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I. INTRODUCTION

Techniques for working with informants are of necessity as varied as are the personalities and abilities of informants. This point has been elaborated in numerous articles and books describing principles for successful work with an informant in general language work. Informant techniques must also be modified to conform with the purpose of the study. Thus treatises have been written on specific informant techniques useful for language learning, anthropological linguistics, and comparative linguistic studies.

This paper purports to describe certain techniques which proved helpful in grammatical analysis leading to a generative description of the relative clause in Vietnamese. Although my Vietnamese informant was also fluent in English, our discussions of the language were conducted almost entirely in Vietnamese. My ability to speak Vietnamese undoubtedly helped in terms of speed of analysis, but this factor did not perhaps greatly alter the basic procedures used.

2. IMPARTING THE CONCEPT OF THE GRAMMATICAL

One of the more difficult aspects of working with an informant on grammatical analysis is to get him to recognize by what criterion you wish him to allow or disallow certain sentences. Since they may not be accustomed to thinking of their language in terms of what is "grammatical," the response to the question "Can you say...?" may vary greatly between informants. On the one hand an informant may become so impressed with the fact that you are interested in everything which can be said in his language, regardless of whether it is natural or common, that he will allow things which would never be said by a native speaker,
feeling that you can, after all, say anything in any way if you want to.

At the other extreme, he may feel bound by whatever rules he has learned for his language, even though these may have been imposed by a foreign system and not reflect at all the way he speaks. Or, in a language such as Vietnamese, where there are many differences between the language as it is spoken and the language as it is written, he may feel that you want to study the language only as it is written. He might feel that he should allow only those sentences which are stylistically good and those orderings most commonly used and reject those which although grammatical are either not elegant or else highly involved or cumbersome.

The solution to this problem is, of necessity, different with every informant. I told my informant that I wanted her to allow anything which might be said and understood by a native speaker of Vietnamese. I then encouraged her to give me, in addition, her reaction to, or evaluation of, the sentences produced, in terms of their relative ease in speech or understanding and their relative frequency of use. My informant then began to allow with qualifications a number of sentences which she had previously disallowed. For example, a sentence which was not smooth in diction she would say "doesn't go straight in the ear One which contained more grammatical markers than were necessary or contained a cumbersome passive construction she might describe as "heavy". A particular permutation might result in an awkward sentence which she labelled "a little short". A non sequitur sentence resulting from a certain permutation which changed a relative clause sentence into a coordinate sentence was first disallowed, but then allowed with the qualification that it "didn't have any connection". On the other hand, certain sentences were labelled "smooth to the ear", "easy to hear", or "sounding all right".

There seemed to be no hesitation on the part of my informant to tell me that certain sentences were allowed if she could also qualify them as to their place or frequency of usage. But it was interesting to note that as time went by, these qualifying expressions were used less and less as it became clear to her as well as to me just where the non-grammatical lay. The judgments tended to become a straightforward "Yes, that can be said", "No, that can't be said", "That means something different," or "That could mean two different things (is ambiguous)".

3. General Procedures

I found it advisable in working with the Vietnamese language to stay away from the conventional Vietnamese
grammatical labels as much as possible, finding non-traditional words or combinations of words to describe their functions whenever it was necessary to talk of these. Phrases used upon occasion were "action", "person/thing which performs the action", "person/thing which receives the action," "goes with ____", "describes ____".

In choosing examples on which the informant is asked to perform certain operations, it seemed best to choose sentences already in the informant's language rather than English sentences which she must first translate and then operate on. This can be done by selecting sentences from text material, or by composing sentences and asking the informant to correct them if they are wrong. Whenever I could, I composed test sentences myself so that I could choose lexical items with a wide range of co-occurrence possibilities and few non-significant restrictions. For example, as a basic noun phrase which could be used in numerous situations I chose the phrase, 'Classifier - child'. This seemed to meet the stated qualifications in that there were endless possibilities to what 'the child' could do, be, or have done to him. And in Vietnamese, where people are usually addressed or referred to by means of kinship terms, this seemed to be as good a term as any to escape non-pertinent restrictions of age, sex, and honorifics. Other items which proved useful for a wide range of sentences were 'buy', 'give', 'dress/shirt', 'pretty', and 'the student'.

In choosing examples, I tried to keep these as near minimal as possible. In some cases I found that I was restricting vocabulary too closely, in that items I wanted to discard as irrelevant turned out to point up syntactic features. However, on the whole I felt that preserving as near minimal environments as possible for contrasts with examples helped not only me but my informant to recognize grammatical patterns and to react to the sentences in relation to pattern and not to differences in situation of lexical co-occurrence.

Sometimes it is helpful with a bilingual informant to explain operations which you wish him to perform in terms of a similar operation performed on a number of sentences in English. This procedure, suggested in an article by Richard Pittman, "On Eliciting Transformations in Vietnamese," I used first to discover possible areas for fruitful analysis and later to show my informant the operation of embedding sentences within each other to form relative clauses. A suggestion of Pittman's which I feel to be valuable in this regard is that of removing the English examples before asking the informant to give similar data. This requires the informant to compose
similar constructions in his language where such exist rather than to simply translate the English examples.

4. **Specific Procedures**

*Gathering unary transforms.* In looking for a problem on the analysis of some aspect of Vietnamese, I began by eliciting and recording a number of texts. Then I showed to my bilingual informant several examples of an English sentence on which I had performed a number of operations such as making it passive, making it a relative clause, nominalizing it, etc.

\begin{align*}
e.g. & \quad \text{The mother loves the child.} \\
& \quad \text{The child is loved by the mother.} \\
& \quad \text{The mother who loves the child...} \\
& \quad \text{The child who is loved by the mother...} \\
& \quad \quad \text{...that the mother loves the child.} \\
& \quad \quad \text{...that the child is loved by the mother.} \\
& \quad \text{The mother's love for the child...} \\
& \quad \text{etc.}
\end{align*}

I asked my informant to do something of the same thing for certain sentences in Vietnamese.

Upon examination of the texts and paradigmatic material thus received, I noted certain patterns and complexities within the relative clause which seemed worth closer scrutiny. I also noted that on the basis of the material I had collected it would be possible to make the hypothesis that all adjectivalization in Vietnamese could be handled in terms of the relative clause. This would then involve a major part of the language as a whole.

*Gathering binary transforms.* To get an idea of the scope of the problem, I composed two examples of all the major sentence types I could find in my data and prepared sheets of paper for every possible combination for embedding these when their subjects were shared. For example, I would label one page Transitive-\text{Subj} / Intransitive-\text{Subj}

and on this page I would list all possible ways of embedding a Transitive sentence in an Intransitive sentence and vice versa where the subjects of the two sentences were equal.

\begin{align*}
e.g. & \quad \text{The child is reading a book.} \\
& \quad \text{The child is crying.} \\
& \quad \text{The child who is crying is reading a book.} \\
& \quad \text{The child who is reading a book is crying. etc.}
\end{align*}
On this sheet would be listed all possible deletions, permutations, ambiguities, and constraints. In Vietnamese these were numerous and sometimes extended to a second or third sheet of paper. Other sheets might be marked Intransitive- / Stative- and embed 'The child is crying.' with Subj Subj 'The child is pretty.' or Stative- / Equational- Subj Subj and embed 'The child is pretty.' with 'The child is a student.'

Checking embedding positions. In the next step I took up embedding of sentences with shared nouns in all possible positions within the sentences and prepared sheets to show his contrast. One of these sheets, for example, might be labelled Intransitive- / Transitive- and would show all possible embedding combinations of Intransitive and Transitive sentences where the subject of one was shared by the direct object of the other.

e.g. The child is crying.
    I see the child.
    The child whom I see is crying.
    I see the child who is crying.
    etc.

Other sheets might be labelled Stative- / Equational- Compl Subj and embed 'The student is intelligent.' with 'My brother is a student.' or Transitive- / Transitive- Subj Ind Obj and embed 'The child is reading a book.' with 'I gave the child a dress.'

Making the informant self-productive. When I had worked out with the informant all the possible ways we could discover to embed sentences of several different types my informant was able to do much of the preliminary preparation of these sheets by herself. She would, for example, take a sheet on which I had written a Transitive sentence and an Equational sentence with shared subject or two Transitive sentences where the object of one was shared by the indirect object of the other and compose all the different sentences she could think of which would combine these two sentences without changing the combined meaning. There were, of course, some examples irrelevant to the particular area on which I was concentrating. For example, she usually included coordinate clauses such as 'I see the child, and the child is crying.' and sometimes made both sentences into one relative clause of a larger sentence such as 'The child who
I see who is crying...' She also sometimes omitted possible combinations or possible deletions and permutations. But the sheets could easily be revised to eliminate irrelevant examples and include missing relevant ones.

I never visibly eliminated any of her entries since I wanted to encourage her to put down all the possible arrangements of the two sentences that she could think of without reservation. I sometimes, however, checked or starred those which were most helpful. She very quickly recognized my notations for optional items, mutually substitutable items, and disallowed items, and incorporated these symbols in her work.

When problematical constructions came up, she was able after being given one or two examples of the construction to produce a number of similar constructions which would throw light on the problem. For example, when I ran into ambiguities between relative clauses and verbal complements through the sentence 'Child-happy-buy-dress.' which could mean ambiguously 'The child is happy to buy the dress.' or 'The happy child buys the dress,' I realized that I needed to know more about the verbal complement. So I used the example of a verbal complement which I had found through the ambiguous relative clause along with one or two others I was able to guess at and construct with her help and asked her to give me as many more examples of this as she could think of. She then worked out a considerable number of them.

Finding ambiguities. One of the most fruitful techniques I found for determining patterns of underlying structure was the analysis of those sentences which are either structurally or semantically ambiguous or both. Such material is at the outset very hard to come by, since an informant is unlikely to suggest semantically ambiguous sentences, and without semantic ambiguity, structural ambiguity is hard to determine. For example, I had the sentence in Vietnamese 'Child-has-dress-reads-book.' I eventually discovered that this sentence is structurally ambiguous in that 'reads-book' could be understood to go with 'child' as in 'The child who has a dress reads a book.' or with 'dress' as in 'The child has a dress which reads a book.' But semantically it is not ambiguous since dresses do not read books. It could be made also semantically ambiguous by substituting 'brother' for 'dress' resulting in the sentence 'Child-has-brother-reads-book.' This would allow either the reading 'The child has a brother who reads a book.' or 'The child who has a brother reads a book.'

But an informant would almost certainly not recognize the first sentence as being ambiguous and might not even recognize the second as being ambiguous since he would pro-
bably assign the meaning which was stronger or most likely within a certain context. In Vietnamese, for instance, in ambiguities between conditional and causative meanings my informant would usually understand an unambiguous conditiona1 unless she stopped to think it over carefully or was specifically questioned as to whether the sentence were ambiguous. Or if relative clauses were being discussed, she might assign it to relative clause without even thinking of the other possibility.

Sometimes ambiguity can be discovered by intuitive permutation or by exclusion of certain optional grammatical markers in sentences where a particular item could semantically modify one of two items. For example, given the sentence: Dã con có cål áo thi dép.

Cl. child has Cl. dress Lim. pretty

'The child who has a dress is pretty.'

one might guess that 'pretty' could be used apply semantically to 'dress' as well as to 'child'. Then, given by other sentences the information that thi is optional and that modifiers usually follow the noun they modify in Vietnamese, one might formulate the sentence: Dã con có cål áo dép.

(Cl. child has Cl. dress pretty) to see if one could construct the ambiguity between 'The child has a dress which is pretty.' and 'The child which is pretty has a dress.' which does in this case result.

The informant is asked whether the sentence composed in this way is allowed or not. If allowed, does any change of meaning result form the permutation or deletion. If the sentence is disallowed, but appears on the basis of other sentences to follow an allowed pattern, the informant may be asked why the sentence is disallowed. It is possible that the informant has disallowed it because it has more than one possible reading.

Whenever I found an ambiguity, where a sentence could be understood as being derived from either of two (or more) underlying structures, I asked the informant to resolve the ambiguity first for one reading and then for the other in as many ways as she could. For example, if a sentence were ambiguously either relative or conditional, I would ask her to tell me all the ways in which the sentence could be said so that it could only be understood as conditional and then all the ways it could be said so that it could be only understood as relative. I then constructed an underlying tree diagram for each possible reading of the ambiguity and wrote Phrase Structure Rules needed to generated the tree. I then formulated the Transformational Rules needed to produce the derived trees.
If the underlying trees had been correctly constructed and the corresponding rules correctly formulated, it could be clearly shown which transformations had applied to the underlying structures to produce surface structures which were identical and thus ambiguous. Take, for example, the tree diagrams below illustrating the underlying structure of sentences containing Relative Clause and Condition. If the transformations given below the trees are applied to the underlying structures, the derived sentence 'Đứa con mà trẻ (thi) khóc.' may result in both cases.

Thus, this sentence is ambiguous in that it could be understood as being derived from Tree A and mean 'The child who is late cries.' or 'If the child is late, he will cry.'

Tree A
Relative Clause

Tree B
Conditional

'The child who is late cries'

T oblig.
1 2 3 4 5 6 7
1 3 2 5 6 7

T opt.
1 3 2 5 6 7
1 (3) (2) 5 (6) 7

'The child who is late cries'

I think it is important when an ambiguity has been discovered to let the informant know that this type of example is very helpful. An informant may be apt to withhold this information or not think it worth mentioning especially if he feels that such information is confusing.
to the analysis or merely an annoying complication. Only after I had inadvertently discovered several ambiguities did I realize how valuable these were for purposes of analysis. And it was not until even later that I thought to convey to my informant their value to me. This encouraged her to point out ambiguities which were easily apparent to her as well as those which she herself had not realized were ambiguous. The pattern of relative clauses emerged more clearly when certain sentences which she had previously disallowed as being ungrammatical ("No, you can't say that.") were discovered to be actually ambiguous. Even some sentences which were structurally but not semantically ambiguous she was able to point out when she had become accustomed to think in terms of ambiguity.

REFERENCES

Pittman, Richard S.
1965 "On Eliciting Transformations in Vietnamese," mimeo., a workpaper of the Summer Institute of Linguistics at the University of North Dakota.