A Modular Approach to Personal, Impeasonal and some Partially Passive Constructions*

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Abstract

In addition to the personal passive construction, characterized by the presence of a specific passive morpheme and the agent phrase as well as the advancement of the direct object to the subject, natural languages permit various constructions having only some of these defining properties. If the similarities and differences between the typical personal passives and such "partially" passive constructions are to be explained in a principled manner, the complex of phenomena traditionally called "passive" must be thought of as consisting of certain independent processes.

Among the competing theories of "passive" found in the literature, the modular analysis proposed in the Government and Binding theory seems to have just the right property, explaining a range of phenomena which would pose rather difficult problems for other theories. Of particular importance is the so-called Impersonal Passive construction, which will be shown in section 3 to provide a direct piece of evidence for the modular theory wherein Passive Morphology is analyzed as having the two crucial properties of Cas-absorption and θ-marking-suspension.

1. Background

1.1 One of the most fundamental features of the approach to "passive" pursued in the current GB-theory is the claim that the complex of phenomena traditionally called "passive" should be decomposed into certain independent processes. This of course is the spirit underlying many previous studies (particularly those conducted within EST/REST), and in this respect, the current theory is just an outgrowth of the EST program. However, the recently developed theory of Universal Grammar opened up a possibility of deeper explanations, of a very interesting kind, which are not available in the earlier theories, and it is in this depth of explanation that we find the attractiveness of the GB-theory. The approach within this framework to a particular set of phenomena (such as "passive") may be called a "modular approach", as opposed to, say, a "rule approach", because in this new theory with its maximally simple system of rules, the "full complexity of observed phenomena is traced to the interaction of partially independent subtheories" of Universal Grammar (cf. Chomsky (1981 : 135)).

In this paper, I will discuss several constructions each of which can be regarded as "passive" in some sense, and try to illustrate how the similarities and differences among them are explained within the GB framework. Since a particular language does not show all of the potential possibilities allowed by UG, generalizations are sometimes disguised by the special properties of that language, and in such cases, recourse to other languages becomes inevitable. I will for this reason discuss not only data from English but also those from other languages.

The paper is organized as follows. The rest of this section is devoted to a brief summary of the previous arguments for not viewing "passive" as a unitary transformational process. In section two, basic assumptions of the GB-theory as well as the analysis of passive therein are presented. Section three extends the analysis to some impersonal constructions, showing that they provide strong support for the approach to "passive" outlined in the second section. The final section is a summary and conclusion.

1. 2 As a point of departure, let us take Chomsky's (1957) analysis of passive, in which the pair of structures given in (1) are related by the rule having the effect shown in (2).

(1)a. John killed Mary.
    b. Mary was killed by John.
(2)   NP–Aux–V–NP $\Rightarrow$ 4 2+be+en 3 by+1
          1   2   3   4

Since, in this analysis, the properties of (1 b) that are absent from (1a) are attributed to the processes involved in the rule itself, an approach incorporating (2) is a non-modular, "rule" approach in the above sense.

There are several objections to this approach, of which the following three are particularly relevant to our discussion.

The first objection comes from Hasegawa (1968 : 242), who argues that, if the theory of grammar allows such compounding of elementary operations as involved in (2), then it should also allow us to formulate a transformation consisting of an arbitrary number of deletions, adjunctions and substitutions, which is obviously unnecessary for the description of natural languages. In order to exclude this type of excessive descriptive power in principle, he proposes the condition requiring that the structural change of a transformation be "limited to a single elementary operation." This important proposal has been incorporated into the subsequent transformational theories (EST/REST).

The second objection, related in part to the first one, has to do with the appropriateness of "grammatical transformation" as a formal means of capturing the generalizations that hold between the active and passive structures. Observe that the typical passive form (such as (1b)) differs from the corresponding active in having the following properties.

(3)a. The "logical" object appears as the grammatical subject.

    b. The "logical" subject appears in the "agentive" phrase (marked with *by* in English).

    c. Passive morphology.

What is important about this set of properties is that it is extremely common among languages, which naturally makes us suspect that it reflects some universal principles. If a vast number of languages have the constructions which can be appropriately called "passive" (according to their sense and morphology, for example), and if they all have the property (3a), then we surely do not want to state the latter fact in each of the grammars of these languages. However, adopting a rule like (2) amounts to doing this. The rule (2) captures the property (3a) by the elementary transformation which substitutes the *first* term of the SD with the *fourth* term, but clearly, this particular substitution is an idiosyncracy of English due to its word order, and different rules would be needed for languages with different word orders, even if the properties listed in (3) remain constant. For example, if the language has the SOV order, one of the elementary transformations involved in T-passive would have to be the substitution of the first term with the *second* term. Arguments of this sort have been presented by Perlmutter and Postal (1977) and they seem to constitute a valid objection to (2).

The third problem with the rule (2), pointed out in Hasegawa (1968), Chomsky (1970) and many recent works including Chomsky (1981), is the fact that there are structures having only one or two of the properties listed in (3), so that these properties should be regarded as being independent of each other, but this is in direct conflict with the claim made by (2). Given below are some of the examples illustrating this point.

(4)a. the city's destruction

    b. [$_{NP}$ e] destruction [$_{NP}$ the city]

(5)a. Le caviar se mange avec de la vodka.

    the caviare SE eat with the vodka

    b. [$_{NP}$ e] INFL se manger [$_{NP}$ le caviar] avec de la vodka

(6)   the destruction of the city by the enemy

(7)   Il a été dormi dans ce lit.

    there has been slept in this bed

    "The bed has been slept in."

(8)   the city$_i$'s destructing t$_i$ by the enemy

(9)   John's paper was criticized.

(10)   Il a été mangé beaucoup de pommes par les garçons.

    there has been eaten many apples by the boys

(4a) is a "passive nominal" in the sense that the logical object of *destruction* appears as the grammatical subject. Under the analysis of derived nominals adopted in GB (cf. Chomsky (1970, 1981)), it is derived by leftward NP-movement from (4b), but this structure contains neither passive morphology nor *by*-phrase.

Similarly, the French example (5a), which is a so-called *"se*-moyen" (middle-*se*) structure, is derived from (5b) by promoting the direct object of *manger* ("eat"), according to the analysis of Ruwet (1972) and others that we adopt here. The form *se mange* in (5a), morphologically distinct from passive, is the result of a very productive process in French which converts a transitive verb into an "intransitive" verb by the addition of the clitic *se*, and thus, although it may be said to have a passive sense, as the English translation indicates, it lacks passive morphology (and the agent phrase). The real passive form corresponding to (5a) is (11), and both (5a) and (11) are semantically related to the "transitive" structure (12).

(11)   Le caviar$_i$ est mangé t$_i$ avec de la vodka.

(12)   Nous avons mangé le caviar avec de la vodka.

       we have eaten the caviare with the vodka

       "We ate caviare with vodka."

Thus, both (4a) and (5a) show the independent character of the object-to-subject advancement.

Consider next the other two possibilities, viz., the presence of *by*-phrase without either passive morphology or movement, and the presence of passive morphology without movement and *by*-phrase. The former is exemplified by (6). As for the latter, the impersonal passives seem to have such a property generally. An example from French is given in (7), where passive morphology is present (*été dormi=been slept*) but the NP *ce lit* (=*this bed*) cannot be moved to the subject position to form a structure corresponding to the English pseudo-passive. This shows that the property (3c) —passsive morphology— is also independent of the other two properties.

If the three properties listed in (3) are independent of each other, as we just observed, then we expect to find the structures having only two of them. *A priori,* three combinations are possible : (i) movement and *by*-phrase without passive morphology, (ii) movement and passive morphology without *by*-phrase, and (iii) passive morphology and *by*-phrase without movement. These possibilities are all actually realized in (8), (9) and (10), respectively. To comment only on the last case, (10) is an example of French impersonal construction, which contains both passive morphology (*été mangé=been eaten*) and *by*-phrase (*par les garçons*), but in which the logical object (*becaucoup de pommes=many apples*) appears post-verbally and the surface subject position is occupied by the dummy pro-nominal element *il*. (See section three for further discussion of this construction and its relation to the impersonal passives such as (7).) In view of these obser-vations, we conclude that the three properties listed in (3) are indeed independent of each other.

1. 3 We have discussed three major types of objections to the approach to "passive" based on the transformation given in (2). To summarize briefly, (i) the theory in which rules like (2) are formulable is not restrictive enough in that

it fails to exclude many imaginable but unnecessary rules, (ii) important cross-linguistic generalizations are missed in this approach, and (iii) this approach fails to "explain" the similarities and differences between the most typical passive such as (1b) and the "partially" passive structures like those given in (4) through (10). With these background observations in mind, let us turn to the analysis of "passive" as currently developed in the BG-theory.

2. Passive in GB

2.1 We assume with Chomsky (1981, 1982) that UG consists of the system of rules given in (13) and the system of principles given in (14), each subsystem of which is further assumed to be associated with certain parameters.

(13) (i) lexicon
    (ii) syntax
        (a) categorical component
        (b) transformational component
    (iii) PF-component
    (iv) LF-component

(14) (i) Case theory   (iv) Binding theory
    (ii) θ-theory   (v) Control theory
    (iii) Government theory   (vi) Bounding theory

The core part of a particular grammar is viewed as the set of specific values of the parameters and various lexical information. In accordance with the afore-mentioned requirement that the compounding of transformations be excluded, and extending it further, the transformational component is now assumed to contain a single rule: "Move α" (α=an arbitrary category). In a language like English, where grammatical relations are structurally determined, relational change is effected by Move α. However, in a language in which grammatical relations are not defined in structural terms, movement of a constituent does not imply change of grammatical relations. Chomsky suggests that such a language adopts a different device, Assume GF, which permits a constituent to bear an arbitrary grammatical function. In the following discussion, we simply adopt this and other assumptions concerning the rule system (13) as they are presented in the references cited. As for (14), we will touch upon only two of the subtheories most directly relevant to our concerns, namely, Case theory and θ-theory.

Beginning with the former, then, we assume the set of Case-assignment rules (15) for English and the Case Filter (16).

(15) a. NP is Nominative if governed by INFL(AG).
     b. NP is Objective if governed by V with the
       subcategorization feature [__NP].
     c. NP is Oblique if governed by P.
     d. NP is Gentive in $[_{NP} - X']$.
     e. NP is inherently Case-marked as determined by the

properties of its [−N] governor.

(16)   *NP, where NP has phonetic content and has no Case.

We understand (15) to be a version already parameterized for English, since there are languages for which this set of rules is not sufficient (e. g., Adjectives are said to assign Case in Swedish (Platzack 1982), Nominative marking in Japanese seems to be governed by a rule distinct from (15a) (Saito 1982, Washio 1983)). The following structure informally illustrates Case-assignment under government.

(17)   [John] INFL (AG) [put [the book] [on [the table]]]
              ↑ | ↑   ↑

Nominative   Objective   Oblique

"AG" is a set of agreement features (i. e., person, number and gender), which is contained in INFL only if the latter is [+Tense]. INFL governs the subject if it contains AG.[1]

To see how the Case Filter works, consider the following.

(18) a. *it is unclear [who$_i$ [[John] to visit t$_i$]]
     b. *it seems [[John] to be a genius]
     c. it seems [that [[John] (INFL (AG)) is a genius]]
     d. [$_{NP}$ e] INFL (AG) seem [[John] (INFL (AG)) is a genius]]
     e. [$_{NP}$ e] INFL (AG) seem [[John] to be a genius]
     f. [John]$_i$ INFL (AG) seem [[e]$_i$ to be a genius]

The first two examples are exluded because *John*, being the subject of an infinitive, receives no Case. In the (c)-example, however, *John* receives Nominative from the embedded INFL (AG) and the matrix *it* also receives one from the matrix INFL (AG), so that there is no violation of the Filter. (c) is derived from (d) by a rule called "*it*-insertion", which inserts a dummy or pleonastic *it* (into a non-thematic position though this need not be stated in the rule, as we will see directly). Similarly, there is a D-structure (e), which results in the ungrammatical structure (b) if the *it*-insertion rule applies to it. However, if we apply Move α instead, the structure (f) is derived, which is grammatical because *John* now receives Nominative in the position it moved into.

Turning next to the θ-theory, its central principle is the θ-criterion stated in the following form in Chomsky (1982 : 6).

(19)   Each term of LF that requires a θ-role (each *argument*) is assigned
         a θ-role uniquely, and each θ-role determined by lexical properties
         of a head is uniquely assigned to an argument.

The verb *kill*, for example, has the property that it assigns the Patient-role to the object and the Agent-role to the subject. From the latter half of (19), it then follows that, at LF, the subject and object positions of a clause of which *kill* is the main verb must each be filled with a single argument, and from the first of (19), it follows that the clause contains no other arguments. If a verb (e. g., *rain* or *seem*) assigns no θ-role to the subject, this subject position cannot

be filled with an argument due to the first hald of (19).[2] In such cases, a thematically empty element (a "non-argument" such as *there* and *it*) may be inserted to fill the slot. (That the thematically empty slot cannot be left unfilled (*It rains/*Rains*) suggests that the subject is an obligatory syntactic position in English, as Chomsky observed.) The contrast between (20) and (21), for example, follows from the θ-criterion.

(20) a. John   killed   Bill.
         ↑ (Agent, Patient) ↑

    b. It rains.

    c. It seems that John is a genius.

(21) a. *John rains.

    b. *Bill seems that John is a genius.

    c. *It killed Bill. (*it* = pleonastic)

In the first two examples of (21), the (matrix) subject receives no θ-role, violating the first half of (19). In the last example, a non-argument appears in the position to which the verb assigns a θ-role, violating the latter half of (19).

In addition to the θ-criterion, we assume the Projection Principle, which states that "the θ-marking properties of each lexical item must be represented categorially at each syntactic level: LF, S-structure and D-structure" (Chomsky (1982 : 8)). This means, for example, that if a verb has the property of assigning a θ-role to the direct object, then the VP of which it is the head must contain a direct object at each syntactic level, and thus, "trace theory" becomes a requirement in this framework. If we further assume that an appropriately formulated version of the Projection Principle has the effect of transmitting the θ-criterion from LF down to S- and D-structures, then it turns out that the only legitimate case of NP-movement (where the NP is an argument) is from a θ-position to a non-θ-position, because if the position to which the argument is moved is a θ-position, then either the argument is doubly θ-marked or the θ-criterion is violated at the level of D-structure. See Chomsky (1981, 1982) for further detail.

It should be clear, even from this informal exposition, that the Case theory and the θ-theory are justified quite independently of the passive matters in the general theory we are assuming. We now consider how the most typical case of "passive" is to be treated in this theory.

2.2. Following Chomsky (1981) and Jaeggli (1981), we assume that a verb with passive morphology (henceforth "Passive Verb") has the following two crucial properties.

(22)   Passive Verb (i) "suspends" the assignment of the subject-θ-role, and
          (ii) does not assign Case.

If we compare an active structure with the corresponding passive, we notice that the number of arguments is reduced by one in the latter and the reduced argu-

ment always corresponds to the subject of the active. From the point of view of the θ-theory, this means that the "subject-θ-role" (the θ-role which is assigned to the subject by the predicate) is not assigned to the subject in the passive structure. (22-i) simply means that we have taken this as one of the defining properties of "passive morphology." Thus, the process of θ-marking in an active structure and that in a passive can be schematically represented as in (23) and (24), respectively.

(23)   [John] criticized [Bill]
          ⌐ (Agent, Patient) ⌐
          |_____| |_____|

(24)   [e] was criticized [Bill]
          (Agent*, Patient) ⌐
                       |_____|

We use the notation "θ*" to indicate the suspension of the θ-role-assignment. Thus in (24), "Agent*" means that the Agent-role is not assigned to the subject (due to (22-i)) so that the subject position is a non-θ-position, though the direct object receives the θ-role in the same way as it does in the corresponding active. Since the subject is a non-θ-position in (24), no argument can be inserted here without violating the θ-criterion. Put differently, Passive Verb has the property that it "imprisons" the subject-θ-role, making the subject position non-thematic. Following Marantz (1981 : 146), we assume that this imprisoned θ-role is interpreted as an "indefinite someone or something" in the absence of by-phrase. (For the interpretation of by-phrase, see 2.3 below.) Given (22-i), then, the ill-formedness of the following structure follows from the θ-criterion.

(25)   *John was criticized Bill.

On the other hand, an argument already in a θ-position may move to the non-thematic subject position in (24) without violating any of the principles so far mentioned, so that the following structure is correctly derived by Move-α.

(26)   Bill$_i$ was criticized t$_i$.

The fact that the object NP *must* move in (24) does not follow from (22-i), however. Rather, it follows from the other property of passive morphology stated in (22-ii). Recall from section 2.1 that NP-movement functions as a device to save a structure which otherwise violates the Case Filter. Thus, in the following structure,

(27)   [e] INFL seem [[John] be a genius]

the embedded subject must move to the matrix subject position to receive Nominative, because it can receive Case in no other way : there is no INFL (AG) in the infinitival clause and *seem* does not assign Case. Now, (22-ii) simply says that the same generalization holds in the case of passive, i. e., Passive Verbs, like raising verbs, do not assign Case, so that the object NP in (24) must move to

a Case position to satisfy the Case Filter, and the θ-criterion requires that the latter position be non-thematic.[3]   In this analysis, therefore, the "promotion" of the direct object is just a concomitant of (22), given the independently motivated principles of UG discussed in section 2.1.

This analysis naturally extends to "passive nominals" briefly discussed in section 1.2, if we assume that derived nominals also have the properties stated in (22).   That they have the property (22–ii) is straightforward since they are nouns (only [–N] assigns Case in English.)   Unlike verbal passives, however, the direct object of a nominal may surface as such if it is marked with the preposition *of*, as in *the destruction of the city*.   We therefore assume a special Case-marking device (the "*of*-insertion") which can be roughly stated as in (28).

(28)   NP→*of*-NP/N —

The above example will then be derived from (29) by this rule.

(29)   the [$_N$ destruction] [$_{NP}$ the city]

Notice that examples like (29) suggest that derived nominals also have a property similar to (22–i).   Since (29) contains no subject-argument, we must assume that the assignment of the subject θ-role is suspended here.   (However, since an argument may also appear in this position as in *John's destruction of the city*, we are led to assume that the suspension is "optional" for nominals.   Cf. Chomsky (1981).)   Now, given these properties, the following is a possible D-structure.

(30)   [$_{NP}$ e] [$_{N'}$ [$_N$ destruction] [$_{NP}$ the city]
                (Agent*, Patient)

Since this structure has the essential properties of "Verbal Passives" (i. e., no Case to the object and no θ-role to the subject), it comes as no surprise that there is a passive form *the city's destruction* derived from (30) by Move α.

The above analysis makes certain interesting predictions, some of which cannot possibly be made in a non-modular theory.   For example, it immediately follows from this analysis that "intransitive passives" like (31a) do not exist.

(31)a . *John was danced.
      b. [e] was danced.
            (Agent*)

(31a) may be derived from (b) by simply inserting *John* into the empty subject position.   However, since the subject θ-role, the only θ-role available in this case, is "imprisoned" in the verb due to (22–i), *John* can receive no θ-role, and the structure is excluded by the θ-criterion.   Recall, however, that a language may contain a class of non-arguments (dummy elements), which require no θ-role.   Therefore, if the subject position of a passive is always non-thematic, it should be a position in which such a dummy element may potentially appear, exactly as in the case of "raising" structures where the dummy pronoun *it* is inserted to fill the non-thematic subject slot.   Thus, our analysis predicts that languages

may permit a "passive" structure which has a dummy element as its subject, and in fact, such passives do exist in many languages and are known as Impersonal Passives. For example, the German counterpart of (31b) is well-formed with the dummy subject *es*. This seems to be a rather nice confirmation of the correctness of (22-i). See below for further discussion.

The proposed property (22-ii) is also supported by independent evidence. Since we are claiming that the promotion of the object NP is simply a side-effect caused by (22-ii) and Case Filter, we predict that the NP may stay in the post-verbal position if Case Filter is satisfied in some other way. We have already observed one instance of this case (*the destruction of the city by the enemy*) and will observe other instances below.

2. 3   Let us now turn to the "agentive" *by*-phrase. Since *by*-phrase may or may not appear in a typical passive structure, and since its appearance is not conditioned by passive morphology or movement of the object, we assume that it is base-generated as a PP. But then, the following question immediately arises: why does the *by*-phrase not appear in an active structure as in (32) if its generation is completely independent of the notion "passive"?

(32)   *Mary killed John by Bill.

This question cannot be answered unless we determine the proper mechanism for the θ-marking of the object of *by*, so we will take up this matter first.

One possibility, suggested by Jaeggli (1981) in the GB framework, is to assume that the preposition *by* itself assigns a specific θ-role, which Jaeggli claims to be the "Agent" role. Under this analysis, θ-marking in the passive structure is done in the following manner.

(33)   Mary$_i$ was killed t$_i$ by John.

                Patient   Agent

Similarly, (32) would get the following θ-marking.

(34)   *Mary killed John by Bill.

          Agent   Patient   Agent

Jaeggli then claims (p. 51) that (34) violates the θ-criterion because there is a θ-role "Agent" which is assigned to more than one argument, namely to both *Mary* and *Bill*. It seems, however, that this is a mis-application of the θ-criterion. Intuitively speaking, this criterion only requires that the θ-marking property of each predicate be satisfied and that each argument be thematically related to a single predicate (i. e., no NP can be an argument of two predicates at the same time). Understood this way, (34) involves no violation of this principle: the verb *kill* has the property that it assigns the Agent-role to the subject and the Patient-role to the object, which is satisfied in (34), and the preposition *by* has the property, in Jaeggli's analysis, that it assigns the Agent-role to its object, which

again is satisfied in (34), and each argument is properly related to a single θ-role-assigner.

Even if Jaeggli's (1981) interpretation of the θ-criterion is to be adopted, his analysis is inadeqiate on factual grounds. Consider the following example.

(35)   *John broke his leg by Mary.

Since the predicate *break his leg* permits an interpretation under which its subject is a non-Agent (i. e., "Experiencer"), this should involve no violation of the θ-criterion in Jaeggli's sense and should be grammatical.

Next, as Marantz (1981 : 147) observed, the claim that the preposition *by* always assigns the Agent-role is counter-factual. Observe :

(36)a. Elmer was seen by *everyone who entered*.   (Experiencer)
    b. The intersection was approached by *five cars* at once.   (Theme)
    c. The porcupine crate was received by *Elmer*.   (Goal)
    d. The house is surrounded by *trees*.   (X $\neq$ Agent)

In each case, the *by*-marked NP receives a θ-role (given in the parantheses) which is distinct from Agent.

For these reasons, we drop Jaeggli's (1981) analysis.[4] In considering an alternative, examples like those given in (36) are particularly suggestive, because they show that the θ-role borne by the object of *by* is actually the one which is otherwise assigned to the subject in the corresponding active. The active counter-parts to (36) given below illustrate this point.

(37)a. *Everyone who entered* saw Elmer.   (Experiencer)
    b. *Five cars* approached the intersection at once.   (Theme)
    c. *Elmer* received the porcupine crate.   (Goal)
   d. *Trees* surround the house.   (X $\neq$ Agent)

This thematic correspondence suggests that the θ-role of the object of *by* is determined by the verb, and not by the preposition. In our framework, where the subject-θ-role is "imprisoned" in the Passive Verb, this means that the object of *by* receives this imprisoned θ-role and that the preposition *by* serves a special function of indicating the "transmission" of this θ-role. Using, as before, the notation "$\theta*$" to indicate the suspension of the θ-role-assignment, we can incorporate this observation into our analysis by assuming something like the following.

(38)   An NP marked with the Agent Marker (*by* in English) receives $\theta*$.

For example, the processes of θ-marking involved in (33) and (36d) can be represented as in (39) and (40), respectively.

(39)   Mary$_i$ was   killed t_i by John
        (Agent*, Patient)

(40)   The house$_i$ is surrounded t$_i$ by trees.

($\theta 1*$, $\theta 2$) ↑
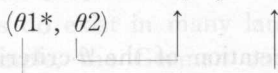
Thus, *by* is only a "transmitter" of an imprisoned θ-role, and does not assign one itself.

Returning to the ill-formedness of (32), i. e., the impossibility of having a *by*-phrase in the active, the analysis suggested above already predicts it : namely, since the assignment of the subject-θ-role is *not* suspended in an active structure, there is no imprisoned θ-role ($\theta*$) to be transmitted to the object of *by*, which therefore is left un-θ-marked, violating the θ-criterion.

2.4 Under the analysis suggested above, the selectional correspondence between the active subject and the *by*-marked NP in the passive is captured in a natural way.   Thus in (41) and (42), taken from Bresnan (1972), the (b)-examples are semantically odd for the same reason.
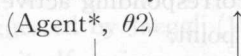
(41) a. A doctor examined John.
     b. *A tomato examined John.
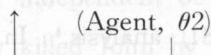
(Agent, $\theta 2$) ↑

(42) a. John was examined by a doctor.
     b. *John was examined by a tomato.

(Agent*, $\theta 2$) ↑

In each case, the subject-θ-role determined by the verb, namely "Agent," is assigned to a semantically incompatible argument.

Consider in this light the following examples discussed in Brensnan (1972: 142-4).

(43) a. That is by Beethoven.
     b. *That is by a tomato.

(44) a. a sonata by Beethoven
     b. *a sonata by a tomato

Bresnan says that "rules for interpreting *by*-phrase [which appears in (42)] are needed any way to account for" such examples as (43) and (44), suggesting that the *by*-phrases in (42) and those in (43)/(44) are to be interpreted by the same mechanism.   Whatever this mechanism may be (Bresnan does not formulate it), it is clear that her suggestion cannot be incorporated into our analysis, because there is no imprisoned θ-role involved in (43) and (44) — there is no predicate having the property (22-i) — so that the *by*-marked NP in these examples must receive one from somewhere else, and the only conceivable source here is the preposition *by* itself.   We must therefore claim that there are two types of *by*, one a transmitter of an imprisoned θ-role, the other an assigner of a specific θ-role, say "Creator."   I think this is not an unreasonable position to take.

Observe first that what is incompatible with *a tomato* in (42b) is the subject-θ-role *determined by the verb,* so that an appropriate substitution of the verb results in a well-formed passive. For example, (45) is all right even if *tomato* appears in the *by*-phrase.

(45)   The dinner was spoiled by too many tomatoes.

But this is not the case with (43b)/(44b): *That is by a tomato,* for example, is always ill-formed whatever object *that* refers to. This is compatible with our analysis, since the "Creator" role, which *by* assigns to its object, is incompatible with inanimate nouns.

This analysis also distinguishes derived nominals from non-derived nominals. Recall we are assuming that the subject-θ-role may be imprisoned in a derived nomial and that the *by* which cooccurs with it is a transmitter of the imprisoned θ-role. So this *by* is different from that which appears with a *non*-derived nominal such as *sonata* or *picture,* which, as we just argued, assigns the Creator-role. Thus, *by*-marked NPs in the following examples have distinct processes of θ-marking indicated.

(46) a. the destruction of the cited by *the enemy*
       (Agent*, $\theta2$)
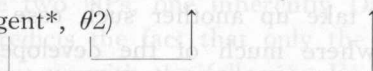
b. the picture of the girl by *the artist*

(Creator)

Now given this difference, the θ-criterion predicts that the "subject" position can be filled with another argument only in (46b), and this in fact is the case, as Bresnan and others have noted. Thus:

(47) a. *John's destruction of the city by the enemy
     b. John's picture of the girl by the artist

(47a) is impossible because either *John* or *the enemy* fails to receive θ-role, depending on whether the Agent-role is imprisoned or not. (If it is not imprisoned, then (47a) is completely parallel to its clausal counterpart **John destroyed the city by the enemy.*) The same, however, is not true in the case of (47b), since the θ-marking of *the artist* and that of *John* take place independently. The former is done by the preposition *by* in the manner shown in (46b). As for the latter, we assume it is done by whatever mechanism takes care of such examples as *John's dog,* etc.

3.   Impersonal Passives

3.1   Since the properties of Passive Verb and the Agent Marker discussed above (cf. (22) and (38)) are assumed to be universal, explanations parallel to those given above for the English data apply to passives in other languages. For example, the core part of the derivation shown in (49) of the French passive sentence (48b)

corresponding to the active (48a) is determined by universal principles in the manner discussed above, once we know which morphemes have the properties (22) and (38) in French.

(48) a. Pierre a frappé Paul.
    "Pierre hit Paul."
    b. Paul a été frappé par Pierre.
    "Paul was hit by Pierre."

(49) a. [e] a été [frappé [Paul] [par [Pierre]]] (D-structure)
    b. [Paul]ᵢ a été [frappé [e]ᵢ [par [Pierre]]]
                    $(\theta1^*, \theta2)$

It is well-known, however, that there are certain types of "passive" construc-tions that are allowed in some languages but not in others, one famous case being the so-called "pseudopassive," which is allowed in English as in (50a) but not in French as in (50b).[5]

(50) a. John was voted against by almost everybody.
    b.*Jean a été voté contre par presque tous.

In this section, we will briefly take up another such case. In languages like French, German and Dutch, where much of the developed system of Case-marking is still retained, only the Accusative direct object can be the subject of the Passive Verb. The following, for example, are all ungrammatical.[6]

(51) a.*J'ai été donné une pomme par Jean.
    I was given an apple by
    b.*Er wurde von mir Bücher gegeben.
    he was by me books given
    c.*Paul sera téléphoné par ses enfants.
    Paul will-be telephoned by his children

The first two examples (from French and German) involve a verb meaning "give," of which the surface subject is the indirect Dative object. The last example from French involves the verb *téléphoner*, which, unlike the English verb *telephone*, governs Dative, so that its object may not be "passivized."

The fact that "passivization" is restricted to the Accusative cannot be ex-plained without referring to the notion "Case." Now, if we look at movement of NPs from the point of view of Case-position, it seems that, of the four possible combinations, only three types of movement are allowed : one, like Raising, moves an NP from a non-Case-position to a Case-position, another, like wh-movement, from a Case-position to a non-Case-position, still another, like the first step in the derivation of *John seems to be believed to be a liar*, from a non-Case-position to another non-Case-position, and there is no fourth kind that would move an NP from a Case-position to another Case-position. We thus assume that UG contains some principle(s) having the following effect. (Cf. Lightfoot (1980) for a similar proposal.)

(52)   An NP can be related only to a single Case position.

With this condition, the non-passivizability of non-Accusative NPs can be explained, given the following highly natural assumptions.

(53) a. Those verbs which "govern" a non-Accusative object are subcategorized for a specific Case (e. g., Dative).
   b. Accusative Case is assigned structurally.
   c. Passive morphology "absorbs" structural Case only (i. e., Passive Participle simply lacks the Case-assigning property and does not affect an inherebtly Case-marked NP).

For example, the object NP of the verb *téléphoner* bears the Dative Case at the level of D-structure even if the verb has a passive morphology, so that movement of that NP to the Nomiative subject position necessarily violates the Single Case Condition. Similarly, both *donner* and *geben* (="give") have the following subcategorization feature (abstracting away from order of elements).

(54)   [+ __ Dative NP]

That is, they take two NPs, one inherently Dative, the other un-Case-marked, which correctly predicts the fact that only the latter can be "promoted" under passive. This leaves us with the following English data.

(55) a. A book was given him.
    b. He was given a book.

If the verb *give* also has the subcategorization feature (54), then only (55a) should be allowed, but the fact is that (55b) is completely normal and (55a) is also possible, which appears to be in direct conflict with our analysis. In considering this state of affairs, it is particularly suggestive to note that, in Old English, the Dative Object could not be passivized, exactly as in (Modern) German and French, so that only (55a) was permitted; this suggests that the paradigm shown in (55) is a special property of Modern English arisen from some historical change. According to Jespersen (1909-49), forms like (55b) arose from the mis-analysis of (55a) : that is, (55a) also appeared in OE with a different word order in which the Dative object (*him*) and the Nominative subject (*a book*) are interchanged and this clause-initial Dative object was mis-analyzed as a Nominative subject with the concomitant mis-analysis of the post-verbal Nominative subject as an object, which gave rise to (55b).[7] If this is what in fact happened, then we are led to assume that the subcategorization frame of the verb *give* was also changed to be consistent with the mis-analysis. Since the Dative object is now analyzed as a passive subject, it must have been derived from the Accusative object and since the post-verbal Nominative subject is now a "retained" object, it must have been inherently Case-marked, which together suggest that the verb *give* has the following subcategorization feature, where "Case*" is some inherently determined Case.

(56)   [+ __ NP Case*]

If a verb with this subcategorization feature is passivized, only the first NP can be promoted, deriving (55b). (55a) is also derived if we assume that the "old," cross-linguistically more standard, subcategorization feature (54) is still retained.

The non-passivizability of non-Accusative NPs discussed above turns out to be extremely important in the context of the modular/non-modular controversy. Observe, first, that it is possible for a Dative-governing verb to appear with passive morphology. Thus we have such examples as the following in German.

(57) a. Er schlug mich.

   he hit me-Acc

   b. Ich wurde geschlagen.

   I was hit

(58) a. Er dankt mir.

   he thanked me-Dat

   b. *Ich wurde gedankt.

   I was thanked

   c. Es wurde mir gedankt.

   it was me-Dat thanked

(57) is a standard case of personal passive and needs no comment here. In (58), while the Dative object cannot be promoted to the subject (as in (b)) due to the Single Case equirement, impersonal forms like (c), where the Dative object surfaces as such, are in fact allowed. Thus, given that the acceptability of passive structures may differ even if they contain the same verb, it does not seem to be meaningful to ask whether a given verb is passivizable or not; rather, what is crucial is whether an object NP is Case-marked inherently or structurally and whether it is moved to a Case-position or stays in place. While these facts pose extremely difficult problems for the non-modular theory, they are exactly what the modular approach outlined above predicts, which, therefore, provide a strong support for it.

In this way, Impersonal Passives like (58c) enable us to distinguish between the competing theories which more or less equally explain the data concerning Personal Passives, and therefore merit further discussion. In the next section, we will take a closer look at this construction, based mainly on the data from French.

3.2 Consider the following structure, which contains an *intransitive* verb with passive morphology together with a PP following it.

(59)   [e] INFL *BE* V–EN [PP P NP] (*BY* NP)

                    ($\theta 1$*) |___↑

                                    Case/$\theta 2$

Since the prepositional object receives Case and θ-role from P, it need not move; and since the subject position is non-thematic, a non-argument like the existential

there may appear here. Thus, as far as Case and θ-theories are concerned, there is nothing wrong with the following examples.

    (60) a.*There was talked [about this] last night.
        (Cf. This was talked about last night.)
      b.*There has been slept [in this bed] recently.
        (Cf. This bed has been slept in recently.)

If no language permits structures of this sort, then we have reason to doubt the validity of the modular approach, but, of course, Impersonal Passives of this sort do exist in many languages. For example, the following passive structures from French, corresponding to the examples given in (60) above, are both acceptable (cf. Zribi-Hertz (1981 : 7/28)).

    (61) a. Il a été discuté [de ceci] hier soir.
      b. Il a été dormi [dans ce lit] récemment.

Since French does not permit P-stranding as we saw earlier, a contrast like the following obtains (cf. Kayne (1975 : 245)).

    (62) a Il a été parlé [de vos frères] hier soir.
        there were sponken [of your brothers] last night
      b.*Vos frères ont été parlé de hier soir.
        your brothers were sponken of last night.

So the predictions of the modular theory are actually borne out in French, German (cf. (58c)) and many other languages. How, then, should we distinguish those languages which permit Impersonal Passives relatively freely from those (like English) which virtually disallow them? A possible parameter which immediately comes to mind is that the dummy elements in these languages have different properties, which contribute to the different possibilities of impersonal constructions. Examining the data, we do notice that, as far as the languages discussed here are concerned, there are certain crucial differences among the dummy elements.

Begining with English, then, it has two dummy elements, *there* and *it*, which, as Chomsky (1981) observes, have different properties with respect to number agreement : the latter is inherently singular whereas the former has no intrinsic number though it is "an element that must receive number" from an NP it coindexed with.[8] From this, it follows that *there* may only appear in a structure which contains an NP from which it can receive an index (hence number), though *it* is not restricted in this way because its number is inherently determined. Aside from its "weather use," however, *it* can only appear in a structure containing an S', so that it may be said to require an S' with equal appropriateness with which we say that *there* requires an NP. Though we must eventually explain why this is so, we simply assume here that *it* requires an S' for some principled reason. This characterization of the two dummy elements then explains the fact that the dummy subjects in (63) and (64) cannot be in-

terchanged.

(63)   It seems that [s' that S]

(64) a. There has arrived a man.
     b. There have arrived three men.

French, by contrast, seems to have only one dummy element, *il*, which performs the functions of both *it* and *there*. Thus, *il* is the element that appears in the subject positions of the weather verb as in (65a), of the raising verb as in (65b), and of the construction like (66) for which English requires *there*.

(65) a. Il pleut. (It rains.)
     b. Il semble [s' que S] (=(63))

(66) a. Il est arrivé un homme. (=(64a))
     b. Il est arrivé trois hommes. (=(64b))

From the point of view of number agreement, *il* is more like *it* than *there* in that it is inherently singular. This is already evident from (65), but it is also clearly demonstrated in (66), where the tense-auxiliary *être* remains in the singular (*est* and not *sont*) irrespectively of whether the post-verbal NP is singular (as in (a)) or plural (as in (b)). However, *il* is unlike *it* in that it is not restricted to structures with an S'. We thus have two criteria with which to classify the dummy elements, one being whether a dummy has any inherent number, the other being whether it requires a specific category to appear with. Based on these criteria, we arrive at the following classification.

(67)

		Cooccurrence	
		Only with a specific category	Free
Number	Inherent	*it* (S')	*il*
	Neutral	*there* (NP)	*es*

As noted, we are claiming that the degree to which a given language permits impersonal constructions is determined in part by the property of the dummy element(s) in that language. If a language employs a dummy element which has inherent number and which requires no specific category, then we naturally expect it to permit a wider variety of impersonal constructions than what we find in English, because such a dummy element is subject to fewer restrictions than either *it* or *there*. Thus, given the "autonomous" character of the German dummy element *es*, it is quite understandable that Impersonal Passives like (68b) are systematically allowed in this language.

(68) a. *There/It was danced.
     b. Es wurde getanzt.

Both (68a) and (68b) are derived from essentially the same well-formed underlying structure by inserting a dummy pronominal element into the non-thematic subject

position, but since neither NP nor S' is present in this structure, neither of the two dummy elements in English could appear here, which contrasts with the situation in German where the dummy pronominal is subject to no such restrictions.

Similarly, the French pronominal, *il*, may appear independently, but there are also cases in which *il* is coindexed with an NP. As Burzio (1981) points out, languages like French and Italian systematically use the dummy-insertion as a device to save the structures which otherwise violate the Case Filter. In (69), for example,

(69) a. [e] a été mangé [beaucoup de pommes]
   has been eaten [many apples]
 b. [beaucoup de pommes]$_i$ ont été mangées [e]$_i$
 c. [il]$_i$ a été mangé [becaucoup de pommes]$_i$
 d.*[il] a été mangé [la pomme]

(a) is the D-structure of the personal passive given in (b) which is derived from (a) by NP-movement. In addition to this "standard" form, however, French also allows (c) where the direct object stays in place and the dummy appears in the subject position. Under the analysis that we adopt here,[9] (c) is saved from Case Filter because the post-verbal NP is coindexed with the subject dummy and receives Nominative from it.[10] It is typically the case that when this type of "binding" relation holds between the dummy subject and the post-verbal NP, the latter is subject to the Definiteness Restriction, as in (69d). We can thus determine the presence/absence of the binding relation in terms of the presence/absence of the presence/absence of the Definiteness Restriction.[11]

Returning to the difference between English and French that we noted at the beginning of this subsection, we wanted to explain the following contrast.

(70) a.*It/There has been slept [in this bed].
 b. Il a été dormi [dans ce lit].

Observe first that the prepositional object is definite in these examples. By the above reasoning, therefore, there is no "binding" relation between the subject dummy and the post-prepositional definite NP. If there were coindexing, the latter NP would receive Nominative from the former, in which case the Single Case requirement discussed earlier would have to be violated because the prepositional object is also marked Oblique by the P. Probably, this is the reason for the absence of the "binding" relation in (70). However, since *il* may appear all by itself, the French example (70b) is well-formed. Similarly, if *there* is coindexed with *this bed* in (70a), the latter will be doubly Case-marked so that there should be no "binding" relation here, but since *there* requires an NP (cf. note 8), it is not allowed at all in this structure. The other pronominal dummy, *it*, is also excluded from this strcture since no S' is present here. In either way, then, the subject position of (70a) fails to be filled, and the structure is not generated.

Needless to say, the nature of Impersonal Passives is not as simple as what the above remarks might suggest. However, in a theory in which "passive" is viewed as a single unitary process, it is not even clear why such "strange" constructions as Impersonal Passive exist in natural languages. By contrast, actually observed properties of Impersonal Passives (e. g., a dummy appears in the subject position, the "logical" object surfaces as the grammatical object) make perfect sense in the theory outlined above where Passive Morphology is analyzed as having the two crucial properties of Case-absorption and θ-marking-suspension.

3. 3 French provides another type of evidence which supports the modular theory. Consider first the following pair of examples.[12]

(71) a . Trois filles sont arrivées.
       three girls arrived
     b . Il est arrivé trois filles.
       there arrived three girls

Corresponding to intransitive structures like (71a), French has impersonal structures like (71b), which Postal (1982) calls the EXI-construction. The post-verbal NP in EXI is subject to the Definiteness Restriction as in (72).

(72) a .*Il est arrivé le garçon hier soir.
        there arrived the boy last night
     b .*Il l'est arrivé hier soir.
        there him-arrived last night

When the verb is transitive, EXI is not possible. Observe :

(73) a . Trois filles mangeront cette tarte.
        three girls will eat this pie
     b .*Il mangera trois filles cette tarte.
        there will eat three girls this pie
       *Il mangera cette tarte trois filles.
        there will eat this pie three girls

Furthermore, EXI is restricted to a small subset of intransitive verbs such as *arriver*. Thus, intransitive verbs such as the following do not permit EXI.

(74) a . Trois garçons ont dormi/souri.
        three boys slept/smiled
     b .*Il a dormi/souri toris garçons.
        there slept/smiled thre boys

Traditionally, (71b) is analyzed as being derived from (71a) by a rule called Indefinite NP Extraposition, plus a late rule of dummy-insertion (Kayne (1975 : 330), Ruwet (1972 : 21)). On the other hand, if we assume a version of the Unaccusative Hypothesis proposed by Perlmutter and Postal (cf. Perlmuter (1978)), (71b) is essentially the D-structure (with the subject position unfilled), and (71a) is derived from (71b) by leftward NP-movement (Jaeggli (1982 : 113/115), Burzio

(1981)). Under either analysis, the post-verbal NP in (71b) receives Case (Nominative) not from the verb *arriver* but from INFL, either directly from INFL under government, as in the former analysis, or indirectly "through" *il*, as in the latter analysis (cf. note 8). Since there is ample evidence for the correctness of the Unaccusative Hypothesis (cf. Perlmutter (1980), Burzio (1981), Rosen (1981)), we adopt the analysis whereby (71a) is derived from a structure essentially like (71b). This, then, automatically explains the above-mentioned fact that EXI is impossible with transitive and non-unaccusative intransitive verbs because these verbs do θ-mark their subject, thereby excluding a non-arugment dummy element from the subject position.

There are other constructions which also permit the EXI-variants. The following is one, which is an example of the "*se*-moyen" construction touched upon in section 1.2 above (cf. Kayne (1975), Burzio (1981)).

(75) a. Beaucoup d'immeuble se construisent dans cette ville.
       many buldings SE build in this town.
       "Many buildings are built in this town."
    b. Il se construit [beaucoup d'immeubles] dans cette ville.
       There SE builds [many buildings] in this town.
    c. [e] se construire [beaucoup d'immeubles] dans cette ville.

Since the direct object in the D-structure (75c) is a non-Case-position, it must either move to the subject position to receive Nominative (as in (a)), or else it must be coindexed with a dummy element inserted into the subject position (as in (b)).

So far, then, we have two different constructions in which the post-verbal NP receives Case from the coindexed dummy element. Now, as is well-known, EXI is also possible with passives, as in the following examples. (Cf. Ruwet (1972), Kayne (1975) and the references cited above. See also section 3.2 above.)

(76) a. Beaucoup de pommes ont été mangées.
       many apples were eaten
    b. Il a été mangé [beaucoup de pommes]
       there were eaten [many apples]

(77) a. Beaucoup de monde a été contenté.
       many people were contented
    b. Il a été contenté [beaucoupe de monde].
       there were contented [many people]

The (b)-examples contain both passive morphology and passive auxiliary, but the "logical object" appears in the post-verbal position. Under our analysis, however, it comes as no surprise that there exist EXI-variants of passives, because the post-verbal NP, though it does not receive Accusative from the Passive Verb, does receive Nominative, given the Case-assignment mechanism that is independently necessary for the Unaccusative and the "*se*-moyen" constructions

discussed above (and for the existential sentences in English as discussed in note 8). Thus, the EXI-passives like those given above show that the direct object of a Passive Verb need not move to the subject position if it can receive Case in place, so that they provide another piece of evidence for the modular approach.

Notice, finally, that the EXI-variant of passive (76b) and the Impersonal Passive such as (61b) receive entirely different analyses. Thus, compare (76b) and (61b), repeated here as (78a) and (78b), respectively.

(78) a. Il a été mangé [beaucoup de pommes]   (EXI)
       b. Il a été dormi [dans [ce lit]]   (Impersonal Passive)

Since Passive Participle assigns no Case, the object NP in (a) must receive one from somewhere, and this is done if it is coindexed with *il*. Thus, (a) is grammatical only if the subject and the object are coindexed. On the other hand, the prepositional object in (b) receives Oblique from P, so that it cannot receive another Case from *il*. Thus, (b) would be grammatical only if the subject and the prepositional object are not coindexed. As noted, this is compatible with the fact that only (a) has an NP-movement variant as in (76a).

Relevant to this discussion is the following remark of Postal (1982 : 375). Commenting on sentences similar to (78a), he says that although they are "in a clear sense both impersonal and passives, they are *not* impersonal passives in a significant sense worth making technical." Although Postal's main concern is the EXI-structures, this remark is right to the point and perfectly compatible with our analysis. In our terms, "true impersonal passives" are those like (78b) in which *il* is not coindexed with the post-verbal NP (which receives Case from P), and they are crucially different from EXI-variants of Passives such as (78a), where the NP immediately to the right of the verb is coindexed with *il* and receives Nominative. As we saw above, this way of differentiating EXI and Impersonal Passive is motivated by the fact that only the former is subject to the Definiteness Restriction.

4.   Conclusion

We began this discussion with the factual observation that the three properties associated with the "typical" passives are independent of each other and they are combined in various ways to form a set of complex surface phenomena traditionally called "passive." It should be clear by now how, in this theory, the complexity of passive phenomena is "traced to the interaction of partially independent subtheories" of UG. Thus, assuming that Passive Verbs have the properties stated in (22), other principles of grammar require that the D-structure of the passive sentence be something like the following.

(79)   [e] INFL *BE* V–*EN* ⋯ NP ⋯ (*BY*–NP)

The independently necessary theories of Case and θ-role then predict that the object NP in (79) may, may not, or must move to the subject position, depending

on whether the construction may, must, or cannot assign Case to it. The last case is the "standard" situation in passive, but the Impersonal Passives in German and French, and the EXI-Passives in French, as well as Passive Nominals in English provide striking evidence showing that the former two situations do occur as well. Thus, it is a fact that structures of the form (79), the essential part of which follows from our theory of grammar, may surface as such under certain circumstances, and the principles of UG discussed here predict, correctly, what these circumstances are. But this is something that cannot possibly be predicted in those recent theories of grammar which deny the level of D-structure.[13] Thus, the overall organization of grammar assumed in GB, as well as the modular analysis of "passive" proposed therein, seem to receive rather strong support from the phenomena discussed above.

Notes

1. Here, we adopt the following definition of government (cf. Chomsky (1981)):
   α governs β iff:
   (i) $\alpha = X^0 (A, V, N, P, INFL (AG))$
   (ii) where ϕ is a maximal projection, ϕ dominates α iff ϕ dominates β.
2. Although I assume, for the purpose of this paper, that weather verbs do not θ-mark the subject, I am not quite sure if this is correct. Nothing in what follows hinges on this assumption.
3. As for the categorial status of Passive Verb, we follow Chomsky (1981) in assuming that it is of the category [+V]. The property (22-ii) would then follow from this, since it is the [−N] category that assigns Case.
4. In a footnote, however, Jaeggli (1981) suggests the possibility of an alternative analysis, and in Jaeggli (1983), he explicitly argues for this alternative, which is actually the one argued for below and in Marantz (1981).
5. Cf. Kane (1981a/b). For the theoretical implications of the differences between English and French with respect to P-stranding, see Washio (1985).
6. Grammar books of these languages usually contain a statement to the effect that passive must not be used with verbs that take the non-accusative. See for example Grevisse (1955 : 706) and Jenkins (1961 : 62) for French, and Curme (1904 : 298) for German. French has three exceptional verbs but Grevisse (p. 706, fn. 46) cites some evidence which suggests that they were Accusative-taking verbs at an earlier stage. The example (51b) is from Johnson (1974 : 72) and (51c) from Postal (1982 : 353).
7. Cf. Jespersen (1909-49), vol. III (p. 303), where this state of affairs is illustrated with examples containing the verb *offer*.
8. More specifically, we adopt Stowell's (1978) analysis of *there*-sentences as reformulated by Burzio (1981) within the BG-framework, the most essential feature of which is that the verb *be* is regarded as a Raising verb subcategorized for a "small clause" (SC). Under this analysis, (i) and (ii) below share the D-structure given in (iii).

(i) A man is in the room.

(ii) There is a man in the room.

(iii) [e] INFL be [$_{SC}$ [a man] [in the room]]

Since the verb *be*, being a Raising verb, does not assign Case, the NP to the right of it in (iii) must receive one from somewhere else. One possibility is exemplified in (i), where the NP moves to the subject position to receive Nominative. The other possibility is exemplified in (ii), which is derived from (iii) if *there* is inserted to fill the empty subject slot. Now, what we are claiming is that *there* is coindexed with the post-verbal NP and that an NP receives the features (Case, Number, Gender) from another NP if they are coindexed. Thus in (ii), *a man* receives Nominative from *there*, and *there* receives the feature "Singular" from *a man*, on the basis of shared indices in each case.

9. See section 3.3 below.

10. See note 8 for this mechanism.

11. Cf. Safir(1982).

12. For relevant data, see Ruwet (1972), Kane (1975), Martin (1970), Burzio (1981), Postal (1982), Jaeggli (1982) among others.

13. The Generalized Phrase Structure Grammar, for example, is a theory of this type. For a criticism of GPSG from this point of view, see Washio (1985).

References

Bresnan, J. (1972) *Theory of Complementation in English Syntax*, diss., MIT.

Burzio, L. (1981) *Intransitive Verbs and Italian Auxiliaries*, diss., MIT.

Chomsky, N. (1957) *Syntactic Structures*, Mouton.

Chomsky, N. (1970) "Remarks on Nominalization," Jacobs and Rosenbaum (eds.) *Readings in English Transformational Grammar*, Ginn and Co.

Chomsky, N. (1981) *Lectures on Government and Binding*, Foris.

Chomsky, N. (1982) *Some Concepts and Consequences of the Theory of Government and Binding*, MIT Press.

Curme, G. (1904) *A Grammar of the German Language*, Frederick Ungar Publishing Co.

Grevisse, M. (1955) *Le Bon Usage*, Duculot. [11th edition., 1980]

Hasegawa, K. (1968) "The Passive Construction in English," *Language*, vol. 44.

Jaeggli, O. (1981) "A Modular Approach to "Passives'," Farmer and Kitagawa (eds.) *Coyote Papers*, vol. 2, University of Arizona.

Jaeggli, O. (1982) *Topics in Romance Syntax*, Foris.

Jaeggli, O. (1983) "A Modular Approach to Grammatical Rules : Passives in English and Romance," presented at the 2nd Tokyo Linguistics Seminar, ICU.

Jespersen, O. (1909–49) *A Modern English Grammar on Historical Principles*. Vol. III. George Allen & Unwin.

Johnson, D. (1974) *Toward a Theory of Relationally Based Grammar*, diss., University of Illinois.

Jenkins, E. (1961) *French Grammar*, English Universities Press.

Kayne, R. (1975) *French Syntax: The Transformational Cycle*, MIT Press.

Kayne, R. (1981 a) "ECP Extensions," *Linguistic Inquiry*, vol. 12.

Kayne, R. (1981 b) "On Certain Differences between English and French," *Linguistic Inquiry,* vol. 12.

Lightfoot, D. (1980) "The History of NP Movement," Hoekstra et al. (eds.) *Lexical Grammar,* Foris.

Marantz, A. (1981) *On the Nature of Grammatical Relations,* diss., MIT.

Martin, R. (1970) "La Transformation Impersonnelle, *Revue de Linguistique Romane,* 34.

Perlmutter, D. (1978) "Impersonal Passives and the Unaccusative Hypothesis," *BLS* 4.

Perlmutter, D. (1980) "Relational Grammar," Moravcsik and Wirth (eds.) *Current Approaches to Syntax,* Academic Press.

Perlmutter, D. and P. Postal (1977) "Towards a Universal Characterization of Passivization," *BLS* 3.

Platzack, C. (1982) "Transitive Adjectives in Swedish: a Phenomenon with Implications for the Theory of Abstract Case," *The Linguistic Review,* vol. 2.

Postal, P. (1982) "Some Arc Pair Grammar Descriptions," Jacobson and Pullum (eds.) *The Nature of Syntactic Representation,* Reidel.

Rosen, C. (1981) "The Interface between Semantic Roles and Initial Grammatical Relations," Zaenen ed., *Subjects and Other Subjects,* IULC.

Ruwet, N. (1972) *Théorie syntaxique et syntax du français,* Editions du Seuil.

Safir (1982) *Syntactic Chains and the Definiteness Effect,* diss., MIT.

Saito, M. (1982) "Case Marking in Japanese: A Preliminary Study," unpublished, MIT.

Stowell, T. (1978) "What Was There Before There Was There," *CLS* 14.

Washio, R. (1983) "Tensedness and Related Matters," Inoue et al. (eds.) *Issues in Syntax and Semantics: Festschrift for Masatake Muraki,* Sanshusha.

Washio, R. (1985) "Passive and Subcategorization," *Gengo Kenkyu,* vol. 87.

Zribi-Hertz, A. (1981) "Towards a Transformationally-Expressed Explanation of Passive Verbal Morphology in French and English," IULC.