of language development children overgeneralize the past tense form in English, and produce forms such as 'goed' instead of 'went'. If a model of language learning is to be explanatory, it should deal with the problem of how the child ultimately learns the correct form from his overgeneralized form. Of course, one might argue that the child will correct his mistakes on the basis of his caretaker's corrections. Unfortunately, however, the widely known study by Brown and Hanlon (1970) indicates that caretakers do not systematically correct children's ungrammatical utterances, and that attempted corrections are typically ignored (see also McNeill 1966). Although the GDM contains a strategic level which involves rule-making selection, programming, conscious self-regulation (p.171), the authors do not specify what types of strategies or mechanisms make up the child's learning procedure. Thus, the 'logical problem of language acquisition' remains unresolved. The authors should be encouraged to pursue the relevance of the GDM to this problem in future work.

7. In this review I have focused my discussion on some of the weaker points found in AP. While there is no doubt that T&D are

among the few who have noted and stressed the importance of a sound theoretical background in the context of language teaching, a more explicit guidance with regard to the application of psycholinguistic theories is required. Moreover, many of the issues discussed in chapters 1—3 and 7 need to be reconsidered in the light of more recent psycholinguistic work.

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