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An Interpretative Theory of Ellipsis versus Deletion Rules

Ellipsis as defined by traditional grammarians is "an abbreviating device that reduces redundancy" (Quirk, 1972:537). According to this definition ellipsis is the result of dropping some words only if they are uniquely recoverable and if it is possible to add the recovered words to the sentence. This position is in agreement with the Standard Transformational Theory in which the Grammar generates "all and only the well-formed sentences", incomplete sentences being a product of the operation of some deletion rules.

There exists an alternative approach to this phenomenon, one in which incomplete sentences are not derived transformationally from full sentences, but come rather directly from phrase structure rules and are accounted for by the interpretative rules of semantics (Jackendoff, 1972; Shopen, 1972).

The difference between the two approaches involves the problem of the relationship between syntax and semantics. In many cases the interpretive rules of semantics have greater explanatory power than the transformational rules: they may explain a wider range of data and capture some generalizations (e.g. between pronominalization and reflexivization) which cannot be accounted for by the syntactic rules. Besides, "For many Grammatical Processes a semantic account adds less total machinery to the Grammar than does a syntactic account" (Jackendoff, 1972:9).

The purpose of this article is to show that ellipsis - if it is to be treated uniformly - provides further argument in favour of the interpretive theory. It will be shown that it is a semantic phenomenon rather than a syntactic one, and, therefore, the transformational account obscures its nature.

Firstly, the arguments, largely based on A Generative Theory of Ellipsis by Tim Shopen and supplemented by examples taken from Polish, will point to the inadequacy of deletion rules as a means of deriving certain types of ellipsis, those in which grammar alone cannot decide upon the possible ranges of interpretation assigned to them.

Secondly, it will be shown that deletion under identity rules cannot account successfully for the derivation of constructions involving "gapping" and "coordinate reduction". They would treat these constructions in a different way from other cases of incomplete sentences, and, besides, they would have to be heavily constrained, if the result of their operation were to be grammatical sentences, thus making the transformational component complicated to an uninteresting degree.

Finally, it will be of interest to see whether these constructions can also be subjected to the interpretive analysis, and if the phenomenon of ellipsis can be accounted for in a uniform and simpler way.

The interpretive treatment of ellipsis by Tim Shopen is based on the observation that there exist productive patterns that are appropriate and well-formed linguistic units in their own right without being sentences at the same time. In other words, they possess integrity (i.e. internal completeness) and grammatical coherence (i.e. semantic completeness), being assigned a particular meaning (Shopen, 1972:6), and as such are recognized and used by native speakers of the language. Moreover, they have distinctive semantic and syntactic properties, and are often correct only when they stand by themselves. Therefore, they deserve and independent status in the grammar, the deletion rules being too powerful to derive them. Hence, the goal of a generative grammar should be reformulated; it should generate "all and only the well-formed utterances" (Shopen, 1972:1) rather than sentences, since the meaning which is grammatically determined in any utterance corresponds to the forms that are manifested phonetically, and "aspects of meaning corresponding to silence are grammatically indeterminate" (Shopen, 1972:IV). Thus, we have rules like:

- U → PP PP
- U → NP PP, where U stands for "an utterance".

These rules are responsible for the derivation of sentence fragment patterns which constitute coherent pieces of communication and are part of all language, including English and Polish. Suffice it to enumerate the most important examples:

- I. There exist incomplete utterances which possess no full counterparts from the point of view of their meaning, occurring either by themselves or as subparts of larger utterances, e.g.:
 - 1a) That about Ralph, here for Christmas?
 - 1b) Well, a good movie!
 - 1c) Alez skąd!
 - 1d) Nic podobnego!
 (Shopen, 1972:19)

II. There are patterns which have different meaning from their full counterparts, e.g. the the+Epithet constructions in English, which show the emotional attitude of the speaker towards another person or thing, e.g.:

- (2a) The angel!

(Shopen, 1972:16)

Their completions, besides changing the meaning of the utterance, would involve a change in the syntactic features for NPs (the same NPs occur with indefinite instead of definite articles).

Cf.: 2c) My girl-friend is an angel!

Polish does not make use of articles, but there are similar changes as regards the meaning, and also, there may be sometimes syntactic changes involved:

- 2d) Bzdura!
- 2e) Ekspert! ≠ 2f) On jest ekspertem.

III. Ellipted items cannot be recovered in many cases as in:

- a) definite ellipsis, which has an ellipted argument, the referent for which the speaker assumes to be in common focus for the hearer as well as himself (Shopen, 1972:149), e.g.:
- 3a) Tommy refused. Cf.: 3b) Tomek odmówił.

The hearer and the speaker know exactly what Tommy refused to do. Therefore, Tommy refused ≠ Tommy refused to do something. When used deictically, sentence 3a) could be derived by the rule of definite pronoun deletion:

- 3c) Tommy refused to do it. → 3a) Tommy refused. (Shopen, 1972:163).

The problem is that there is no appropriate paraphrase with a pronominal explanation for every instance of constituent ellipsis (e.g. the verb "explain" allows no pronoun to stand for the argument "explanation" itself).

b) other subjectless constructions, e.g. those of the pattern PP with NP in English:

3d) Into the dungeon with him! 3e) Down with the dictator. which are more restricted syntactically than full sentences; they cannot be embedded:

3f) * We regret that into the dungeon with him.

There are numerous subjectless constructions in Polish, as:

3g) Nie ma skrzydlatych kond.

cf. 3h) Skrzydlate konie nie istnieją (Rysiak, 1978:23).

Though paraphrasable by sentences possessing subjects, they cannot be regarded as their derivatives, for there would have to be a transformation which changes the lexical entry for some words.

IV. There are countless situations where complete sentences would be redundant, or even absurd, as in:

4a) "Strawberry jam" - a notice.

4b) Ja bym cię...

In the latter example nothing follows as the utterance is intended to indicate the vagueness, the existence of many possibilities, none of which is clearly present in the mind of the speaker.

In all these utterances the meaning of the missing elements is grammatically indeterminate. Their proposition structure (i.e. their syntactic-semantic correspondences) is accounted for by interpretive rules, which predicate the meaning of various constituents onto others within the same utterance.

In this approach the word becomes the prime in syntax. Most functional meaning is determined within lexical entries for Referees (phonetically realized items that govern the proposition structure and through syntactic construction predicate meaning onto other constituents within the same utterance, the Players), (Shopen, 1972:58). For instance, the referee of sentence 5):

5) The Pink Panther stole the crown jewels from the Queen.

is the verb "stole". Its lexical entry contains not only the information concerning the category to which it belongs, but also its semantic features and meaning. It looks like the following:

steal, + V, (NP PP), (- THEME SOURCE)

(a) (b) (c)

(Shopen, 1972:59)

(a) - the category to which the word "steal" belongs

(b) - its syntactic cooccurrence features

(c) - its semantic cooccurrence features (THEME of possessional motion and SOURCE of possessional motion - terms borrowed from Gruber, 1965).

(b)+(c) constitutes the proposition structure for the verb phrase for which "steal" is the head. The semantic function THEME is imposed on the object NP, "the crown jewels", and SOURCE is imposed on the PP, "from the Queen". The semantic functions imposed on players must match with the internal semantic properties for these constituents; e.g.: the semantic function SOURCE must match with the PP; it may be associated with the prepositions: "from", "out of", "of", but not with: "to", "over", "through". In cases where a referee is not present the assignment of functional meaning is determined either by the syntax of the utterance or by a "free" interpretive rule which attaches functional meaning to the player with the aid of extra-linguistic perception of the context, e.g.:

6) The Pink Panther!

This utterance may express a warning, request, addressee, or name (Shopen, 1972:64), depending on the situation, which suggests that ellipsis is a semantic phenomenon. The meaning of utterances involving ellipsis is less specific than it is in complete sentences, but nevertheless, the utterances constitute coherent pieces of communication under appropriate circumstances.

There exists, however, a pattern productive both in English and Polish, and presumably in many other languages, that seems to involve deletion under identity rules in its derivation and so constitutes a purely syntactic type of ellipsis. Even then it turns out that some semantic constraints must be imposed upon these rules if the structures derived by them are to be grammatical. Again, examples are taken from both languages:

7) John wants to see the house and Bill the car.

8) Mary ate bananas and Will the grapes.

9) Zjadłaś czekoladkę, a ja cukierka.

The pattern is the result of collapsing gapping (a rule which deletes an indefinite number of repeated occurrences of verbs in coordinate sentences) with conjunction reduction (the process by which sentences that contain "and" - conjoined elements and can be paraphrased as two or more independent sentences

- presumably derive from full coordinate sentences or from partially reduced sentences (, (Crockett, 1972:52). Moreover, the pattern seems wholly to satisfy Quirk's definition of ellipsis:
- 1) the repeated word, in this case the verb, is ellipsed;
 - 2) the ellipsed element is recoverable;
 - 3) the process of deletion is optional.

The main argument against deletion rules, namely the fact that ellipsical utterances are indeterminate as regards their meaning, and that the grammar alone cannot decide upon their interpretation, seems to be refuted. It should be noted, however, that gapping, simple as it may seem at first sight, is applicable only under certain conditions. It is these conditions that complicate the transformational component and cause trouble if they are to be treated uniformly in all languages.

One of the attempts to arrive at the universal conditions for the applicability or nonapplicability of Gapping was Ross's Gapping Analysis (Rosenbaum, 1967) which imposes two constraints upon the rule. One is the Directionality Constraint, which states that "the order in which gapping operates depends on the order of elements at the time that the rule applies; if the identical elements are on left branches, gapping applies forward; if they are on the right branches, it operates backward." (Ross, 1967:5). The constraint keeps the deletion operation from deriving ill-formed sentences, like:

- 10) * John the house and Bill wants to see the car.
 or 11) * John cooked dinner and Mary.
 from their full counterparts:

- 10a) John wants to see the house//and/Bill/wants-to-see the car//.
 11a) John/cooked-dinner//and/Mary/cooked dinner//; respectively.

This constraint, however effective in most cases of gapping, is often violated in Polish which, being an inflectional language, allows greater freedom in the order of constituents:

- 11a) Ugotowałam i zjadłam obiad.
 or 11b) Ugotowałam obiad i zjadłam.

The Directionality Constraint does not even hold true for some cases of gapping in Polish:

- 12) Ty czekoladkę, a ja zjadłam cuklerka.

On the other hand, if we got rid of this constraint together, the deletion rules would become too powerful and would generate ill-formed utterances:

- 13) Mój brat i moja siostra — 13a) * brat i moja siostra.
 The problem connected with this constraint cannot be avoided in English, either:
- 14) the first type and the second
 - 15) my room and my sister's

We may derive 14) from the utterance containing the pronoun "one", which can be deleted by an optional "One" Deletion Rule (Crockett, 1972:59). But what about the second utterance?

15a) * My room and my sister's one.
 The expression is ill-formed, so the "One" Deletion Rule would have to be obligatory in this case.

Another constraint imposed upon the identity deletion rule by Ross's analysis, the Higher Order Constraint, is not always obeyed, either. It states that "identical elements which are higher in the phrase marker must be deleted before lower order elements" (Eelman, 1970:211). The constraint prevents the deletion operations from deriving such ill-formed strings as:

16a) * Jack ate bananas and Mary bananas.
 or 17a) * Marek gotował i Ewa gotowała ryż.
 from sentences 16) and 17), respectively:

- 16) Jack ate bananas and Mary ate bananas.
 17) Marek gotował ryż i Ewa gotowała ryż.

The whole VP which dominates the verb and its object must be deleted. Though this constraint holds for both English and Polish, it creates many problems with some particular constructions as with: passive, flip, and extraposition structures.

Identity deletion, being a post-cyclic rule, applies after all movement transformations, so also after the passive transformation. If we have a passive sentence with identical subjects and different agents, as in:

- 18) Bananas were eaten by John and bananas were eaten by Mary.
 the only correct result of the deletion rule could be:
- 18a) Bananas were eaten by John and Mary.
 even though "bananas" and "were eaten" are not dominated by the same node and do not form a constituent.

It has become obvious to many linguists that syntactic criteria are not enough to account for identity deletion phenomena. Non-syntactic conditions of various kind rest heavily upon incomplete structures. To enumerate just a few of them:

1) Gapping can apply only in parallel coordinate structures
2) It can leave two and only two constituents behind

3) Gapping cannot delete Grammatical Formatives (i.e. prepositions, conjunctions, complementizers, etc.), (Kuno, 1976:317)

These are only some of many uninteresting conditions put on deletion operations that are not based on syntax. Still, they seem necessary since if we dealt with syntactic constraints only, we would have to add a new constraint each time there is a counterexample.

The importance of semantic and pragmatic factors (including one's knowledge of what is being spoken about) on the grammatically judgement of sentences that involve gapping may be still further proved by Greenbaum's example (Kuno, 1976:318):

19) Jackendoff teaches linguistic courses in the morning, and Mc Crawley in the afternoon.

Sentence 19) allows reading "Jackendoff teaches Mc Crawley". Still, the lack of semantic parallelism between "linguistic courses" and "Mc Crawley", as well as our knowledge of Jackendoff and Mc Crawley, make this interpretation highly improbable.

As we have seen, even on gapping there must be imposed some nonsyntactic conditions, which may constitute a proof in itself that it is not a purely syntactic process, although the meaning of the missing elements is grammatically determined here. There is a great need for some other approach to the phenomenon of deletion operations.

As the grammar is, after all, equipped with the means to generate certain incomplete sentences without deletion rules, it is interesting to check whether it may also generate utterances involving gapping and conjunction reduction in the same way. It would simplify the grammar, and increase its explanatory power, as all kinds of ellipsis would be accounted for by the same rules. Furthermore, problems connected with constraints imposed upon deletion rules might be avoided. Let us analyse a few sentences:

20) Peter and John play football.

21) Will and Ann are a happy couple.

22) Harry ate bananas and Will the grapes.

23) Zjadłś czekoladkę, a ja cukierka.

The referee of sentence 20) is the verb "play", which is associated with syntactic cooccurrence features: (NP-NP), and

semantic features: (AGENT-THEME). The propositional meaning for the sentence is, therefore, V+A+O ("O" stands here for THEME). No argument for the verb "play" is missing, "A" being realized by "Peter and John" and "O" by "football". The propositional structure and propositional meaning are the same, so that sentence 20) is a propositionally complete utterance. The same applies to sentence 21), where no deletion operation is involved, hence it cannot lead to the odd, and, in fact, impossible paraphrase:

21a) Will is a happy couple and Ann is a happy couple.

The problem arises when sentences involving gapping, i.e. sentences 22) and 23), are taken into consideration. Shopen claims that "the portion of utterance meaning which is elliptical is indeterminate" (Shopen, 1972:116), and in these two sentences, as stated above, the missing elements are grammatically determined by the linguistic context. Jackendoff's VP-anaphora (the interpretive equivalent of VP-deletion) may turn out to be a good way of dealing with this problem. The missing VP is represented syntactically as an empty VP node, or a VP node dominating no lexical items. Unless it receives semantic interpretation by some rule, the sentence containing it will be semantically ill-formed, because it contains uninterpreted nodes (Jackendoff, 1972:265).

The rule would however, distinguish gapping from other cases of ellipsis, and yet, it is possible to look at sentence 23) from a different point of view. In a particular situation and when uttered with a special intonation, it may be claimed to be indeterminate, at least in respect to its tense. It might be interpreted in the following ways:

23a) Zjadłś czekoladkę, a ja zjadłam(em) cukierka.

23b) Zjadłś czekoladkę, a ja zjem (choć, wczm) cukierka.

It is even possible to conceive of a situation where the sentence fragment: "a ja cukierka" is used deictically, i.e. without any linguistic context preceding it. Let us imagine a party where someone took a chocolate. Another person could see it and reaching his hand for a sweet say: "a ja cukierka", which is then a coherent piece of communication, but the grammar alone cannot decide upon its meaning. There are different possible extensions of the utterance, the only requirement for the en-

catalysed verb being its syntactic and semantic agreement with the items that are phonetically realized. The speaker may have no verb in mind while uttering these words, so why should a linguist posit it in the underlying structure?

The same may be argued for the sentence fragment: "Will the Grapes", of sentence 22). It may be uttered by itself, with specific pauses, tone, or intonation, depending on the co-situation. So here, once again, non-syntactic and, in fact, non-linguistic factors must be taken into account, e.g.:

- a) Will, the grapes? (= Will, will you have the grapes?)
- b) Will, the grapes! or
- c) Will? the grapes!

If such utterances are derived directly by phrase structure rules they can also be derived in the same way when they constitute a part of a larger utterance.

In conclusion, I would like to stress the point that whether with or without empty nodes in the deep structure of elliptical sentences (and in the latter case there still remains the problem of stating and formalizing the appropriate interpretive rules), the interpretive approach seems to handle many if not all the cases that other approaches deal with, and, moreover, creates fewer problems than theories involving deletion rules. The latter were shown to be too powerful in many cases, either unable to derive certain constructions, like PP with NP1 construction, or to capture changes in meaning between "full" and "incomplete" sentences, as with the epithet construction. Even in structures in which deletion rules seem to operate under identity they must be constrained by a large set of syntactic and semantic constraints which make the transformational component very complicated, but which at least point to the importance of semantic and pragmatic factors in the analysis of these structures.

Though the semantic approach to this phenomenon, as presented above, is far from providing us with satisfactory answers to all the questions concerning ellipsis it seems to be the best solution at the moment as it accounts for the phenomenon in the most consistent and natural way.

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Summary

Niniejszy artykuł ma na celu ukazanie wyższości teorii interpretacyjnej nad teorią standardową w traktowaniu elipsy. Przedstawione są w nim argumenty za tym, że zdania eliptyczne, wprowadzane tradycyjnie ze zdani "pełnych" przy pomocy syntaktycznych reguł opuszczania, znajdując na samodzielne miejsce w Gramatyce zarówno języka angielskiego, jak i polskiego. Dotyczy to nie tylko takich wypowiedzi, które albo wcale nie mają pełnego syntaktycznego ekwiwalentu, albo też ich znaczenie się zmienia pod wpływem interpolacji (reguły opuszczania nie są w stanie ich wygenerować), ale również i tych, w których

kataliza omińniętego wyrazu bądź frazy jest lingwistycznie zde-terminowana (reguły opuszczenia muszą być nie tylko syntaktyczne, ale również semantycznie ograniczone, aby je wyderzywać). Analiza interpretacyjna konstrukcji eliptycznych, chociaż nie rozważa je wszystkich problemów związanych z elipsą, traktuje zjawisko elipsy w sposób prosty i jednorodny: wszystkie zdania i wypowiedzi są generowane przez bazę składnika syntaktycznego gramatyki, a ich znaczenie jest określone przez reguły interpretacyjne składnika semantycznego.

Jerzy Warakowski

Pragmatic Interpretation of Verbal Jokes -
a Study in the Humour of Some Speech Acts

We do not normally realise that a great part of our everyday communication is performed nondirectly¹. Apart from the strictly linguistic significance that this fact may have, it is also interesting because nondirect utterances can often be a source of humour. It is our intention in this article to examine several examples of such laughter-provoking language use and try to indicate the reasons for their being funny.

The method employed for this purpose is the pragmatic theory of speech acts. As it is still comparatively recent, we shall first introduce it to the extent required by the present paper and only then get to the actual analysis.

According to Searle /1969: 16/, "speaking a language is performing speech acts, acts such as making statements, giving commands, asking questions, making promises, and so on; and more abstractly, acts such as referring or predicating." In fact, the production of any symbol, word or sentence in appropriate circumstances can be a speech act. Provided that it is produced by a human being and with certain intentions, Searle /1969/ regards speech act as the basic or minimal unit of linguistic communication.

It is in Austin /1962/ that we first come across the following tripartite division of speech acts: locutionary acts are the acts OF saying something, illocutionary acts are performed IN saying something, and perlocutionary acts are achieved BY saying something. The utterances which result from the performance of the three acts are respectively called locution, illocution and perlocution.

Scaock /1974/ says that locutionary acts are performed with the purpose of communicating something. Illocutionary acts are achieved if our intention to achieve them is commu-