PROCEEDINGS OF THE FIFTEENTH ANNUAL MEETING

OF THE

BERKELEY LINGUISTICS SOCIETY

February 18-20, 1989

GENERAL SESSION

and

PARASESSION

ON

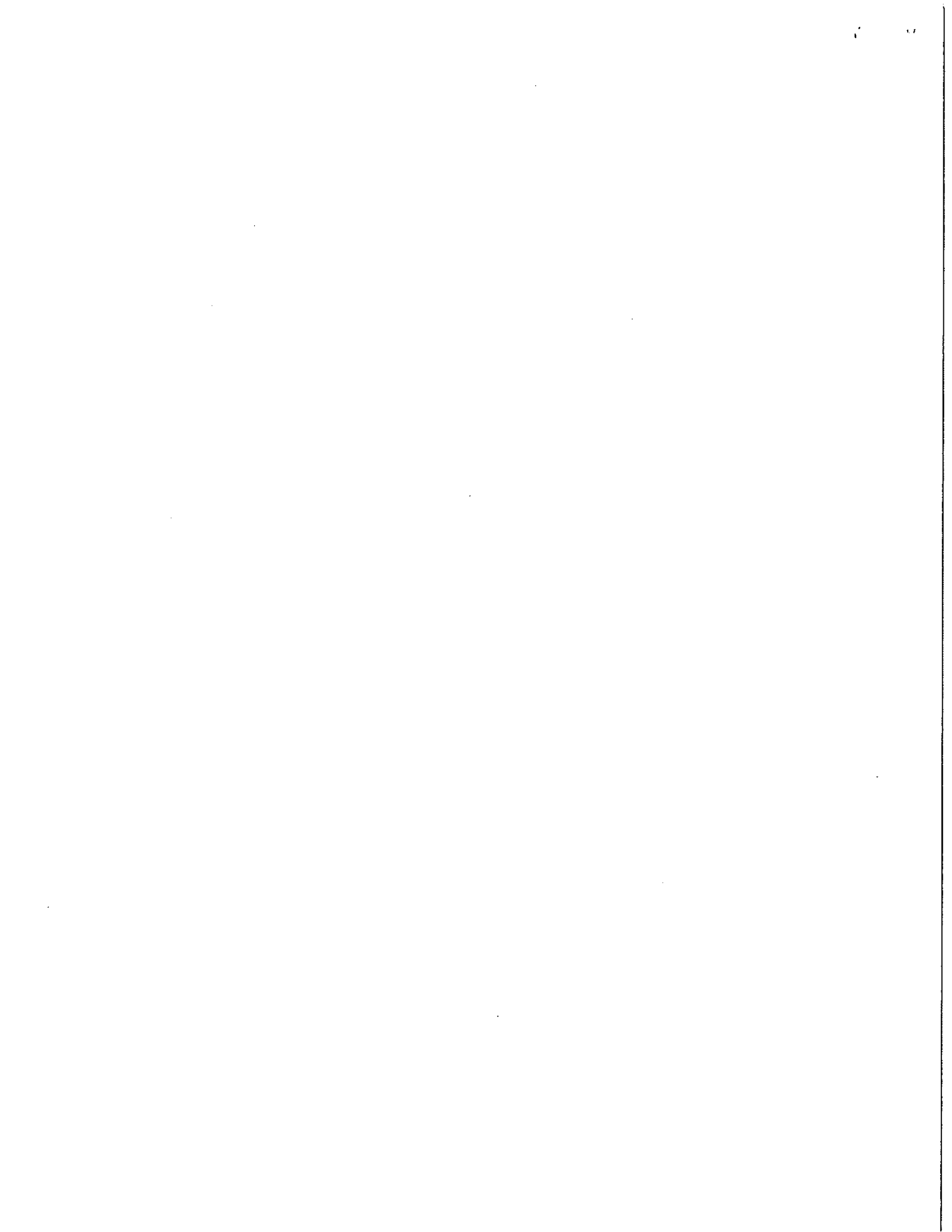THEORETICAL ISSUES

IN

LANGUAGE

RECONSTRUCTION

edited by

Kira Hall

Michael Meacham

Richard Shapiro

ES and "Missing" Subjects in German

Hana Filip
University of California at Berkeley

1. DISTRIBUTION OF 'ES' IN GERMAN CLAUSES. The subject in German can be roughly characterized as the noun phrase in the nominative case which determines agreement (cf. Reis 1982:20ff.). As a general rule, the subject must be overtly expressed in tensed clauses. However, in certain so-called impersonal passives there is no overt subject:

(1-a) *Gestern wurde (*es) getanzt.*
    yesterday was-AUX danced-PAS
    'There was dancing yesterday.'

(1-b) *Wurde (*es) getanzt?*
    was-AUX danced-PAS
    'Was there dancing?'

(1-c) *Er sagt, dass (*es) getanzt wurde.*
    he says that danced-PAS was-AUX
    'He says that there was dancing.'

The impossibility of inserting the element *es* 'it', third person singular pronoun, in (1a) - (1c) proves that these constructions do not allow either a subject or an expletive element in the positions that are typically subject positions in German.

Another type of a 'subjectless' construction in German is realized with verbs of physical perception, such as *frieren* 'to freeze', 'to be cold', and also with verbs of cognition, such as *grauen* 'to dread', 'to be afraid of something'. Here *es* can be omitted if it occurs after a finite verb, or if it occurs in a subordinate clause:

(2-a) *Mich friert (es).*
    me-ACC freezes (it)
    'I freeze.'

(3-a) *Ihm graute (es) vor der Prüfung.*
    him-DAT dreaded (it) because-of the-DAT exam
    'He dreaded the exam.'

(2-b) *Friert (es) Dich?*
    freezes (it) you
    'Are you cold?'

(3-b) *Graute (es) ihm vor der Prüfung?*
    dreaded (it) him-DAT because-of the exam
    'Did he dread the exam?'

(2-c) *..., dass (es) mich frierte.*
    ... that (it) me-ACC freezed
    ' ... that I was cold.'

(3-c) *..., dass (es) ihm graute.*
    ... that (it) him-DAT dreaded
    ' ... that he dreaded the exam.'

In main declarative clauses, and just in case no other constituent occurs in the clausal onset position, the element *es* is obligatory (indicated by "*(es)*") in the corresponding main declarative clauses, as (4), (5) and (6) show:

(4) **(Es) wurde getanzt.*
    it was-AUX danced-PAS
    'There was dancing.'

(5) **(Es) friert mich.*
    it freezes me
    'I freeze.'

(6) **(Es) graut ihm.*
    it dreads him-DAT
    'He is afraid (of something).'

Apart from occurring in constructions with "impersonal" passive predicates (1), with verbs of physical perception (2) and verbs of cognition (3), the constituent *es* can also appear as a full pronominal argument (7), with weather verbs (8), in sentences with an inverted subject-NP (9) and with extraposed sentential subjects (10):

(7) **(Es) klopft.*
    it knocks
    'Somebody is knocking at the door.'

(9) **(Es) liegt ein Brief auf dem Tisch.*
    it lies a letter on the table
    'There is a letter lying on the table.'

(8) **(Es) regnet.*
    'It rains.'

(10) **(Es) wundert mich, dass du gekommen bist.*
    it wonders me-ACC that you come-PAS are-AUX
    'I am surprised that you have come.'

At first sight the distribution of the constituent *es* in German appears to be puzzling: the problem is to account for those cases in which *es* must appear, as in (4) - (10), for those cases in which it need not appear, as in (2) and (3), and most importantly, for those cases in which it must not appear, as in (1). The above examples show that German differs from English, for example, where missing subjects are not permitted, and also from "pro-drop" languages, like Romance languages, for instance, where subjects need not be overtly expressed in such clauses as (7). In particular, the fact that there are tensed clauses in German without any overt subject-NPs is of great interest and poses a number of problems to any current linguistic theory.

2. SOME RECENT PROPOSALS. According to Heidolph et al. (1981:325ff.), there are three kinds of semantically empty, or expletive, *es* in the examples (4) - (10): the place-holder *es* in (10), the "theme"-*es* in (4) and (9), and finally, *es* in (5) - (7) does not function either as a place-holder or a "theme". Haiman (1974) distinguishes between supposedly 'subjectless' constructions such as (4), (6), and (8) from such constructions in which the subject is present, such as (9) and (10). According to Seefranz-Montag (1983:13, 40), in such sentences as (4), (6) and (8), *es* is a lexically empty subject, whereas such sentences as (9) and (10) contain an *es*-subject in the function of a correlate to the extraposed subject-NP and sentential subject, respectively. Lenerz (1985:103, 129) proposes yet another distinction. According to him, cases such as (6), (8) and (10) have a syntactic *es*-subject. This syntactic subject is, according to him, obligatory with semantically null-place predicators, as in (2), and with verbs of cognition and physical perception, such as (5) and (6). In (4) there is no subject argument, in (9) there is both a formal *es*-subject in the clausal onset position and a notional subject argument in the postverbal position.

The differences between the above proposals illustrate the difficulties in describing the properties of the element *es* in German. Even though they all provide valuable insights both into the diachronic and synchronic facts, they all fail to describe the distribution of *es* and the existence of subjectless finite clauses in German in a systematic way.

First, I will argue that not all *es* constituents in the above examples are empty expletive, or "dummy", constituents, and that not all of them are subjects. I will propose that we must distinguish between those cases in which *es* satisfies a valency requirement of a main lexical predicator in a sentence (*lexically determined es*) and those cases in which *es* merely fills the first syntactic position in main declarative clauses (*clausal onset es*). The *clausal onset es*, as in (4) and (9), is semantically empty and does not instantiate any valency requirement. As far as the *lexically determined es* is concerned, we must distinguish between those cases in which *es* is a referential, subcategorized subject-argument, as in (7) and (8); those cases in which *es* is a non-referential, subcategorized subject-argument, as in (5) and (6); and finally, those cases in which *es* co-instantiates a subcategorized subject argument of a main lexical predicator, as in the sentential subject extraposition (10). In all the above examples *es* obligatorily appears in the clausal onset position of main declarative clauses, just in case the clausal onset position is not taken by some other constituent. In short, except for the clausal onset in main declarative clauses, *es* may or may not appear depending mainly on its status with respect to subcategorization, its semantic properties and pragmatic function in the whole construction.

Second, I would like to show that it is not necessary to postulate an empty structural subject position in the syntactic structure of the German tensed clauses which do not contain any overtly expressed subject or dummy NP. So (1c), for example, can be represented as

(11) ..., dass [[getanzt wurde]$_{VP}$]$_S$

and not as

(12) ..., dass [[e]$_{NP}$ [getanzt wurde]$_{VP}$]$_S$

as it is assumed, for instance, by Safir (1984) within the Government-Binding Theory.

3. GERMAN CLAUSE STRUCTURE AND GRAMMATICAL CONSTRUCTION. In this section I would like to present in a theory-neutral way some basic facts relevant for the fragment of German which is analyzed in this paper. Special attention is paid to facts about word order. The order of NP constituents is to a considerable extent free in German, whereas both finite and nonfinite verbs have fixed positions determined by the clause type (main or subordinate). Thus, the following three basic construction types are traditionally distinguished in German depending on the position of the finite verb:

(13)

I. Verb-second order:

[clausal onset] - [finite Verb] - [max +]* - [non-finite verb]*.

II. Verb-initial order:

[finite verb] - [max +]* - [non-finite verb]*.

III. Verb-final order:

[max +]* - [non-finite verb]* - [finite verb].

According to most accounts of German the crucial property of the main declarative clause which sets it apart from the other two construction types is the verb-second constraint: The finite verb must occur in the second position in the clause.[1] This constraint implies that one maximal constituent fills the *clausal onset position*, that is, the first position in the clause.[2] Only the clausal onset and the finite verb positions are obligatorily filled by lexical material. The finite verb can be a main lexical verb, a modal, or an auxiliary verb. The feature specification "[max +]*" in (13.I.) indicates that the finite verb can be followed by none, one or more maximal subcategorized argument(s) of the main lexical verb and/or optional adjunct(s). The last position, "[non-finite verb]*", is either left "empty" or it may be filled by one or more nonfinite verb forms. The verb-second order is mainly realized in declarative main clauses, as in (7), and in main clauses in which a constituent is questioned.

The verb-initial order is found in yes-no questions, as in (1b), as well as in imperatives, exclamations, and in unintroduced conditional and concessive clauses.

And finally, the verb-final order is characteristic of subordinate clauses.

My account of the syntactic, semantic and pragmatic constraints which determine the distribution of *es* in German tensed clauses is based on the assumptions of the Construction Grammar framework as it is being developed in Berkeley (cf. Fillmore 1986a, Fillmore 1986b, Fillmore 1988, Fillmore, Kay, and O'Connor 1988, Kay 1988, Lakoff 1986, Lambrecht 1986). Construction Grammar can be roughly characterized as a monostratal, non-transformational, and unification-based framework (cf. Fillmore 1988, Fillmore and Kay 1987). One of the central notions of Construction Grammar which plays an important role in this paper is the notion of *grammatical construction*: "By grammatical construction we mean any syntactic pattern which is assigned one or more conventional functions in a language, together with whatever is linguistically conventionalized about its contribution to the meaning or the use of structures containing it" (Fillmore 1988:36).

The following sections will discuss in detail different types of constructions in which *es* occurs. It will be shown that the proposed distinctions can be justified by the different distributional properties of the constituent *es* in non-initial syntactic positions in main declarative clauses as well as in those clause types which do not have any clausal onset position, i.e. in verb-initial and verb-final clauses. I will start with the most straightforward cases of lexically determined *es*, which are exemplified by (7) and (8). Then I will describe the cases in which *es* is a syntactico-pragmatic property of main declarative clauses, as in (4) and (9). And finally, the occurrence of *es* with verbs of cognition (6) and physical perception (5) will be discussed.

4. LEXICALLY DETERMINED 'ES'-SUBJECT. One-place predicators such as KLOPFT in (7) require one obligatory argument which is realized in the nominative case, functions as the subject and is linked to the semantic role Agent (or possibly Force). The valency description for the verb form KLOPFT can be represented as a list consisting of a phonological form and a list of subentries: (KLOPFT ((GR Subj) (SR Agent) (MS N/Nom))), whereby "GF" stands for a grammatical function, "SR" for a semantic role and "MS" for a morpho-syntactic realization. Since the constituent *es* in (7) fulfills the subject requirement of the main lexical predicator, it is a lexically determined subject. Therefore, it must always occur in all three construction types, regardless of its position in the sentence, as is shown by (14a-c):

(14-a) *Jetzt klopft *(es) an meiner Tür.*
    now it knocks at my door
    'Now somebody is knocking at my door.'

(14-b) *Klopft *(es) an Deiner Tür?*
    knocks it at your-DAT door
    'Is somebody knocking at your door?'

(14-c) *Ich glaube, dass *(es) an meiner Tür klopft.*
    I think that it at my-DAT door knocks
    'I think that somebody is knocking at my door.'

This behavior mainly follows from the fact that the *es*-subject in (14a-c) has semantic content and bears a semantic role to the predicator. The obligatory occurrence of *es*-subject in such examples as (14a-c) can be explained by an independently motivated constraint of German grammar:

> (15) In finite clauses, the subject-NP which constitutes both a syntactic and semantic valency requirement of the main lexical predicator must be overtly expressed in the surface structure.

The syntactic structure of (7) can be represented as in Figure 1:

Figure 1: Declarative Matrix Clause with Subject in the Clausal Onset
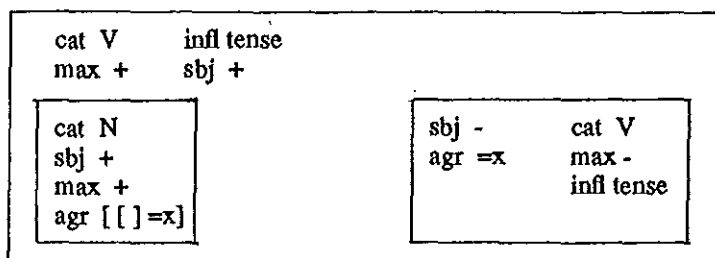
Figure 1 represents an instantiation of the schematic grammatical construction for main declarative clauses given in (13.I). In Construction Grammar, grammatical constructions are often represented as box diagrams in which the combinatorial properties of the constituents are encoded as matrices of feature specifications. Each feature specification is a two-item list of the form: [attribute - value].[3] In Figure 1, the feature specification matrix "((cat V) (max +) (infl tense) (sbj +))" represents the external syntax of the largest box. The representation of levels of headed constructions is accounted for by the attributes "max(imal)" and "min(imal)". Maximal categories fill major structural positions in constructions, and minimal categories are the lexical items which are listed in the lexicon. Any expression of the category "((cat V) (max +))" is a maximal projection of a head verb, and it is an expression which can function as a sentence. In Figure 1, the verbal constituent which follows the clausal onset position is a non-maximal lexical predicator ("[max -]") which lacks its subject requirement ("[sbj -]"). The subject argument in the left-hand side box is unified with this non-maximal verb-headed phrase under the condition that it is finite ("[infl tense]") and that their agreement features match. The result of this unification is a maximal verb-headed phrase which can function as a main declarative clause.

As far as weather verbs are concerned, there is no general agreement with respect to the two following questions: (i) should weather verbs be treated as null-place or one-place predicators? (ii) does the constituent which occurs as the subject of weather verbs (and which corresponds, for example, to the German *es* or English *it*) have a referential content?

It has been proposed that weather verbs have no valency requirements, and therefore the 'weather'-*es* is not a subcategorized subject argument, but rather only a formal subject. In addition, it has also been claimed that it has no referential content (cf. Seefranz-Montag 1983:40; Lenerz 1985). According to this position the 'weather'-*es* is similar to the *clausal onset es* in impersonal passive (4) and inverted-subject (9) constructions. However, the 'weather'-*es* cannot be treated in the same way as the clausal onset *es* because, unlike the clausal onset *es*, it must occur in postverbal positions and in subordinate clauses:

(16-a) *Jetzt regnet *(es).* (16-b) *Regnet *(es)?* (16-c) *Ich glaube, dass *(es) regnet.*
  now rains *(it)   rains it   I think that it rains
  'It is raining now.'   'Is it raining?'   'I think that it is raining.'

Notice that this is also true for predicatively used adjectives in weather clauses: *Ist *(es) hier zu warm?* 'Is it too warm here?'

It has also been suggested that 'weather'-*es* is a subcategorized subject argument and has no referential content. On this assumption, it might be difficult to distinguish it from the element *es* which occurs with certain verbs of cognition and physical perception and to explain why 'weather'-*es* can never be omitted, regardless of its position in the sentence, whereas with verbs of cognition and physical perception, *es* can be omitted in postverbal positions and in subordinate clauses (cf. examples (2) and (3)), precisely in those cases in which it does not have any referential content (cf. section 6).

Both the proposals seem to lead to unnecessary complications in the grammar. Under the assumption that 'weather'-*es* is a subcategorized subject argument that has no referential content, it must be postulated, in addition to (15), that an active finite clause must contain at least one subcategorized argument, regardless of whether the argument has a semantic content. Furthermore, under the assumption that 'weather'-*es* is not a subcategorized subject argument and has no referential content, it must be postulated, in addition to (15), that null-predicators must always be realized with the default expletive *es*-subject in active finite clauses. Consequently, we would have to distinguish two kinds of subjects: those that are syncategorematically introduced into the surface syntactic structure, and those that have their origin as subcategorized elements in valency descriptions in the lexicon. However, a syncategorematic introduction of expletive subjects (which do not coinstantiate a subject argument of the main predicator) into the surface syntactic structure runs counter the desideratum to motivate syntax as much as possible in terms of semantic relations holding between constituents of the clause. Furthermore, instead of distinguishing two kinds of subjects, it seems to be preferable to have a uniform notion of "subject", namely the nominative noun phrase which determines agreement and which satisfies an argument requirement of the main lexical predicator in the clause.

I would like to propose that weather verbs are subcategorized for one obligatory subject argument, which (in their literal sense), is always *es*. It has a vague referential content that could be described as an atmospheric situation in the relevant domain of discourse. Bolinger (1973) coined the term *ambient it* for the English equivalent. This assumption has the advantage that the distributional properties of the 'weather'-*es* can be described in the same way as those of other referential subcategorized subjects in German; that is, it is not necessary, in addition to (15), to invoke special well-formedness constraints for active finite clauses in German.[4] This solution seems to be confirmed by the fact that the 'weather'-*es* has the same distributional properties as the subcategorized referential subjects of other one-place predicators, such as *klopfen* 'to knock' (cf. (7) and (8), (14) and (16)).

5. CLAUSAL ONSET 'ES'. The clausal onset *es* occurs in impersonal passives (4) and in sentences with an inverted subject (9). It differs from the examples described in section 4 in that it is not a subject. The reasons are simple and straightforward: (i) in the case of impersonal passives (cf. section 5.1.) there is no syntactic subject requirement assigned to the verb which is the lexical head of the clause; (ii) in the case of sentences with an inverted subject, the subject argument is satisfied by a maximal noun phrase in the postverbal position (cf. section 5.2.).

Arguments in support of the claim that the clausal onset *es* does not function as a subject in these two types of constructions can be provided by agreement and maximality facts. First, the clausal onset *es* does not trigger agreement. In the inverted subject construction, the finite verb always agrees in number and person with the inverted subject, as example (17) shows:

(17) *Es *näherte/ näherten sich zwei Autos.*

    it 3rd-pers-SG approached-SG / approached-PL self two cars-PL

    'Two cars were coming closer.'

Since only subjects determine agreement in German, it is obvious that the plural noun phrase in the nominative case which occurs after the finite verb is the subject and not the expletive *es* in the clausal onset position. In section 5.1. it will be shown that in so-called impersonal passive constructions the finite verb occurs in a default third person singular form, and since there is no expressed subject in the nominative case, the element *es* is used as an empty place-holder.

Second, the clausal onset *es* is not a subject, because it is followed by a maximal verb-headed phrase of the category "((cat V) (max +))", that is, a sentential expression. And moreover, this sentential expression has a verb-initial order, and it can, on its own, function as a yes/no-question:

(18-a) *Es wurde getanzt.*
    it was-AUX danced-PAP
    'There was dancing.'

(18-b) **Wurde getanzt?**
    was-AUX danced-PAP
    'Was there dancing?'

(19-a) *Es liegt ein Brief auf dem Tisch.*
    it lies a letter on the table
    'A letter is lying on the table.'

(19-b) **Liegt ein Brief auf dem Tisch?**
    lies a letter on the table
    'Is there a letter lying on the table?'

In general, all the sentences are maximal verb-headed expressions. However, the reverse, of course, does not hold: not all maximal verb-headed expressions can function as sentences.

Another property which distinguishes the clausal onset *es* from the lexically determined subcategorized subjects is the fact that it can only occur in the first position of main declarative clauses. And it must occur here if no other element appears in front of the finite verb. Whereas in **(Es) lebte ein König in Frankreich* 'There lived a king in France', *es* is obligatory, in *In Frankreich lebte (*es) ein König*, *es* cannot appear. In short, the clausal onset *es* is not an argument of the verb, because it would be the only argument which is restricted to the clausal onset of main declarative clauses.

The claim that the clausal onset *es* is a semantically empty syntactic filler can also be supported by the fact that both the constructions with the clausal onset *es* and the corresponding constructions without it express the same propositional content (compare, for example, (18a) and (18b), (19a) and (19b)). However, each construction type is associated with a different illocutionary act and a different type of discourse context. Furthermore, the clausal onset *es* did not historically develop from the anaphoric pronoun *ez* ('it' NOM/ACC, Middle High German) or *es* ('it' GEN, Middle High German), but was introduced as an analogy to other constructions with the clause-initial *es* (cf. Behaghel 1928:450, vol. III).

It has already been observed that an important characteristic of main declarative clauses in German, as well as in other Germanic languages (with the exception of English), is the verb second order: the clausal onset position must be filled by at least one lexical item. This element can be a subject-NP in the nominative case, as in (7). However, non-subject arguments ((2a), (3a)), adjuncts (1a) and/or non-finite verbs may also occur in the clausal onset; in such cases the subject-finite verb inversion is obligatory, and the subject then usually occurs in the position immediately following the finite verb. Notice that English differs from other Germanic languages in the status of the first major constituent in the constituent structure of main declarative clauses: in English it is typically the subject position (cf. also Haider 1984:75 and Platzack 1983). In German *finite active* clauses must consist of a finite verb in the second position and at least one argument which must fill the clausal onset position if no other element does. *Passive finite* clauses may consist of "bare" passive predicates, that is, of predicates that have no expressed arguments or adjuncts, provided that the verb-second constraint is satisfied. In such a case, a passive participle, for example, may be fronted for contrastive purposes: *GETANZT wurde* (lit.: danced-PAS was-AUX) 'People DANCED'.

The clausal onset position is usually reserved for the expression of the topic. Often it is the subject that functions as the topic. Since the clausal onset *es* is semantically empty, it cannot be a topic. Its function in the clausal onset is to guarantee the verb-second order, and at the same time, to indicate that the constructions, in which it occurs, are to be understood as *main declarative* utterances. From this it follows that the clausal onset *es* is a syntactic and pragmatic property of a particular grammatical construction type: a main declarative clause without a topic (cf. section 5.1. and 5.2.).

The distinction between the clausal onset and the rest of the main declarative clause seems to be virtually indispensable for the description of the intricate interaction of syntactic, semantic and pragmatic factors that determine the form and meaning of German main clauses. In particular, this distinction allows one capture in a simple way the maximality, agreement and other facts that define the clausal onset *es*-construction (cf. section 5.1. and 5.2.).

Even though I propose that there is a special construction type with the clause-initial *es* for sentences without topic, i.e. impersonal passive sentences and sentences with an inverted-subject, this proposal does not lead to undue complications in the grammar. Both the construction types are different instantiations of the same general verb-second construction (13.I). What must be explicitly specified in each case are only the idiosyncratic syntactic, semantic and pragmatic properties of each instantiation type. I will turn to these properties in the next two sections.

5.1. IMPERSONAL PASSIVE CONSTRUCTION. What matters most in this context is the fact that *bare* passive predicators, and subjectless passive predicators, in general, involve 'demotion' of a subject without a corresponding 'advancement' of another nominal to subject. This is due to the fact that such impersonal passive predicators are derived from active predicators which are not sub-categorized for an accusative object argument. They can be derived either from one-place predicators, such as *tanzen* 'to dance', for example, or from two-place predicators with a dative argument, such as *jemandem helfen* 'to help somebody', or with an oblique argument, such as *über etwas sprechen* 'to speak about something'. In German only noun phrases which occur in the accusative case in active sentences can function as nominative subject-NPs in the corresponding passive sentences.

Within the Government-Binding Theory it is assumed that an empty subject position that has no theta-role assigned to it is present in the syntactic structure of (1) - (3). This assumption is not only intuitively dubious but it also poses a number of serious problems for the Government-Binding Theory (for details see, for example, Haider 1984 and Safir 1984). Within the limits of this paper, it is not possible to discuss the merits and deficiencies of the Government-Binding approach to this particular problem. Instead I would like to sketch how the "subjectless" passive sentences in German can be described within my approach.

The valency descriptions for the active predicator *tanzen* 'to dance' (TANZEN ((GR Subj) (SR Agent) (MS N/Nom))) and for the passive participial predicator *getanzt* 'danced' (GETANZT ((GR nil) (SR Agent) (MS nil))) contain one argument, Agent, in their semantic lists. However, they differ in that this argument does not constitute a syntactic subject requirement of the passive partici-ple. This is indicated by the attribute "nil" in the grammatical relation list of its valency description. Consequently, it is not phonetically realized in the surface syntactic structure, as is predicted by (15). So even though the Agent argument of the passive participle is suppressed in the surface syn-tactic structure, it is present in the semantic description. In an active sentence such as *Wir tanzten* 'We danced', the speaker is asserting something about the participants expressed as the subject *wir* 'we' in the topic position. Sentences with bare passive predicators, on the other hand, have an "event-reporting" function: Since the Agent is suppressed, and only the action or event is overtly expressed, the speaker can emphasize that a certain kind of an action or event takes place and abstract away from its participants. Such a sentence as (4) can occur, for example, in the following context: *Wir hatten gestern unser Jubiläum. Es wurde getanzt* 'We had yesterday our anniversary. It was danced.' The second sentence (4) in this sequence can be paraphrased with *Tanzen fand statt* (lit.: dancing took place). Such bare passive constructions differ from the prototypical passive con-structions with an expressed Patient argument (in the nominative or oblique (21) case) in that Agent *cannot* be expressed at all in the optional agentive prepositional phrase, as the following examples show:

(20) *Es wurde (*durch uns)/(*von uns) getanzt.*
    it was-AUX (*through us)/(*by us) danced-PAS
    'There was dancing./ People danced.'

(21) *Ihm wurde (von uns) geholfen.*
    him-DAT was-AUX (by us) helped
    'He was helped.'

Since there is no syntactic subject requirement, the passive predicate does not "unify" with a subject argument in the syntactic structure of an instantiated passive construction. In Figure (2), the feature specification "(sbj -)" in the external syntax of the construction indicates that the whole con-struction is a complete sentential expression which does not contain any syntactic subject consti-tuent. There is no need to postulate an empty structural subject in the syntactic structure of such 'subjectless' finite passive clauses. The surface syntactic structure of impersonal passive clauses, such as (4), can be schematically represented as in Figure 2:

Figure 2: Declarative Matrix Clause with the Clausal Onset *Es* and Passive Predicate

```
┌─────────────────────────────────────────────────────────────┐
│  cat  V        sbj -                                         │
│  max  +        infl tense                                    │
│                                                              │
│  ┌──────┐   ┌──────────────────────────────────────────┐   │
│  │lex ES│   │  cat  V        sbj -                      │   │
│  │max + │   │  max  +        infl tense                │   │
│  │cat N │   │                                          │   │
│  └──────┘   │  ┌──────────┐  ┌────────┐* ┌────────┐+  │   │
│             │  │ cat  V   │  │ max +  │  │ cat  V │   │   │
│             │  │ min  +   │  │        │  │ min  + │   │   │
│             │  │ infl tense│  │        │  │ pas +  │   │   │
│             │  │          │  └────────┘  │ sbj -  │ · │   │
│             │  └──────────┘              └────────┘   │   │
│             └──────────────────────────────────────────┘   │
└─────────────────────────────────────────────────────────────┘
```
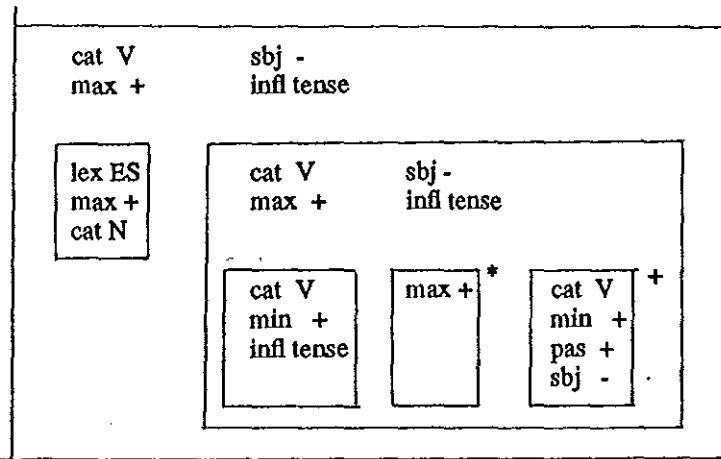
The partial information structure in Figure (2) represents an instantiation of the general grammatical construction for main declarative clauses with verb-second order (13.I.). The clausal onset, filled by the expletive *es*, is followed by a maximal verb-headed phrase which exhibits a verb-initial sentence pattern. Furthermore, it requires at least one non-finite verb, namely the passive participle. This is indicated by the feature specification matrix "((cat V) (min +) (pas +) (sbj -))$^{+}$" in the box diagram. The matrix "((cat V) (min +) (infl tense))" stands in this case for the finite passive auxiliary *werden* 'to become', 'to be'. And "(max +)*" indicates that zero or more non-subject arguments or adjuncts can occur in this position, as in, for example, **(Es) wurde bis zum Morgen getanzt.* (lit.: it was-AUX till to-the morning danced-PAS) 'There was dancing until morning.'

Passive sentences such as *Es wurde gelesen* (lit.: it was read) are ambiguous between (a) the reading in which *es* is a referential subject pronoun, which may refer, for example, to *das Buch* 'the book', and (b) the reading in which *es* is a non-referential clausal onset *es*. In the latter case, the sentence *Es wurde gelesen* can be translated as 'We/People read (something)'. In the first case, the passive participle is derived from a two-place predicator with lexically realized Agent and Patient relations, whereas in the second case it is derived from a predicator with a pragmatically controlled null object complement (Fillmore 1986b). In my approach this ambiguity, which stems from the different properties of a main lexical predicator in the corresponding active sentence, is also directly reflected in the syntactic structure. The sentence with the non-referential *es* has the syntactic structure given in Figure (2). The sentence with the referential *es*-subject, on the other hand, has the syntactic structure exemplified in Figure (1).

It is also important to notice that the impersonal passive construction imposes strong semantic constraints on the kind of permissible passive predicators.^{5} Impersonal passive can be derived from active predicators which are subcategorized for a subject argument referring to a human, or any animate, being (cf. Heidolph et al. 1981:551), which has, or can be thought of as having, control over the action or event in which it takes part. So we find bare passive predicators in such expressions as *Es wurde gestritten* (lit.: it was-AUX argued) 'There was fighting', *Es wurde gelacht* (lit.: it was-AUX laughed-PAS) 'We/People laughed', *Es wurde gearbeitet* (lit.: it was-AUX worked-PAS) 'We/People worked', *Es wurde geschlafen* (lit.: it was-AUX slept-PAS) 'We/People slept'. However, the following passive sentences are not well-formed: **Es wird geblüht* (lit.: it is-AUX blossomed-PAS), **Es wird (von dem Jungen) schnell gewachsen* (lit.: it is-AUX by the-DAT boy quickly grown-PAS).

Both the features of the impersonal passive construction -- the participant's control over the action or event, as well as the foregrounding of the state of affairs and backgrounding or suppressing of its participants -- can be exploited by using the impersonal passive *es*-construction as an

indirect imperative to express an energetic command:

(22) *Es wird hier geblieben!*
　　it is-AUX here stayed-PAS
　　'Now (you'll) stay here!'

(23) *Jetzt wird aber geschlafen!*
　　now is-AUX but slept-PAS
　　'Now you really must sleep!'

5.2. INVERTED SUBJECT CONSTRUCTION. The inverted subject construction contains an expletive *es* in the clausal onset position and an inverted subject-NP in the postverbal position.

Figure 3: Inverted Subject Construction
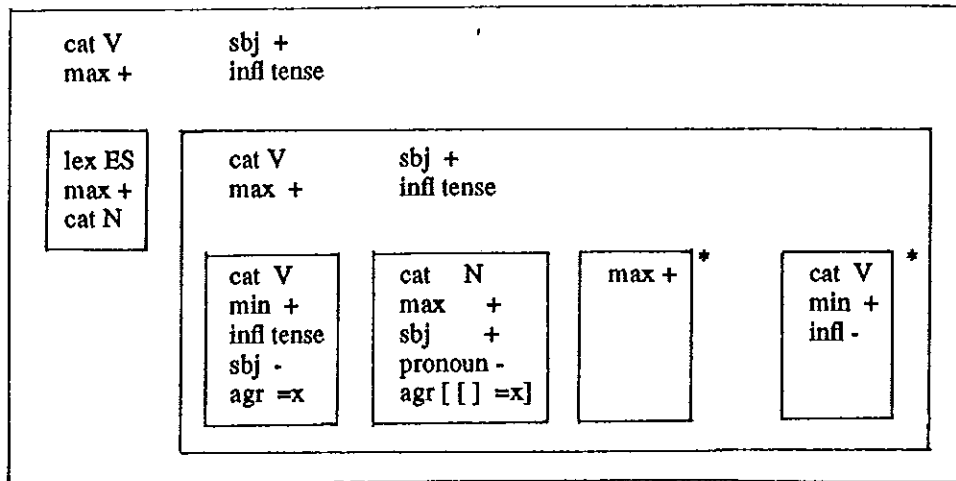
Active sentences with inverted subjects contain at least one finite verb and zero or more non-finite verbs; passive sentences with inverted subjects, on the other hand, must have at least one non-finite passive participial verb form. This is indicated by the feature matrix "((cat V) (min +) (infl -))*" in Figure 3. Notice also that in this account, the German predication structure is "flat" in the sense that the finite head verb, nonfinite verb(s) and subcategorized arguments are sibling constituents.[6]

The construction with an inverted subject imposes constraints on the semantic and syntactic properties of the main lexical predicator, the definiteness of the inverted subject, and on its compatibility with discourse factors. These constraints seem to be motivated primarily by the "presentational" discourse function of this construction type.

The restrictions on the definiteness of the inverted subject in German are complicated and have eluded a satisfactory description so far. In what follows I will attempt to sketch briefly at least some of these tendencies. The inverted subject construction is exemplified by (24b) and (25b):

(24-a) *Ein Hund bellt.*
　　a-NOM dog barks
　　'A dog barks.'

(25-a) *Der Hund bellt.*
　　the-NOM dog barks
　　'The dog barks.'

(24-b) *Es bellt ein Hund.*
　　it barks a-NOM dog
　　'A dog barks.'

(25-b) **Es bellt der Hund.*
　　it barks the-NOM dog

If the subject-NP refers to a single individual which is either new in the domain of discourse (24a) or is already known to the speaker (25a), then the whole sentence has a single event reading. The main intonational stress is on *Hund* 'dog', about which the property that it barks or that it is barking is predicated. If, on the other hand, the main intonational stress is on *bellt* 'barks', then the sentence is acceptable only under the generic interpretation, that is, if by uttering (24a) and (25a) the speaker asserts something about all the dogs in general. Whereas (24a) and (25a) are ambiguous between

the individual (specific or non-specific) and generic interpretation, the corresponding inverted subject construction only allows for the individual reading, and the subject-NP tends to be indefinite (compare 24b and 25b).

The use of the indefinite article with an inverted-subject can be motivated by the conditions of use associated with the whole construction. In the inverted subject construction the postverbal position is a focus position (however, not the narrow contrastive focus). It is mostly reserved for the linguistic expression which is at the center of the speaker's communicative intention, because it conveys new information: it introduces a new participant into the domain of discourse. Moreover, by occurring in the postverbal position the subject is also marked as non-topic. Notice that the subject that functions as the topic of the sentence usually occurs in the clausal onset position and tends to refer to some specific participant.

The *es*-construction with an inverted-subject excludes pronominal noun phrases, both anaphoric referential (26) and expletive non-referential (27), as its inverted-subject:

(26) * *Es springt es auf den Baum.*   (27) **Es friert es mich.*
    it jumps it-NOM onto the tree   it freezes it-NOM me-ACC

The unacceptability of (26) can be explained on pragmatic grounds: pronouns usually refer to already introduced and specific participants in the discourse domain, and they typically function as topics. Therefore, they cannot occur as inverted subjects in this construction type. In order to exclude such sentences as (26) and (27), and to encode the fact that this construction requires a full lexical subject-NP, I use the feature specification "[pronoun -]" in the feature matrix of a subject-NP which fills the postverbal position in Figure 3.[7] However, notice that if both the pre- and postverbal *es* is anaphoric, that is, if the postverbal *es* is a direct object, then the whole sentence is grammatical, as it is illustrated by (28b):

(28-a) *Hat das Kind, das Spiel, begriffen?*   (28-b) *Ja, es, hat es, begriffen.*
    has the-NOM child the-ACC game understood   yes it-NOM has it-ACC understood
    'Has the child understood the game?'   'Yes, it has understood it.'[8]

The use of the feature "pronoun" is motivated not only by the facts relevant to the *es*-construction of this type, but it is independently motivated by other German data, for example, by the fact that it influences the order among noun phrases that do not differ with respect to focus, definiteness or specificity (for example, pronouns tend to precede full noun phrases). Since the communicative purpose of the inverted-subject construction is often to introduce a new participant into the domain of discourse, it is often headed by one-place predicators denoting existence or coming into existence of some participant, or indicating its new appearance or disappearance in the domain of discourse. So the *es*-construction is often used to indicate a new start in the discourse: *Es zogen drei Burschen wohl über den Rhein* 'Three lads crossed/were crossing Rhine'; *Es kam ein Prinz über die Hügel geritten* 'A prince came riding on horseback'.

However, the pragmatic function of this construction type is not restricted only to the "presentational", or participant-introducing, function described above. Sometimes a referent which is already known to the speaker and hearer, and which is not new in the current discourse, can be expressed as the definite inverted-subject:

(29) *Es spielten die zwei Kinder im Sandkasten.*
    it played the-NOM two children in-the-DAT sand-box
    'The two children played in the sand-box.'

The inverted subject can also be definite if it is modified by a relative clause (30), a possessive pronoun (31), or a possessive genitive (32):

(30) *Es kommen nur die Leute, die ich eingeladen habe.*
    it come-PL only the people whom I invited-PAS have-AUX
    'Only those people whom I have invited will come.'

(31) *Es wuchsen seine Kraft und Ausdauer.*   (32) *Es wurde Wagners Musik bevorzugt.*
    it grew-PL his power and tenacity   it was-AUX Wagners music preferred-PAS
    'His power and tenacity were growing.'   'Wagner's music was preferred.'

In (30) - (32) the reasons why the subject-NP occurs in the postverbal position may not have to do so much with the givenness of the participant referred to by the subject-NP, but rather with the "heaviness" of the subject-NP compared to the other constituents in the sentence. In (30), instead of tearing the subject-NP *die Leute* 'the people' and the predicate *kommen* '(they) come' apart, as in *Nur die Leute, die ich eingeladen habe, kommen* (lit.: only the people that I invited have come), or placing the predicate *kommen* in between the head noun and the relative clause which modifies it, as in *Nur die Leute kommen, die ich eingeladen habe* (lit.: only the people come that I invited have), we can use the inverted-subject construction, which provides the means of avoiding both of these somewhat clumsy constructions.

It has also been observed that in English the use of a universal quantifier with an inverted-subject gives rise to ungrammatical sentences (cf. Belletti 1988). However, in German universal quantifiers can be used with inverted-subjects in well-formed sentences (33):

(33) *Es kommt die ganze Sippe.*
    it comes-sg the-NOM whole clan
    'The whole clan will come.'

(34) *? Es gab Maria dem kleinen Jungen das Buch.*
    it gave Mary the-DAT little boy the-ACC book
    'Mary gave the little boy the book.'

And it may even be possible to use proper names as inverted-subjects (34).

The indefiniteness constraint on inverted subjects certainly needs a more detailed formulation than can be given within the limits of this paper. The constraint is clearly weaker in German than it is, for example, in English. It would be an oversimplification to claim that the inverted subject-NP in German must be always indefinite.

In contrast to the syntactically similar inverted-subject constructions in English (*there*-construction), French (*il*-construction), and Italian, for example, it seems that not only one-place predicators but also two- and three-place predicators can be used in the corresponding German constructions with an inverted subject. In the following examples, the b. sentences illustrate the inverted subject construction with two-place (35b) and three-place (36b) predicators:

(35-a) *Ein Mann sprach mit Hans.*
    a man spoke with John
    'A man spoke to John.'

(35-b) *Es sprach ein Mann mit Hans.*
    it spoke a man with John
    'A man spoke to John.'

(36-a) *Ein Mann hat dem Peter den Lottoschein gegeben.*
    a man has-AUX the-DAT Peter the-ACC lottery ticket given-PAS
    'A man gave Peter the lottery ticket.'

(36-b) *Es hat ein Mann dem Peter den Lottoschein gegeben.*
    it has-AUX a man the-DAT Peter the-ACC lottery ticket given-PAS
    'A man gave Peter the lottery ticket.'

The main point of the two previous sections was to show that German distinguishes among the different types of verb-second constructions a construction type with the clausal onset *es*. The *es*-construction is characterized by being topic-less, by constraints on the predicate and definiteness of the subject-NP (that is, if the subject is present) as well as by the constraints on the pragmatic function of the whole construction. It is obvious that an adequate linguistic representation of this construction type must be based not only on its syntactic and semantic properties, but it must also be motivated by such pragmatic properties as "focus" and "specificity" of the participants.

6. ES WITH VERBS OF COGNITION AND PHYSICAL PERCEPTION.

All the verbs of cognition and physical perception have in common that the *es*-subject must occur in the clausal onset position if no other element precedes the finite verb. However, there seems to be a tendency to use the referential Experiencer argument rather than *es* in the clausal onset position and to attach *es* in its contracted form *'s* to the finite verb, as in *Mich friert's* 'I am freezing'. This is motivated by the fact that it is preferably topics that are expressed in the clause onset position in German. Experiencer arguments that are definite and have a specific reference are much better topic candidates than *es* that, with verbs of cognition and physical perception, is either semantically empty or has a vague referential content. In short, expressions of the type *Mich friert es*, *Mich friert's*, or *Mich friert* (cf. (2)) are preferred to expressions with the clausal initial *es*, such as (5) *Es friert mich*.

Furthermore, the constructions of the type *Mich friert es, Mich friert's* are preferred to the type *Mich friert.*

I would like to propose that *es* with verbs of cognition and physical perception has a status of a lexically-determined subject, because it determines agreement and occurs in subordinate clauses as well as after the finite verb in questions and in main declarative clauses. The fact that *es*-subject with certain verbs of cognition and perception can be omitted in postverbal positions and in subordinate clauses can be explained by its referential properties. A number of verbs of cognition and physical perception have, apart from the Experiencer argument, an obligatory referential subject argument linked to the Stimulus role: *sich freuen* 'to rejoice'; *scheinen* 'to seem', 'to appear'; *gefallen* 'to please'; *gelingen* 'to succeed'; *sich wundern* 'to wonder'; *verdriessen* 'to annoy'. With such verbs the *es*-subject cannot be omitted as, for example, (37) shows:

(37) *Wundert Dich*('s)?*
   wonders you-ACC it
   'Does it surprise you?'

The lexical entry for the lexical item *WUNDERT* can be represented in the following way:

(38) (WUNDERT (V ((GF Subj) (SR Stim) (MS NP/Nom/ES))
                    ((GF Obj) (SR Exp) (MS NP/Acc))))

However, with a restricted group of verbs of cognition and physical perception, such as *Mich friert* (lit.: me-ACC freezes) 'I freeze/I am freezing', *Mir graut* (lit.: me-DAT dreads) 'I am afraid (of something)', *Mir/Mich ekelt davor* (lit.: me-DAT/me-ACC disgusts because-of-that) 'It disgusts me', (?)*Mir/Mich schaudert* (lit.: me-DAT/me-ACC shivers) 'I shudder', *Mir/Mich schwindelt* (lit.: me-DAT/me-ACC is-giddy) 'I am feeling/I feel giddy/dizzy', the *es*-subject is non-referential (neither anaphoric/cataphoric nor exophoric), and it does not bear a semantic role to the predicator. Since the *es*-subject cannot be interpreted as referring to some stimulus or circumstance, which causes the referent of the Experiencer-NP to have certain physical perceptions or mental states, it cannot be replaced by a full lexical noun phrase: **Die kalte Luft friert mich* (lit.: the cold air freezes me-ACC). So the lexical entry for the lexical item *FRIERT*, for example, can be represented in the following way:

(39) (FRIERT (V ((GF Subj) (SR nil) (MS NP/Nom/ES))
                  ((GF Obj) (SR Exp) (MS NP/Acc))))

With this restricted group of verbs the semantically empty *es*-subject is used in the clausal onset position in order to satisfy the verb-second constraint. If the verb-second constraint is fulfilled by some other lexical item(s) in the clausal onset position, or if the clause does not comply with the verb-second constraint (i.e. if it instantiates a verb-initial or verb-final construction type), the *es*-subject may be omitted, as it is predicted by (15), without changing either the propositional content of the clause or breaching the structural and pragmatic constraints imposed on main declarative clauses in German (cf. (2) and (3)).

The preference for using the *es*-subject even with those verbs which may omit it in non-initial positions seems to follow from the general tendency to "provide" each active verb form in modern German with a nominative subject argument (cf. Seefranz-Montag 1983:178; Lenerz 1985:129). In colloquial German, this preference is clearly shown by the fact that postverbal *es* almost always occurs in the form of a contracted pronoun *'s*:

(40) *Graut's dir? / Graut dir's?*
   dreads-it you-DAT/ dreads you-DAT-it
   'Are you afraid of something?'

The subjectless constructions in which *es* is not used are gradually becoming obsolete (cf. Seefranz-Montag 1983:163 and 188, Haiman 1974:106, Admoni 1976:223, Lenerz 1985:104). They are restricted to a high register written language, reflect older stages of the German language, and are characteristic of a small class of verbal predicators cited above. The use of the *es*-subject with verbs of cognition and physical perception must also be seen in connection with the complicated interaction between morphological and syntactic factors which are partially determined by what is characterized as a change from the TVX (i.e. topic - verb) to the SVX (i.e. subject - verb) order

which modern German is currently undergoing.[10] The tendency to provide every active verb form with a nominative subject-NP and to use a referential argument as topic in the clausal onset position makes itself noticeable also in the fact that the constructions of the type *Mich friert (es)* (lit.: me-ACC freezes (it-NOM)) are gradually being replaced by the corresponding constructions of the type *Ich friere* (lit.: I-NOM freeze) 'I freeze/I am freezing'. In other words, the constructions with topicalized non-nominative Experiencer arguments are gradually replaced by the constructions with nominative Experiencer subjects (cf. Seefranz-Montag 1983:158ff., 163, 184). This transition is facilitated by the fact that oblique Experiencer arguments already manifest some of the properties which are typical for subjects in German: not only do they often occur in the clausal onset position as topics, but also they may even control reflexivization, as in *Faust, graute vor sich,* (lit.: Faust-DAT dreaded because-of himself-DAT) 'Faust abhorred himself'. A valency description for a one-place predicator such as *frieren* 'to freeze' in *Ich friere* 'I freeze'/'I am freezing' can be represented in the following way:

(41) (FRIER- (V ((GF Subj) (SR Exp) (MS NP/Nom))))

In contrast to English and French, for example, the expressions with the Experiencer in the nominative case are still less widespread.

To summarize, verbs of cognition and physical perception have an obligatory argument which is linked to the Experiencer semantic role and which can be realized either in the nominative case or in the oblique case (accusative, as in (2), and dative, as in (3)). Those predicators which link the Experiencer argument to the oblique case may also require *es* as their obligatory subcategorized subject argument. The lexicon contains lexical entries for both two-place predicators, such as (39), and one-place predicators, such as (41), which are related by a lexical redundancy rule. Since not all of these verbs can occur with a nominative Experiencer subject argument, the lexical entries for two-place predicators, that is for those predicators that take the *es*-subject and the Experiencer argument in the oblique case, are taken as basic and those for one-place predicators, that is those take an Experiencer argument in the nominative case, are derived. This description allows one to make a distinction between the verbs that are subcategorized for a subject argument that is always realized in the surface syntactic structure and those that can occur without a subject. Since this is a lexical property of each verb, the best place to encode this information is in the lexicon, rather than to treat it as a property of special construction types.

For the purposes of this paper, I left aside *es*-constructions with predicatively used adjectives and nouns. In general, predicatively used nouns allow more readily the omission of the *es*-subject in positions which are not clausal onset positions than predicatively used adjectives do; and predicatively used adjectives allow this more often than verbs. I assume that such *es*-constructions can also be described along the same lines as it has been suggested for the *es*-constructions in this paper.

To conclude, only if it is assumed that the realizations of *es*, in the types of sentences given above, have different status, both with respect to their semantic properties and with respect to their syntactic and pragmatic function, can it also be explained why they differ with respect to their distribution in tensed clauses.

Notes

1. Apart from German, the verb-second constraint also holds in other Germanic languages such as, for example, Icelandic, Dutch and Norwegian.

2. There are topicalization constructions which involve fronting of what is not usually considered to be a single maximal constituent. Consider, for example, the following sentence in which indirect and direct objects are fronted together with the nonfinite verb: Dem Jungen das Buch schenken *wollte Maria* (lit.: the-DAT boy the-ACC book give wanted Mary) 'Mary wanted to give the book to the boy.' For the purposes of this paper I will assume that the verb-second constraint holds and the first position in the main declarative clause is filled by a single maximal constituent, or, at least, that whatever occurs in front of the finite verb can be considered as a single maximal constituent. For a detailed discussion of such complex fronting cases in German see Nerbonne (1982) and Uszkoreit (1984).

3. This notation is inspired by the unification-based approaches to natural language description. Cf., for example, Shieber (1986), and a similar approach is adopted in Pollard and Sag (1987). For a more detailed description of the Construction Grammar formalism, see for example, Fillmore (1988).

4. For more details on arguments pro and contra the referential content of weather *it* in English and other languages see Darden (1973), Bolinger (1973), Ruwet (1986).

5. For more details on the constraints on passivizability of one-place predicators in German, and other languages, see, for example, Comrie (1977), Kirsner (1975), Perlmutter and Postal (1984a), Perlmutter and Postal (1984b), Rice (1987), Shannon (1987).

6. For arguments in support of this proposal see Uszkoreit (1984) and (1987).

7. However, a pronominal inverted subject may be acceptable if it is contrastively stressed: *??Es habe Ich die Ansprache gehalten.* (lit.: it have I the address delivered) 'It was I who delivered a speech.' Such sentences differ from the *es*-construction with a presentational function in that they have a narrow contrastive focus on the inverted subject-NP.

8. Examples are taken from Lenerz (1985:122).

9. The corresponding inverted-subject construction in English (*there*-construction) and in French (*il*-construction), for example, require unaccusative verbs and an indefinite inverted subject-NP. For the more recent studies on this topic see, for instance, Safir (1987) and Belletti (1988).

10. According to Vennemann (1973), (1974), (1975) and Seefranz-Montag (1983:189), the "TVX" (i.e. topic in the clausal onset) serialization is still the dominating pattern in modern German. Cf. also Heidolph et al. (1981) and Uszkoreit (1984).

References

Abraham, W., et al. 1985. *Erklärende Syntax des Deutschen.* Tübingen: Gunter Narr Verlag.

Admoni, W. 1976. "Es handelt sich um 'es'. Zur gegenwärtigen Lage in der Grammatiktheorie". In: *Wirkendes Wort 4.* pp. 220-225.

Behaghel, O. 1923/32. *Deutsche Syntax.* Heidelberg: Winter.

Belletti, A. 1988. "The Case of Unaccusatives". In: Linguistic Inquiry, Vol. 19, Number 1.

Bolinger, D. 1973. "Ambient *it* is meaningful too." *Journal of Linguistics* 9:289-303.

Comrie, B. 1977. "In Defense of Spontaneous Demotion: The Impersonal Passive." In: *Syntax and Semantics 8: Grammatical Relations.* Ed. by Peter Cole and Jerrold M. Sadock. New York: Academic Press. pp. 47-98.

Darden, B. J. 1973. "What Rains?" In: *Linguistic Inquiry* 4.4., pp. 523-526.

Fillmore, Charles J. 1986a. *On Grammatical Constructions.* Department of Linguistics, University of California, Berkeley.

Fillmore, Charles J. 1986b. "Pragmatically Controlled Zero Anaphora." In: Proceedings of the Twelfth Annual Meeting of the Berkeley Linguistics Society. Berkeley.

Fillmore, Charles J. 1988. "The Mechanisms of 'Construction Grammar'". In: Proceedings of the Fourteenth Annual Meeting of the Berkeley Linguistics Society. Berkeley.

Fillmore, Charles J., and P. Kay. 1987. "Construction Grammar Lecture." Delivered at the LSA Summer Institute at Stanford, August 1987. ms. Department of Linguistics, University of California at Berkeley.

Fillmore, Charles J., P. Kay, and C. O'Connor. 1988. "Regularity and Idiomaticity in Grammar: The Case of *Let Alone*". In *Language*, Vol. 64, No. 3.

Haider, Hubert. 1984. "The Case of German." In: Toman, J. (ed.) 1984.

Haiman, J. 1974. *Targets and Linguistic Change.* I. Janua Linguarum. 186. Den Haag/ Paris.

Heidolph, K. E., et al. 1981. *Grundzüge einer deutschen Grammatik.* Akademie Verlag, Berlin.

Kay, Paul. 1984. "The *kind of/sort of* construction." In: *Proceedings of the Tenth Annual Meeting of the Berkeley Linguistics Society.*

Kay, Paul. 1988. "Even". Berkeley Cognitive Science Report, No. 50.

Kirsner, R. S. 1975. "On the Mechanism of the Restriction of the Dutch 'Pseudo-Passive' to Human Actions." In: CUWPL 2. pp. 109-143.

Lakoff, George. 1986. "Frame Semantics and the Coordinate Structure Constraint". In: *Papers from the Twenty-Second Meeting of the Chicago Linguistic Society*. Chicago.

Lambrecht, Knud. 1986. *Topic, Focus, and the Grammar of Spoken French*. Ph.D. Dissertation. University of California at Berkeley.

Lenerz, J. 1985. "Zur Theorie syntaktischen Wandels: Das expletive *es* in der Geschichte des Deutschen." In: Abraham, W. (ed.).

Nerbonne, J. 1982. "Phantoms and German Fronting: Poltergeist Constituents." Paper presented at the Annual meeting of the LSA held at San Diego, California. December 1982.

Perlmutter, D. M., and P. M. Postal. 1984a. "The 1-Advancement Exclusiveness Law." In: Perlmutter and Rosen (eds.) *Studies in Relational Grammar 2*. Chicago: University of Chicago Press. pp. 81-125.

Perlmutter D. M. and P. M. Postal. 1984b. "Impersonal Passives and Some Relational Laws." In: Perlmutter and Rosen (eds.). pp. 126-170.

Platzack, Ch. 1983. "Germanic Word Order and the COMP/INFL Parameter." In: *Working Papers in Scandinavian Syntax* 2. University of Trondheim.

Pollard, K., and I. Sag. 1987. *An Information-Based Syntax and Semantics. Volume 1. Fundamentals*. Center for the Study of Language and Information. Stanford.

Reis, M. 1980. "Zum Subjektbegriff im Deutschen." In: Abraham, W. (ed.). 1982. *Satzglieder im Deutschen. Vorschläge zur syntaktischen, semantischen und pragmatischen Fundierung*. Tübingen: Narr Verlag. pp. 171-211.

Reuland, E. J., and A. G. B. ter Meulen. 1987. *The Representation of (In)definiteness*. The MIT Press. Cambridge, Massachusetts.

Rice, S. 1987. "Towards a Transitive Prototype: Evidence from Some Atypical English Passives." In: *Proceedings of the Thirteenth Annual Meeting of the Berkeley Linguistics Society*. pp. 422-434.

Ruwet, N. 1986. "On Weather Verbs." In: *Papers from the Twenty-Second Meeting of the Chicago Linguistic Society*. Chicago. pp. 195-215.

Safir, K. J. 1984. "Missing Subjects in German". In: Toman, J. (ed.) 1984.

Safir, K. J. 1987. "What Explains the Definiteness Effect?" In: Reuland, E. J. and A. G. B. ter Meulen (eds.).

Seefranz-Montag, A. von. 1983. *Syntaktische Funktionen und Wortstellungsveränderung*. Wilhelm Fink Verlag. München.

Shannon, T. F. 1987. "On Some Recent Claims of Relational Grammar." In: *Proceedings of the Thirteenth Annual Meeting of the Berkeley Linguistics Society*. pp. 247-262.

Shieber, S. M. 1986. *An Introduction to Unification-Based Approaches to Grammar*. Center for the Study of Language and Information. Stanford.

Toman, Jindrich. 1984. *Studies in German Grammar*. Dordrecht: Foris. Studies in Generative Grammar 21.

Uszkoreit, Hans. 1984. *Word Order and Constituent Structure in German*. Ph.D. Thesis. University of Texas at Austin. Published by the Center for the Study of Language and Information. Stanford. 1986.

Uszkoreit, Hans. 1987. "Linear Precedence in Discontinuous Constituents: Complex Fronting in German." In: Huck, Geoffrey, J., and Almerindo E. Ojeda (eds.), *Syntax and Semantics*, Vol. 20, Discontinuous Constituency. Academic Press: New York.

Vennemann, T. 1973. "Explanation in Syntax." In: J.P. Kimball (ed.), Syntax and Semantics 11, p. 1-50. New York: Seminar Press.

Vennemann, T. 1974. "Topics, Subjects, and Word Order: From SXV to SVX via TVX". In: Anderson, J. and Ch. Jones (eds.) *Historical Linguistics*. Vol. 2. Amsterdam. pp. 339-376.

Vennemann, T. 1975. "An Explanation of Drift." In: C.N. Li (ed.), Word Order and Word Order Change, pp. 269-305. Austin: University of Texas Press.