

RESEARCH ON SEQUENCING

by Jack Wigfield

The question of sequencing materials continues to concern many of us. Research which bears on this problem is being done in Canada by G. Richard Tucker and Alison d'Anglejan.

Tucker and d'Anglejan have looked at complex sentences, that is sentences whose surface structures are quite different from their underlying structures. They took their sentences from Carol Chomsky's research, sentences like:

- (1) John promised to go.
- (2) John promised Henry to go.

Chomsky's pre-eight year old subjects had no trouble identifying the subject and *promised* but when they were asked who went in sentence (2), they replied, "Henry." Children over eight responded that in (2) John promised and John went.¹

Tucker and d'Anglejan found that beginning adult ESL students responded the same as native speaking children under eight and advanced ESL students responded the same as those over eight.

This suggested that the degree of linguistic complexity inherent in the sentence is indeed a critical factor in determining the order of acquisition of certain grammatical features and that this factor operates in both native language and second language learning.²

Let me now give you an example of how this research can apply to the way we sequence material. For the past year Alemany Adult Center has been experimenting with a different kind of class, one feature of which is to give students unlimited access to the teacher on an individual basis for help with problems. One problem which is common and which came up recently concerns sentences like:

- (3) If I were you, I would go.

This is the so-called contrary-to-fact conditional.

The two students who asked about this most recently were intermediate students,

one high and one low intermediate. The textbooks they were using are generally accepted texts for that level of proficiency. While both students had successfully completed their assigned workbook sentences, only the high intermediate student really understood what he was doing and even he probably couldn't have used it in a conversation. It should also be noted that both these students were college bound, so we are dealing with cognitive processes in language which have little if anything to do with intelligence.

Now let's look at the deep and surface structures of (3). The *if* clause has a deep negation. In reality or the truth is *I am not you*. That negation does not appear on the surface.

The main clause is often taught as containing a deep negative as well and indeed it often does:

- (4) "If I had the wings of an angel,
over these prison walls I would
fly."

But in our example (3), whether "I" goes or not depends on the context of the situation. For example:

- | A | B |
|---------------------------|---|
| 1. I'm going. Are you? | 1: This is a great party. |
| 2: I can't decide. | 2: Great? It's rotten. Who's giving it? |
| 1: If I were you, I'd go. | 1: Me. If I were you, I'd go. |

But if the main clause does contain a negative in its deep structure, that negative doesn't occur in the surface structure.

The time of the deep structure is not-past, but the surface structure has past forms, *were* and *would go*.

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1. Chomsky, Carol, *The Acquisition of Syntax in Children from 5 to 10*. Cambridge, Mass., The M.I.T. Press, 1969.
 2. d'Anglejan, Alison and G. Richard Tucker, "The Acquisition of Complex English Structures by Adult Learners," paper presented at the National TESOL Convention, 1976.

And while Old English had past and not-past subjunctive forms which were used in sentences like this, the not-past subjunctive disappeared and the past, homophonous with the past indicative *were*, replaced it to indicate not-past with all persons and numbers. Therefore, "If I were. . ." rather than *"If I was. . ."

Taking all this into consideration, certainly these two students and others like them have trouble with sentences like this for precisely the reason Tucker and d'Anglejan have suggested.

Furthermore, interesting things seem to be going on with the conditionals in English. Collecting data on conditionals from the Watergate testimony for ESL students in Stanford University's AESOP program a few years ago, we found many "correct" forms but also a number of "mistakes" by educated native speakers. Consider this exchange between Senator Byrd and Archibald Cox:

Senator: If you were overruled [by Mr. Richardson], would you resign?

Cox: If it were a matter of the slightest importance, yes. . . but if I thought it was a matter of the conduct of the investigation. . . well, I would either resign or find some public recourse.

Didn't Mr. Cox mean:

If it is a matter of the slightest importance, yes. . . but if I thought it was a matter of the conduct of the investigation. . . well, I would either resign or find some public recourse.

How much stronger and more "correct" this Mr. Cox sounds; more like the published reports of his behavior during the investigation.

Watergate provided an abundant collection of conditionals, but there are more recent examples. Take this RCA ad from *The New Yorker* for May 31, 1976. A woman, clutching her portable TV in the laundromat, says:

(5) If I miss my soap operas, I'd be miserable.

This is a questionable example because advertisers exploit divided usage to get attention (" . . . like a cigarette should.") but how many will see "I miss. . . I'd be" as unusual?

Try this one from an impeccable source, an art critic for the *San Francisco*

Chronicle:

(6) "If you had your choice," I said, "which object or sort of object would you have picked to bring here to San Francisco to own?"

Since the interviewee had recently come from China and he hadn't been given a choice, didn't the interviewer mean, "If you had had your choice. . ."

Native speakers seem to be reacting to the contrary-to-fact conditional as it has developed historically as a cognitively difficult task. They are being asked to use a tense form usually reserved for some sort of time indication to serve an additional function.

Consider another example of cognitive processes in interpreting language:

(7) This is the cat that ate the rat that lived in the house that Jack built.

(8) My big new built-in battery failed.

(9) The man the woman loved spoke French.

(10) The man the woman the teacher taught loved spoke French.

Sentences (7)–(10) illustrate different types of embedding. Sentences (7)–(9) are easily interpreted, but when subjects are asked to interpret (10), they either ask to have it repeated, laugh, or reject it as not English. (9) and (10) are centrally embedded, but while central embedding of one sentence (9) is acceptable, central embedding of two or more sentences is a cognitively difficult task.

In another recent study, Tucker and d'Anglejan looked at the ability of bilinguals to solve problems in deductive reasoning. They found that greater familiarity with the language of the problems is not sufficient to produce a significant difference in the level of performance.³

All this seems to indicate that we are asking too much of ESL students in the early and even later intermediate stages when we give them work in contrary-to-fact conditionals. This type of conditional represents a highly complex structure which, in addition, seems cognitively difficult to process. This combination may also account for divided usage among educated native speakers.

3. "Solving Problems in Deductive Reasoning: A Study of the Performance of Adult Second Language Learners", mimeographed, 1975.