ARCHIVUM LINGUISTICUM

A REVIEW OF COMPARATIVE

PHILOLOGY AND GENERAL

LINGUISTICS

VOLUME VII (new series)

Number 1

Edited by

I. M. CAMPBELL and T. F. MITCHELL

Mansell

1976

ARCHIVUM LINGUISTICUM

Volume VII (new series), Number 2

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TOPICALIZATION, CASE GRAMMAR, AND LEXICAL DECOMPOSITION IN ENGLISH*

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The relationship between sentences and simple and complex lexical items is discussed. Lexical decomposition and the justification of specific semantic elements are investigated. DO is equated with 'Agent', and further equivalences between Case Grammar and Generative Semantics are explored. It is claimed that topicalization is at work in both the formation of sentences and of complex lexical items, and that linguistic theory must take account of the communicative function of language.

1.

In the classical model of Case Grammar, Fillmore (1968: 52, 57) distinguishes 'subject selection' or 'primary topicalization' from 'secondary topicalization', which is said to cover 'stylistic changes involving stress assignment, late word-order changes and possibly the "cleft-sentence construction".' In the present paper, various types of topicalization are discussed, and a relationship is established between certain 'atomic predicates' of Generative Semantics—in particular CAUSE and DO—and the fundamental notions of Case Grammar—in particular 'Agent.' The complementary nature of Case Grammar and Generative Semantics with respect to verbs is considered. The derivation of complex lexical items from underlying sentences is explained with the help of Marchand's 'types of reference' which are regarded as involving processes of topicalization. The inadequacies of Marchand's syntactic approach are resolved by replacing his syntactic and mixed categories by 'deep cases.' Topicalization can be understood as a means of expressing the communicative dynamism of language.

2.1.

Topicalization processes are regarded by Fillmore as 'devices for isolating one constituent of a sentence as "topic"' (Fillmore, 1968: 57). It is easy to extend this notion to complex lexical items, especially if these are considered as derived from underlying sentences, as is done by Marchand. With simple lexical items, it seems impossible, at first glance, to single out constituents. However, the distinction between morphologically complex and simple items can be seen as fairly superficial. The idea that apparently simple linguistic elements can be broken down into further

components is not new. It can be traced back to the distinctive feature analysis of the Prague school of phonology which considered the phoneme as a bundle of simultaneously present features. With regard to lexical items, Weinreich stated as early as 1966: 'every relation that may hold between components of a sentence also occurs among the components of a meaning of a dictionary entry. This is as much as to say that the semantic part of a dictionary entry is a sentence—more specifically, a deep-structure sentence' (1966: 446). This assumption is also one of the basic tenets of generative semanticists, who proposed such analyses as CAUSE BECOME NOT ALIVE for *kill*, BECOME NOT WHOLE and CAUSE BECOME NOT WHOLE for *break*, STRIKE as SIMILAR for *remind*, REQUEST FORGIVE for *apologize*, and CAUSE BELIEVE or CAUSE BECOME INTEND for *persuade*. Such 'pre-lexical elements,' or 'atomic predicates' are related in a hierarchic structure and such configurations are gathered into one complex by the operation of 'prelexical transformations' expecially the transformation of 'predicate raising.'[1] The complexes of semantic material are then replaced by lexical items. This theory can explain the semantic similarity of superficially quite different words such as *inventor* from 'someone invents something' and *thief* from 'someone steals something' or of structurally different sentences, such as *The court made bussing legal* vs. *The court legalized bussing.*

2.2.

The semantic complexity of simple items such as *thief* or *kill* is less obvious than that of morphologically complex lexical items such as *inventor, pay-day,* or *letterwriter*. It is not surprising that the regularities of the process of nominalization should have been treated very early in the development of transformational grammar, with its stress on creativity and its emphasis on capturing rule-governed processes. It is also significant that the topic has recently been rediscovered and dealt with in various articles beginning with Chomsky (1970). As early as 1960, Robert B. Lees in *The Grammar of English Nominalizations*, derived expressions like *the seller of the car* from sentences like 'he sells the car,' but he also explained a variety of nominal compounds in English on the basis of syntactic relations in underlying sentences. Under the influence of Lees' book, Marchand in the second edition of *The Categories and Types of Present-Day English Word-Formation* (1969) tries to explain every morphological composite on the basis of an underlying sentence. This assumption was discussed by him in several earlier articles,[2] and was first explicitly formulated in 1966: 'A morphologic syntagma is nothing but the reduced form of an explicit syntagma, the sentence' (1966: 133). As the use of the term 'syntagma' in this quotation shows, Marchand has also been influenced by the Geneva School of linguistics. He himself gives a reference to Charles Bally's *Linguistique générale et linguistique française* (1932: 102) where we find the following remark: 'Tout ensemble de signes répondant à la formule *AZ* est dit syntagme; ainsi la phrase est un syntagme, de même que tout groupe de signes plus grand ou plus petit, susceptible d'être ramené à la forme de la phrase. Il est d'usage, pour les syntagmes réduits, de remplacer ≪thème≫ par *déterminé* et ≪propos≫ par *déterminant*.' Marchand has taken over this distinction as that between the 'determinant' and the 'determinatum to which I shall return later (cf. *4.2.2.*). The relationship between complex lexical items and sentences may be described with the help of transformations. To have explanatory power, however,

the theory must show why the same sentence can lead to different reduced syntagmas, and why the same element becomes the determinant in one instance but the determinatum in another. As we shall see later, Marchand has developed just such a theory with his 'types of reference.' Unlike Generative Semantics, which does not explain why transformations yield different surface realizations, Marchand's theory provides a solution. We shall return presently to this subject, which may be regarded as a special case of the very general process of 'topicalization.'

2.2.1.

Simple lexical items have been analysed by lexical decomposition in a number of generative semantic articles, although most of these also deal with words which are obviously morphologically related to other items such as *inventor, invention, redden* (McCawley, 1968), or the verbs *jail, punt, cross, surround* (Binnick, 1968), and *open, hammer, nail* (McCawley, 1971). Attention has been focused especially on causatives (cf. Kastovsky, 1973). Binnick (1968) discusses motion verbs which are said to 'incorporate' prepositions together with the 'pure motive verbs' *go* and *come*. Thus *enter* contains *in*, *cross* the preposition *across*, and *climb* 'incorporates in its gloss' the preposition *up*. The method employed in such lexical decomposition is thus clearly paraphrasing. Binnick admits that *climb* as opposed to *ascend* is primarily a 'manner-of-motion verb,' since it may be used in sentences such as *John climbed down the ladder*. He believes that if 'motive prepositions' (such as *into, onto*) are derived from their locative counterparts (such as *in, on*), this may support the claim 'that motion verbs are ultimately derived from inchoative locatives, i.e., from *come to be*' (7).
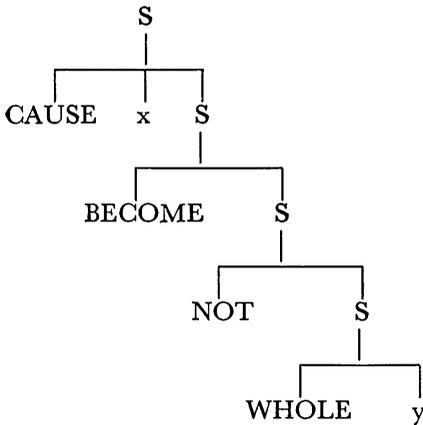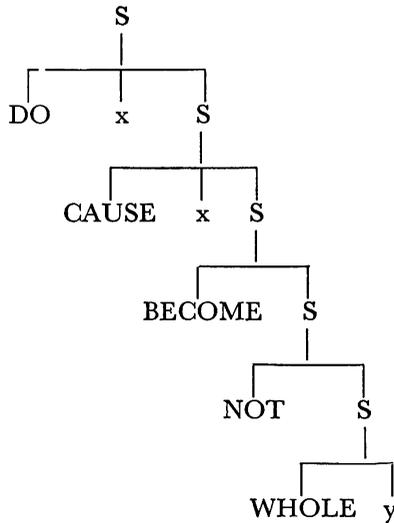
2.2.2.

The use of the method of paraphrasing for the justification of specific lexical analyses is hardly ever discussed in Generative Semantics. Binnick uses 'paraphrase' (or 'gloss' as its synonym) and informally speaks about the fact that certain 'verbs can be paraphrased by' (6) other verbs plus phrases. Postal (1970), in his analysis of the so-called 'surface verb' *remind* into the prelexical elements STRIKE + LIKE or STRIKE as SIMILAR, uses the parallelism of syntactic properties of clauses with *remind* on the one hand, and clauses with *strike* and 'similarity predicates' on the other hand as evidence. Bolinger (1971) has shown, I believe convincingly, that MAKE THINK is a better analytical counterpart of *remind*. Such widely diverging solutions cast doubt on the use to which the method of paraphrasing has been put in Generative Semantics. The necessary distinction between 'prelexical elements,' or 'atomic predicates' as theoretical constructs of the metalanguage, and the corresponding items of the object language in a paraphrase, is seldom discussed explicitly, although capitals are used as a notational device for the former (cf. Lakoff, 1970: 342, 344). The problem becomes particularly clear if we compare McCawley's original analysis of *kill*, which has by now become famous, with his decomposition of the same item in his article 'Prelexical Syntax' three years later (McCawley, 1971: 21), as represented in (1). I will here replace ALIVE by WHOLE, which changes the underlying structure into that of the causative verb *break* instead of that of *kill* (cf. Green, 1969; Lipka, 1975: 3.2.). A possible metaphorical relationship between the two verbs will not be discussed here.

I   x *breaks* y

(1968)   (1971)³

```
                  S                                   S
                  |                                   |
        ┌─────────┼─────────┐               ┌─────────┼─────────┐
      CAUSE       x         S              DO         x         S
                            |                                   |
                  ┌─────────┼─────────┐               ┌─────────┼─────────┐
                BECOME                S             CAUSE       x         S
                            |                                             |
                  ┌─────────┼─────────┐                         ┌─────────┼─────────┐
                 NOT                  S                       BECOME               S
                            |                                             |
                  ┌─────────┼─────────┐                         ┌─────────┼─────────┐
                WHOLE       y                                  NOT                  S
                                                                          |
                                                                ┌─────────┼─────────┐
                                                               WHOLE      y
```

2.2.3.

The insertion of DO (also in the analysis of *persuade* as DO CAUSE BECOME INTEND) is not discussed or even explicitly mentioned by McCawley in 'Prelexical Syntax.' An explanation for this insertion can be found in a paper circulated in mimeographed form in 1972, now published in Fujimura (1973: 331) (McCawley 1972: 61). McCawley himself admits: 'a large portion, probably a majority, of proposed semantic structures and proposed paraphrased relations appear to have been arrived at on the basis of about 5 seconds of thought' (48), and states, 'the literature . . . is full of inadequately justified semantic structures and paraphrases' (49). It is claimed in the paper 'that "alive" is semantically more basic than "dead",' and that modification can serve as 'one major class of evidence for semantic structure' (61). McCawley argues that *almost*[4] in the sentence *John almost killed Harry* is three-ways ambiguous according to what it modifies, and we therefore have three meanings for the sentence:

2. (a) John almost *did* something which would have had the effect of Harry's dying.
   (b) John did something which almost *had the effect* of Harry's dying.
   (c) John did something which had the effect of Harry's becoming almost *not alive*.

In (a) *almost* modifies, as McCawley claims, 'a higher clause whose predicate I will represent by DO and which expresses the relation between an agent and the action which he performs' (McCawley, 1972: 62). The underlying structure is represented by him as in (3).

The introduction of a higher predicate DO is thus justified.[5] As McCawley points

3.

John almost killed Harry = (2a)
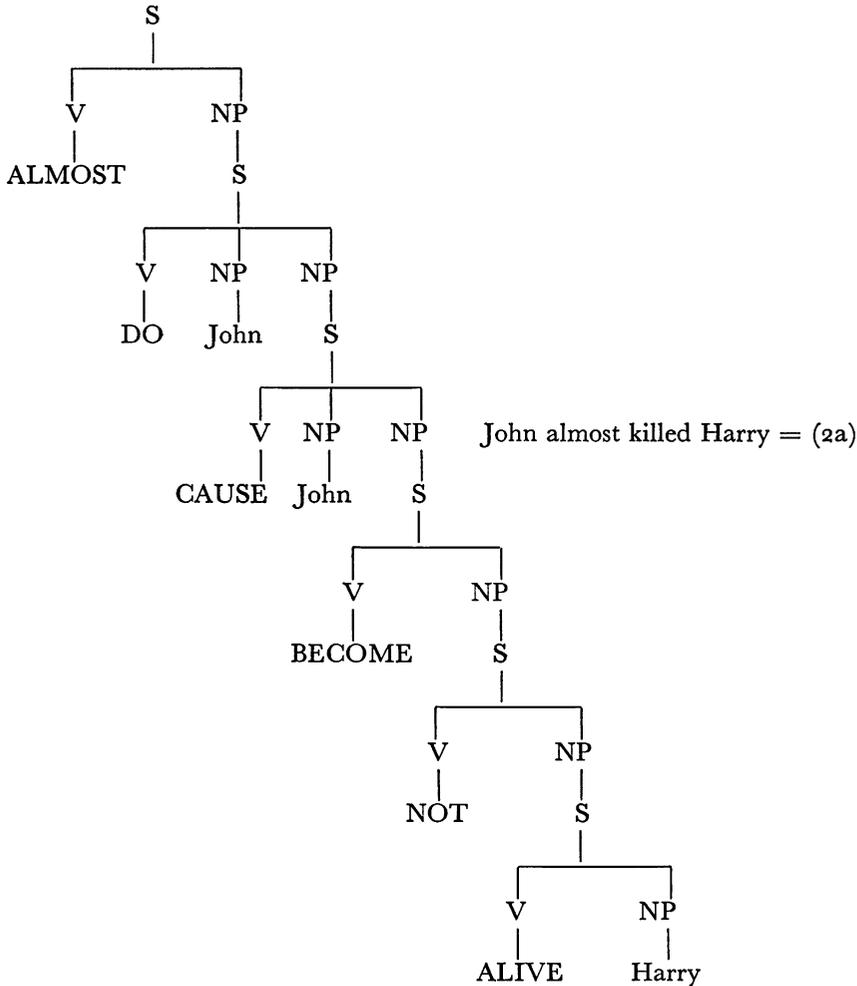
(McCawley, 1972: 62)

out, such an analysis is also supported by the corresponding pseudo-cleft sentences, in particular (4a):

4. (a) What John almost did was kill Harry.
   (b) What John did was almost kill Harry.
   (c) What John did to Harry was almost kill him.

Pseudo-cleft sentences, as well as cleft sentences, may be regarded as the result of the topicalization of either simple declarative sentences, such as *John killed Harry*, or

deeper underlying structures. 'Topicalization' (cf. *4.2.1.*, *5.*) will here be used to denote a process of both foregrounding of information (cf. *5.2.*) and selection of the 'topic' of information, that is a process which singles out certain elements in a sentence and makes them the 'topic' on which some 'comment' is made. The separation of elements permits more specific modification, as in the case of (4a–4c) with *almost*, or in the cleft sentences *It wasn't John who was killed (by Harry)*, *It was John who wasn't killed (by Harry)* with negation.

2.2.4.

That modification by *almost* and the conclusions McCawley draws from the observation are not without problems becomes evident from the exchange between Kac and Shibatani vs. McCawley in Kimball (1972: 117–156). The three-way ambiguity[6] of *John almost killed Harry* is disputed by Kac and Shibatani who claim that informants do not see a difference between (2b) and (2c) or (4b) and (4c). Kac argues in favour of an action-result analysis as opposed to McCawley's lexical decomposition and prelexical hypothesis. McCawley's reply to Kac's and Shibatani's counter-arguments is not quite convincing. In particular, his explanation of the ambiguity of the sentence *That John killed Fred surprised me* (although no modifying element such as *almost* is present) leaves something to be desired. He maintains that 'the complement of *surprise* involves an element whose scope can vary, namely topicization [sic!]—in one interpretation . . . the topic . . . is 'what happened,' and in the other it is 'what John did'" (Kimball, 1972: 140). The logical conclusion of this proposal, as drawn by Kac (Kimball, 1972: 152), is the claim of the existence of 'a prelexical element TOPIC' which lacks 'any independent justification.' In my opinion, the introduction of such an abstract element is as absurd as is the topicalization or 'topicization' of elements which have not previously been established as being contained in items of the object language, for example 'what happened,' 'what John did.' If nothing is separated first, it cannot be selected as the 'topic.' It should be added here that McCawley's proposal of an *underlying* DO is not only based on the conclusions drawn from modification by *almost*, but also on his acceptance of the hypothesis of event causation (McCawley, 1971: 20, 33) to which Fillmore (1971: 46) also explicitly subscribes (cf. *2.2.6*, *3.3.1.*).

2.2.5.

A stronger claim than that inherent in McCawley's specific analyses of *kill* as DO CAUSE BECOME NOT ALIVE and *persuade* as DO CAUSE BECOME INTEND was made in Ross (1972). Ross postulates that 'every verb of action is embedded in the object complement of a two-place predicate whose subject is identical to the subject of the action verb, and whose phonological realization in English is *do*.' (1972: 70). He argues against the hypothesis that such a surface element *do* might be inserted in constructions where it overtly appears, such as pseudo-cleft sentences, negatives, or questions. In his opinion, an underlying predicate DO is contained in all activity verbs (116) and deleted in sentences in which it does not appear on the surface. According to Ross (94), this DO is different from the so-called empty *do* of the auxiliary, as some sentences exhibit both *do*'s, such as:

5. What they didn't do is lock the door.

Ross labels the abstract verb of agency do_1 and distinguishes it from still another do_2, which appears in expressions such as *do one's homework*, and is said to be contained in the underlying structure of abstract nouns denoting activities, such as *dish-washing*, *homework*, *exercises*, and *tiger-strangling* (103). I must confess that I cannot see the difference between the two *do*'s. We will return to this question presently. Besides the empty *do*, Ross thus recognizes two underlying *do*'s. He claims that do_1 is also the two-place predicate relating an agent and an event which is responsible for the meaning 'intentional' contained in certain sentences (105, 114). This assumption has led Dowty (1972) to set up underlying structures containing two DO's for sentences expressing 'intentional causation' (66). According to Dowty, a sentence such as:

6. John caused a disturbance by walking out.

is ambiguous and the intentional or unintentional meaning is distinguished by the presence or absence of a second higher DO in the underlying structure. I believe, however, that a sentence such as (6) is not grammatically ambiguous, but rather vague as concerns the intentions of the referent (cf. Lipka, 1975: 4.1.2.). This is a purely extralinguistic question which has nothing to do with abstract semantic or syntactic structures. Intention, in my opinion, can therefore not be captured by an abstract semantic predicate DO.

2.2.6.

The distinction between intentional and unintentional causation is tied up closely with the assumption of 'event causation' in Fillmore (1971: 46, cf. also 42, 45) 'according to which the occurrence of one event has the occurrence of another event as its consequence,' and therefore with the very complex question of sentence embedding. In (6) one event, that is *John's walking out*, causes another, that is *a disturbance*. As the surface form of nominalization in both cases shows, (6) is complex and goes back to a relationship of two sentences connected by *cause*. The first sentence has the function of an Instrument case, the second one that of Goal.[7] The same interpretation would hold for both sentences *John caused a disturbance | by dropping dead at the climax of the performance* vs. *~| by shooting himself*. Only in the second sentence is John an Agent in the embedded instrumental sentence (*John shot himself* vs. *John dropped dead*) but this does not necessarily imply intentionality, since he might have shot himself accidentally. This shows that agentivity and intentionality are independent (cf. Cruse, 1973 and Huddleston, 1970: esp. 505f.).

2.3.

I have argued in 'Re-Discovery Procedures and the Lexicon' (Lipka, 1975: 5.2.) that the postulation of underlying semantic elements must be justified by objectively controllable procedures, and that the distinction between metalanguage and object language must be strictly observed in this process. As I pointed out in that article, three types of evidence may be used for that purpose: paraphrase relationship, semantic tests, and morphological surface structure. The last type of evidence, directly observable morphological structure, is most obvious in complex lexical items.

3.1.

I have mentioned before that McCawley, but also Ross, consider the predicate DO as relating an agent and an action or event. Ross (1972: 105) raises the question whether Fillmore's notion of 'Agent' could be 'replaced by the notion "possible subject of *do*"' and whether all, or at least some of 'the other actants' of Fillmore's theory could be 'replaced by deriving them from parts of higher clauses' (106). He only deals with the first question, which he answers in the negative, since 'there are sentences which contain the *do* of (2) [i.e. the predicate of the underlying structure, LL] but which have a (presumably) non-agentive subject of *do*' (106), such as:

7. What the rolling boulders did is crush my petunias to smithereens.

I believe that this is a case of confusion of object language and metalanguage (but cf. also 3.2.1. for a possible Force case). Let us take a closer look at the grammatical model of Case Grammar to see whether it is at all compatible or comparable with the lexical decomposition of Generative Semantics.

3.2.1.

In the classical treatment, 'The Case for Case,' Fillmore (1968: 5) defines 'cases' as 'semantically relevant syntactic relationships involving nouns and the structures that contain them.' The number of these deep cases and their labels have been revised several times, and their definitions have become increasingly semantic in the process. Fillmore's latest pronouncement (1971: 42) on the subject contains the following list of cases: Agent, Experiencer, Instrument, Object, Source, Goal, Location, Time. This order represents a case hierarchy, since it determines the choice of the subject of a given sentence 'in the "unmarked" instance' (37). He also discusses the possibility of the further cases Force (44), Path (50f.), and Benefactive (52f.). Cases are now specified as 'semantic functions' or 'roles' (37), and it is recognized that such a role may also be occupied by a sentence, viz. in the Instrument case (42). Such a sentence refers to 'an event which is understood as having some other event or state as its consequence' (42). If the Instrument is a noun phrase, this NP denotes 'the immediate cause of an event' or—with a psychological verb—'the "stimulus," the thing reacted to' (42). Where there is what Fillmore calls 'a genuine psychological event or mental state verb,' the entity related to it is termed the Experiencer (42). The case of Agent identifies 'the instigator or an action' (37), and the Object case is that of 'the entity which moves or undergoes change.' Fillmore openly admits that he uses this case as 'a wastebasket' (42), and also, generally speaking, that he has met 'an exceedingly large number of descriptive problems' (36) since the postulation of the model in 1968 which could not be solved within that framework.

3.2.2.

Fillmore shares one fundamental assumption with the generative semanticists, but also with many other contemporary linguists, viz. that the relationship between a verb and its subject and objects in a sentence can be explained as that between a predicate and its one, two, three, or more arguments. Fillmore considers all sentences as consisting of a propositional core and a modality constituent. In his publications he deals almost exclusively with the internal structure of the proposition. In

'Some Problems for Case Grammar,' Fillmore (1971: 37) states that in the propositional core of a simple sentence, adjectives and nouns as well as verbs can function as predicates or predicators. The case hierarchy mentioned before is said to guide the operation of syntactic processes, in particular the selection of the surface subject in a sentence. The case which comes first in that list is made the subject. Fillmore (1968: 57) calls this transformational process of subject selection 'primary topicalization.' We will see later that the distinction between 'primary' and 'secondary topicalization' must be given up if we regard information—more precisely the intentions of speakers concerning the communication of information—as responsible for the organization of linguistic expressions.

3.2.3.

I shall illustrate the theory with the surface verb *break* (cf. Fillmore, 1970), which we have decomposed before, parallel to McCawley's analysis of *kill*, as consisting of CAUSE BECOME NOT WHOLE or DO CAUSE BECOME NOT WHOLE (cf. Lipka, 1975: 3.2.). It seems obvious that there are at least two different verbs, the traditional transitive or causative *break* as in

8. John broke the window.

and the intransitive verb, which might also be termed inchoative, as in

9. The window broke.

Fillmore (1970: 122) distinguishes even a third verb as in the sentence

10. A rock broke the window.

A sentence with the causative *break* can also optionally contain reference to the instrument, as in

11. John broke the window with a hammer.

where the verb functions as a three-place predicate. Fillmore argues (1970: 124) that a separation into three distinct verbs is not necessary if we recognize that precisely the noun phrases which appear as subjects of the inchoative *break* can occur as the direct objects of the causative *break*. This generalization can be captured by setting up 'case frames' (cf. Fillmore, 1968: 27ff.) in which specific verbs occur. *Break* must appear together with an Object case, but the sentence may further contain reference to the Instrument and the Agent. It is thus a single verb that is contextually determined by the sentence frame. The process of primary topicalization explains the derivation of the actual sentence. There is no Experiencer in the case frame for *break*.

3.3.1.

Let us now return to the question of the comparability or equivalence of Case Grammar and Generative Semantics. The two approaches are apparently complementary as regards the treatment of lexical items and their possible internal structure. Fillmore postulates one item which may have several closely related contexts, whereas

the lexical decomposition of McCawley and others yields several closely related items which differ only in one or more prelexical elements. The presence or absence of the case Agent (or Instrument, cf. Fillmore, 1968: 28, 1971: 42) thus corresponds to the addition or subtraction of an atomic predicate CAUSE in an early Generative Semantics treatment, and to DO and CAUSE in the revised approach. An equivalence of CAUSE and Agent is assumed in Brekle (1970: 80f.), but the situation is more complicated (cf. King, 1974: 4.3.3.5.). It seems, however, that the case role of Agent must be identified with DO, especially if one accepts the notion of event causation, as is done in McCawley (1971: 20, 33) and Fillmore (1971: 46) (cf. Kastovsky, 1973: 264f.). CAUSE may be identified with the Instrument case although an abstract deep verb USE would also have to be considered a serious candidate. This case role can be filled either by an NP or by a sentence (functioning as a case in event causation, cf. Fillmore, 1971: 42, 46; Kastovsky, 1973: 279f.; King, 1974: 4.5.1.–4.5.2.). Fillmore (1971: 49) points out that the English verb *cause*, that is an element of the object language, has other interpretations besides that of relating two events, and therefore distinguishes a 'stative verb *cause*' from an 'active verb *cause*.' McCawley (1972: 62) draws attention to basically the same facts, stressing 'that "CAUSE" cannot be identified with the English word *cause*' because the latter 'covers a wider range of things.' He proposes a possible distinction of two predicates $CAUSE_1$, as contained in *kill*, and $CAUSE_2$, as contained in the paraphrase *cause to die* (66). (For the relationship between agentivity and the lexical item *do*, cf. Cruse, 1973: 12–15.)

3.3.2.

The preceding remarks by Fillmore and McCawley—which are incidentally some of the rare explicit discussions of the distinction between metalanguage and object language—may serve to support a critical approach to both the method of paraphrasing and the postulation of abstract underlying elements. DO has appeared relatively late in examples of lexical decomposition, and it is significant that it is not mentioned at all in Lakoff (1970). The nature of the theoretical relationship between the various *do*'s in Ross (1972) (who only distinguishes between DO and *do* on two pages, 114f., of his long article) and the DO's in Dowty (1972) is far from obvious. The same holds for McCawley's $CAUSE_1$ and $CAUSE_2$. It should be clear that evidence from neither paraphrase relationships nor surface structure (such as the English words *do* or *cause*) is in itself sufficient to establish underlying elements beyond doubt. From this conclusion it seems legitimate to propose other underlying elements than those which have customarily been accepted. Note that the inchoative predicate is usually symbolized as BECOME in McCawley's papers, but as COME ABOUT in Lakoff (1970).

3.3.3.

Case Grammar and Generative Semantics share the assumption that the syntactic and semantic relationships between the elements of sentences can be represented in in the form of predicates and their arguments. Thus the Agent case represents a certain relation between a noun phrase and a verb which can be regarded as equivalent to the same relation as represented by the atomic predicate DO. As quoted

above (2.2.3.), DO, according to McCawley, expresses the relation between an agent and an action. Ross and Dowty have claimed that it is contained in all activity verbs, which, as part of their meanings, imply the presence of an agent. Ross, further-more, claimed that it is also contained in abstract nouns denoting activity. For such action nominalizations, both Fraser (1970), and Newmeyer (1970) following him, have postulated an underlying structure containing an abstract noun with a semantic feature [+ACT]. I suggest that this semantic element is equivalent, if not identical,[8] to a nominalized atomic predicate DO which would be DOING. The former (viz. ACT) is an apparently atomic element of the metalanguage, but dominated by a categorial feature [N]; the latter (viz. DOING) shows such combination in its metalinguistic surface structure. The relationship between activity verbs and the corresponding action nominalizations is similar to that between the so-called factive predicates and their complements. For the latter, Kiparsky & Kiparsky (1971: 356) postulated an underlying structure containing an abstract head noun [FACT]. It is interesting to note that Lees (1960: 64–73, esp. 65) distinguished 'action nominals' from 'gerundive nominals' on formal grounds, but also on the basis of their meaning as either referring to an action (or way of doing something) or to a fact.

4.1.1.
There is one serious defect in Fillmore's theory, which Kastovsky (1973) discusses in his article on causatives, viz. that 'this kind of grammar is not able to describe the relations existing . . . between explicit causative constructions and sentences containing the corresponding morphologically complex causative verb' (1973: 263). Sentences such as

12. John persuaded Bill that the earth was flat.
13. The court legalized bussing.

would have underlying structures completely different from those underlying

12. (a) John made Bill believe that the earth was flat.
13. (a) The court made bussing legal.

although they are paraphrases. Kastovsky shows in detail how explicit causative constructions either involving a causative auxiliary (such as *make* or *have*) or a derived causative verb (such as *legalize, atomize, denazify*) can be derived in an exactly parallel fashion to implicit causatives with the help of prelexical transformations. I propose to supplement Kastovsky's treatment by the claim that the different surface realiza-tions are due to a different functional sentence perspective.[9] This concept has been central in the Prague school since its foundation. Some problems remain, however, which are due to the basically relational nature of semantic elements such as CAUSE or DO (cf. 3.3.1.; Cruse, 1973: 14; Lipka, 1975: 5.2.2.). As a result of this we find that some linguists talk about causative verbs, while others speak of agentive nouns (cf. Cruse, 1973: 11–14). And it is exactly this problem of the relational nature of agentivity which induced Fillmore to set up deep cases as syntactic-semantic rela-tionships.

4.1.2.

The phonological identity of the inchoative and the causative *break* and similar cases do not pose a serious threat to anyone who argues for a derivational relationship in the sense of word-formation between the two items and against regarding the intransitive and the transitive verb as contextually determined variants of the same item. The former approach can explain the relationship with the concept of 'zero-derivation.' For my use of this term cf. Lipka (1972: s.v. Index). The notion is supported by proportional equations such as

14. (a) *legal : legal/*IZE :: *clean* adj. : *clean/*∅ verb
    (b) *atom : atom/*IZE :: *cash* noun : *cash/*∅ verb.

Zero-derivation, in my opinion, must be regarded an extremely productive word-formative process both in English and German, but also in other languages (cf. Marchand, 1969: 359–89; Kastovsky, 1968; 1969). The postulation of a zero is by no means objectionable to any linguistic theory which attempts to go below the description of mere surface structure.

4.2.1.1.

I mentioned at the beginning of this paper that Marchand's theory of 'types of reference' can explain how the same underlying sentence may yield different word-formation syntagmas (cf. Lipka, 1971: 219), and that this process can be seen as a special instance of topicalization. We have noted that subject formation in case grammar is labelled 'primary topicalization.' Fillmore (1968: 57) distinguishes this from 'secondary topicalization' (cf. 1.). I will show in the following how topicalization as a process which selects one piece of information as the 'topic' about which a comment is made functions in the formation of complex lexical items.

4.2.1.2.

Topicalization as applied to the field of word-formation is discussed in Brekle (1970: 77–9, 128–35) and Kastovsky (1969: 6f.). Under the strong influence of Fillmore, Brekle distinguishes a 'primäre Topikalisierungsoperation' in word-formation (131) and 'weitere sekundäre und tertiäre Operationen—die man als Kommentivierung bezeichnen könnte' (132). Like Fillmore, he only deals with the proposition, which he labels 'Satzbegriff.' Kastovsky, on the other hand, regards topicalization as a transformation which changes an abstract 'kernel sentence' ('Kernsatz') into a topicalized 'underlying sentence' ('unterliegender Satz') which is realized on the level of 'parole.' Further transformations ('Wortbildungstransformation') convert the 'underlying sentence' into complex lexical items. The distinction between 'kernel sentence' and 'underlying sentence' had already been made by Kastovsky (although without using the concept of 'topicalization') in his dissertation (1968: 23–5), where it was stressed that context and situation are responsible for the selection of the 'theme' in the underlying sentence.

4.2.2.

According to Marchand, practically all word-formation syntagmas or complex lexical items (with a very few exceptions) can be subjected to a binary analysis into

3

a 'determinant' and a 'determinatum.' They may be further subdivided, of course, if these two immediate constituents are themselves complex and thus contain internal structure. From the grammatical point of view the 'determinatum' is the dominant part, since it is responsible for the word class category of the whole combination and it is combined directly with inflexional morphemes. Although the meaning and the referential potential of the determinatum is restricted by combination with the determinant, the determinatum is also semantically dominant, since it can be substituted for the syntagma. A *houseboat* and a *steamboat* are both *boats*, but a *boathouse* is basically a *house*, and *grass-green* can be replaced by *green*. Such substitution does entail a loss of information, but not a basic change of meaning, except with idiomatic expressions.

4.2.3.

The function of the determinatum in an underlying sentence can now be made the basis of a distinction of various 'types of reference.' I am here not following Kastovsky's terminology, but rather Marchand's broader use of 'underlying sentence' (see *4.2.4.* and also Lipka, 1972: s.v. Index). One of the reasons for this is the fact that topicalization in word-formation in my opinion produces nominals, not sentences, (*apple for eating, someone who eats apples, baby which cries*). (15) gives an illustration of Marchand's 'types of reference,' based on purely syntactic criteria. The types do not explicitly consider semantic relationships. Capitals will be used in the following to mark the determinatum and its corresponding topic in a sentence (cf. *5.3.*). A description based on types of reference will yield a

15. S(ubject)-type: *apple-eat/ER, cry/BABY*
    O(bject)-type: *eating/APPLE, draw/BRIDGE*
    Pr(edication)-type: *apple-eat/ING, arriv/AL*
    Ad(verbial Complement)-type: *swimming/POOL, carving/KNIFE.*[10]

Compounds and derivatives with identical or similar surface structure can be distinguished with the help of these types (cf. Lipka, 1972: 141–144, 223). However— what is much more important—Marchand's theory can explain why the same under-lying sentence such as

16. Someone eats some apple
        S   P   O

may result in several distinct word-formation syntagmas such as *apple-eater, eating-apple,* and *apple-eating.* The key to an adequate understanding of the reduction process is Marchand's recognition of the fact that: 'one grammatical part of the sentence is taken to be known: the Subject, the Object, the Predicate, the Predicate Comple-ment, or the Adverbial Complement, and it is this part of the sentence that becomes the determinatum of the composite' (1969: 32). Marchand therefore states that what he called 'types of reference' must be regarded as 'selectional patterns of information' (32). He points out that the distinction between old and new information has been recognized as the dichotomy of 'theme' and 'rheme' in the Prague school of linguistics, and under the terms 'topic' and 'comment' in recent times. He further remarks that sentences can be analysed under this aspect with the help of questions, such as for example 'What does the subject do?' etc. (cf. Marchand, 1965: 62).

4.2.4.

I shall try to demonstrate the usefulness of the concept of types of reference with the help of a better example than Marchand's *apple-eater, eating-apple,* and *apple-eating.* At the same time, this example will show the need for further refinements of Marchand's theory, and for possible improvement through combination with a case grammar approach. Such improvements result primarily from the explicit introduction of semantic relationships represented by 'deep cases,' which replace the apparently purely syntactic notions: subject, object, predication, adverbial complement. In agreement with Fillmore, I regard 'subject' as an element of surface structure only, resulting from topicalization of certain deep cases. In the following, I shall give a slightly modified account of Marchand's theory of 'types of reference.' The modifications are: a consistent symbolization and use of pro-forms and an elementary application of predicate logic. We shall take an underlying sentence containing the verb *pay* and will derive word-formation syntagmas from it by assuming various constituents to be known. This old information, the topic of the sentence, will be marked by capitals. *Pay* may be regarded as a four-place predicate with the Subject, the Direct Object, the Indirect Object, and a Prepositional Object as its arguments. The last will be disregarded in the following in order to simplify the presentation. If we fill the arguments (and possible determiners) with pro-forms we arrive at an underlying sentence

17. Someone *pays* something to someone (for something).

The verb may optionally be accompanied by further Adverbial Complements (for example of Instrument, Place, Time). If we assume, for example, the Adverbial Complement of Time to be filled with the concrete lexical item *day*, we arrive at the sentence

18. Someone *pays* something to someone on some *day.*

We can now regard this information as something known which will make it the determinatum of a reduced syntagma (cf. Lipka, 1971: 218f.) derived from this sentence. This yields the compound *pay-DAY* which must be considered an Ad-type of reference. If we regard the subject in (17) as known, symbolized by capitals, as in

17. (a) SOMEONE *pays* something to someone.

this yields the S-type *payER.* We can also consider the direct or the indirect object to be the topic of the sentence as in (17b) and (17c):

17. (b) Someone *pays* SOMETHING to someone.
    (c) Someone *pays* something to SOMEONE.

The Indirect Object-type gives *payEE,* which obviously is not as productive a word-formative pattern as the agent-noun derivation in *-er*, which—in Marchand's theory— is explained by the S-type of reference. This is not surprising, if we consider that only some English verbs have a direct or indirect object (such as *employ* or *pay*), but all have a subject. It should be noted, however, that while—in Marchand's terms—all agent nouns go back to underlying subjects, the latter do not necessarily represent agents (see *4.3.3.*). The Direct Object-type based on (17b) has two different surface

realizations in English: *payMENT* and also the zero-derived noun *pay∅*. This fact can be captured with the concept of the 'norm' of a language as introduced by Coseriu.[11] There are some semantic differences between *payment* and *pay* (noun), but also restrictions of usage. The noun *payment*, however, may also go back to a Predication-type of reference, since it can denote the action of paying, besides the sum of money paid. We may therefore distinguish *payment₁*, the Direct Object-type, from *payment₂*, the Predication-type.

4.3.1.1.

If we try to symbolize the Predication-type in the usual way we encounter difficulties. We may use (17d) as an approximation:

17. (d) Someone *PAY*s something to someone.

This shows clearly that PAY now combines two functions: 1. the topic (symbolized by capitals), which shows up on the surface as *-ment*, and 2. the carrier of the semantic content of the verb, which appears in the reduced syntagma as the determinant *pay-* in *payment*. Obviously, it cannot be the specific lexical meaning of the verb *pay*, which is known and therefore becomes the determinatum, since it does in fact become the determinant. It must be some other quality inherent in *pay*, the 'abstract predication' (cf. Kastovsky, 1968: 27–9), or more precisely, the act, action, or activity, which is topicalized and appears on the surface as *-ment*. This assumption is strengthened by the parallel examples of the other pro-forms in the sentence (17), which are realized as the suffixes *-er*, *-ee*, and *-ment* in the reduced syntagma. We therefore want a pro-form for the predicate corresponding to *someone*, *something*, and *someone* for the subject, direct object, and indirect object. The underlying atomic predicate DO which, according to Ross and McCawley, is contained in every activity verb, and its surface realization *do* would seem to be just the element we are looking for. I believe that the underlying DO—as the component representing verbness or activity— will contribute to the solution of the problems connected with the Predication-type of reference. The pseudo-cleft sentence construction, in my opinion, supports this assumption.

4.3.1.2.

As we have seen in *3.3.3.*, DO basically represents the relation between an agent and an action or activity. It can be related to a semantic element [ACT] in action nominalizations. It is quite significant in this connection that Marchand (1965: 62f.), in an early stage of the development of his theory of types of reference, used the label 'A(activity)-type' for the later Predication-type and the diagnostic question 'What is the Activity?' (cf. also Kastovsky, 1968: 27f.; Marchand, 1969: 33). There is obviously a very close relationship between the English lexical items *do*, *act* (verb), *act* (noun), and *action*, that is, between certain elements of the object language which are used as labels for underlying elements (that is elements of the metalanguage). Let us apply a linguistic analysis to *act*, verb and noun, and *action* in order to clarify the possible connection between the metalinguistic elements DO and ACT. If we extract definitions from a widely used smaller dictionary (*The Advanced Learner's Dictionary of Current English*), *act* (verb) can be interpreted as 'do sth., perform actions,'

while *act* (noun) is defined as 1. 'sth. done,' and 2. 'process of doing, action.' The derivation of nouns from verbs which results in ambiguous nouns denoting (a) a process (= 2.), e.g. *His rapid drawing fascinated me*, and (b) the result of that process (= 1.), e.g. *His drawing was large* is a very common rule in English (cf. Lees, 1960: 64f.). The former was termed 'action nominal' by Lees, the latter 'derived nominal' by Chomsky (1970). The process or action noun can be explained by action nominalization (cf. *4.3.5.*). I believe, therefore, that *act* (noun) must be regarded as a zero-derivative (*act∅*) from the corresponding verb. The parallel of *act/ion*, with an overt derivative suffix, supports this assumption. The zero-derived process noun *act∅* can be paraphrased by 'process of doing, action' and the corresponding metalinguistic elements DOING and ACTION are therefore equivalent. I conclude that the choice between an underlying atomic predicate DO or ACT involves an arbitrary decision. Either is a basically relational element connecting nouns (or noun phrases) and verbs (cf. *3.3.1.–3.3.3.*). There is a clash between the criteria which may be used to justify DO or ACT. In the case of *payment$_2$*, the Predication-type, paraphrase, viz. 'act(ion) of paying,' yields motivation for ACT, while surface evidence, such as the pseudo-cleft sentence *What someone does is pay*, will support DO.

4.3.2.

Marchand does not distinguish the Direct Object-type from the Indirect Object-type in his book, but had mentioned the latter type in an earlier article (1965: 65). However, he makes a distinction between the effected object (or object of result) (cf. the 'Factitive' in Fillmore, 1968: 25, and 4; Wagner, 1971: 270) and the affected object. He further subdivides the Ad-type according to whether the complements are of time, place, or instrument. All these distinctions are evidently no longer made according to purely syntactic criteria, but involve semantic phenomena. If one believes, as many linguists do nowadays, that it is theoretically and practically impossible to draw a strict line between syntax and semantics, then this is not a serious problem. The difficulties connected with the Prediction- or Activity-type clearly show that such a dividing line cannot be upheld.

4.3.3.

As quoted before, Fillmore's cases had originally been set up as semantically relevant syntactic relationships. In 'Some Problems for Case Grammar,' they are considered 'semantic functions' and they are defined there in exclusively semantic terms. I believe that a solution to the problems inherent in Marchand's 'types of reference' can be found by making case categories the basis of the types, instead of a mixture of syntactic categories such as subject, indirect object, and semantic factors, such as object of results, instrument. It will be immediately evident that Marchand's Subject-type of reference goes back to a topicalized Agent case. Note that traditionally such derivatives have been called 'nomina agentis,' or agent nouns. As early as 1960 Lees (1960: 69–71) had established transformational rules for the derivation of the 'agentive nominal,' which he considered to be 'tenseless and with no modifiers other than an adjective from a parent adverbial in -Ly' (70). The concepts of Agent, Instrument, etc. involve semantic relationships, whereas 'subject' is a notion of

surface structure which arises through topicalization of a deep case. That *-er* is not simply tied up with subjecthood may be seen from the ambiguity of *diner, sleeper,* which may be derived from locative expressions, and from *blotter, cooker, fertilizer* etc., which in the 'norm' of English are exclusively considered instruments. On the other hand zero-derived *bore, cheat, cook, judge* etc. must clearly be regarded as agentive nouns. It is not difficult to see that the subdivisions of Marchand's Adverbial Complement-type are equivalent to Fillmore's Instrument, Location, and Time. The Indirect Object-type can be explained as a topicalized Goal case, while other syntactic objects correspond to Fillmore's Object. Marchand's 'effected object' can be identified with the 'Factitive' of early Case Grammar. The only problem which remains is again the Predication- or Activity-type. If we apply my proposal to our example we get the following:

19. *payER*   = Agent-type
   payEE   = Goal-type (possibly Benefactive)
   $\left.\begin{array}{l}\textit{payMENT}_1\\\textit{pay}\emptyset\end{array}\right\}$ = Object-type
   payDAY   = Time-type
   $\left.\begin{array}{l}\textit{payMENT}_2\\\textit{payING}\end{array}\right\}$ =   ?   (Predication-type).

There is obviously no solution for the Predication-type in a Case Grammar model, since this would involve topicalization of the verb and there are no cases for verbs. This shows that although cases are explicitly defined as relational categories, the nominal component still plays a predominant role. Complex lexical items based on other underlying sentences than (17) can serve to illustrate further topicalized cases, such as *carving-KNIFE, dishwashER* (Instrument-type); *swimming-POOL, bus-stop$\emptyset$* (Location-type); and—with stative verbs which probably need not be verbs denoting 'mental state'—the Experiencer-types *mournER, sleepER*. Sentences with other stative verbs yield complex lexical items such as *containER, stickER, float$\emptyset$*, which again show that Marchand's Subject-type is not necessarily an agent. Although these 'entities' neither move nor undergo change (Fillmore, 1971: 42) they are probably best assigned to the 'wastebasket' of Object case.

4.3.4.

The proposal made in *4.3.3.* and in this paper in general is not entirely new. A very similar suggestion is made in Lees (1970: 181 ff.). The transformational derivation of four types of nominalization (Agentive, Dative, Instrumental, and Factitive) on the basis of Fillmore (1968) is sketched in Wagner (1971), where the ambiguity of the resulting surface structures is stressed. Wagner, however, does not mention topicalization or matters of information, while Lees (1970: 181) explicitly deals with the choice of the 'topic of conversation.' In view of our discussion of the Predication-type, it may be useful to make some further observations on one specific type of nominalization, viz. the action nominalization.

4.3.5.

The action nominalization is totally neglected in Chomsky's (1970) rather chaotic article on nominalizations. Although he makes reference to Lees (1960) Chomsky does not use the term, but labels this type 'mixed forms' (1970: 215), which are dealt with in approximately half a page (214). In my opinion the regularities of the action nominalization would have represented strong counter-evidence against Chomsky's lexicalist hypothesis. Fraser (1970) and Newmeyer (1970) have shown, I believe convincingly, how action nominalizations can be explained on the basis of a transformationalist position. Newmeyer (1971), furthermore, claimed that Chomsky's arguments for the lexicalist position 'give at least as much support for a transformational analysis' (786). An example from German may demonstrate how Chomsky seriously underestimated the productivity of 'derived nominals.' Action nominalization of German verbs is extremely productive—although not unrestricted—with a suffix *-en*. For example, *fahren* (infinitive) can have an action nominal *das Fahr/en*, but also a 'derived nominal' *die Fahr/t*. There is an obvious transformational relationship between

20. *Wir fahren morgen mit dem Schnellzug nach Italien.*

and the nominalization

21. *Unsere morgige Schnellzugfahrt nach Italien.*

(21) is ambiguous: it may be an action nominal as in *Unsere morgige Schnellzugfahrt nach Italien (muß gut vorbereitet werden)*, or it may denote a fact, something Fraser (1970) labelled 'factive nominal,' which corresponds to both Lees' (1960) and Chomsky's (1970) 'gerundive nominal,' as in *(Wir freuen uns alle über) unsere morgige Schnellzugfahrt nach Italien.* Lees (1960: 187) states that 'the nominalized infinitive in German' is probably the 'best correspondence for the Action Nominal,' but the fact that his examples *(Johanns Schreiben des Briefes . . . , Johanns Einwenden gegen Wilhelm . . .)* are in my judgment not naturally acceptable shows that there are further restrictions. However, it is probably beyond doubt that action nominalization in English, which adds a suffix *-ing*, is an extremely productive process. It must be explained in a framework using types of reference as a Predication-type. Thus, in our example, we will have *payING* besides *payMENT₂*. The syntactic and semantic relationship between the so-called 'derived nominals' such as *payment₁*, *pay∅*, *payment₂*, and action nominals such as *paying* certainly deserves much further investigation. Note that Kastovsky (1968: 27) explains *strolling* as 'action of . . . ,' but *stroll∅* as 'act of . . . .'

5.1.

The question now arises as to how topicalization in word-formation is to be related to Fillmore's distinction between 'primary' and 'secondary' topicalization. Either the simple dichotomy will have to be further refined, or the distinction will have to be abandoned altogether and replaced by a recognition of a variety of processes of topicalization. All of them would be specific instances of a basic functional linguistic perspective, which is not restricted to sentences alone. I believe that the latter alternative should be adopted. This means that Fillmore's rule 54 for the

' "unmarked" subject choice' (1968: 33), which implies a ' "*normal*" [my emphasis, LL] choice of subject' (1968: 37) is abandoned, in favour of more general topicalization rules for surface structure. I therefore do not regard cases as existing in a 'hierarchy . . . [which] guide[s] the operation . . . of subject selection' (Fillmore, 1971: 37). I largely agree with Lees (1970: 181) who states that 'the only difference between, *e.g.* an active sentence and its corresponding passive version is the choice of whether the agent noun will be the "topic of conversation" or the patient noun.' However, the choice expresses—in Prague terms—a different 'Satzperspektive' (cf. Mathesius, 1929), that is, the sentences are not perfect paraphrases, or completely synonymous. The function of the surface subject is not altogether irrelevant, and one must also keep in mind that, as Mathesius (1929: 202) pointed out, there is a tendency in English 'das Thema [our "topic," LL] der Satzaussage womöglich zum grammatischen Subjekt des Satzes zu machen.' This accounts for the differences between e.g. *Mary has the children with her* vs. *The children are with Mary* and partly also for *Bees are swarming in the garden* vs. *The garden is swarming with bees*, which Fillmore (1968: 48, fn 40) attributes to differences of 'focusing.' I believe that topicalization, that is picking out a 'topic' or 'theme' of conversation, usually involves choice of a specific information 'focus,' which may be expressed by intonation and stress. The two choices are basically independent. 'Focus' is relevant for the distinction of new and old information, and denotes the foregrounding of certain elements of information. In the written language medium, where such a foregrounding by means of stress and intonation is impossible, either certain typographical devices are employed, or constructions such as for example the cleft sentence or pseudo-cleft sentence in English are used, which single out (topicalize) certain elements and thereby indicate a specific information focus. The same underlying conceptual structure consisting of a predicate and its arguments may appear on the surface in various shapes, as a full declarative sentence such as *someone eats some apple*, a pseudo-cleft sentence: *what someone does is eat some apple*, a nominalization: *apple which can be eaten*, or a compound: *eating-apple*. Topicalization may differ as to the result but also as concerns the elements which are made the topic. We may therefore distinguish between sentential topicalization and topicalization resulting in nominalizations or complex lexical items. Topicalization, that is the separation of elements and the selection of a 'topic' or 'theme,' is the prerequisite for assigning 'focus' to the separated elements, that is semantic prominence and the distinction of old and new information. A single result of a topicalization process, for example a declarative sentence, may be realized with a wide range of focus assignment, depending on stress and intonation. Schmerling (1971) has argued against the notion of normal stress and has shown convincingly that the unstressed part of a sentence expresses 'presupposed material' (243). I will consider these so-called 'presuppositions' as representing old, and therefore unimportant, information—that which is already known, due to either linguistic or extralinguistic context (cf. Schachter, 1973: 40–2). Such an explanation for the intonation of sentences corresponds nicely with the situation we can observe in word-formation. Except for some prefixial combinations, the determinatum usually receives weak stress in English, as in *bláckbòard, éating-àpple, páymènt, arrivàl*, since it contains old information. What is new and therefore more important, receives stronger stress, since it is made the comment and focus, exactly as in sentences.

5.2.

The situation is not as simple, however, as it seems at first sight. I believe that a distinction must be made in the description of actual utterances between topic, comment and focus, and also between situations where focus is marked or unmarked. Such a distinction was proposed by Halliday. I regard 'topic' and 'focus' as different kinds of prominence, as is also done in Quirk-Greenbaum (1973: 406–29). Both may fall together, for example in the cleft sentence construction *It was JOHN who killed Harry*, where the element *JOHN* may be said to have been given 'both thematic and focal prominence' (Quirk-Greenbaum, 1973: 414). In the pseudo-cleft sentence, however, the verbal action is topicalized with the help of *do* (which is known), while the main verb may be made the 'focus,' as in *What John did was KILL Harry*. 'Focus,' signalled by the intonation nucleus, is never assigned to old and therefore unimportant information. A great deal of work has been done on the subject by the Prague school linguists, both before and after the war. Unfortunately, there is considerable terminological confusion in the field. As with the term 'presupposition,' we are in great need of a terminological straightening-up. Hockett (1958) and Vachek (1966), for example, use 'topic' and 'comment' concerning information, while Halliday (1967/68), and George Lakoff (1971: 236), following him, speak of the 'information focus.' Chomsky (1971), who introduces 'focus' without definition (cf. Schachter, 1973: 42) first tentatively calls it 'the predicate of the dominant proposition of the deep structure' (199), but then proposes that it is 'determined by the surface structure, namely as the phrase containing the intonation center' (200). Schachter (1973) considers cleft sentences as only one type of many other 'focus constructions' which exist in English[12] (20), and discusses the similarity 'between focus and restrictive relative clause constructions in four unrelated languages' (20) in great detail.[13] In his opinion the distinction between focus and presupposition amounts to a division of the sentence into two parts which are assigned 'different degrees of communicative importance' (42). In focus constructions 'the new information is FOREGROUNDED, OR IN THE FOREGROUND, while the presupposed information is BACKGROUNDED, OR IN THE BACKGROUND' (42, Schachter's emphasis). Halliday (1968) does not use 'topic,' but distinguishes 'theme' and 'rheme' on the one hand from 'information focus' on the other. 'Information focus' determines what is given and what is new information. In the following three sentences capitals symbolize heaviest stress or, more precisely, the nucleus of the tone unit. Focus may be unmarked, as in

22. John saw the PLAY.

or marked, as in

23. (a) JOHN saw the play.

or in

   (b) It was JOHN who saw the play. (Halliday, 1968: 204).

From these short remarks it may have become clear that much work remains to be done in the field of what Firbas (1964: 270) has termed the 'communicative dynamism' of language.

5.3.

If a distinction is made between 'topic' (or 'theme') and 'focus' the question may be raised whether topicalization is a syntactic process which could be accounted for by transformational rules as, for example, those proposed by Ross (cf. 1972: 91, 95). This obviously, would call for an outline of the grammatical model one subscribes to, especially an explicit formulation of the concept of 'transformation' one uses, that is whether one believes in prelexical, cyclic, precyclic, and postcyclic transformations, and whether, for example, one believes Passive to be one or two transformations. Schachter's 'syntactic process' of 'Promotion' (1973: 30f., 34, 40), which he regards as the correlate of the semantic process of 'Foregrounding' would be another interesting candidate. Ross' (1972: 91) remark, 'it appears that only NP's can be topicalized,' would seem to be contradicted by our observations about pseudo-cleft sentences and action nominalizations. If we start from the basis of a Case Grammar model—as I have done in this paper—topicalization may be seen as a single process which involves two types of choice: 1. the selection of the 'topic' (or 'theme'), that is the thing about which a statement is made, and 2. that of the 'focus,' that is the element which is semantically prominent, either because it contains new information or because it is in explicit or implicit contrast with other units of information; this is the element with the greatest communicative dynamism. 'Focus' can be achieved through intonation—both in sentences and complex lexical items—or by using specific focus constructions. In complex lexical items, the determinant must be identified as the focus, while the determinatum corresponds to the topic, which at the same time contains old information, that is, that which is known.

6.

I have tried to show by applying the concept of topicalization that linguistic theory can profit by a widening of its aims. I believe that it should attempt to explain both the semantic content of linguistic units and of expressions of various shapes (such as declarative sentences, cleft sentences, nominalizations, etc.) and at the same time the communicative intentions of the speakers. These intentions must not be confused with the purely extralinguistic intentions of the persons denoted by pronouns, nouns, or noun phrases contained in linguistic utterances, as is done by Dowty and others. Topicalization can be understood as a universal process which serves to express the communicative dynamism inherent in all languages. All languages are used to communicate and this means they convey information according to the intentions and beliefs of their speakers. I would claim that basically the same processes are at work in the formation of sentences and of complex lexical items.

NOTES

1. It is not claimed here that the analogy between distinctive features and lexical decomposition is perfect. The latter produces hierarchic structure, while phonetic features are regarded as unordered. The parallel is in the factorization of simple linguistic elements.

2. Cf. the publication of a collection of Marchand's most important articles in Marchand (1974), and especially the introduction by D. Kastovsky, which gives a detailed account of the development.

3. The tree is an adaptation of the explicit statement '*kill* encodes "DO CAUSE BECOME NOT ALIVE" ' (McCawley, 1971: 21). Cf. Dowty (1972: 62) and Green (1969: 78).

4. The same observation had led McCawley to a different conclusion in 1968, viz. that the grammar should be 'provided with a prelexical transformation which moves *almost* into a higher clause' (McCawley, 1968: 79, fn. 2).

5. Further discussion leads McCawley to the conclusion: 'the dictionary entry for *kill* involves DO as an optional constituent' (McCawley, 1972: 68).

6. This phenomenon was first noted and discussed by J. L. Morgan, a fact which is not acknowledged in McCawley (1972).

7. Cf. 3.3.1. and the literature quoted there. It is interesting to note that in Fillmore (1968: 28) the English verb *cause* is assigned a frame [——S+A], where S has the function of Objective. As Huddleston (1970: 505, fn. 2) points out, the subject of active *cause* is not necessarily animate, e.g. in *The rain caused the match to be abandoned*.

8. Cf. Fillmore's analysis of *kill* which 'would require that the Instrument or causing clause contain a verb that never shows up on the surface, something having the meaning of *act* or *do something*. An analysis we might give to *John killed the rat*, would be something like *John's actions caused the rat to die*. The verb *kill*, then, substitutes for the conflated-clause construct *by doing something cause to die*' (1971: 50).

9. Kastovsky (1973: 308) does mention the fact that explicit vs. implicit causatives 'exhibit differences of perspectives, of focus,' and that 'their difference somehow must be connected with topicalization processes.' He also points out that 'the passive is due to a topicalization process' (308). However, he does not incorporate this insight in his explanation of the derivation of causatives.

10. Marchand's classification, although seemingly based on syntactic function alone, does in fact use knowledge of semantic relationships. e.g. *carving-knife* is not derived from a sentence 'The knife carves' but from 'Someone carves (something) *with a knife*,' where *knife* appears in an adverbial complement of instrument. This procedure is equivalent to Fillmore's (1966/69: 373f.) concept of 'understood agent' for sentences such as *The rats were killed with fire*, *The door was opened with this key* which are 'understood as having an implied human agent' (374). The concept is given up in later papers, but cf. Huddleston (1970: 505, fn. 2): 'Instrumentals . . . apparently presuppose an animate Causer.'

11. Coseriu (1962: 11–113) proposed to supplement Saussure's dichotomy of 'langue/parole' by a three-level distinction between 'sistema/norma/habla,' i.e. 'system/norm/speech,' which may be regarded as levels of abstraction. The 'norm' comprises the obligatory realisations of the system of a particular language on various levels, as well as the non-systematic elements, such as irregular inflections (*oxen, taken*). The concept is extremely useful in lexicology and word-formation. For example, the fact that the agent noun from the verb *cook* is not *cooker*, but rather the zero-derived *cook∅*, cannot be predicted from the productive system of agent-noun formation, but is nevertheless a firmly established feature of the 'norm' of English. *Dishwasher* may be both agent and instrument.

12. Cf. the French constructions with *c'est . . . qui, c'est . . . que* (*Ce fut SEULEMENT EN 1869 que le canal de Suez fut terminé*), and German examples such as *GANGSTER sind es, die das getan haben*; *SINGEN kann er gut*; *SCHREIBEN tut er selten, dafür ruft er öfters an* (with a colloquial insertion of *tun*).

13. Cf. his account of topicalization in Illonggo (24–6).

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