

## PRONOUNS AS NOMINALIZED SENTENCES †)

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There appears to exist a relationship of virtual synonymy, (rather better documented in the scholarly traditional grammars than in modern linguistic work), between single verbs on the one hand and constructions consisting of a verb plus a separate sentence constituent on the other. Examples of sentences illustrating this relationship are given in (1):

- (1) i a do teachers talk too much  
b do teachers do too much talking
- ii a we like informing students about things  
b we like giving information to students about things
- iii a for example, about what a poem means  
b for example, about what meaning a poem has
- iv a other times we demonstrate  
b other times we give demonstrations
- v a or explain  
b or give explanations
- vi a or criticize  
b or make criticisms
- vii a or correct  
b or make corrections
- viii a sometimes we discuss things  
b sometimes we have discussions about things
- ix a we comment on students' answers  
b we make comments on students' answers

The a) and b) sentences in each pair have virtually the same meaning; they must therefore be assigned virtually the same deep structure representation.

†) This is a slightly revised version of a paper read at the Annual Conference of the Linguistic Society of Australia (May, 1972).

I will call the type of sentences illustrated in b) "periphrastic sentences", and the type of sentences illustrated in a) "synthetic sentences". Correspondingly, the underlined verbs in a) are called "synthetic verbs", while the underlined constructions in b) are called "periphrastic group expressions". Periphrastic group expressions typically consist of one of a small set of verbs which includes the verbs GIVE, MAKE, HAVE, DO, plus a so-called abstract noun phrase whose Head is a noun which can be related by apparently regular morphological rules to the synthetic verb with which the group expression is synonymous. Such nouns may be termed "deverbal nouns".

Of the several formal arguments<sup>1</sup> that can be adduced in favour of the recognition of a category of periphrastic group expressions in English grammar, some of which are given in Renský (1966) where such group expressions are referred to as 'Verbo-nominal Phrases', I will discuss only the one that is directly relevant to the topic of this paper, nominalization. The connection between nominalization and periphrastic group expressions is that the noun phrases in periphrastic group expressions are so-called "abstract" noun phrases.

Although at least one different interpretation of abstract noun phrases has been proposed (Chomsky 1969), many transformational linguists appear to agree that abstract noun phrases are best interpreted as nominalized sentences, that is as noun phrases which are derived by regular rules from sentences. While this interpretation is, as I will show in a moment, almost certainly correct for so-called "definite" abstract noun phrases, it cannot be used to account for the origin of the abstract noun phrases in the b) sentences of (1), which are indefinite. These noun phrases cannot be derived from sentences, since this would mean that the b) sentences are surface manifestations of two underlying deep structure representations. This is impossible if it is accepted that the b) sentences and the a) sentences - which have one underlying deep structure representation - are in paraphrase relationship with each other.

How then, can we account for abstract noun phrases of this kind, if not by reference to nominalization? I suggest that a possible solution lies in the concept of periphrastic sentences. On this analysis the a) and b) sentences of (1) are interpreted as alternative surface manifestations of one and the same deep structure representation. Or, more safely perhaps, alternative surface manifestations of largely the same deep structure

representation, for although it is tempting to say that the differences between the two sentence types are superficial and surface syntactic (some might say "stylistic"), it is evident that in discourse the choice between a synthetic sentence and a periphrastic one is not free. Certain factors affect this choice, which may well turn out to be of a subtle semantic kind. The investigation of these factors constitutes an intriguing area of research.

If the hypothesis which is being proposed for the explanation of abstract noun phrases which are not nominalizations is accepted, it will be necessary to consider the implications of this hypothesis for the explanation of abstract noun phrases which are nominalizations.

In most treatments up to now a nominalization like (2) would be derived by means of nominalization rules, the precise nature of which is not relevant to the present argument, from the sentence (3):

(2) John's proof of the theorem

(3) John proved the theorem

The postulate of periphrastic sentences will enable us to derive (2) not directly from (3), but from its periphrastic equivalent (4), by means of the nominalization rule (5) plus certain "reduction rules":

(4) John gave a proof of the theorem

(5) X DET N Y  $\xrightarrow{\text{NOM}}$  the N wh-word X Y

The application of the nominalization rule (5) to sentence (4) gives the definite abstract noun phrase (7):

(7) the proof which John gave of the theorem

the N wh-word X Y

One of the envisaged reduction rules would specify the deletion of "which" to give (8):

(8) the proof John gave of the theorem

Another would specify the deletion of "which" and "gave" and the simultaneous substitution of "the" by "John's " to give (2).

In support of this analysis one may point out that the same nominalization rule (5) and the same, or highly similar, reduction rules may be postulated to account not only for the formation of many, perhaps most, definite abstract noun phrases, as is illustrated in (9), but also for the formation of many, perhaps most, definite concrete noun phrases, as is illustrated in (10).

- (9) i they had arranged to meet early (synthetic)  
they had made an arrangement to meet early (periphrastic)  
the arrangement which they had made to meet early (NOM)  
the arrangement they had made to meet early (reduced)  
their arrangement to meet early (reduced)
- ii we inform students about jobs (synthetic)  
we give information to students about jobs (periphrastic)  
the information which we give to students about jobs (NOM)  
the information we give to students about jobs (reduced)  
our information to students about jobs (reduced)  
our job information to students (reduced)
- iii the teacher looked quizically at the student (synthetic)  
the teacher gave the student a quizical look (periphrastic)  
the quizical look which the teacher gave the student (NOM)  
the quizical look the teacher gave the student (reduced)  
the teacher's quizical look at the student (reduced)
- iv I lecture at 11 o'clock on Wednesday (synthetic)  
I give a lecture at 11 o'clock on Wednesday (periphrastic)  
the lecture which I give at 11 o'clock on Wednesday (NOM)  
the lecture I give at 11 o'clock on Wednesday (reduced)  
my lecture at 11 o'clock on Wednesday (reduced)  
my 11 o'clock lecture on Wednesday (reduced)  
my Wednesday 11 o'clock lecture (reduced)
- (10) i I've got an aunt in Australia  
the aunt which I've got in Australia (NOM)  
the aunt I've got in Australia (reduced)  
my aunt in Australia (reduced)
- ii my brother works in an office  
the office which my brother works in (NOM)

	the office my brother works in	(reduced)
	my brother's office	(reduced)
iii	there is a wasteground near our house	
	the wasteground which there is near our house	(NOM)
	the wasteground there is near our house	(reduced)
	the wasteground near our house	(reduced)
iv	we fly model aeroplanes there	
	the model aeroplanes which we fly there	(NOM)
	the model aeroplanes we fly there	(reduced)
v	you said you spent Easter all by yourself	
	the Easter which you said you spent all by yourself	(NOM)
	the Easter you said you spent all by yourself	(reduced)

The noun phrases (2), (7) and (8), which are synonymous, have a deep structure representation which is presumably highly similar to that of the sentences (3) and (4) from which they are derived. This deep structural similarity is conveniently caught by the terminology of "nominalized sentence", which makes it clear that the noun phrases are sentences which for some reason have been turned into noun phrases (and the same holds for the noun phrases and sentences in each of the sets in (9) and (10).

The answer I am going to suggest to the question "For what reason?" is not particularly penetrating and follows from the observable fact that noun phrases do not occur in isolation but are always part of a sentence: a sentence is nominalized in order that it may be combined with another sentence.

The nominalization of sentences is one of the several procedures speakers of English have at their disposal for combining two or more sentences with each other. Another and very similar procedure for doing this is what is commonly referred to as "embedding". The most obvious difference between these two procedures is that an embedded sentence retains basically the surface structure of a sentence, whereas a nominalized sentence exhibits the surface structure of a noun phrase.

Let me give an illustration.

Sentence (11) can be combined with sentence (12), which could follow it in discourse, through embedding so that we obtain for example (13):

(11) Professor Z was giving a lecture at 11 o'clock.

(12) Our meeting had to be postponed till the afternoon therefore.

(13) Because Professor Z was giving a lecture at 11 o'clock,  
our meeting had to be postponed till the afternoon.

If sentence (11) were followed in discourse by sentence (14) the two could be combined through nominalization to give (15):

(14) I would have liked to go to it.

(15) I would have liked to go to Professor Z's 11 o'clock lecture.

Apart from the surface structural differences between embedded and nominalized sentences there are obviously more subtle and more interesting differences, which have to do with the circumstances under which a sentence is nominalized rather than embedded and vice versa. How these different circumstances can be described and linked with the nominalization and embedding rules is not at all clear, however.

It will be seen that the hypothesis that has just been developed provides a partial answer to McCawley's celebrated question "Where do Noun Phrases come from?". It also provides an answer (admittedly a very general one) to the question "Why do Noun Phrases come in the first place?", and it provides a foundation for an enquiry into the question "When do Noun Phrases (and embedded sentences) come?"

The answer to McCawley's question is a partial one, firstly because, while the hypothesis explains the origin of many abstract noun phrases and of many definite concrete noun phrases, it would be rash to claim that the hypothesis explains the origin of all noun phrases of these types.

It is a partial answer secondly, because it does not explain the origin of concrete noun phrases which are indefinite. While a definite concrete noun phrase like "the coffee they serve in the canteen" in (17) can be explained as a nominalized sentence, the description of the indefinite concrete noun phrase 'coffee' which occurs in the first sentence of (16), remains as yet mysterious:

(16) They serve coffee in the canteen. It tastes foul.

(17) The coffee they serve in the canteen tastes foul.

Not only do indefinite concrete noun phrases pose a problem, so do pronouns: Where does the pronoun "it" in the sentence with which the sentence containing "coffee" is combined come from? For this second problem, however, a tentative solution can be offered, which may be seen to support the proposals that have been made so far.

This solution derives from the observation that (16) and (17) are in paraphrase relationship. They may be regarded as alternative surface manifestations of the same deep structure representation. The simplest way to assign an identical deep structure representation to both (16) and (17) is by interpreting the pronoun 'it' in (16) as a variant surface manifestation of a nominalization of the preceding sentence. That is to say, the pronoun "it" in (16) takes the place of the nominalized sentence "the coffee which they serve in the canteen":

They serve coffee in the canteen

The coffee which they serve in the canteen tastes foul

It

Such an interpretation of the word "it" in (16) makes a lot of sense, for this is exactly what the word "it" means in the context in which it occurs. It can be easily verified that "it" does not take the place of the noun to which it is supposed to refer:

They serve coffee in the canteen.

Coffee tastes foul.  
It

Nor does "it" take the place of the noun phrase to which it refers:

They serve black coffee in the canteen.

Black coffee tastes foul.  
It

Rather it takes the place of a new noun phrase, which is a nominalization of the preceding sentence.

An examination of pronouns like "it" in (16) occurring in a continuous piece of text in the light of this hypothesis reveals that it is necessary to modify the hypothesis slightly: pronouns (like "it" in (16)) take the place of a nominalization of (part of) a preceding sentence. These pronouns thus provide the speaker of English with a very economical means of summing up what has gone before. It is this quality of pronouns that is responsible for a great deal of the coherence of sentences that follow each other in discourse.

The qualification "like "it" in (16)" in the above is necessary because the term "pronoun" is (like the term "adverb") a cover-all for several groups of words which have quite disparate syntactic characteristics and the interpretation of pronouns suggested here is not applicable to all these groups. The most obvious exceptions are words like "somebody", "anything", etc., and the words "I", "you", "we", "me", "us", as well as certain occurrences of the so-called third person personal pronouns, as, for example, in "It is raining".

There are, moreover, a number of linguistic items, not usually categorized as "pronouns", which share the typically pronominal characteristic that they refer to a noun or noun phrase in the surrounding text. The most obvious of these are certain occurrences of cardinals, ordinals and superlatives, cf. (18):

(18) Several arguments can be put forward in support of  
what has been said.

One is that...

The first is that...

The best is that...

I interpret "one", "the first" and "the best" in (18) as "anaphoric noun phrases", that is, as noun phrases in which everything the speaker expects to be retrievable from the surrounding text has been omitted:

One	}	$\phi$ of the arguments which can be put forward in support of what has been said
The first	}	
The best	}	

I suggest that the word "it" in (16) and other so-called pronouns that take the place of a nominalized sentence should also be interpreted as anaphoric noun phrases. I suggest, specifically, that these anaphoric noun phrases have the structural description (19)

(19) Determiner  $\phi$

where the Determiner is the same as, or is a surface structure variant of, the Determiner in the non-anaphoric noun phrase for which the anaphoric noun phrase is a substitute.<sup>2</sup>

Thus, in (16) the word "it" is the required surface structure equivalent of the Determiner "the":

(16) it  $\phi$  \_\_\_\_\_ tastes foul  
the coffee they serve in the canteen

In the case of other types of non-anaphoric noun phrase the Determiner "the" has as its



surface structure equivalent in the anaphoric counterpart one of the words "he", "him", "she", "her", "they", "them", cf. (20):

(20) Alan, you were saying that you had an aunt in Durham. Have you spent any time there?

Well, we only go up on the Bank Holidays usually, so we only see her about three times a year.

Have you got a big family?

Well, there's five of us, and I've got a brother at University and we never see much of him.

Have you many relatives apart from your aunt, you know, do you see many relatives?

I don't see any of them, because they're all in London.

My grandma has got a flat in Israel. She sort of commutes for about six months of the year.

The nominalization and anaphoric noun phrase hypotheses that have been proposed allow us to explain the underlined words in (20) as follows:

we only see her  $\phi$  the aunt I have in Durham about three times a year

we never see much of him  $\phi$  the brother I've got at University

I don't see any of them  $\phi$  the relatives I have apart from my aunt

because they  $\phi$  the relatives I have apart from my aunt are all in London

she  $\phi$  the grandma I have who has got a flat in Israel sort of commutes

The fact that the word "the", which is the most frequent of all Determiners, cannot occur without a following noun, while the words "it", "he", "him", "she", "her", "they", "them", which are the most frequent of all so-called pronouns, cannot occur with a following noun, strongly supports the hypothesis that these words are surface syntactic variants of each other, required in non-anaphoric and anaphoric noun phrases respectively.

While there is no morphological link in English between the so-called third

person personal pronouns and the Determiner "the" (though there is such a link in some languages, e.g. Dutch "het", and French "le", "la"), there is a clear morphological connection between other pronouns and Determiners. The hypothesis that so-called "pronouns used independently" are Determiners in anaphoric noun phrases accounts for this connection, which is mostly one of complete identity, in the simplest possible way: cf. (21), which is a continuation of the dialogue (20)

(21) What's your grandma's name ?

It's Chervin.

Is this  $\emptyset$  Polish?  
           this name

No, it's Russian.

Assuming that it is correct to analyze pronouns other than the so-called third person personal pronouns as, like the latter, Determiners in anaphoric noun phrases, is it also correct to analyze such anaphoric noun phrases as nominalized sentences? I am inclined to think that the answer to this question is probably affirmative, though I shall make no attempt to justify this view with descriptive evidence. The research on this question, which I have not so far seriously explored, involves an enquiry into the origin and description of the semantics of deixis and quantification which is carried by Determiners in surface structure.

In brief illustration of the kind of problem that needs to be solved the following analysis of the dialogue (21), which also serves to summarize the hypotheses that have been developed in this paper, may be offered (the actual sentences in the dialogue are in bold type):

you	have	a	grandma		
the	grandma	which	you	have	has a name
your	grandma				has a name
what	is		the	name	which your grandma has
<b>WHAT</b>	<b>IS</b>		<b>YOUR</b>	<b>GRANDMA'S</b>	<b>NAME?</b>
the	name	which	my	grandma	has is Chervin
<b>IT</b>					<b>'S CHERVIN</b>
is		the	name	which	your grandma has which is Chervin Polish

This last sentence has a number of alternative (reduced) surface manifestations:

is	your grandma's name	Polish
is	the name Chervin	Polish
is	C hervin	Polish

However, because all the information in the noun phrase "the name which your grandma has which is Chervin" is retrievable from the preceding text, the noun phrase one would expect to occur in this sentence is the anaphoric counterpart. Our hypothesis predicts that this anaphoric noun phrase will be "it":

is	<u>the name which your grandma has which is Chervin</u>	Polish
	it $\phi$	

Yet the sentence "Is it Polish?", though not entirely impossible, is unlikely to occur at this point in the dialogue. Instead one finds

IS THIS POLISH?

and one might have found (and would perhaps have expected to be preferred)

is that Polish?

Why is the use of "this" or "that" much more likely in this sentence than the use of "it"?

One could, of course, offer an ad hoc explanation in answer to this question, but such explanations, based as they are on incidental occurrences, can hardly be taken very seriously.

The hypotheses that have been offered in this article, however,

- that indefinite abstract noun phrases are part of periphrastic group expressions,
- that definite noun phrases are sentences which have been nominalized in order for them to be combined with other sentences,
- that definite noun phrases can be accounted for by a single nominalization rule plus certain reduction rules,
- that the majority of so-called pronouns are Determiners in anaphoric noun phrases, and
- that most occurrences of the so-called third person personal pronouns are alternative surface manifestations of the Determiner "the", required in the anaphoric counterparts of nominalized sentences,

can be taken seriously. These hypotheses are consistent with each other, explain a great many occurrences of noun phrases and pronouns, and they do so in an economical and an intuitively attractive way.

They do present one awkward problem, though. Although I stand to be corrected

on this, I do not think there is any way in which these hypotheses can be accommodated within the framework of any available transformational-generative model, or, for that matter, within the framework of any other "theory of grammar" of reasonable wide currency in American/British linguistics.

#### FOOTNOTES

1. For a detailed presentation of these arguments see Liefink (1973).
2. One feels obliged to point out, for the record, that the identity of "the" and the personal pronouns has also been argued for in Postal (1969). However, many of the arguments and, in particular, the descriptive explanation offered there are quite disagreeable to the present writer, being as they are a consequence of Postal's flat and dubiously argued refusal to take account of the empirically verifiable discourse-cohesive function of the personal pronouns. (p.76, n.3).

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