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## Some Problems Concerning a Uniform Analysis of Reflexive Verbs<sup>1</sup>

The aim of this paper is to examine some recent proposals concerning the transformational derivation of selected structures involving reflexive pronouns. Special emphasis will be laid on those (classes of) sentences in which the functioning of reflexive pronouns, their clitic forms or bound morphemes does not seem to allow for analyses designed to cope with English reflexive phenomena in various versions of transformational generative grammar. The discussion will center on the following groups of sentences:

- (reflexive) (1) a. *Janek myje się.*  
'John washes himself.'  
b. *Janek ubiera się.*  
'John is dressing himself.'
- (inchoative) (2) a. *Drzwi otworzyły się.*  
'The door opened.'  
b. *Szklanka zbita się.*  
'The glass broke.'  
c. *Lekcja skończyła się.*  
'The class finished.'
- (middle) (3) a. *Bawełna dobrze się pierze.*  
'Cotton washes well.'  
b. *Ta książka dobrze się czyta.*  
'This book reads well.'
- (4) a. *Janek się bije.*  
'Johnie beats (other children).'

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<sup>1</sup> I am grateful to Professor Kazimierz Polański and dr Piotr Ruskiewicz for making valuable comments on an earlier draft of this paper.

- b. *Nie pchaj się!*  
'Don't push (me)!'
- (5) a. *Tu się mówi po angielsku.*  
'Here one speaks English.'
- b. *W Polsce się nie je ślimaków.*  
'In Poland one doesn't eat snails.'
- c. *Zabrania się splukiwania ustępu na przystankach.*  
'Flushing the toilet is forbidden when the train stops at the station.'
- (6) a. *Janek skaleczył się.*  
'John hurt himself/got hurt.'
- b. *Janek zabił się (w wypadku).*  
'John killed himself/got killed (in an accident).'
- c. *Maria często fotografuje się.*  
'Mary often photographs herself.'

The labels in parentheses provided to the left of groups (1)—(3) will be used only for expository and mnemonic purposes and we attach no theoretical value to them. Polish data have been selected as the point of departure and we shall be interested in how and whether some hypotheses advanced for other languages with related constructions can account for the Polish data. I shall now characterize briefly the data presented in (1) through (6).

Group (1) comprises sentences which are significantly related to English reflexive constructions, and have been accordingly referred to as 'full' or 'true' reflexives in the literature on the subject. What distinguishes (1) from the other classes is that a contrastive, disyllabic pronoun *siebie* can be substituted for *się* in these sentences. *Siebie* is obligatory in compound objects:

- (7) a. *Janek myje siebie i Józia.*  
'John washes himself and Joe.'
- b. \**Janek myje się i Józia.*

It will be assumed for expository purposes that the (loosely defined) relation of coreference holds between the subject and direct object in (1).

Following the practice and arguments of Napoli (1976), I shall treat groups (2) and (3) jointly as middle constructions, notwithstanding some differences between them that might call for their separate analysis (cf. e.g. Horn (1977)). Groups (2) and (3) are distinct from the others in that each of the *się* sentences should have a related counterpart in which the subject of the middle construction appears as the direct

object; hence (2) and (3) frequently are referred to as intransitive or detransitivized versions of corresponding transitive sentences, as in (8):

- (8) a. *Drzwi otworzyły się.* (same as (2a))  
b. *Janek otworzył drzwi.*  
    'John opened the door.'  
c. \**Janek otworzył się.*

This regular correspondence between transitive and middle-intransitive constructions and the presence of a pronominal element in the latter have led many linguists to believe that the transitive-intransitive pairs are related transformationally. One corollary of this approach is that the transformational insertion of the pronominal element such as *się*, Russian *-sja* and Italian *si* occurs on the post-interpretive level of syntactic derivation. Since the authors whose studies will be discussed adhere to some versions of Standard Theory (ST) or Extended Standard Theory (EST), it follows that the status of the pronominal element therein is that of a mere syntactic marker of one or more transformations, rather than a full-blooded lexical item or semantically non-empty morpheme. This is all the more striking in view of the fact that the transformational derivation of personal pronouns has long been abandoned, both by proponents of interpretive school and those associated with Generative Semantics. Special status accorded to the reflexive pronoun in the constructions at issue may be explained in terms of linguists' attempt to avoid redundant statement of selectional restrictions for the direct object in the transitive use of the verb, and the subject in the corresponding middle constructions. It will be demonstrated that the price that must be paid for this generalization is either redundancy in another part of the derivation or significant theoretical inconsistency.

Group (4) comprises a small, most probably closed class of sentences in Polish, but I included it here because it features prominently in one of the hypotheses discussed in this paper. The distinguishing feature of this group is the apparently 'detransitivizing' function of the pronominal element, but unlike in (2) and (3), the subjects of these sentences are not interpreted as direct objects of any corresponding transitive sentences. At first, *się* here might be related to the Unspecified Object Deletion (cf. Chomsky, 1965: 63) but I will argue that this is a misleading correspondence.

The sentences in (5) constitute by far the most productive class involving *się* in Polish. The pronominal element may be pretheoretically characterized here as expressing the unspecified human subject; as with the unspecified object in (4), however, this notion has to be qualified to account for the Polish and Italian data. The most significant diffe-

rence between (5) and the other groups consists in that the occurrence of *się* in (5) is independent of lexical transitivity of the verb. Therefore it is not surprising that all transformational analyses of reflexive verbs relying on such notions as 'detransitivization' or 'derived intransitivity' cannot account for (5) and either neglect these structures (Horn, 1977) or treat the pronoun therein as a homonymous item unrelated to other structures where it occurs (Napoli, 1976). The indefinite subject *się*<sup>2</sup> in (9) clearly counters the claim that „*si/się*, in their non-reflexive uses, occur only with verbs which can occur in transitive sentence, and just in case these verbs occur with only one lexical NP.” (Horn, 1977: 36)

(9) a. *W zimie pływa się w krytym basenie.*

*'In winter one swims at the indoor pool.'*

b. *Tu się wchodzi, a tam się wychodzi.*

*'Here one comes in, and there one goes out.'*

Finally, class (6) comprises sentences which are ambiguous between a reflexive and a middle reading. Informally, the ambiguity seems to result from the fact that in typical reflexive sentences a human agent acts upon himself, but with some verbs like *hurt*, *kill* he is acted upon, as it were, like in typical middle/inchoative sentences; in both cases the human NP appears as the grammatical subject, and the reflexive pronoun in the object position.

The terminological inconsistency and a somewhat biased classification in the above introduction provoke the following questions:

- a) can the notion of reflexivity be extended to cover the phenomena exemplified in (2) through (5)?
- b) are 'full' reflexive constructions in (1) a part or subset of a wider syntactic and/or semantic phenomenon that justifies the occurrence of the same pronominal element in other than 'truly' reflexive sentences in relatively unrelated groups of languages, like Romance and Slavonic?
- c) what is the explanatory power of the notion of homonymy in the cases where phonological identity cannot be explained in terms of historical phonological processes only?

These questions may be considered as mere terminological variants of one general empirical issue: can a uniform analysis be provided for apparently unrelated structures involving 'reflexive' pronouns both in their reflexive and non-reflexive uses? Something close to the positive answer to this question must have lain at the foundation of the two projects that will be discussed at length in this paper. In part 1 I will

<sup>2</sup> The term „indefinite subject” is taken from Napoli (1976), discussed in part 2 of the present paper.

discuss the hypothesis termed Derived Intransitivity in B a b b y (1975) and developed in C r a n m e r (1976) for the contrastive study of this phenomenon in Russian, German and English. Part 2 will be devoted to N a p o l i ' s (1976) study of reflexive pronouns in Italian and her **copy-**-hypothesis. Common to both enterprises is their heavy reliance upon the apparatus of syntactic transformations, and the derived status of the pronominal element in the structures they account for. Neither succeeds in providing a uniform analysis for all the classes listed in (1)—(6). In the Derived Intransitivity hypothesis the main line of division is between 'truly' reflexive constructions and all others; in Napoli's thesis Italian sentences of the kind exemplified in Polish by (1), (2), (3) and (6) are jointly set against sentences of type (5). In part 3 I will discuss some theoretical problems involved in the formulation of the concept of Derived Intransitivity, and will argue that the reflexive pronoun, clitic or non-clitic, is a basic item of the syntactic category NP together with personal pronouns and proper names.

## 1. Derived Intransitivity

The concept of Derived Intransitivity (DI) was formulated in B a b b y (1975) and used for the analysis of Russian constructions of type (1), (2), (3), (4), and (6). In C r a n m e r (1976), on which the present account is based, DI was employed for the contrastive study of equivalent structures in Russian, German and English. To avoid terminological commitment, I will follow Cranmer in using the neutral term *się*-verbs (Cranmer's *sich/sja* verbs) with the assumption that the Russian data in Cranmer's corpus are equivalent to the Polish data listed in the introduction.

DI rests on the following assumptions:

- (10) a. for each *się*-verb to which DI applies there must be a corresponding transitive verb without *się*;
- b. there must be no change in lexical meaning between the verb with *się* and the corresponding verb without *się*;
- c. differences in meaning between various *się* verbs result from different syntactic processes which accompany the introduction of *się* into the phrase marker.

The value of DI consists in that „the selectional restrictions on the subject of the middle verb and the object of the corresponding transitive verb can be combined in one statement. One way to do this is to list both the transitive and the middle verb as one lexical item. Although this would reduce the size of the lexicon, each verb pair would then have

to be related in the syntactic component of the grammar.” (C r a n m e r, 1976: 41)

B a b b y (1975) proposes the following rule for *-sja* introduction:

(11) *-sja*-Introduction: (obligatory, cyclic)

X — V — [ $\Delta$ ]<sub>NP<sub>i</sub></sub> — Y

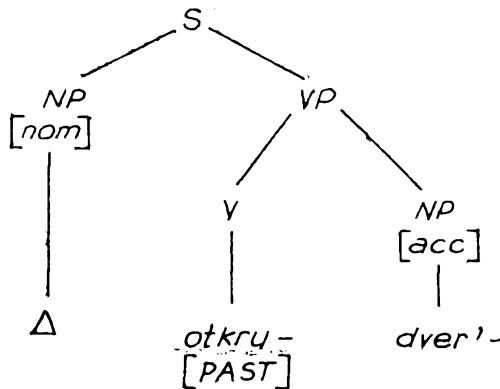
SD: 1      2      3      4 →

SC: 1      2+*sja*  $\emptyset$       4

Condition: NP<sub>i</sub> is accusative.

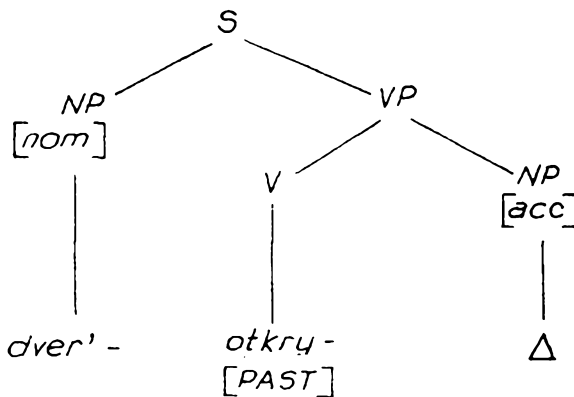
The purported generality of the rule stems from the fact that *-sja*-Introduction is independent of the way the NP<sub>i</sub> in (11) becomes empty. Object-Preposing is one of the ways. Thus the Russian equivalent of (2a), *Dver' otkrylas'* 'The door opened' has the following derivation.

(12) a.



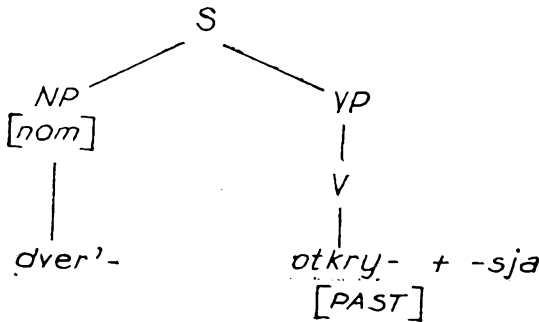
The nominative NP must be filled in order to underlie a well-formed sentence of Russian:

(12) b.



(12b) meets SD of (11).<sup>3</sup>

(12) c.



The subcategorization feature for the verb is stated in the following manner:

$$otkryt' \left( \frac{NP}{[nom]} \right) \text{ --- } \frac{NP}{[acc]}$$

where parenthetical underscoring indicates that the NP is optionally filled lexically. The problem with this kind of analysis is that once either option is taken in the subcategorization, the syntactic part of the derivation is the necessary consequence of this choice, because a) verb *otkryt'* must select the subject NP; b) the subject NP of the verb is or is not lexically filled; c) if the nominative NP is not filled, the content of the object NP must move to the subject NP; d) the movement necessarily vacates the object NP position; e) the vacated accusative NP position feeds the obligatory transformation of *-sja* insertion and object NP-node deletion. Therefore either the subcategorization feature or the transformational part is completely redundant, since the option allowed in the strict subcategorization feature is the necessary and sufficient condition for the whole course of obligatory transformations. This undesirable consequence of redundancy stems, I believe, from a somewhat vague treatment of the notion of strict subcategorization. In what sense is it strict if options are allowed? And in what sense is it subcategorization if it is informed not by the context of a syntactic category, but by whether or not it dominates some lexical material? I will remain impartial on the subject of the status of obligatory transformations in linguistic theory, but their complete predictability from the information

<sup>3</sup> It is unclear how the empty NP slot is deleted, i. e. whether *-sja*-introduction feeds the deletion or is fed by it. Cranmer does not explain if *-sja* substitutes for the accusative NP and takes over its case.



in the lexical component is certainly an undesirable consequence of the DI concept.

Cranmer must also surrender one of the basic assumptions of ST and EST whereby lexical insertion precedes all transformations. He considers himself to adhere to EST, with constraints proposed in Emonds (1970), but states that in his analysis „lexical insertion is cyclical [...] and does not necessarily precede the movement rules on each cycle, as there is no extrinsic ordering on lexical insertion and movement rules.” (Cranmer, 1976: 39)

Another way the empty accusative condition on *-sja* introduction (11) is met is with the structures of type (4), supplemented here with a Russian example from Cranmer:

- (13) *Sobaka kusaetsja.*  
 ‘The dog bites.’

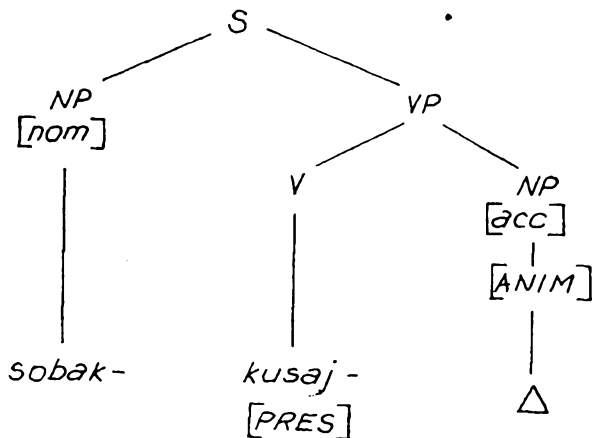
(13), unlike middle sentences of type (2) and (3), has no reading which associates the subject of the *-sja* verb with the object of the corresponding transitive verb. Russian constructions of this type outnumber equivalent Polish sentences. For example, there is no *się*-counterpart of (13) which translates as (14), congruent with its English gloss:

- (14) a. *Ten pies gryzie.*  
 ‘This dog bites.’

- b. \**Ten pies gryzie się.* (No reflexive reading intended.)

(13) is derived from (15a) in the following way:

- (15) a.



- b. The phrase marker has the accusative NP which dominates nothing but the specification of the semantic feature [ANIMATE].

- c. The semantic feature deletes.
- d. *-sja* insertion operates because the accusative NP is empty.
- e. The accusative NP deletes and *-sja* is affixed to the verb.

We do not know whether the feature [ANIMATE] enters the phrase marker during or prior to lexical insertion. The deletion of the feature is necessary because Cranmer wants *-sja* insertion to be syntactically motivated only, and the empty accusative NP is the only trigger of this obligatory operation. The exploitation of the feature apparatus in Cranmer's account of the sentences discussed begs a lot of questions. Firstly, one would have to find independent motivation for introducing and deleting selectional features without their lexical bearers; secondly, like in the case of middle constructions, the chain of obligatory transformations, such as feature insertion, deletion thereof, and *-sja* introduction itself should be shown to be non-redundant with respect to restrictions in the lexicon which have to be stated anyway for the whole derivation to apply to some but not all transitive verbs.

Let us suppose that the introduction and subsequent deletion of the feature [ANIMATE] is well motivated, and that it somehow defines the set of lexical items bearing the same feature in their complex symbols. It would then function as a kind of variable ranging over animate nouns. Some verbs would contain in their lexical specification the information whereby the lexical direct object bearing this feature or rather the complex symbol in the phrase marker containing the feature but not filled with lexical material may be optionally deleted. On this understanding *-sja* insertion would have the same consequences as the unspecified object deletion in (16), plus the requirement that the deletable object be animate.

- (16) a. *Józek czyta gazetę.*  
'Joe is reading a paper.'
- b. *Józek czyta.*  
'Joe is reading.'

The problem is that while (16a) entails (16b), (17a) does not entail (17b):

- (17) a. *Józek pcha krowę.*  
'Joe is pushing a cow.'
- b. *Józef pcha się.*  
'Joe is pushing (someone?).'

The same is true for Cranmer's Russian example, *nie tolkajsja* 'don't push (me?)'. As far as (13) is concerned, no dog owner would utter the sentence if the dog has bitten all cats in the neighbourhood to death but is friendly to people. Clearly, the feature [ANIMATE] is not sufficient. One might easily change the required feature to [HUMAN] (at least for

all Polish examples of this construction) but this is only an apparent amendment. It seems that the feature [HUMAN] would be a necessary but not sufficient condition on the deletion transformation as stated in (15). Consider the English examples in (18)

- (18) a. *This dog bites.*  
 b. *Wasps sting.*

which might at first be taken to represent the Unspecified Object Deletion, like in (16b). But one cannot existentially generalize from (18) to the effect that the dog bites someone or wasps sting someone, like one can generalize from (16b) to *Joe is reading something*. Note also that progressive aspect versions of (18) are not acceptable. The speaker does not use (18) because he wants to focus on the action rather than the object. The object is not mentioned not because it is redundant but in order to be applicable to any potential victim-addressee. Russian, and to a lesser extent Polish, marks this function with *-sja/się*. This indicates that *-sja/się* may be semantically non-empty, which is not captured in Cranmer's analysis.

Finally, we shall examine the least satisfactory and most counter-intuitive consequence of DI hypothesis, namely the derivation of sentences of type (1), repeated here as (19), complemented with Russian examples in (20).

- (19) a. *Janek myje się.*  
       '*John washes himself.*'  
 b. *Janek ubiera się.*  
       '*John is dressing himself.*'  
 (20) a. *Rebenok umylsja.*  
       '*The child washed.*'  
 b. *Rebenok umyl sebja.*  
       '*The child washed himself.*'

In order to account for the reflexive reading of *-sja/się* in (19) and (20), and at the same time to maintain the hypothesis that *-sja* insertion operates in structures with empty accusative NP, B a b b y (1975) and C r a n m e r (1976) propose the following solution.

- (21) a. 'True' reflexive pronoun *sebja/siebie* occurs in object NP in the underlying structure.  
 b. ...*sebja/siebie* is deleted, thereby leaving the empty accusative behind.  
 c. *-sja/się* is inserted as a result of (b).

*-Sebja* deletion is constrained in the following manner:

- (22) a. It cannot be emphatic.

- b. The verb is not subcategorized for an optional Agent.
- c. ...*sebja/siebie* is not a part of a compound object.

Constraint (22b) is necessary to account for the semantic difference between (23a) and (23b).

- (23) a. *Soldat ubilsja.*  
'The soldier got killed.'
- b. *Soldat ubil sebja.*  
'The soldier killed himself.'

This means that verbs susceptible to the derivation of middle constructions are excluded from feeding *-sebja* deletion. Constraint (22c) purports to account for the ungrammaticality of (24b).

- (24) a. *On predstavil snačalo sebja a potom svoix brat'ev.*  
'He first introduced himself and then his brothers.'
- b. \**On snačalo predstavilsja sam a potom svoix brat'ev.*

A closer examination of constraints (22a, c) reveals their similarity or even identity to the constraints that would have to account for the grammaticality judgements concerning any clitic pronouns. Consider the following examples:

- (25) a. *Janek<sub>i</sub> przedstawił najpierw*  $\left. \begin{array}{l} \{jego_j\} \\ \{*go_j\} \end{array} \right\}$   
*a potem Marysię.*  
'John<sub>i</sub> first introduced him<sub>j</sub> and then Mary.'
- b. *Janek<sub>i</sub> przedstawił Marysię najpierw*  
 $\left. \begin{array}{l} \{jemu_j\} \\ \{*mu_j\} \end{array} \right\}$   *a potem*  $\left. \begin{array}{l} \{mnie\} \\ \{*mi\} \end{array} \right\}$  *.*  
*'John<sub>i</sub> introduced Mary first to him<sub>j</sub>, and then to me.'*

I believe that few linguists, if any, would endorse a proposal, analogous to that of B a b b y (1975) and C r a n m e r (1976), whereby clitic pronouns would be derived by first deleting non-clitic personal pronouns and then introducing their clitic counterparts to the phrase marker. Needless to say, a grammar would be more economical if the constraints on the occurrence of non-emphatic *się/-sja* followed from more general constraints on clitic formation and clitic placement. The exact formulation of such constraints would depend on which level one defines to be the level of semantic interpretation. If contrast and emphasis contribute to semantic interpretation, it seems illegitimate to first introduce an emphatic or contrastive item to the phrase marker only to delete it in a subsequent transformation. Cranmer does not even consider the possibility that *-sja* may be a clitic counterpart of *sebja*, and the consequences that this possibility might entail.

## 2. The Copy-Hypothesis

In this part I will be concerned with an alternative proposal dealing with reflexive pronouns in their non-reflexive uses. I chose to label it the Copy-hypothesis, for the bulk of its explanatory power relies on the transformation of copying a (material dominated by) NP from one position to another in accordance with the structure preserving constraint of Emonds (1970). Representative studies in which copying rules are applied to the phenomena at issue include Napoli's transformational analysis of Italian *si* in Napoli (1976), and Horn's lexicalist account of some Italian and Polish reflexive constructions in Horn (1977). Most of what follows will be devoted to the former because it is more detailed and, more importantly, because Napoli studies the relationship between constructions of type (5) and those of type (1), (2), (3) and (6).

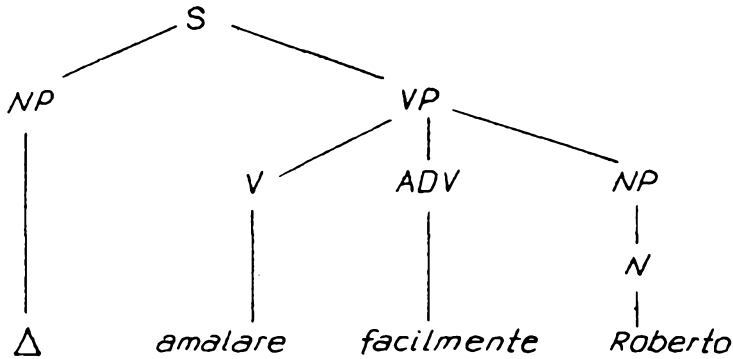
Napoli's analysis of middle constructions will be shown to have an advantage over DI discussed in part 1 in that one rule is responsible for the derivation of both middle and true reflexive constructions, whereas in DI the relation between middle *-sja* and reflexive *-sja* was dismissed as that of accidental homonymy. The main disadvantage of the Copy-hypothesis is that a completely different syntactic and semantic source must be postulated for the pronoun in sentences of type (5), contrasted with all other types.

Napoli's discussion of Italian middle constructions exemplified here in (26) is based on the familiar observation that the subjects of these sentences appear in the object position of the corresponding transitive constructions, which argues for their being transformationally related lest the relevant selectional restrictions should be repeated.

- (26) a. *Il fieno si infiammò.*  
'The hay caught fire.'  
b. *La porta si è aperta.*  
'The door opened.'  
c. *Roberto si ammala facilmente.*  
'Robert gets sick easily.'  
d. *La lezione si inizia alle nove.*  
'The lesson begins at nine.'

Also the deep structure proposed by Napoli for these constructions is identical to Cranmer's in that the subject NP in it dominates a dummy symbol  $\Delta$ . Thus (26c) is derived from (27).

(27)



Now the apparent attractiveness of Napoli's proposals whereby (26c) is derived from (27) lies in her application here of the rule REF she uses independently for full reflexive sentences involving two coreferential NP. Napoli shows the familiar rule of Reflexivization-as-Pronominalization formulated in Lees and Klima (1963) to operate in the derivation of middle constructions, interacting with a copy-rule. Lees and Klima's rule is stated here in (28).

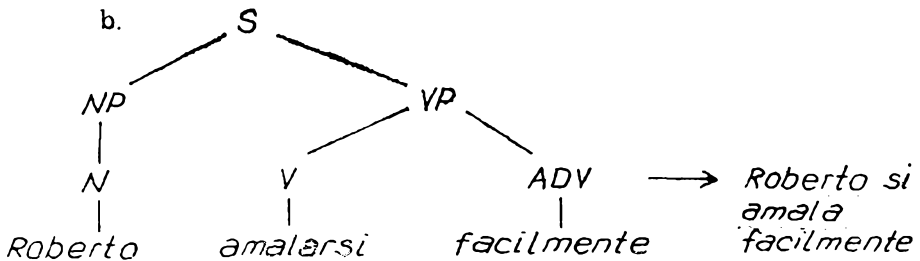
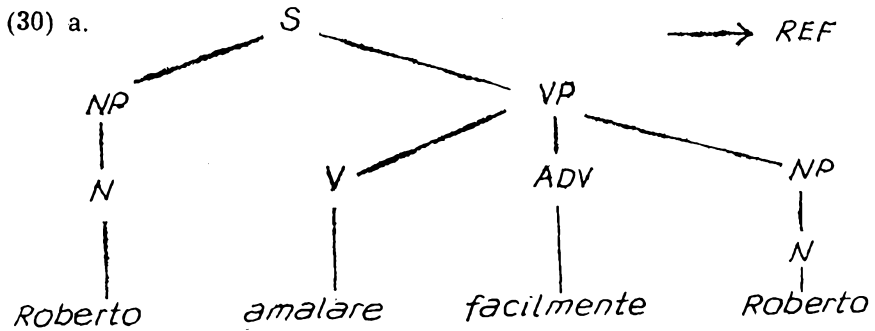
- (28)  $X - \text{Nom} - Y - \text{Nom}' - Z \rightarrow X - \text{Nom} - Y - \text{Nom}' + \text{self} - Z$  where  $\text{Nom} = \text{Nom}' =$  a nominal, and where  $\text{Nom}$  and  $\text{Nom}'$  are within the same simplex sentence.

Implicit in (28) is the following:

- (29) a. Reflexivization is forward only.  
b. The rule operates on coreferential NP's.

Coreferentiality is defined in the following manner: „two elements are coreferential if they refer to the same entity (object, action, state, etc.)” (Napoli, 1976: 25). Acknowledging the non-explicit character of such notions as reference and entity, Napoli demonstrates how this rule may be extended to cover the cases where only one NP is actually present in the deep structure, such as (27). The other (coreferential) NP must be transformationally created to provide the appropriate input for REF. This is exactly what a Copy-rule does by moving the (lexical material dominated by) object NP to the  $\Delta$  of the subject NP and leaving a copy behind. The rest of the derivation of (26c) from (27) is shown in (30).

To account for the lack of a copy, and consequently, the lack of the appropriate reflexive pronoun in English middle constructions of the kind represented in (31)



(31) a. The door opened.

b. The glass broke.

Napoli suggests that „COPY is a two part rule although both parts may be simultaneous: the object is moved into subject position and a copy is left behind.” (1976: 95). On this account English exploits only the first part of the rule, and both parts are involved in the grammars of Romance and Slavonic languages giving rise to middle reflexive pronouns in the latter. Napoli counters Lakoff’s suggestions in Lakoff (1965) that such English inchoative constructions, as in (32), do appear with reflexive pronouns. She claims that (32a, b) and the middle/inchoative

(32) a. *John hurt himself when he fell down.*

b. *John dirtied himself.*

Italian constructions cannot be treated alike because of the following grammaticality judgements:

(33) a. ?*John hurt himself when a tree fell on him.*

b. ??*John dirtied himself when Mary poured coffee on him.*

(34) a. *John got hurt when a tree fell on him.*

b. *John got dirty when Mary poured coffee on him.*

(35) a. *Giovanni si fece male quando un albero cadde su di lui.*  
(Same as 33a).

b. *Giovanni si sporcò quando Maria versò del caffè su di lui.*  
(Same as 33b).

On the basis of this evidence Napoli concludes that while the English constructions at issue „involve the extra semantic entailment of causative (in which case the reflexive pronoun is the result of REF acting upon the two coreferential NP's present in deep structure), the Italian sentences have no such extra semantic entailment.” (1976: 96). As what is at stake in this paper is the relevance of Copy for the analysis of equivalent Polish constructions, let us supplement (35) with roughly corresponding sentences in Polish:

(36) a. ?*Janek skaleczył się, kiedy spadło na niego drzewo.*

b. ??*Janek pobrudził się, kiedy Maria wylała na niego kawę.*

Native speakers of Polish express more or less violent discontent with (36a, b). However, we certainly would not want to follow Napoli's conclusion concerning the corresponding English examples and regard (36a, b) as derived from *Janek skaleczył Janka* 'John hurt John' and *Janek pobrudził Janka* 'John dirtied John' respectively. I believe that the relative unacceptability of (33) and (36) does not belong to grammar but should rather be explained in terms of violation of the maxims of cooperation and conversational implicature as proposed in Grice (1975). (33) and (36) may be odd for the same reason that makes the utterance of *The door opened and John came in* uncooperative in the situation whereby the speaker could actually see John opening the door on uttering the sentence. While in this example the immediately available extralinguistic context is responsible for the oddity of the sentence, in (33) and (36) it is the second clause that contradicts the implicature of the first clause, thereby violating the maxims of quantity, quality, and relevance. (cf. Fillmore (1975) and McCawley (1981: 229) for extensive discussion of this and related issues.) The presence in the first clause of the human agent Mary who is directly responsible for John's being dirty makes (36b) relatively less acceptable than (36a). If (35b) is indeed completely acceptable in Italian, one may attribute this to differences in implicature between corresponding middle structures in Italian, English and Polish, rather than to their different derivational history<sup>4</sup>.

<sup>4</sup> It might be objected that the same derivational history should result in the same implicature. The relations between sentence grammar, text grammar and implicature have not been studied extensively enough for such objections to be either accepted or refuted conclusively. The problem arises in connection with the middle status of constructions involving verbs which can take animate subjects and objects, like *hurt*, *kill*, *dirty*, etc. Typical „middle” verbs, such as *break*, *open* select inanimate objects in the lexicon and rarely allow for reflexive interpretation in combination with a reflexive pronoun in Polish and Italian. Such clausal combinations as in (i) can be considered as communicatively clear:

(i) *Szklanka rozbila się, kiedy Janek uderzył ją młotkiem.*  
 'The glass broke when John hit it with a hammer.'



Thus Napoli's conclusion that all English structures with reflexive pronouns have two coreferential NP's in deep structure seems unwarranted. One can find quite a few expressions in English, such as *The opportunity presented itself*, *The solution suggests itself*, *The opposition to the government manifests itself in [...]* etc., which point to the contrary, as none of them seems to involve coreferential NP's on any level of derivation.

As evidence supporting the independent motivation of Copy Napoli cites examples of left and right dislocation with personal pronouns in the original sites of the dislocated NP's, and instances of object topicalization.

- (37) a. *Tua sorella, lei è andata in cerca di guai.*  
 'Your sister, she went looking for trouble.'  
 b. *L'ho vista proprio qui, tua sorella.*  
 'I saw her right here, your sister.'

The problem is, as Napoli observes herself, why the pronouns in such constructions are not reflexive but personal pronouns if Copy is involved. She notes (p. 98) that „a reflexive pronoun is yielded when the two coreferential NP's are assigned different cases, as in inchoatives and reflexives [...] but a non-reflexive pronoun is yielded when both these NP's have the same case”, as in the examples here quoted in (37). However, examples of dislocation and colloquial relatives challenge such conclusions:

- (38) a. *Ten idiota, widziałem go wczoraj w kinie.*  
 'That idiot-NOM, I saw him-ACC in the cinema yesterday.'

On the other hand, simple sentences with verbs of the *hurt* and *dirty* type with monosyllabic reflexive pronouns can be ambiguous between a reflexive and a middle reading. In contexts (linguistic or extralinguistic) providing an agent or instrument „responsible” for the state or action expressed by the simple middle proposition, the latter seems to be used uncooperatively in Polish. The most probable reason for such uncooperative, communicative noise is the possibility of a reflexive reading of the first clause (sentence), which results in the introduction of two contradictory agents in the immediate context. What Napoli's test proves is not that English sentences with reflexive pronouns and the verbs in question cannot have a middle reading, but that they can have a reflexive reading and as such can be subject to some textual and conversational constraints like their Polish counterparts. I cannot explain why in Italian such cooccurrence conditions should be more relaxed, as Napoli's judgements suggest. My point is that if we accepted Napoli's conclusions, we would have to postulate entirely different derivations for *Giovanni si sporcò* and *Janek się pobrudził*, with the latter more reflexive and causative than the former — a counterintuitive solution. It is therefore reasonable to assume that different acceptability judgements for the languages discussed do not necessarily prove different derivational histories for English and Polish examples on the one hand, and Italian, on the other.

b. *Ten facet, co go chciałaś poznać, mieszka w Suwałkach.*

'That bloke-NOM that him (you) wanted to meet lives in -Suwałki.'

Thus what was meant to provide independent evidence for Copy in middle constructions may, in universal terms, turn out to be very weak evidence, if not counter-evidence altogether. Or if one wants to derive the dislocated NP's by Copy, then middles are not derived by Copy. One does not necessarily prove the other.

There are other problems involved both in the formulation of REF as operating on two coreferential NP's and in the Copy-rule itself. The most extensively studied issue in recent literature on the subject concerns the syntax and semantics of sentences containing anaphoric pronouns controlled by quantified antecedents (cf. e.g. Partee (1972, 1975), Fodor (1979), McCawley (1981)). Briefly, if identical and coreferential NP's were the source of reflexive pronouns, (39) should mean the same as (40), yet these sentences express different, if not

(39) *Każdy Polak chwali siebie (samego).*

'Every Pole praises himself.'

(40) *Każdy Polak chwali każdego Polaka.*

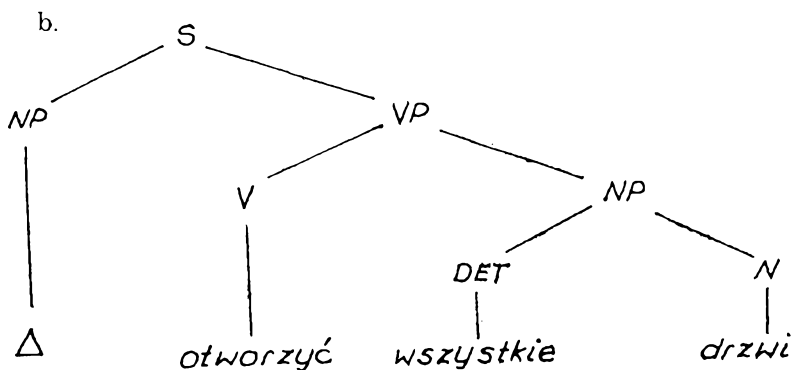
'Every Pole praises every Pole.'

contradictory assertions. I shall discuss this issue at length elsewhere (Kański, in preparation) and concentrate now only on some of its implications for the problem of Derived Intransitivity and middle constructions.

The Copy analysis of middle sentences with reflexive pronouns seems to be immune to the undesirable consequences of (39) and (40). It may be claimed, for example, that (41a) is derived from (41b) via Copy and REF.

(41) a. *Wszystkie drzwi otworzyły się.*

'All doors opened.'



REF here acts on a Copy of only one NP present in deep structure and not on two deep NP's whose reference is assigned independent of each other; therefore whatever reference is assigned to the deep NP (quantified or not) will necessarily be assigned (copied) to the moved NP and its copy. This is a weak argument because it is not clear in what sense one or two occurrences of *every Pole*, or *żadna* in *Żadna szklanka się nie zbita* 'No glass broke.' should be assigned reference at all. (cf. McCawley, 1981: 126). But even if it did make sense to speak of coreferentiality in such cases, and even if the Copy-rule for middle verbs were thereby exempt from the problems involving quantifiers in genuine reflexive sentences, we would still have to surrender what seems to be the main advantage of Napoli's Copy analysis over that of Cranmer's, namely the common source of reflexive pronouns in reflexive and middle/inchoative constructions — the rule REF operating on two coreferential NP's.

Another reason why I reject the Copy analysis is not for what it does, but what it does not do. As the title of Napoli (1976) suggests, there are two different homonymous *si*'s in Italian: one conditioned by coreferentiality (basic or derived), yielding true reflexive, reciprocal and middle constructions; the other yielding Italian sentences of type (5). The latter is called Indefinite SI. This seems to be a serious drawback of this analysis from the point of view of a project whose goal is to provide a uniform account of the reflexive pronoun in superficially unrelated structures of Polish which, like Italian and other Romance languages, has this type of construction. Polish is sufficiently unrelated to those languages to allow for the possibility that the occurrence of the reflexive pronoun in indefinite-subject constructions is not accidental. Napoli argues convincingly that Indefinite SI cannot be derived by means of REF as formulated for true reflexive sentences and employed in the Copy analysis of middle structures. Therefore she is compelled to look for a different source of Indefinite SI, which thereby becomes only phonologically related to the reflexive *si*. We shall examine only those aspects of Napoli's analysis of the subject-*si* which might throw some light on equivalent constructions in Polish, notwithstanding some language specific properties that make such comparison a little hazardous.

Napoli derives the Indefinite SI by means of a substitution transformation. *Si* substitutes for an underlying element called Pro to which Napoli ascribes the following features.

- (42) a. *Pro* is always plural.  
b. *Pro* has no intrinsic gender.  
c. *Pro* is indefinite, either specific or non-specific.

- d. *Pro is human.*
- e. *Pro is third person.*

The plurality of *Pro* is argued on the basis of the occurrence of plural predicate adjectives in such examples as (43).

- (43) a. *Qui si è (tutti) uguali.*  
'Here everyone is equal.'
- b. *Si è alti.*  
'One is tall.'

Notice that Polish literal translations of (43) are impossible as shown in (44a) and (45a):

- (44) a. \**Tutaj się jest wszyscy równi.*
- b. *Tutaj wszyscy są równi.*
- (45) a. \**Jest się wysocy/wysokimi.*
- b. *Jest się wysokim.*

Does this suggest that the subject *się* and the subject *si* are indeed structurally and semantically different elements? Not only does it not, but it also shows a significant theoretical disadvantage of attributing plurality to whatever underlies *si*. Number, gender and person are obligatorily marked on finite verbs both in Polish and Italian, which means that every finite verb must be spelled out as either singular or plural, even if number is not semantically functional, which I believe is true for the structures at issue. The fact that Italian conventionally employs plural as unmarked in *si* sentences, and Polish, singular, does not prove that the pronominal element is intrinsically plural and singular, respectively. If a chorus of Polish women were asked to remember their common adventures from the past, they might begin unisono:

- (46) *Kiedy się było młodym...*  
'When one was young...'

with the predicate adjective marked as singular and masculine.

Intrinsic plurality of *si* must also be excluded on Napoli's own observation that plural possessive *loro* is not allowed when *si* is the subject. Instead, *proprio* is the only admissible possessive form, and it is unmarked for number and obligatorily refers back to the subject. Napoli confesses she cannot account for this fact. We conclude that neither *si* nor *się* is intrinsically plural or singular respectively. Note that Napoli makes a similar point about gender (cf. 42b), but fails to do it with regard to number.

Another intrinsic property that Napoli attributes to the *Pro* underlying *si* is the distinction between generic and specific *Pro*, to the effect that we are no longer certain whether we deal with one item or two homophonous/polysemous elements. The distinction is exemplified by the following sentences:

(47) *L'unico Van Gogh si è venduto un'ora fa.*  
'Someone sold the only Van Gogh an hour ago.'

(48) *In Italia, quando si incontra un amico, si va a prendere un caffè.*  
'In Italy when one meets a friend, one goes out for coffee.'

In (47) *si* is claimed to have a specific reference, and in (48) it is generic. The distinction is meant to be analogous to that often proposed for the indefinite article, but it seems to be pointless in explaining the properties of *si* and *się* as subjects. Two questions that immediately suggest themselves are whether the specificity of *si* can be reasonably discussed in terms of the binary opposition, and should the specificity of *si* be attributed to *si* rather than to the specificity of the predicate whose subject it is. A closer look at the two examples calls for negative answers to both questions. *Si* in (47) has a more specific reading than *si* in (48) because *L'unico Van Gogh* is (tautologously) specific and perfective aspect is, trivially, more referentially specific than simple present. One can only add the opaque context provided by the temporal *quando* clause in (48) reinforcing the de dicto reading of *un amico*, *un caffè* and *si* itself to begin to suspect that the specificity or referentiality of *si* and *się* as subjects is completely predictable from the referential properties of the predicate on the one hand, and the opacity of the context in which the *si* sentence is embedded, on the other.

To summarize, the subject *si* and *się* has no intrinsic syntactic properties apart from the function of being the subject of a predicate, and as such it is a basic expression of the category NP, together with personal pronouns and proper names. Any attribution of other syntactic features to this element is bound to be underdetermined and inexplicit. Notice that a similar problem arose in connection with sentences of type (4) in Cranmer's analysis, where the reflexive morpheme functions as direct object. There also it was nonproductive to talk about intrinsic syntactic properties of the pronominal *-sja/się* such as (selectionally valid) animacy, let alone number and gender. In the case of subject *si* and *się* the only non-trivial syntactic function of these words is to provide for sentencehood in combination with a predicate expression; in the case of object *-sja* and *się* in (4) the syntactic function of these items is to provide for predicatehood in combination with a verb subcategorized for object NP. The syntactic functions of this kind can be defined explicitly in the type-theoretic terms applied to the syntax of natural languages by philosophers and linguists working within the framework of Montague grammar. In the next section I shall hint at some advantages of this

framework in the analysis of the problems of the syntactic status of reflexive pronouns in their reflexive and non-reflexive uses. Semantic and pragmatic aspects of these constructions will be discussed in more detail in K a ń s k i (in preparation).

### 3. Derived Intransitivity Revisited

It is presupposed in most of the recent studies of the non-reflexive used of reflexive pronouns, e.g. B a b b y (1975), C r a n m e r (1976), H o r n (1977) that a transitive verb is detransitized when it appears with a transformationally or lexically derived reflexive pronoun. This assumption lay at the foundation of Cranmer's project discussed in part 1 of our paper. However, neither this assumption nor the notion of transitivity/intransitivity was formulated explicitly in Cranmer's study. If transitivity is defined in terms of strict subcategorization feature of lexical verbs as in C h o m s k y (1965), two logically possible options might be considered for reflexive verbs: a) there are two lexical items in the lexicon, one (intransitive) with a reflexive pronoun and the other (transitive) without a reflexive pronoun; b) there is only one item in the lexicon (transitive) and the reflexive pronoun is transformationally derived, subject to some constraints. But in neither case is it sensible to talk about derived (in)transitivity, for the strict subcategorization feature is, by definition, relevant only at the level of lexical insertion. If option (a) is chosen then the reflexive verb qua single lexical item will be allowed in a tree without object NP; if option (b) is selected, the transitive verb will be permitted by definition in the context of object NP and will remain transitive ever after. I believe that the inconsistent treatment of strict subcategorization results from applying it to different levels of analysis: Cranmer attributes intransitivity to the surface combination of the verb and reflexive morpheme, but what he derives is not a verb but a sentence, and it is difficult to see in what sense any combination of a transitive verb with any object might not be treated as derived intransitivity in this framework. One might argue that such operational criteria as passivization can distinguish between surface transitivity and intransitivity thus conceived. But the fact that *się* or *-sja* do not passivize is no remedy for the derived intransitivity concept, if only because 'full' reflexive pronouns do not passivize either, but the latter are not analysed by Cranmer in terms of derived intransitivity. By the same token, the following sentences would have to be treated as involving derived intransitivity because their objects do not passivize.

- (49) a. *John<sub>i</sub> lost his<sub>i</sub> dog.*  
 b. *Józek uderzył ojca.*  
 'John hit (his) father.'

Therefore passivization cannot be used as a criterion for the distinction and, conversely, the presence of object NP is not a sufficient condition for passivization.

It follows from the preceding discussion that the notion of Derived Intransitivity can be consistently related to the definition of strict sub-categorization features only if it denotes a combination of a (basic) lexical transitive verb with any (basic or non-basic) expression of category Individual Term<sup>5</sup>. Such understanding of derived categories is one of the foundations of Montague grammar (for detailed account see e. g. D o w t y 1978, 1979). Any syntactic category in the Montague framework can have both basic expressions as its members (corresponding to lexical items in natural language), and derived members (corresponding to some familiar phrasal categories in transformational generative grammars). The category Intransitive Verb, for instance, has as its members (or meaningful expressions) both simple lexical items and expressions as complex as a combination of a verb and a sentential complement. This is so because their syntactic function is identical — they map individual terms into truth values, i. e. into the denotation of a sentence. The category Transitive Verb may be (roughly) defined as a function mapping individual terms into Intransitive Verbs, defined above. Now the kind of derived intransitivity that we have been discussing in this paper may be conceived of as one of the possible ways the Intransitive Verb is arrived at, namely, the concatenation of a basic expression of the category Transitive Verb with a basic expression of the category Individual Term. One of the possible expressions of a syntactic category in the Montague framework is a variable ranging over all meaningful expressions of that category. Suppose we take *się*, *-sja* and *si* to be morphological expressions of a variable ranging over all meaningful expressions of the category Individual Term in the respective languages. Now if the variable is abstracted from the expression it occurs in, we arrive at what is a property denoted by that expression. Thus *się* combined with the transitive verb *open* would, syntactically, be a well formed or meaningful expression of the category Intransitive Verb (non-basic), but

<sup>5</sup> The difference between Individual Term, entity and Noun Phrase will be ignored here. In some recent adjustments of Montague's logic to transformational generative grammar the terms for some non-basic expressions of syntactic categories have been replaced by more traditional linguistic terms. For example derived Intransitive Verb is called Intransitive Verb Phrase, etc. The term Derived Verb Phrase is also used.

semantically it would denote the property of being opened or the set of openable individuals. Analogously, *się* combined with the category Intransitive Verb gives a syntactically well formed expression of  $t = \text{truth value} = \text{Sentence}$ , but semantically it would denote a set of individuals with the property expressed by the predicate, i. e. the denotation of the predicate itself. Note that this (grossly oversimplified) account might point towards some explanation of the selectional feature problem with middle constructions, and at the same time resolve the issue of specificity and intrinsic feature that arose in our discussion of Napoli's analysis of Indefinite-subject-*si*, thereby making the homophony of the middle and subject *si/się* not quite so accidental.

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UWAGI NA TEMAT JEDNOLITEJ ANALIZY CZASOWNIKÓW ZWROTNYCH

Streszczenie

Artykuł jest próbą odpowiedzi na pytanie, czy istnieje możliwość wspólnej derywacji syntaktycznej konstrukcji z zaimkiem zwrotnym w językach, w których zaimek ten spełnia funkcje wykraczające poza powszechnie przyjęte kryteria zwrotności. Autor opiera swe rozważania zasadniczo na materiale polskich konstrukcji z zaimkiem *się*. W krytycznym omówieniu innych prac na temat syntaktycznej derywacji zaimków zwrotnych wykorzystane zostały również dane z języka rosyjskiego i włoskiego.

Szerzej omówiono w artykule dwie koncepcje syntaktycznej derywacji konstrukcji z zaimkiem zwrotnym w ujęciu transformacyjno-generatywnym:

a) koncepcja derywowanej nieprzechodniości Babby'ego i Cranmera;

b) koncepcja Donny Jo Napoli, oparta na transformacji kopiowania frazy nominalnej.

Cechą wspólną obu analiz jest transformacyjne pochodzenie zaimka zwrotnego zarówno w funkcji typowo zwrotnej, jak i innych.

Autor artykułu stara się wykazać, iż ceną transformacyjnej derywacji zaimka zwrotnego w jego różnych funkcjach jest albo całkowita redundancja pomiędzy komponentem leksykalnym i transformacyjnym, albo nieuzasadnione pominięcie niektórych konstrukcji z zaimkiem zwrotnym, np. bezosobowego, podmiotowego *si* w języku włoskim (*się* w języku polskim).

Omówionym koncepcjom przeciwstawiona jest próba zintegrowania różnych funkcji zaimka zwrotnego (zwłaszcza podmiotowego i dopełnieniowego *się/si*) w systemie gramatyki Montague. Jedną z konsekwencji takiego ujęcia jest traktowanie zaimka zwrotnego w jego różnych funkcjach jako podstawowej jednostki leksykalnej (nie derywowanej transformacyjnie) występującej na tym poziomie analizy, na którym zachodzi interpretacja semantyczna.

Збигнев Канский

ЗАМЕЧАНИЯ НА ТЕМУ ЕДИНОГО АНАЛИЗА ВОЗВРАТНЫХ ГЛАГОЛОВ

Резюме

В статье предпринята попытка ответить на вопрос, является ли возможной общая синтаксическая деривация синтаксической конструкции с возвратным местоимением в тех языках, в которых это местоимение выполняет функции, выходящие за рамки общепринятых критериев возвратности. Автор опирает свои рассуждения, главным образом, на материал польских конструкций с местоимением *się*. В критическом изложении других работ на тему синтаксической деривации возвратных местоимений используются также факты русского и итальянского языков.

Более подробно обсуждаются в статье две концепции синтаксической деривации конструкций с возвратным местоимением в трансформационно-генеративной трактовке:

а) концепция производной непереходности Бабби и Кранмера;

б) концепция Донни Ио Наполи, опирающаяся на трансформацию копирования номинальной фразы.

Общей чертой обоих анализов является трансформационное происхождение возвратного местоимения, как в типично возвратной, так и в других функциях.

Автор статьи пытается доказать, что ценой трансформационной деривации возвратного местоимения в разных его функциях является или полная редундация между лексическим и трансформационным компонентами, или же необоснованный пропуск некоторых конструкций с возвратным местоимением, например, безличного, субъектного *si* в итальянском языке (*się* в польском языке).

Представленным концепциям противопоставляется попытка интегрировать разные функции возвратного местоимения (особенно субъектного и дополнительного *się/si*) в системе грамматики Монтага. Одним из последствий такого подхода является трактовка возвратного местоимения в разных его функциях как основной лексической единицы (трансформационно непроизводной), выступающей на том уровне анализа, на котором осуществляется семантическая интерпретация.