SOME SURFACE AND DEEP ASPECTS OF CASE IN POLISH AND ENGLISH

STEFAN KONDERSKI

University of Warsaw

At the December 1970 Conference at Karpacz, some basic aims and methods of the Polish-English Contrastive Studies Project were formulated. In the opinion of most participants, a specific contrastive study should be unidirectional and possibly lead to some bidirectional generalizations which could bear on and supplement or modify the current linguistic theories. It was postulated that contrastive analyses should be correlated with problems of translation equivalence and their results should be utilizable for elaborating effective teaching materials, methods and procedures. With those objectives in view, it was further suggested that contrastive studies should deal primarily with surface structures of the languages under investigation but deeper correspondences should be looked for as well.

The present paper is an attempt at presenting a fraction of the vast area of similarities and differences that hold between Polish and English, as well as formulating certain theoretical generalizations about the nature of the sementic structures. Being a part of a larger whole (Konderski, in preparation), however, it cannot fully and adequately account for even that fraction. Consequently, some statements and suggestions may seem unjustified or prematurely formulated with as little evidence as can be presented here. It is hoped that the fuller treatment of the problems sketched in this paper will be provided with greater explanatory power and, for the time being, some of those problems may be clarified in the discussion.

The larger work, of which this paper, is a compilation of some non--sequential fragments, originated some time ago with the author's considerations of the perspectives for a machine translation project in Poland. The Polish-to-English direction of the analysis stems, among other factors, from the conviction that the needs for machine translation of Polish texts into English far exceed the demands for the opposite direction procedure. It is realized, however, that this particular direction (i.e. Polish to English) presents more difficult problems than the opposite one since, as it has been widely recognized and experienced, the formal analysis of

synthetic forms in which the Polish language abounds is much more complicated than the synthesis of such forms from an analytically-oriented input, such as English.

Since the publication of Weaver's Memorandum in 1946, machine translation has been undergoing its ups and downs everywhere the MT projects were started. Poland has been witnessing this fluctuation from a position of an observer rather than active participant although some attempts have been made in this century, indeed, both on the linguistic [1] and technological sides of the problem, with particulary the latter being effectively hindered, however, by the lack of suitable computers combining adequate storage capacity and access with high operational speed. As my inquiries have revealed, new technological possibilities have been recently made available and, what is at least equally important, the interests of linguists in the problem have not faded, as was demonstrated at the Seminar on the Application of Computers for Natural Language Analysis, held in Warsaw two weeks before the present conference.

The main work mentioned above deals, generally speaking, with the identification of English equivalents of Polish case forms, aims at forming certain generalizations about the nature of those equivalent structure and meaning signals in both languages as well as about the nature of the deep relations manifested by those signals and, in addition, offers some terminological proposals.

Of necessity, the scope of the analysis has been narrowed down to the so-called oblique cases, further, to those oblique cases which occur in adverbial positions, i.e. those whose forms are substantially determined by the (potential) presence of number and case variables and the absence of gender variables. The sample presented here will be confined to the dative case in Polish and its English equivalents. With the previously mentioned restrictions in mind, the following instances of the dative case in Polish will n o t be considered [2]:

A. The form of the dative case is determined by a preposition which in tis turm may be 'tied' to the verb:

(1) a. Stało się to dzięki zbiegowi okoliczności.
    b. Postąpił wbrew zdrowemu rozsądkowi.
    c. Poszli powoli ku domowi.

---

[1] These can be found e.g. in some works of Irena Bellert, Jan Tokarski, and Olgierd Wojtasiewicz.

[2] English equivalents are therefore not given. In each sentence of group A, B, and C, each first italicized word is a case determining word, and each second italicized word — a determined word in the dative case. Idiomes, e.g. Janowi idzie piąty krzyżyk 'John is in his forties' have not been considered.

    d. Świadek świadczył przeciwko oskarżonemu.
    e. Powiedz im o tym gwoli prawdzie.
    f. Wszystkie gazety są po złotemu.

As it happens, the dative case in Polish may by governed by a relatively small number of prepositions exemplified in 1a-f, the preposition po being very rare and limited to a few constructions like po jednemu, po dawnemu.

B. The form of the dative case is determined by an adjective, adjectival participle, gerund, or infinitive:

(2) a. Człowiek jest niezbędny nauce.
    b. Nadszedł okres sprzyjający zmianom.
    c. Pomaganie matce jest obowiązkiem każdego.
    d. Wierzyć przypadkowi to zginąć.
C. The form of the dative case is determined by a noun:
(3) a. Służba ojczyźnie jest godna pochwały.
    b. Ona nie wygląda na matkę dzieciom.

D. The formative in the dative case is not a noun, i.e. it belongs to a class different from that which is characterized by the (potential) presence of number and case variables and the absence of gender variables:

(4) a. Zrobiłem mu krzywdę.
    b. Usiadł sobie.
    c. Podaj to choremu.
    d. Trzeba wybaczyć błądzącym.
    e. Jeden drugiemu wilkiem.
    f. Wszystkiemu winna zła pogoda.

For the purpose of our analysis, then, we are left with the following clauses or clause types containing a noun in the dative case (italicized in the Polish clauses):

(5) *Janowi* było wygodnie. / John was comfortable.
(6) *Janowi* się nudziło. / John was bored.
(7) Bob uciekł *Janowi*. / Bob ran way from John.
(8) Bob przyglądał się *Janowi*. / Bob watched John.
(9) Bob poskarżył się *Janowi*. / Bob complained to John.
(10) Bob zrobił *Janowi* stół. / Bob made a table for John.
(11) Bob ściął *Janowi* kwiat. / Bob cut a flower for John.
(12) Bob znalazł *Janowi* konia. / Bob found a horse for John.
(13) Bob kupił *Janowi* koszulę. / Bob bought John a shirt.
(14) Bob dał *Janowi* prezent. / Bob gave John a gift.
(15) Bob powiedział *Janowi* prawdę. / Bob told John the truth.

(16) Bob wyjaśnił *Janowi* problem. / Bob explained the problem to John.

(17) Bob zapłacił *Janowi* pięć dolarów. / Bob paid John five dollars.

(18) Bob pogratulował *Janowi* sukcesu. / Bob congratulated John on his success.

(19) Bob zazdrościł *Janowi* żony. / Bob envied John his wife.

(20) Bob otworzył *Janowi* drzwi. / Bob opened the door for John.

(21) Bob ukradł *Janowi* pieniądze. / Bob stole some money from John.

(22) Bob wybaczył *Janowi* winę. / Bob forgave John his guilt.

(23) Bob poświecił *Janowi* latarką. / Bob lit (something) for John with a torch.

(24) Bob oświetlił *Janowi* drogę latarką. / Bob lit the road for John with a torch.

(25) Bob zapłacił *Janowi* pięć dolarów za tę książkę. / Bob paid John five dollars for this book.

(26) Bob dał *Janowi* prezent dla Toma. / Bob gave John a gift for Tom.

For the sake of convenience and uniformity of persentation, all the Polish clauses have been brought down to the form of active statements with verbs in the third person singular form of the Past Tense (Perfective or Imperfective). For the same reason, the English equivalents have been rendered in the Past Tense. In each case, out of possible equivalents [3] the one produced by native speakers most automatically and naturally has been selected.

----

[3] In fact, I assume, and this point will be developed in the dissertation, that in most cases in the target language there can be only one, if any, full equivalent of any source language clause, and this equivalent is the clause 'automatically' produced by a native speaker of the target language, provided he has been adequately acquainted with the linguistic and extralinguistic contexts in which the source clause in question was or could be used. Consequently, the opinion that since word order in Polish is free while in English it is fixed, every English clause may have many equivalents in Polish, is considered to run counter to the linguistic intuition of the native speakers of both languages, as well as to some observable facts in the process of communication. For our purpose, however, the features signalling the distribution of information among clause constituents and corresponding to the speaker's intention or intuition will be ignored and thus will not effect the notion of equivalence.

It is to be noted that the role of a native speaker here is that of a producer of an automatic linguistic response to a linguistic or non-linguistic situation rather than that of an expert deciding on the acceptability or unacceptability of a given string as a sentence of his native language. On the fallacy of the latter opinion and the criticism of the related aspects of the description of natural languages in terms of generative grammar, see (Bellert 1972 : 14 - 15). Note also hesitation in accepting or rejecting certain strings of words as English clauses e.g. in (Halliday 1967 : 54 - 55) or (Corder 1968 : 23).

Before and during the discussion of the above clauses, certain terminological problems will be taken up.

The term 'case' has been usually applied in the grammatical tradition to morphological or synthetic devices for expressing relations among syntactic units. Thus, we may say that the ending — om is the ending of the dative case of Polish nouns in plural. Along with this meaning, however, the term 'case' has been also used to define such analytical means of expressing relations as pre- or postpositional constructions or even sequential ordering of syntactic units. In addition, the term 'prepositional case' has been offered to replace the 'traditional phrase' [4]. The ambiguity of the term forces one to specify whether what is meant is a morphological (grammatical, synthetical, etc.) device or a syntactical (analytical) one. The recent revival of interest in the related problems, manifested e.g. in the works of Fillmore, Robinson, and J. Anderson, suggests terminological separation and disambiguation of the term.

It is proposed that the term case be confined to the inflectional markers and the general term relator be used for such relation signals as case, pre- or postpositions, and sequential ordering [5].

Thus, for instance, in P14 and E14, as well as in their respective variants *Bob dał prezent Janowi* and *Bob gave a gift to John*, the semantic function of Janowi (and of its English equivalents) is rendered on the surface by the dative case relator in Polish and by the prepositional relator or sequential relator in English [6]. The presence of identical or equivalent relations in the semantic structures underlying the corresponding Polish and English clauses accounts for the equivalence of those clauses whereas the difference in the nature of the relators accounts for their non-congruence [7].

On the basis of the fact that each of the above twenty-two pairs of clauses has been accepted by two native speakers as a pair of equivalent

----

[4] Cf. the treatment of the category of case by L. Hjelmslev, A. W. de Groot, R. Jakobson, J. Kuryłowicz, and H. C. Srensen.

[5] Including the contrastive vs. non-contrastive distribution of stress, as in the pair: English 'teacher vs. 'English teacher.

[6] The relation remains virtually the same in all these clauses although a 'true' equivalent (i.e. a clause preserving also the distribution of informative load of the source clause) of e.g. P14 could be only E14, where P14 stands for 'Polish clause 14' and E14 for 'English equivalent clause 14'. See also footnote 3.

M. A. K. Halliday in (1967 : 53 - 54) calls to John an adjunct and John a benefactive complement and claims that the former does not enter the transitivity network whereas the latter does. Yet, Halliday's arguments supporting this distinction are not convincing.

[7] For a detailed discussion of the notions of equivalence and congruence, see (Marton 1968).

clauses, it is assumed that these equivalents describe or refer to, what has been often called a common extralinguistic situation or context.

It is believed that every speech act originates with the mental reflection of such a situation or context in the mind of the speaker and that this reflection provides a stimulus for the formation of semantic structures which, if such need arises, may be converted into systematic arrays of sounds by means of diversified processes [8]. In other words, following Chafe (1970, 1971), it is believed that the language production process is unidirectional and proceeds from configurations of concepts to various configurations of sounds.

Unlike Chafe, however, I assume: (1) that those initial conceptual configurations are virtually configurations of nominal concepts [9], (2) that the configurations of nominal concepts differ in (a) number of concepts and (b) types of relations that hold among those concepts, (3) that there is a limit to the number of concepts within a maximum range simple configuration, (4) that the relations which hold between the nominal concepts are in fact verbal concepts of states and processes reflected in surface structure verbs [10], and (5) that those relations are marked on the surface by various relators such as case, sequential ordering, pre- or postposition, or stress.

It is argued, then, that verbal concepts do not originate in the mind of a human being except in connection with nominal concept or concepts which may 'mentally' exist on their own, and that the pivotal nature of verbs in sentences is a syntactic, not semantic phenomenon.

In connection with the above standpoint, it is suggested that nominal and verbal concepts should be clearly distinguished from syntactic categorial terms ,nouns' and 'verbs' and tentatively, the terms nomit and verbit are proposed for a nominal concept and a verbal concept, respectively. Finally, for a simple configuration of concepts the term semit is suggested, it would roughly correspond to the term 'clause' on the syntactic level although, as can be easily imagined and as has been shown in some so-called hypersyntactic analyses (e.g. Wooley 1966), the boundaries of clauses and semits in a language do not always meet. As far as the translation process is concerned, it seems to consist in producing such strings of clauses in the target language that would cover the same semits as are expressed by the given clause strings in the source language.

On the basis of the clauses 5 - 26, as well as on the basis of other data (i.e. Polish clauses with non-dative cases and their English equivalents), I would to argue further that the number of nomits within a simple semit may vary between 1 and 3.

Semits with one nomit underlie clauses 5 - 7, semits containing two nomits, clauses 8 - 13 and 18 - 22, and semits with three nomits, clauses 14 - 17 and 23 - 26. It can be seen that the number of nomits does not always agree with the number of nouns in these clauses, as 5 and 6 contain one noun, 7 - 9 two nouns, 10 - 23 three nouns, and 24 - 26 four nouns each. It is suggested that any fourth, fifth, etc. noun in a clause does not directly enter the network of relations within a simple semit and that its occurrence in the surface structure may result from:

(a) coordination of two or more nomits in one function, i.e. each nomit may be theoretically infinitely coordinated with other nomits. In practice, however, the requirements for communicativeness of a message set a limit to the number of such coordinated elements and clauses like *John and Mary and Bill gave the books and the pens to Richard and Thomas and Anthony* are rather avoided.

(b) The occurrence of semit modifiers or semods, i.e. constructions referring semantically to semits as wholes rather than entering the network of relations within them. Examples of such semods are e.g. traditional adverbials of time, place, manner, etc. It is argued that Janowi in P7, P10, P13, P20, P21, P23, and P24 represents such an externally operating semod which can be paraphrased as 'in order to help/hurt John or from John'. With no exception, all these Polish clauses may have as their possible English equivalents clauses with the prepositional for relator and, likewise, *Janowi* in each of these Polish clauses can be replaced by *dla Jana*, i.e. by the preposition dla + the noun in the genitive case, which construction is becoming even more frequent than the dative [11]. Similarly, *sukcesu* in P18, *żony* in P19, and *winę* in P22 are externally operating semods, paraphrasable as *on account of his*... or *because of his*... What was traditionally termed 'the dative of benefit' does not only very often depart from what we mean by 'benefit', as in 21, but also functions semantically in a way different from what it has been commonly assumed to be.

(c) Various types of semit configurations, generating e.g. complex sentences or genitival constructions.

The three basic semit types are [12]:

---

1. $\dfrac{Nt}{Vt}$ (underlying e.g. 6)

2. $Nt \underline{\qquad\qquad} Vt \underline{\qquad\qquad} Nt$ (underlying e.g. 8)

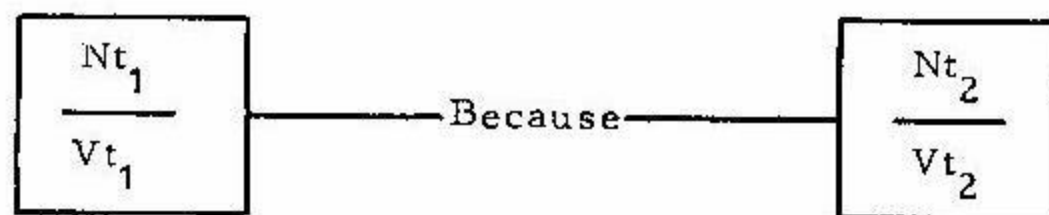3. $\dfrac{Nt \underline{\qquad\qquad} Nt \underline{\qquad\qquad} Nt}{Vt}$ (underlying e.g. 17)

each of which may undergo various operations, e.g.:

(a) each element of a semit may function as a pivot to which another semit can be attached. Such complexes generate e.g. surface genitival constructions. The complex underlying the clause John's car is new can be diagrammed as:
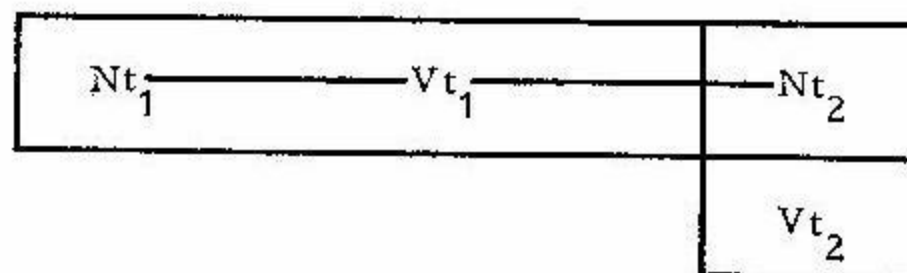
where the horizontal semit underlies John has a car and the vertical semit underlies The car is new.

(b) Semits can be linked to other semits by means of semit relators signalling intersemit relations such as reason, simultaneity, comparison, etc. The complex underlying the sentence John left because he was bored can be diagrammed as:
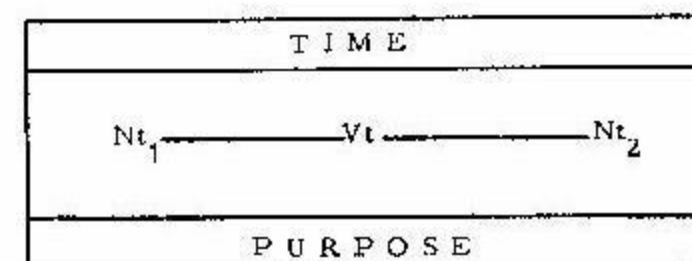

where each semit underlies one constituent clause of that sentence and 'because' is a semit relator signalling the relation of reason.

(c) Semits can be nominalized in the process of generating syntactic structures, i.e. they can appear in the surface structure as so-called abstract nouns.

(d) As was suggested before, semits may be externally modified by semods of time, location, purpose, direction, manner, etc. [13] The underlying complex for 11 can be diagrammed as:

The details of the above-mentioned as well of other operations on semits will be discussed at length by Konderski (in preparation).

Nomits may be conceived of as matrices of universal as well as of language or culture-specific semantic features such as: animate, human, male, adult, generic, round, unique, etc. The nature of such features in particular nomit matrices entering particular semits provides the selectional restriction in the selection of potentially applicable verbits out of the verbit set or verbicon. With the selection of verbits the language-general stage of the process ends and language-specific syntactic processes begin to operate, transforming the semantic structures of semits into various syntactic structures of clauses by means of various language-specific relators [14].

The following table summarizes the analysis of clauses 5 - 26, based on the outlined theoretical framework.

English relators are given for all equivalents. Syntactic functions refer to the English equivalent clauses E5 - 26. The terms referring to semantic functions are mine whereas the terms describing syntactic functions are taken from (Reszkiewicz 1963); the symbols (following Reszkiewicz) mean as follows: S — Subject, O — Direct Object, Q — Indirect Object, C — Adverbial Complement, pO — prepositional Object, Po — prepositional Quasi-Object; + means positive occurrence, blank space — non-occurrence. Syntactic functions of the Polish noun in the dative case are not marked in the table; they are: S in 5 and 6 and Q in the other clauses. Seq.$_1$ means the occurrence of the item between V

---

without at least one nomit. For the evidence that the troublesome Polish clauses: pada 'it rains' or grzmi 'it thunders' a r e derived from nomit-containing semits of type 1, see (Konderski, in preparation). It must be admitted, however, that clauses describing certain natural phenomena do escape the unified treatment just as do certain structures containing nouns of so-called inalienable possession. For the latter, see e.g. (Fillmore 1968), for the former, see (Chafe 1970). Chafe (1970) describes clauses of it rains type as expressing all-encompassing events, without reference to any particular thing within the environment, and he assigns the feature 'ambient' to verbs occurring in such clauses. As regards inalienable possession, compare the English equivalents of Pl.1 and *Bob ściął Janowi włosy: Bob cut a flower for John* but not *Bob cut his hair for John* (in the same sense; instead we have *Bob cut John's hair*.

---

[13] Of which the time semod is always obligatorily present (others being optional). It accounts for the fact that we cannot generate 'tenseless' clauses. (Commands are not 'tenseless' they are non-past and refer to the time following the moment of speaking).

[14] Of course, this description is simplified and omits certain important post-semantic and syntactic processes.

and O, Seq.2 — its occurrence as S with co-occurrent passivization of the verb.

The following observations can be made on the basis of the presented data:

The most frequently occurring English relator, equivalent to the Polish dative case, is the sequential relator marked by the position of a given nominal between the verb and another nominal functioning as O (Sequence1).

For the semantic function of Purpose or Purpose/Beneficiary, the English relators are Seq.1 and preposition for whereas Seq.2, i.e. subject

Clause No	Place of *Janowi* and its English eqs. in semantic structures		Semantic function	Syntactic function	English relators equivalent to Polish dative case				
	Nomit	Semod			Seq.1	Seq.2	to	for	other
5	+		State locus	S		+			
6	+		State locus	S		+			
7		+	Direction	C					from
8	+		Patient	O	+	+			
9	+		Patient	pθ			+		
10		+	Purpose/Ben.	pθ	+			+	
11		+	Purpose/Ben.	pθ	+			+	
12		+	Purpose/Ben.	pθ	+			+	
13		+	Purpose/Ben.	Q	+			+	
14	+		Beneficiary	Q	+	+	+		
15	+		Patient	Q	+	+			
16	+		Patient/Ben.	pO			+		
17	+		Beneficiary	Q	+	+	+		
18	+		Patient	O		+			
19	+		Patient	Q	+				
20		+	Purpose/Ben.	pθ				+	from
21		+	Source	pθ	+	+			
22	+		Patient	Q	+	+			
23		+	Purpose/Ben.	pθ	+			+	
24		+	Purpose/Ben.	pθ	+			+	
25	+		Beneficiary	Q	+	+	+		
26	+		Intermediate	Q	+	+	+		

position before the verb, combined with the passivization of the verb, is not realized.

If an equivalent preposition relator is possible, it is never realizable by more than one preposition.

In the case of relations (as opposed to states), there is almost always a possibility of selecting two or three relators. The decision about the

choice of one or another seems to depend on the distribution of information in the source clause, on the nature of the nominal in question (e.g. on whether it is realized as a noun or as a pronoun), and on the rhythm and melody of the clause. More precise statement about these restrictions and preferences could be attempted after an analysis of a substantially larger corpus, possibly with help of a computer. Such analyses may be very valuable for working out effective algorithms for machine translation projects and their results could be incorporated into foreign language teaching methods and materials.

Insight into the semantic component of linguistic processes seems to offer an extremely interesting and promising path towards discovering new facts about the main medium of human communication: language.

REFERENCES

Anderson, John M. 1971. *The grammar of case. Towards a localistic theory.* Cambridge University Press.

Bellert, Irena. 1972. *On the logico-semantic structure of utterances.* (Prace Językoznawcze PAN, 66) Wrocław-Warszawa-Kraków-Gdańsk: Zakład Narodowy imienia Ossolińskich.

Buttler, Danuta. 1967 "Semantyka a składnia w związkach wyrazowych". *Poradnik Językowy* 67, 11 - 23.

Chafe, Wallace L. 1970. *Meaning and the structure of language.* The University of Chicago Press.

Chafe, Wallace L. 1971. "Directionality and paraphrase". *Lg.* 47. 1 - 25.

Corder, S. P. 1968 "Double-object verbs in English". *Studia Anglica Posnaniensia* 1. 15 - 28.

Fillmore, Charles J. 1965. *Indirect object construction in English and the ordering of transformations.* The Hague: Mouton.

Fillmore, Charles J. 1968. "The case for case". *Universals in linguistic theory,* ed. by Emmon Bach and Robert T. Harms, 1 - 88. New York: Holt, Rinehart and Winston.

Halliday, M.A.K. 1967. "Notes on transitivity and theme". *Journal of linguistics* 3.37-81.

Heinz, Adam. 1965. *System przypadkowy języka polskiego.* (Prace językoznawcze Uniwersytetu Jagiellońskiego 13) Kraków: Wydawnictwa Uniwersytetu Jagiellońskiego.

Hutchins, W. J. 1971. *The generation of syntactic structures from a semantic base.* Amsterdam: North-Holland Publishing Co.

Kay, Martin. 1970. "From semantics to syntax". *Papers in linguistics,* ed. by Manfred Bierwisch and Karl E. Heidolph, 114 - 126. The Hague: Mouton.

Konderski, Stefan, In preparation. *English equivalents of Polish oblique cases. A study in contrastive linguistics.* Doctoral dissertation, University of Warsaw.

Lyons, John. 1966. "Towards a 'notional' theory of the 'parts of speech'". *Journal of linguistics* 2.209-234.

Marton, Waldemar. 1968. "Equivalence and congruence in transformational contrastive studies". *Studia Anglica Posnaniensia* 1. 53 - 62.

Reszkiewicz, Alfred. 1963. *Internal structure of clauses in English: an introduction to sentence pattern analysis.* Wrocław: Zakład Narodowy imienia Ossolińskich.

Szober, Stanisław. 1969. *Gramatyka języka polskiego.* Wyd. 11, Warszawa: PWN.

Woolley, G. M. 1966. "Syntax analysis beyond the sentence". Unpublished paper presented at the Fourth Annual Meeting of the Association for Machine Translation and Computational Linguistics at Los Angeles, California, July 26 - 28, 1966.