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**German Impersonal Passives**

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## ABSTRACT

This thesis is an attempt to account for various passive constructions in German within the theory of Government and Binding. The initial area of interest is the intransitive Impersonal Passive. However, this area of interest is broadened to include bi-clausal passive-like structures involving the verb *lassen*, verbs of perception, and the Copula. It is shown that all of these intransitive constructions share similar restrictions on their distribution, that they may be formed only with verbs which have a human external argument.

The restriction on the distribution of these verbs is accounted for by assuming an empty, arbitrary reference *pro* in the subject position. The further, non-standard, assumption is made that the passive morpheme is not an argument. The non-argument passive morpheme has a set of arbitrary reference features which assist in identifying the subject *pro*.

This analysis is generalized to the bi-clausal passive structures with the additional assumption that the passive morpheme may be without phonetic content and that this "empty" passive morpheme attaches to the tenseless verbs in the lower clause of these constructions. This provides a unified analysis for all of the structures considered at the outset.

The innovations proposed here are then examined in more detail and it is shown that by selecting the correct values for the features proposed for the passive morpheme in German, along with the facts about the existence and licensing of *pro* in the various languages, we are able to make correct predictions about the distribution of Impersonal and Bi-clausal Passives in French, Italian and English.

Finally, we are able to suggest that expletive *pro* may not exist in German, which is regarded as a "semi-pro-drop" language. This is a desirable consequence given that it is claimed not to exist in full pro-drop languages such as Italian.

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## Chapter 1

### Introduction

#### 0. Introduction

This thesis presents an attempt to account for certain phenomena of German Syntax in the theory of Government and Binding as presented in Chomsky (1981, 1982 and 1986). In section 1. of this chapter, I provide an introduction to the subject matter of the following chapters. In section 2, I provide an overview of Chomsky's theory of Government and Binding (GB) and of the innovations introduced in Chomsky (1986). In section 3, I provide an examination of the specific issues involved in a GB treatment of German, including German word order and the question of Configurationality with respect to German.

#### 1. The Scope of the Study

This thesis is an investigation of passive phenomena and related problems in German. The initial area of concern is the analysis and distribution of the Impersonal Passive construction and the study is then extended to other passive-like constructions.

In chapter 2, the behaviour of Impersonal Passives is examined and it is shown that the limitations on their distribution have not been adequately captured and characterized in existing treatments of them. Specifically, it is shown that while previous treatments have accounted in some way for the fact that they are only formed with unergative intransitives, no previous treatment has coupled with this the fact that Impersonal Passives may only be formed with verbs which allow a human external argument. In this study, unergative or non-ergative intransitive verbs are understood to be intransitive verbs which do not assign an internal  $\theta$  role, having only an external  $\theta$  role associated with the VP in which they occur. Ergative verbs by contrast only have an internal  $\theta$  role. For the notion internal and external  $\theta$  role, see Williams (1981).

Further, it is shown in chapter 2 that bi-clausal structures with passive characteristics involving causative *lassen*, the perception verbs and the Copula mirror the behaviour of Personal and Impersonal mono-clausal passives.

Chapter 3 presents a treatment of Impersonal Passives which accounts for their distribution and interpretative properties. Specifically, it is proposed that the subject position of Impersonal Passive contains an arbitrary reference *pro*, in contrast to all other treatments of these structures which assume an expletive *pro* in this position. A second innovation proposed here is that the passive morpheme, which in theories of standard passive is assumed to be an argument, is a non-argument element which has arbitrary features. This difference between the passive morpheme in Personal and Impersonal Passives accounts for the interpretative differences between the two. Impersonal passives must have an arbitrary interpretation and Personal Passives do not need to.

Chapter 4 contains an attempt to extend the sort of treatment of Impersonal Passives proposed in chapter 3 to the bi-clausal passive like structures examined in the second half of chapter 2. On the basis of the fact that in these constructions there is no overt passive morpheme but that apart from that the structures mirror the behavior of the mono-clausal passive, it is proposed that there is an empty passive morpheme in these constructions. On that assumption, we can provide an analysis which accounts for the whole set of apparently disparate structures reviewed in chapter 2.

Chapter 5 provides a discussion of the wider issues involved. The distribution of the proposed arbitrary reference *pro* is examined and the question of the existence of object arbitrary *pro* in German along the lines of Rizzi (1986) is considered. The distribution of the proposed empty passive morpheme is examined more thoroughly as is the status of a passive morpheme which may or may not be an argument. An attempt is made to examine the applicability of these proposals for German passive structures to other languages. It is shown that the different behaviour of the equivalent passives or their impossibility in French, Italian and English can be accounted for by setting the value of certain features in the passive morpheme in the appropriate way. Chapter 5 also looks at some alternative approaches to the sort of problem addressed and makes some proposals concerning the distribution of *es* in German. Specifically it is proposed that there is no empty expletive *pro* equivalent to *es*. This is a desirable consequence if German is to be considered a "semi pro-drop" language, with characteristics which are a subset of "full pro-drop" languages. It is proposed that German allows an arbitrary *pro* which is attested in "full pro-drop" languages. It is generally thought that expletive *pro* does not exist in such

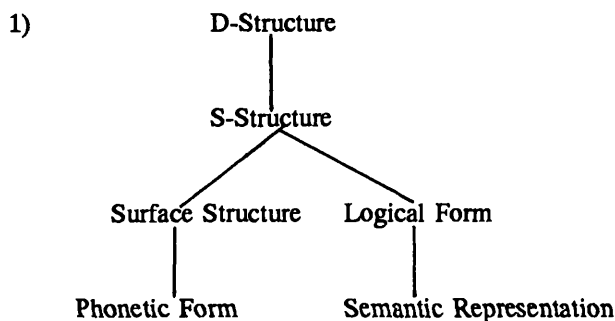
languages.

## 2. Introduction to GB modules in general.

The framework assumed in this study is that of the theory of Government and Binding of Chomsky (1981, 1982, 1986). In this section, I shall briefly introduce the components of the theory, placing most emphasis on those which are most relevant to this study.

### 2.1 The Model

The overall structure of the theory can best be characterized in the familiar "Y" or "T" model:



In the following sections I shall discuss the most relevant elements of this diagram and the principles which they contain and the mechanisms which link them.

### 2.2 X-Bar Theory

I shall assume X-bar theory as proposed in Chomsky (1986), where the following general schema is proposed:

- 2)a)  $X' = X X''^*$
- b)  $X'' = X''^* X'$

In 2, X stands for one of the lexical categories [+/-N, +/-V] as well as the non-lexical categories I (INFL) and C (complementizer). This innovation proposed in Chomsky (1986) unifies the approach to categories so that where before a sentence had been regarded as an anomalous category with one higher level of projection S' and a non-phrasal daughter INFL, it is now regarded as the maximal projection of

INFL or I. What was S' is now a maximal projection of C.

In 2)a), X'' is the object or complement of the head X. The \* indicates that there may be 0 or more complements to a head. In 2)b), X''\* represents 0 or more specifiers or subjects of X.

The schema in 2) is a template for the legal structures of D-structure. The order of X and X''\* in 2)a) may be different from language to language depending on whether the language is head first or head last.

Chomsky notes that the existence of a complement is determined by the Projection Principle (see below) and that generally specifiers are optional, but that the specifier of IP (the subject) is required by the Extended Projection Principle (again see below).

### 2.3 The Properties of D-structure

The requirements of X-bar Theory must be satisfied at D-structure, the level at which the pure lexical requirements of heads are represented. That is, the complements of a verb listed as being required by it in the lexicon will be sisters of the head at this level regardless of their ultimate position in S-structure. Thus subcategorization conforms to the X-bar schema so that subcategorized elements are always sisters and never for example daughters, mothers or aunts.

Subcategorized elements are those which are thematically dependent on the head. A subcategorized element bears the thematic or  $\theta$  role assigned to it by its head. Every subcategorized element must have a  $\theta$  role, and every projected  $\theta$  role must be assigned to some element. This is captured in the  $\theta$  Criterion which in one version may be the following:

- 3)a) Every  $\theta$  role is assigned to a unique Argument
- b) Every Argument is assigned a unique  $\theta$  role

The  $\theta$  Criterion is not couched in terms of subcategorization since the external  $\theta$  role or subject  $\theta$  role is not usually regarded as being assigned under subcategorization. Subjects or specifiers are not sisters of the head and so are not subcategorized.

The  $\theta$  Criterion is formulated in terms of  $\theta$  roles and Arguments or referential expressions. The intuition behind the  $\theta$  Criterion is that an element which has no reference cannot fulfil a grammatical

function associated with a verb for example and an element which does have reference must bear one and only one relation to the verb.

There are other versions of the  $\theta$  Criterion which are couched in terms of Chains rather than Arguments. Chains are representations of the link between elements, for example the link between an argument which has been moved and the position from which it came.

$\theta$  role assignment to complements is an instance of a grammatical process carried out under the structural relation Government (see below).

The  $\theta$  role assigned to an element is assigned permanently, that is an element cannot change the lexical properties it has in the course of a derivation. This is captured in the Projection Principle (Chomsky 1981):

#### 4) Projection Principle

Representations at each syntactic level (D-structure, S-structure, LF) are projected from the lexicon.

The Projection Principle encodes the idea that D-structure will be a pure representation of the thematic structure of a head and has as consequences Trace Theory and the fact that movement will be to non- $\theta$  positions.

Since in the lexicon details about the complements of heads are given and not about the specifiers, the Projection Principle has nothing to say about subjects. Chomsky (1982) proposes the Extended Projection Principle which is the Projection Principle along with the requirement that a clause has a subject.

## 2.4 Movement

Elements in S-structure strings are often not in their subcategorized positions. A prototypical instance of this is a passive structure in which a D-structure object has been moved to S-structure subject position. In earlier versions of Generative Grammar, such facts were accounted for by specific transformational rules such as a Passive rule. The rule specific approach has been replaced by a constraint approach in which there is one general movement rule, move- $\alpha$ , which may apply anywhere,

whose application is restricted by various constraints such as the constraint that movement be to a non- $\theta$  position as a consequence of the Projection Principle above.

Chomsky (1986) notes that there are two types of movement, substitution and adjunction, and proposes that substitution has the following general properties:

- 5)a) There is no movement to complement position
- b) Only  $X^0$  can move to head position
- c) Only a maximal projection can move to the specifier position
- d) Only minimal and maximal projections ( $X^0$  and  $X''$ ) are visible for the rule Move- $\alpha$

Chomsky proposes the following explanations for the properties in 5). 5)a) follows from the  $\theta$  criterion, since a complement position is subcategorized and so  $\theta$  marked. Movement of any element to a  $\theta$  position will entail either that two  $\theta$  roles are associated with one argument or that one  $\theta$  role is associated with two arguments, since even if the moved element is expletive, expletives are generally in a chain with an argument.

5)b) according to Chomsky will follow from Emonds Structure preserving Hypothesis (Emonds 1976) which will entail that a head will always be a head. 5)c) will follow from the same hypothesis on the assumption that heads must be generated complete with their maximal projection. This would prevent SPEC position being generated as a bare head allowing an  $X^0$  to be moved to it.

In considering adjunction, Chomsky (1986) proposes the following restriction:

- 6) Adjunction is possible only to a maximal projection (hence  $X''$ ) which is a non-argument.

## 2.5 Case Theory

Various processes take place at S-structure, among which is Case marking of nominal elements. Case marking takes place under government by a [+V] head, that is a verb or a preposition. Thus a verb Case marks its noun-headed complements and a preposition Case marks its NP complement. In Chomsky (1981), Case marking of the subject position was assumed to be by government from a tensed INFL. However, in Chomsky (1986), such Case marking cannot take place under government unless it is assumed, as is possible, that a head can govern its specifier. However, it is indicated (Chomsky 1986:



p24) that Case marking of the subject takes place under SPEC-head agreement. Subjects are either Case marked by such a strategy or by Exceptional Case Marking.

An argument must be Case marked in order for it to be visible for interpretation at LF. Thus an Argument which is not Case marked in some way will fall foul of the Case Filter and so will lead to an ungrammatical structure.

## 2.6 Government and Barriers

Intuitively, Government is a structural relation holding between two items as for example between a head and its complement. In Chomsky (1981) Government was defined as a c-command relation between two elements provided that there is no barrier to government between the governor and the governed, such barriers being NP and S'. C-command in Chomsky (1981) was a structural command relation from a node to its sister or descendants of its sister.

In Chomsky (1986) the definition of Government is different. It relies on a new notion "m-command" and a different approach to barriers to government. C-command was not allowed to extend up the tree. The first branching node above an element was the ceiling which ensured that a c-commanded element could only be a sister or one of its descendants. The ceiling in "m-command" is the first maximal projection above the m-commander. Thus, a head in theory can m-command its specifier, since the specifier falls within the domain of the first maximal projection above the m-commander. Thus the way is open for Nominative Case to be assigned to an NP in subject position via Government from INFL if Government is defined in terms of m-command.

The following are from Chomsky (1986):

7)a) m-command

$\alpha$  m-commands  $\beta$  iff  $\alpha$  does not dominate  $\beta$  and every  $\gamma$ ,  $\gamma$  a maximal projection, that dominates  $\alpha$  dominates  $\beta$

b)  $\delta$ ..[ $\gamma'$  ... $\beta$ ...[ $\alpha'$  [ $\alpha$ ] [ $\beta$ ]]]

In 7)b), where  $\gamma' = \alpha'$ ,  $\alpha$  m-commands both instances of  $\beta$  but not  $\delta$ .  $\alpha$  does not dominate any

instance of  $\beta$  and  $\gamma'$  is a maximal projection which dominates both  $\alpha$  and both instances of  $\beta$ .

Chomsky defines government in terms of exclusion in order to account for adjunction structures.

A "barrier" is a structurally defined limitation on the possibilities of Government. To define the notion barrier, we need the following definitions, also from Chomsky (1986):

8)  $\theta$ -government

$\alpha$   $\theta$ -governs  $\beta$  iff

- (i)  $\alpha$  is  $X^0$
- (ii)  $\alpha$   $\theta$ -marks  $\beta$
- (iii)  $\alpha, \beta$  are sisters

9a) L-marking

$\alpha$  L-marks  $\beta$  iff

- (i)  $\alpha$  is a lexical category
- (ii)  $\alpha$   $\theta$ -governs  $\gamma$
- (iii)  $\beta$  agrees with the head of  $\gamma$

b) ... $\alpha$ ...[ $\gamma$   $\delta$  [ $\beta$ ]]

According to Chomsky (1986:p25),  $\alpha$  in 9)b) L-marks  $\delta$  and  $\beta$  and  $\gamma$  itself.  $\beta$  is the head of  $\gamma$  and presumably agrees with itself.  $\delta$  is the SPEC of  $\beta$  and agrees with it and  $\gamma$  the maximal projection will presumably agree with its head.

10) Blocking Category (BC)

$\gamma$  is a BC for  $\beta$  iff

- (i)  $\gamma$  is not L-marked
- (ii)  $\gamma$  dominates  $\beta$

In Chomsky (1981), a barrier to government was defined in terms of the then maximal projections S' and NP. S by itself was not a barrier to government. In Chomsky 1986, the equivalent to S is IP, which by itself is still not a barrier. The notion Blocking Category is introduced to distinguish inherent barriers from IP which is not an inherent barrier and to assist in the definition of a barrier by inheritance as in 11)i) below. When IP is L-marked, that is when it rather than CP is selected by a head, it is not a Blocking Category, but when CP is selected, IP is a Blocking Category.

11) Barrier

- $\gamma$  is a Barrier for  $\beta$  iff (i)  $\gamma$  immediately dominates  $\delta$ ,  $\delta$  a BC for  $\beta$   
(ii)  $\gamma$  is a BC for  $\beta$ ,  $\gamma$  does not equal IP

Thus a Barrier to government is either an inherent Barrier, which is a Blocking Category with the exclusion of IP or it is a barrier by inheritance as in the case of CP which is L-marked by a head but which dominates the Blocking Category IP which in these circumstances is not L-marked and so can be a Blocking Category.

12)a) Exclusion

$\alpha$  excludes  $\beta$  if no segment of  $\alpha$  dominates  $\beta$

- b) ... $\delta$ ...[ $\gamma$   $\alpha$  [ $\gamma$  ... $\beta$ ...]]

12)b) is from Chomsky (1986) and describes a typical adjunction structure. In it,  $\gamma$  does not exclude  $\alpha$ , but  $\alpha$  excludes  $\gamma$ , and  $\delta$  excludes and is excluded by  $\alpha$  and  $\gamma$ . Chomsky notes that defining government in terms of exclusion, rather than of domination, only makes a difference in the case of adjunction structures.

13)a) Government

$\alpha$  governs  $\beta$  iff  $\alpha$  m-commands  $\beta$  there is no  $\gamma$ ,  $\gamma$  a barrier for  $\beta$ , such that  $\gamma$  excludes  $\alpha$

- 13)b) John decided [<sub>cp</sub> e [<sub>ip</sub> PRO to [<sub>vp</sub> see the movie]]]

13)b) is from Chomsky (1986:p16) and in it, under this definition of Government, we can see that CP, being L-marked by *decided*, is not a Blocking Category and is thus not a Barrier for government of *e* by *decided*. However, by 11)i) above, CP becomes a barrier by inheritance for all descendants of IP which, since it is not L-marked, is a Blocking Category.

## 2.7 Binding and Control

Binding theory is concerned with the relation of anaphors and pronominals to their antecedents. It is set in terms of the Binding Conditions:

### 14) Binding Conditions

- A. Anaphors must be bound in their governing category
- B. Pronouns must not be bound in their governing category
- C. Referential Expressions must not be bound

Binding is a relation involving c-command and coindexation indicating coreference. Chomsky (1986) suggests that the relevant version of c-command for binding purposes involves the original definition in which the first branching node above an element constitutes the ceiling, in contrast to m-command in which it is the first maximal projection above the relevant node.

The governing category of an element is the category which contains both the governor of the pronominal or anaphor and the specifier of the governor.

PRO the controlled empty element in a control structure is assumed to be a pronominal anaphor and as such by the Binding Conditions above cannot have a governing category and so cannot be governed and is thus restricted to ungoverned positions. Hence the distribution of PRO is determined in this way by the Binding Conditions. However, the Binding Conditions do not determine its coreference in such structures and so a separate theory of Control may be required to do this. However, see Manzini (1983) and Brody and Manzini (1988) for a treatment of PRO which assumes that it is a pure anaphor and so is regulated by the Binding Conditions.

## 2.8 ECP

The E(mpty) C(ategory) P(rinciple) is a principle which must be satisfied at LF. It is a condition on the traces left by Move- $\alpha$ .

- 15) ECP
  - a) Traces must be properly governed.
  - b) A properly governs B iff A governs B, and A and B are coindexed

Here coindexing means coindexing as a result of membership of a chain formed by movement of an element or coindexation of the trace with the head which subcategorized the element which originally occupied the position where the trace is. This principle accounts for such contrasts as in 16)

16)a) who<sub>i</sub> [<sub>s</sub> t<sub>i</sub> [<sub>vp</sub> fixed the car]]

b) \* who do [ you wonder [<sub>s</sub> whether [ t [<sub>vp</sub> fixed the car]]]]

where in 16)b) the trace is not properly governed because its governor is *whether*, but it is not coindexed with it.

### 3. German and GB.

In this section I shall examine certain questions concerning the analysis of German in a GB approach. First of all I shall consider the question of whether German is a configurational language. This discussion is important in relation to the discussion in chapter 5 of work by Haider who assumes that German is non-configurational. He provides a treatment of the problems addressed in this study from this different point of view. Most of the discussion of configurationality will be based on Fanselow (1987).

Once I have examined the configurationality question I shall look at the more specific questions of word order, phrase structure and verb movement in German.

#### 3.1 Configurationality

Fanselow (1987) is a study of the question of configurationality in German within the framework of Chomsky (1981). He first questions the existence of a "configurationality parameter". He notes that while across languages there is often a correlation between free word order rich Case marking systems and SOV underlying word order, he also notes that this correlation is never complete.

##### 3.1.1

Fanselow points out that structurally defined subject, object, etc. have always been part of the theories developed by Chomsky and that the structural relation "c-command" underlies all of the most

important elements of current Chomskian theory such as Binding, Government, etc. Thus Chomsky's approach is firmly rooted in structure.

Next he offers a selection of examples in German to illustrate the fact that it is not a straightforward matter to account for the free word order of some German structures in a configurational grammar. He shows that almost any word order can appear in a subordinate clause provided that the tensed verb is at the end and that the complementizer is at the beginning. He also shows that the relatively free order of anaphors and their antecedents provides similar problems.

In considering the question of the existence of a "configurationality parameter", Fanselow notes that if there is such a thing, then this would imply the existence of two different sets of humans who after the acquisition of a language, configurational or non-configurational, will carry the potential for the other variety around with them as a sort of "genetic ballast", since the characteristics of the two different types of languages will be very different.

Another possibility would be that the structural approach to language proposed by Chomsky is quite wrong and that the primitives of language are not structural relations but grammatical functions such as in LFG (Bresnan 1982).

Three possible approaches to the problem are sketched. Firstly, there is no configurationality parameter, and Chomsky's structural approach is correct and non-configurational phenomena can be accounted for in some way in such a theory. Secondly, there is a configurationality parameter and structural and grammatical relational models can live comfortably side by side. Thirdly, the LFG or some comparable approach is the correct one and structural, configurational syntax is a surface feature in the realization of grammatical functions.

If it is possible to show that there are languages which really are non-configurational then Chomsky's grammar cannot be the Universal Grammar model. Equally, if it can be shown that so-called non-configurational languages can be accommodated within a configurational theory, then Relational grammars cannot be the Universal grammar model.

Further, Fanselow points out that if a configurationality parameter is a genuine option, we must be able to show either, that there are data which are only grammatical in either a configurational

language or in a non-configurational language, or that languages may be unmarked for configurationality in which case some positive evidence of non-configurational characteristics must exist.

### 3.1.2

Fanselow then enumerates and examines in relation to German the six criteria for non-configurationality proposed in Hale (1983), which are:

- 17) Free word order  
A rich Case system  
Discontinuous Constituents  
No NP movement  
No expletive elements  
Free pronoun drop

German exhibits a considerable freedom of word order within the sentence. In a subordinate clause with for example the complementizer *weil* in first position, at least the following are possible with variations in stress (from Fanselow 1987).

- 18)a) *weil* gestern der Kaspar in der Uni dem Hotzenplotz einen Apfel schenkte  
because yesterday Kaspar in the university to Hotzenplotz an apple presented
- b) *weil* dem Hotzenplotz gestern der Kaspar in der Uni einen Apfel schenkte  
because to Hotzenplotz yesterday Kaspar in the university an apple presented
- c) *weil* einen Apfel gestern dem Hotzenplotz in der Uni der Kaspar schenkte  
because an apple yesterday to Hotzenplotz in the university Kaspar presented

18)a) presents no problem for a configurational approach to German because the subject *der Kaspar* is the first constituent after the complementizer. In the other examples however, the Nominative subject would appear to be inside the VP suggesting perhaps that a flat structure would be more appropriate, in which the subject is a complement of the verb in the X' sense.

German also shows evidence of discontinuous constituents. The fact that discontinuous elements belong together is recoverable from Case information. Thus in German at least, the second and third criteria for non-configurationality are closely connected. The examples in 19) are again from Fanselow (1987).

- 19)a) Zur SPD war seine Loyalität \_ gewachsen  
 To the SPD was his loyalty grown
- b) Politiker kenne Ich nur korrupte \_  
 Politicians know I only corrupt

German also shows possible evidence for the fourth characteristic for non-configurationality - lack of NP movement. Such evidence is found in passive structures in subordinate clauses for example.

- 20) weil mir ein Fahrrad geklaut wurde  
 because for me a bicycle stolen was

The NP *ein Fahrrad* is the passivized element here but it would seem that it has not been moved since the Dative element *mir* is in front of it and also, in an active equivalent the subject typically would be in front of the Dative *mir*.

- 21) weil der Peter mir ein Fahrrad klaute  
 because Peter for me a bicycle stole

There is further evidence for lack of NP movement with raising structures.

The fifth characteristic for non-configurationality is the lack of expletive elements. German is rather poorer in evidence for this characteristic than for others since the expletive element *es* occurs in several contexts. However, a possible piece of evidence for lack of expletive element is given in the shape of Impersonal Passives in which *es* may only appear in first position and its appearance postverbally is universally considered ungrammatical. See the following chapters for discussion of Impersonal Passives and chapter 5 in particular for a discussion of *es*.

The sixth criterion for non-configurationality is free pronoun drop. As Fanselow points out, this is not the same as "Pro-drop". In languages with free pronoun drop, no pronouns, even those in object position need to be realized. German does not have this characteristic.

Thus it is arguable that German exhibits, at least to some extent, five of the six characteristics of non-configurational languages.

In his introduction, Fanselow proposes that if in a language it can be shown that a certain characteristic really exists which in the normal learning process cannot be learned by a child acquiring the



language on the basis of the evidence available to it, that process must be innate. Such a characteristic must be a feature of all languages. He proposes that that is the case with VP. He proposes, in spite of the evidence above, to show that German cannot properly be described without assuming a VP and that the fact that German has a VP is not learnable from the evidence available. The rest of his study is devoted to this task. I shall now examine the major points of his argument, referring the reader to the original study (Fanselow 1987) for the full detail.

### 3.1.3

One set of data which argues in favour of a difference in hierarchical status of subject and object is movement out of an embedded clause of an object or a subject to a non- $\theta$  position, as in 22 ) and 23).

22)a) Ich weiß nicht, wer Radios repariert  
I know not who radios repairs

b) Radios weiß ich nicht, [<sub>s</sub> wer [<sub>vp</sub> t repariert]]  
Radios know I not who repairs

23)a) Ich weiß nicht, was Linguisten reparieren  
I know not what linguists repair

b) \* Linguisten weiß ich nicht, [<sub>s</sub> t [was reparieren]]  
Linguists know I not what repair

If subjects and objects were sisters whose relative order was not fixed, one would not expect the contrast exhibited in 22) and 23). These examples exhibit the typical characteristics of an ECP violation. In a non-configurational analysis, a subject would presumably be governed and subcategorized by the head verb of the S and so a trace in the subject position should be legitimate according to the ECP, since it is governed and coindexed with it in exactly the same way as an object is.

According to Fanselow, only under a configurational analysis can the contrast in 22) and 23) be captured. If we assume a VP in the lower clause in those structures, then in 22)b), the trace is governed by and coindexed with the verb of the lower clause as a function of being subcategorized by it. In 23)b) however, the trace is not governed by a coindexed element. Thus under a configurational analysis, these facts can be captured.

There is evidence for VP topicalization in examples from Fanselow (1987), such as 24).

- 24) *Nach Venedig gefahren ist die Franca* \_  
To Venice travelled is Franca

Where the moved element *Nach Venedig gefahren* is arguably a VP. It is moved without the tensed auxiliary *ist* which is in second position. This provides strong evidence for the existence of a VP constituent and so argues in favour of a configurational analysis.

Further, the Binding theory will be problematical in a non-configurational approach. In a theory in which all NPs are sisters within the same governing category, if one NP is coindexed with another, then one of them must be an anaphor, which by the Binding Conditions must be bound in its governing category. In fact, both NPs should be anaphors since given that they are sisters, they will both bind each other and because of that neither may be either a pronominal, which by the Binding Conditions must not be bound within its governing category, or a Referential Expression which must not be bound at all. Thus in a non-configurational approach which adopts the Binding Conditions as assumed in configurational approaches, binding will only be possible between NPs which are anaphors, and from an NP to a pronominal which is deeply embedded in another structure so that its governing category does not contain the binder.

However, Binding in German is not so different from Binding in English, for example, and so an alternative set of Binding Conditions would need to be established in order to account for the facts in non-configurational languages.

- 25) *Hans<sub>i</sub> sah sich<sub>i</sub>*  
Hans saw himself

25) shows that the subject *Hans* can bind the anaphor *sich* in the expected way. One could stipulate in a non-configurational analysis that subjects may bind objects but not the reverse. However, this follows as a natural consequence if one assumes a configurational approach along with the standard Binding Conditions.

Fanselow notes that there is evidence in German for lack of NP movement, one of the possible criteria for non-configurationality. German passives for example are rather different from English

passives, allowing the passivized NP apparently to remain in VP, allowing the existence of Impersonal Passives and Prepositional Passives, etc. Fanselow hopes to show that these differences are the result of something other than a difference in configurationality.

The lack of prepositional Passives in German is accounted for by assuming different reanalysis possibilities in German and English. This assumption is based on differences in Case assignment properties of the two languages, rather than on the lack of NP movement in German.

He proposes that apparent lack of movement in Passives may be because Case assignment in German may not be subject to strict adjacency requirements. Thus in 26), it is proposed that the NP *ein Auto* receives Nominative Case inside the VP.

- 26) weil mir ein Auto geklaut wurde  
because for me a car stolen was

The possibility of apparently having a Nominative NP, the subject, inside the VP is not limited to Passives or constructions involving movement. As the examples in 18) above show, a great variety of word orders is possible with no syntactically required movement process involved. If the possibility of assigning Nominative Case VP-internally exists, then that will account for examples such as 18) and 26) on the assumption that there is an empty element, expletive *pro* for example in subject position. In chapter 5, I argue against the existence of an expletive *pro* and so another solution involving some form of scrambling or topicalization within the subordinate clause would be preferable. If such a treatment could be developed, in which the scrambling or topicalization takes place as a surface process after Case marking for example, this would have the desirable consequence that we would not need to assume a relaxation of the adjacency requirements on Case assignment.

In chapter 7.2 of Fanselow (1987), a sketch for such a proposal is made involving topicalization of elements from within the VP to a position before the subject created by adjunction. Such topicalization is an instance of move- $\alpha$  with the restriction that in the "Mittelfeld", roughly the material under the D-structure S node, move- $\alpha$  is restricted to "topic" NPs. He assumes a distinction between "topic" and "focus", identifying main stress with the latter. This explains the difference in grammaticality in the examples in 27), where main stress is indicated with capital letters.

- 27)a) \* weil *IM HILTON* der Präsident wohnt  
because in the Hilton the President lives
- b) weil im Hilton *DER PRASIDENT* wohnt  
because in the Hilton the President lives
- c) weil *DER PRASIDENT* im Hilton wohnt  
because in the Hilton the President lives

In 27)a), the PP *IM HILTON*, bearing main stress, can be identified with "focus" and thus may not be fronted from the VP. However, in 27)b), the subject *DER PRASIDENT*, in subject position is the "focus" bearing main stress, and so the the PP *im Hilton* may be topicalized. The NP *DER PRASIDENT* in 27)c) bears main stress and may do so legitimately since it is in its original D-structure subject position, not having been topicalized. Fanselow notes that an explanation for such contrasts will be difficult to provide in a non-configurational theory which does not allow NP movement.

One of the criteria for non-configurationality in a language is that there will be no expletive elements. While there are problems with the treatment of the data concerning expletive elements in German, in most analyses expletive elements of a sort, empty or overt or both, are assumed. Providing an analysis which treats every instance of *es* in German as some sort of Argument is very difficult (see Cardinaletti (1990) and the discussion in chapter 5 below). Evidence for lack of expletives in German is not convincing.

On the basis of such evidence as given above Fanselow (1987) assumes that German is a configurational language with a distinct subject position outside the VP. I refer the reader to Fanselow's text for a fuller discussion of the issues. I shall adopt Fanselow's conclusion that German is configurational in the following chapters.

Fanselow's conclusion is that given the nature of the evidence, the fact that German has a VP is not learnable by a child acquiring German on the basis of observable data. As noted above, where it is possible to show that a phenomenon exists in a language, but that the phenomenon cannot be acquired just on the basis of observable evidence, it may be argued that the phenomenon is an innate feature of human language. This is just the claim for VP in this study. Fanselow's prediction is that there are in fact no non-configurational languages.

### 3.2 Phrase Structure and Verb Movement

It is generally accepted that German has SOV base word order. In their most unmarked form, this is the word order in subordinate clauses.

- 28) daß er den Hund sah  
that he the dog saw

As noted in the preceding section, the word order may vary greatly from this, but we will assume that this is the base order before the effects of any scrambling or topicalization processes. Dative NPs precede the object in underlying order.

- 29) daß er dem Mädchen das Buch gab  
that he to the girl the book gave

We assume then that I' rewrites as VP followed by I. Thus the head I is final, following VP rather than preceding VP as in English. Following Chomsky (1986), we assume that the tensed verb, for example *gab* in 29), has raised out of the VP, of which it is head, to I in order to receive tense marking.

There is evidence to suggest that the passive auxiliary *werden* is inserted directly into the I, if we assume, following the spirit of analyses such as Pollock (1989), that I contains at least two separate positions, TNS (Tense) and AGR (Agreement). We might assume that *werden* is inserted into I bearing the TNS function in Passives. According to the analysis which follows, the passive morpheme will bear the AGR function of I. The main verb head of VP raises to I in order to be joined to the passive morpheme. In the analysis proposed in Chapter 3 below, these characteristics are represented by showing two separate positions in I.

I shall leave this discussion now until chapter 3 where the specific proposal for Impersonal Passives is made which illustrates the process of verb raising in passive structures more fully.

A more detailed representation for the structure in 28) might be 30), in which *sah* bears both TNS and AGR features of I

30)

$[_{cp} [c, [da\beta] [_{ip} [er] [_i, [_{vp} [ [den\ Hund] \quad v\ t_i]] [_i\ sah_i ]]]]]]$

The facts of main clause word order are rather different. German is a Verb Second (V2) language.

This means that in main clauses, the tensed verb must be in second position with any constituent in front of it.

31)a) Gestern sah er mich  
Yesterday saw he me

b) Er sah mich gestern  
He saw me yesterday

c) Mich sah er gestern  
Me saw he yesterday

31) illustrates a variety of possible word orders with a very simple sentence. In each variety, the tensed verb is in second position.

We assume the same SOV underlying word order as in subordinate clauses and assume additionally that after the verb has raised from the VP to I, it raises further to C, the head of CP. Then, any other constituent in the sentence moves to first position, that is SPEC of CP. 32) and 33) show the derivation of 31)c).

32) D-structure

$[_{cp} [ ] [c, [ ] [_{ip} [er] [_i, [_{vp} [ [mich] \quad [v\ sehen]]\ gestern ] [_i ]]]]]]$

33) S-structure

$[_{cp} [mich_i] [c, [sah_j] [_{ip} [er] [_i, [_{vp} [ [t_i] \quad [v\ t_j]]\ gestern ] [_i\ t_j ]]]]]]$

In what follows we will assume this analysis. Specifically the analyses presented in chapters 3 and 4 will be set in these terms. In chapter 2 however, in discussing other, earlier analyses, bracketed structures will generally be given along the lines of the analyses in Chomsky (1981, 1982).

## Chapter 2

### The initial problem, previous treatments and related problems

#### 0. Introduction

In this chapter I will present some problems for current analyses of the German Impersonal Passive construction and a review of some previous treatments of it, which in turn raise further, related problems. Section 1. will present the data of the impersonal passive and the as yet untreated problems which arise from them. Section 2. will present some previous treatments of the problems surrounding empty subjects and impersonal passives. Section 3. will explore the related problems raised in section 2.. Section 4. will summarize the main points of the chapter.

#### 1.0 The Initial Problem

##### 1.1

In Jaeggli (1986a) there is the following observation: "In such languages [German & Dutch] only those intransitives that assign an external  $\theta$ -role are allowed to passivize." He claims that only non-ergative verbs may form an impersonal passive. This is almost certainly the case for Dutch, but it is questionable whether this observation accounts wholly for the facts of German impersonal passive formation.

In Dutch, (see Hoekstra 1984) there is a strict correlation between a verb's 'Ergativity' and the selection of its perfect auxiliary, ergative verbs selecting the auxiliary *zijn* as well as having the property of being able to form adjectives from their past participle. Thus *sterven*, *to die* forms its perfect tense with *zijn*:

- 1) de kinderen zijn jong gestorven  
the children are young died

and forms an adjective from its participle:

- 2) de gestorven kinderen  
the died children

but fails to form an impersonal passive:

- 3) \* Er wordt gestorven  
there was died

Thus, in Dutch, the picture is quite clear.

## 1.2

In German the picture is less straightforward. Firstly, the correlation between the selection of perfect auxiliary and a verb's status as ergative is not the same. Although there is a high proportion of verbs which are ergative which select the auxiliary *sein* in the perfect, the correspondence is not complete. Thus we have to perform the past participle - adjective test to establish whether a verb is ergative or not. This fact is of no importance to the main purpose of this chapter. It merely prevents us from determining a verb's ergativity by inspecting its perfect auxiliary.

Consider the following set of monovalent verbs, or verbs used purely intransitively:

- 4)
- verschlammten - to silt up
  - vergehen - to elapse
  - klirren - to clink
  - knirschen - to crunch
  - kommen - to come
  - wachsen - to grow
  - senken - to sink
  - tanzen - to dance
  - lachen - to laugh



- 5)
- a) der verschlammte Fluß  
the silted up river
  - b) die vergangene Stunde  
the elapsed hour
  - c) \* die geklirrten Gläser  
the clinked glasses
  - d) \* der geknirschte Schnee  
the crunched snow
  - e) der gekommene Mann  
the come man
  - f) das gewachsene Kind  
the grown child
  - g) das gesunkene Schiff  
the sunk ship
  - h) \* der getanzte Junge  
the danced boy
  - i) \* die gelachte Frau  
the laughed woman

Thus the group of verbs in 4) is divided into the ergatives in 6):

- 6) verschlammen - to silt up  
vergehen - to elapse  
kommen - to come  
wachsen - to grow  
sinken - to sink

and the non-ergatives in 7):

- 7) tanzen - to dance  
lachen - to laugh  
klirren - to clink  
knirschen - to crunch

Secondly, having established an example set of ergative and non-ergative verbs, in 6) and 7), we find that although, as predicted, none of the ergative verbs in 6) will form impersonal passives, not all of the non-ergative in 7) verbs may form impersonal passives.

8)

- a) \* Es wurde verschlammmt  
\* Es wurde vergangen  
\* Es wurde gekommen  
\* Es wurde gewachsen  
\* Es wurde gesunken
- b) Es wurde getanzt  
Es wurde gelacht  
\* Es wurde geklirrt  
\* Es wurde geknirscht

Thus there is some further restriction on the freedom of non-ergative verbs to form impersonal passives. From the set of verbs tested here, this further restriction appears to be that as well as being non-ergative, these verbs must be only those which in active use allow a human (or at least animate) subject. Consider the examples in 9):

9)

- a) Der Junge hat getanzt  
The boy has danced
- b) Der Junge hat gelacht  
The boy has laughed
- c) \* Der Junge hat geklirrt  
The boy has clinked
- d) \* Der Junge hat geknirscht  
The boy has crunched

### 1.3

Given the results of these tests, the question now arises of how we are to account for these facts.

In Jaeggli (1986a) at the end of section 2 we find the following:

"If Passive is crucially defined as a process that involves the absorption of the external  $\theta$ -role, then the passive morpheme is simply that morpheme which has as its defining characteristic this particular requirement."

If this is the case, and impersonal passives do exhibit passive morphology in any real sense, then as noted in 1.1 above, it is immediately clear why the formation of impersonal passives should be lim-

ited to non-ergative verbs. They have an external  $\theta$  role to be absorbed whereas ergative verbs do not.

However, it is not immediately obvious why there should be the extra requirement that the verbs which allow impersonal passive formation may only be those which allow human subjects since in standard analyses there is no possibility of any selectional restriction holding between subject and verb in an impersonal passive construction as there is in 9) c) & d), because the only possible subject is an expletive empty element *pro* (see Safir 1985). The previous analyses considered in section 2. do not account for these facts.

## 2.0 Previous Treatments

It is generally accepted that German allows to a very limited extent the use of a pure pronominal empty category (see Safir 1985 and McKay 1985). In this section I shall review two accounts of the phenomenon of missing subjects in German and one of an attempt to deal with impersonal passives in a general theory of passive which fail to account for the above data.

### 2.1 Safir 1985

In his chapter in Toman's collection of papers on German grammar, Safir presents an account of the limited ability of German tensed sentences to be subjectless. He assumes a configurational, standard, underlyingly SOV analysis for German along with a matrix tensed verb fronting rule (rule A or V2), the condition that COMP is always filled in matrix sentences (rule B) along with the stipulation that rule A or V2 does not apply in subordinate clauses. He then presents the data to be considered, the *es*/0 alternation in impersonal structures.

His data are the transitive and intransitive impersonal passive structures:

- 10) Es wurde ein Mann getötet.  
It was a man killed
- 11) Es wurde getanzt.  
It was danced

For 10) he assumes the following structure:

12)

[<sub>sbar</sub>[<sub>comp</sub> Es ] [<sub>s</sub> [<sub>v</sub> wurde<sub>i</sub> ] [<sub>np</sub> 0 ] [<sub>vp</sub> [<sub>np</sub> ein Mann ] [<sub>v</sub> getötet ] [<sub>v</sub> t<sub>i</sub> ]]]]]

in which *es* is inserted to satisfy V2 requirements (rule B) and in which the NP *ein Mann* is still in object position even though the structure is passive. However, he does admit that there could be a different analysis in which this NP has been moved into the subject [NP,S] position as would be expected in a normal passive sentence. Thus his claims at the outset that the impersonal transitive passive has an empty subject are questionable.

Although he does not give a structure for the matrix impersonal intransitive passive, we can assume that the structure of 11) will be as in 13):

13)

[<sub>sbar</sub>[<sub>comp</sub> Es ] [<sub>s</sub> [<sub>v</sub> wurde<sub>i</sub> ] [<sub>np</sub> 0 ] [<sub>vp</sub> [<sub>v</sub> getanzt ] [<sub>v</sub> t<sub>i</sub> ]]]]]

in which we assume that *es* is inserted in comp to satisfy rule B although on the basis of this sentence alone, there is no reason why we might not assume that *es* has been moved from the [NP,S] position. However, Safir shows that at least when the impersonal intransitive passive is a subordinate clause, the subject position is definitely empty:

14)

Er sagte, daß getanzt wurde.  
He said that danced was

15)

..., daß[ [<sub>np</sub> 0 ] [<sub>vp</sub> getanzt wurde ] ]  
that danced was

Safir next introduces his theoretical assumptions for the paper, essentially a Government and Binding approach with the addition of two new conditions - the Definability Condition and the Empty Expletive (or Emex) condition:

16) Definability Condition:

An empty category must be defined

17) Emex Condition

An empty expletive element must be governed

The Definability Condition "can be thought of" as replacing Chomsky's 1981 contextual definitions of pronominal and anaphoric. Safir retains the contextual definition of variable. The effect of these abandoned definitions is achieved by the interaction of the remaining definition of variable, the Binding Conditions, the  $\theta$  Criterion and the Definability Condition. The distribution of pure argument pronominal empty categories is regulated by language specific factors.

The Emex condition is a rather weaker condition than the E(mpty) C(ategory) P(inciple) and is invoked to account for the facts of Safir's analysis. He introduces it in an attempt to derive what until now has been a stipulation, namely that PRO cannot be expletive. If an empty expletive element must be governed, then it cannot be PRO. From this he generalizes the exemption of PRO to the ECP to cover pronominals in general. Now, in his analysis of German impersonal passives, there is a real use for the Emex condition. It accounts for the grammaticality of 18):

18)

... daß [ [<sub>NP</sub> e ] [<sub>VP</sub> getanzt ] [<sub>INFL</sub> wurde ] ]  
that danced was

Without the Emex Condition, the empty subject in 18), which is expletive since it is the subject of a passive clause to which no  $\theta$  role has been assigned, would fail the ECP unless INFL counts as a proper governor in German. Thus the Emex condition licenses an empty expletive NP in subject position in 18) under government from tensed INFL. This contrasts minimally with 19) in which an empty expletive is in the position normally occupied by PRO, an ungoverned position, and thus fails the Emex condition:

19)

\*...[ e [getanzt zu werden <sub>VP</sub>] INFL ]  
danced to be

Thus Safir has so far established that empty subjects in this type of construction are structurally present (by the Extended Projection Principle) and by the Emex condition and the general escape of pronominals from the effects of the ECP, they are empty expletive pronominals.

Safir now turns to consider the properties which determine whether or not a language will allow empty pronominals. He identifies two factors which distinguish on the one hand German, which according to him allows only expletive empty pronominals from Italian, which allows expletive and argument empty pronominals, and on the other hand, English from German and Italian where the distinction is the impossibility of any form of empty pure pronominal versus its possibility.

These two factors are firstly, conditions on the realization of nominative case, and secondly, the status of the language in question as the possessor of a Major Clitic Paradigm.

Safir proposes the Nominative Case Realization Condition as the unmarked case. This is that Nominative Case must be phonetically realized where it is assigned. This is the case for English and French. The marked option for Nominative Case is the NOM-drop Parameter. This simply states that Nominative Case need not be realized. German and Italian choose this option and this accounts for the fact that these two languages exhibit Pro-drop at all, where neither French nor English, which obey the unmarked option, can.

Languages such as French and Italian possess Major Clitic Paradigms where English and German do not. Where French has object, dative as well as subject clitics, Italian appears to lack subject clitics. The well known empty argument subjects in Italian may be argued to fill the gap in the Italian Major Clitic Paradigm. Thus these empty argument subjects in Italian may be just silent subject clitics, permitted in Italian because it chooses the Nom-Drop Parameter, but disallowed in French because it selects the Nominative Case Realization Condition.

This distinguishes French and Italian which have major clitics from German and English which do not.

The rest of the chapter is devoted to considering the conditions under which the empty expletive subject may appear in German. Although this issue is of great importance, I shall not consider it here but shall pick up the point below.

The conclusion then of this is that German makes limited use of Pro-drop, the limitation being that the pro must be expletive and never an argument pro.

## 2.2 McKay 1985

In his study of German Infinitival Complements McKay (1985) devotes one chapter to the question of empty subjects in German. His concern is to account for the nature of the embedded subject in German infinitivals in a configurational analysis of German which does not violate the Extended Projection Principle. In section 1., he separates stylistic inversion from the other types of subjectless construction setting it aside for later consideration, in section 2. he considers Case assignment problems for passive, raising and FLIP constructions (see section 2.2.1 immediately below for a definition of FLIP constructions), in section 3. he investigates in situ case assignment solutions and in section 4, he introduces the *pro* treatment as a result of the failure of the 'PRO-drop' analysis when the structures concerned are embedded under *lassen*.

### 2.2.1

McKay lists five construction types in German which apparently have an empty subject position:

20) Impersonal Passives:

Weil gestern getanzt wurde  
because yesterday danced was

21) Passive:

weil dem Kind das Fahrrad geschenkt wurde  
because the[+DAT] child the bicycle presented was

22) Impersonal Active:

weil mich friert  
because me[+ACC] freezes

23) Stylistic Inversion:

weil den Virtuosen lautes Händeklatschen begrüßte  
because the[+ACC] virtuoso loud applause greeted

24) Raising:

- a) weil mir Hans nicht besonders interessiert zu sein scheint  
because to me Hans not particularly interested to be seems
- b) weil ihm geholfen worden zu sein scheint  
because him[+DAT] helped was to have seems

All of these apart from stylistic inversion have in common that their subject position is a non-argument position. McKay considers stylistic inversion and concludes for the moment that it takes place in a later component such as PF perhaps.

McKay then investigates the Case assignment problems found in the other four types of sentence given above. First he considers movement and non-movement approaches to the passive.

He cites tests from Thiersch (1978), which go back to Lenerz (1977) which establish that the unmarked word order in passive sentences is 'dative-nominative', the surface variations being possible under an accessibility hierarchy, dependent on stress, definiteness, theme and rheme, noting that Thiersch claims that since the movement analysis is not applicable, Case must be assigned in situ.

Against the purely lexical approach to passive in German, McKay refutes Haider's (1982) arguments for a purely lexical passive. These are that most of the evidence for a syntactic passive in German is missing, for example that only accusative objects are available as passive subjects. McKay does this by showing that embedded small clause subjects can be passivized:

- 25) a) Man betrachtet [ John als Idioten]  
One considers John as idiot
- b) John wurde [ t als Idioten ] betrachtet  
John was as idiot considered

To this he adds the passivization of idiom chunks, the fact that passive subjects cannot be fronted with the participle and the necessary movement of PRO in control structures with passive complements:

- 26) man riskierte [PRO<sub>i</sub> [<sub>vp</sub> t<sub>i</sub> totgeschlagen zu werden]]  
one risked shot-dead to be

If the PRO were not moved, it would be governed.



He concludes on the basis of this that there must be at least a movement passive in German and that there may or may not be a lexical passive as well.

McKay now turns his attention to raising constructions and the so called FLIP verbs. The FLIP verbs are such as *gelingen*, *fehlen*, *gefallen* which are similar to raising verbs in that they have a non-argument subject without being raising verbs and which generally display 'dative-nominative' word order:

- 27) Es fehlt mir das nötige Talent  
It lacks to me the necessary talent

McKay gives examples of raising with *scheinen* taken from Thiersch (1978) which indicate a preferred 'dative-nominative' word order, but casts doubt on the universality of the judgments. The data for the FLIP verbs is even less reliable.

Before continuing to an examination of in situ case assignment for these structure, McKay dismisses the idea of case assignment which is achieved necessarily by movement for both Case orders. He does this on the grounds of the redundancy of the movement of NP to [NP,S] in the syntax to acquire Case and the return journey in PF to provide the 'dative-nominative' order. Instead, he proposes that German has both Case assignment by movement and in situ.

McKay now examines three approaches to in situ Case assignment. First he considers a 'Chain-government' approach by Den Besten. Chain-government is defined as follows:

- 28)
- a) If an NP is governed by a category K which cannot or may not assign Case, the NP receives its Case from the first Case assigner by which it is Chain-governed.
  - b)  $\alpha$  Chain-governs  $\beta$  iff  $\alpha$  governs  $\gamma_1$  and  $\gamma_1$  governs  $\gamma_2, \dots$   
 $\gamma_{n-1}$  governs  $\gamma_n$  and  $\gamma_n$  governs  $\beta$  ( $n \geq 1$ )

Under this approach, the 'nominative-dative' order is achieved by movement to [NP,S] to acquire Case, while the 'dative-nominative' order is achieved by Chain government of the nominative NP in situ by the INFL node along with either optional generation of the subject position, to avoid an EPP violation, or the movement of the dative NP to [NP,S] again to avoid an EPP violation. However, this latter option would cause a Case conflict at [NP,S] and McKay leaves this treatment pointing out these

two problems.

McKay next reviews an approach to empty expletive subjects developed by Safir (1981) for the empty [NP,S] position after subject cliticization in French in which an empty expletive element is inserted in a similar way to lexical expletive elements in French and English. The empty expletive is inserted into a  $\theta$ -less nonargument position and is governed but not properly governed and thus is not subject to the ECP. McKay extends this analysis to the German constructions under consideration showing that the empty expletive [e] would be co-superscripted with an NP in the VP in the case of Passive, FLIP verbs and Raising constructions while for impersonal passives, the empty element is raised to subject position leaving a coindexed trace in the VP, while with Impersonal Actives, the empty expletive is base generated in subject position.

He points out some problems with this approach claiming that Safir has adopted an ambiguous approach to post-verbal subject structures in Italian, French and English. McKay claims essentially that Safir has adopted an approach in which Nominative case will be assigned twice in French presentational *il* constructions and also by implication in English presentational *there* constructions.

The argument in McKay on this point is not clear. However, his major objection to this approach to in situ Case marking is that the empty element proposed by Safir lacks the grammatical  $\Phi$  features which all other empty elements share and so introduces an empty category which is outside the existing paradigm of empty categories and cannot be integrated with it.

McKay finally considers extending Chomsky's (1981) PRO-drop analysis of Italian to these German examples. Under this approach, rule R has applied in the syntax to adjoin AGR to the verb:

29)

- a)  $\alpha$  [<sub>vp</sub> V - AGR  $\beta$ ]
- b)  $\alpha$  [<sub>vp</sub> [<sub>vp</sub> V - AGR ...]  $\beta$  ]

$\alpha$  is co-superscripted with but not c-commanded by  $\beta$  and so is free. It is not governed and so can only be PRO. McKay extends Chomsky's PRO-drop analysis pointing out problems with the string-vacuous nature of the movement necessary for the derivation of passives, and for the embedding of active transitives embedded under *scheinen*. The impersonal passive and active constructions fall

fairly easily/<sup>under</sup> this approach. McKay then considers the status of the PRO in such constructions concluding that in German, PRO is a non-argument since it is co-superscripted in most cases, but with impersonal passives, it is a quasi-argument since it is not co-superscripted. An element which is not co-superscripted is independent and since German does not have fully referential empty subjects of this type, a quasi-argument must be assumed.

The major remaining problem for this approach is that of how to prevent an argument PRO from appearing in subject position in German. McKay concludes this section by allowing rule R to apply freely in the syntax of German but adding the stipulation, taken from Safir (1981) for French and English, that nominative case must appear lexically in German except for certain marked verbs.

McKay then proceeds to show that the PRO-drop analysis given above for German falls down with embeddings under *lassen*. He regards *lassen* as taking a bare S complement and consequently, in sentences such as the following, any PRO subject of the embedded clause would be governed:

30)

a) Er liess [<sub>s</sub> PRO ihm helfen]  
He made him help

b) Er liess [<sub>s</sub> PRO tanzen]  
He made dance

The subject of the lower clause in these grammatical sentences must be governable and properly governable. McKay points out that the empty expletive proposed by Safir will not be allowed in this position because it is properly governed. The subject cannot be a trace or a variable. So McKay turns to Chomsky (1982), in which the governable empty pure pronominal is introduced, and proposes that the empty subject position in the sentence types considered be filled by this element. For Passive, FLIP and *scheinen* cases, the picture is straightforward. Non-argument *pro* is in subject position and is co-superscripted with the VP-internal nominative NP. McKay suggests Quasi-argument status for the *pro* in impersonal actives and following a suggestion from Reuland (1983), assumes Quasi-argument status for the *pro* in impersonal passives. (However, see 2.2.2)

### 2.2.2 Reuland 1983

Reuland (1983) is a paper examining Safir's treatment of the definiteness effect. In the first section, he challenges the contention that the VP internal 'thematic subject' NP necessarily receives Nominative Case via coindexation with the expletive structural subject. His evidence comes from German examples such as:

- 31) Es gibt einen Mann[+ACC]  
There is a man

and from further evidence from cliticisation in Spanish. He concludes the first section by claiming that in cases where the definiteness effect does occur with a VP internal Nominative NP, the best analysis is that this NP receives its Case directly from AGR and not via the mediation of the structural subject.

Next he turns his attention to the EPP. He assumes the following interpretation of the EPP, namely:

- 32) At every level of representation of a clause, one argument position must be characterised as external.

A specific point which he addresses in this section is that of how argumentless passives are treated under his version of the EPP. Dutch examples such as:

- 33) Er werd gedanst  
There is danced

appear to have no argument and thus no external argument and so, they should be excluded under Reuland's version of the EPP. However, he provides the following analysis of them in subordinate clauses to illustrate the point better.

The essential idea for Dutch is that in a sentence like

- 34) Ik zag dat er iemand danste  
I said that there someone danced

the representation of the lower clause is:

- 35) ...[er [<sub>vp</sub> iemand<sub>i</sub> dans -AGR<sub>i</sub> ] infl<sub>i</sub>]

since, according to Reuland, in Dutch, unlike in English, the agentive  $\theta$  role can be assigned VP internally. Thus the impersonal passive:

- 36) Ik zag dat er gedanst werd  
I said that there danced was

will have the following analysis:

- 37) ...[ $e_r$ ; [  $e_i$  gedanst werd-AGR<sub>i</sub> ] infl<sub>i</sub> ]

According to Reuland, the  $e_i$  in Dutch is a Quasi-argument which is externalized by coindexation with the expletive  $e_r$  in [NP,S] position as required by Reuland's version of the EPP. The Quasi-argument in 37) would not license an overt referential NP and so the following is ungrammatical:

- 38) \* Ik zag dat iemand gedanst werd  
I said that someone danced was

In German however, the situation though similar is crucially different. Structures such as 34) above do not exist.

- 39) \* Ich sagte daß es jemand tanzte.  
I said that it someone danced

Thus the thematic subject cannot appear in the object position. Also, we must note that the German equivalent to 36) is ungrammatical:

- 40) \* Ich sagte daß es getanzt wurde.  
I said that it danced was

Instead, the structure is:

- 41) Ich sagte daß getanzt wurde  
I said that danced was

and the equivalent of 34) is 42):

- 42) Ich sagte daß jemand tanzte.  
I said that someone danced

Thus both 39) and 40) are grammatical without the expletive *es*.

Reuland's account of Impersonal passives in Dutch does not carry straightforwardly over into German. Although the use which McKay makes of the Quasi-argument approach may be valid, there perhaps being a Quasi-argument in the *daß* clause of an impersonal passive such as 41) which is coindexed with a *pro* expletive element in [NP,S] position, the evidence which Reuland provides for such VP-internal agentive  $\theta$  role assignment as in example 34) in Dutch does not exist in German. In fact, it would seem to be disallowed as example 39) shows.

However, the driving intuition behind this may still be valid - namely Reuland's interpretation of the EPP:

At every level of representation of a clause, one argument position must be characterised as external.

### 2.3 Roberts (1987)

In the last chapter of Roberts (1987), there is some discussion of the problems posed by German Impersonal Passives for theories of Passive in general and specifically for the treatment proposed by Roberts in the rest of the work. Very briefly, Roberts' proposal for passive in general is that the passive morpheme '-en' is an argument linked by coindexation either to a *by*-phrase, where that appears in a passive construction, or to a structurally present empty element called "IMP", which represents the implicit argument of many passives. ( In the rest of this study, I will use '-en' as shorthand for the Passive Morpheme regardless of the Language concerned. I could have called the German Passive Morpheme something like 'Ge-X-(e)t', but have chosen to use '-en' generally for simplicity.)

As an argument, '-en' requires both Case and a  $\theta$  role and in the case of standard passives formed from transitive verbs, it receives its Case as a result of the well known Case absorbing properties of passives and its  $\theta$  role as a result of the concomitant external  $\theta$  role absorption. I shall not give an exhaustive discussion of his wider treatment of passive here. However, it is clear that the case of German Impersonal Passives provides a problem for a general account of Passive such that of Roberts.

Roberts begins his treatment of German Impersonal Passives noting that alongside the standard examples involving such verbs as *tanzen*, *to dance*, there are dative examples with verbs such as *helfen*

*to help:*

- 43) Ihm wurde geholfen  
To him was helped  
He was helped

He notes that since dative Case is in this example inherent, it is morphologically realized at S-structure and that because it has not been absorbed, movement is not forced by the visibility condition and is in fact not even obligatory.

He then shows that in terms of his analysis, '-en' is an argument in Impersonal Passives because they show the implicit-argument effects and allow *by*-phrases. The following examples show the implicit-argument effects:

- 44)i) Sonntags wird freiwillig gearbeitet.  
Sundays is voluntarily worked
- ii) Sonntags wird gearbeitet um mehr Geld zu bedienen.  
Sundays is worked in order more money to earn
- iii) Es wurde miteinander getanzt  
It was with each other danced
- iv) Es wurde einander geholfen  
It was each other helped
- v) Es wurde gearbeitet ohne mit dem Chef zu sprechen  
It was worked without with the boss to speak

44)i) illustrates the thematic relation between the adverb and '-en', ii) is an example of a Rationale clause, iii) & iv) show examples of anaphor binding and v) is an example of non-purposive Control.

In his consideration of *by*-phrases, Roberts notes that there is a fairly strong animacy or human-ness constraint on the NP in the agent phrase:

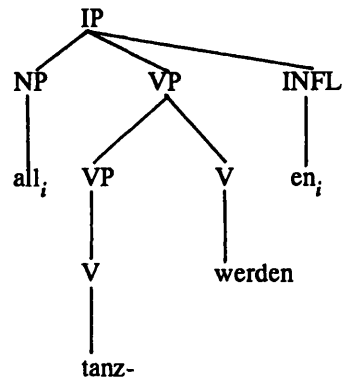
- 45)i) ?Es wurde von der Jugend getanzt  
It was by the youth danced.
- ii) \*Es wurde von den Mücken getanzt  
It was by the mosquitoes danced

He points out too that the active of 46)ii) is perfectly legitimate.

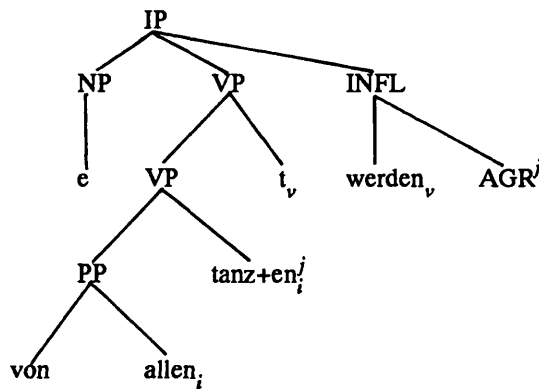
The question to be answered here is that of how '-en' is Case marked in Impersonal Passives. His proposal is that '-en' in German can freely be marked either NOM or ACC and that AGR assigns NOM to '-en' via chain government. For a subordinate clause such as 47) he envisages the derivation in 48)i) & ii):

47) ...,daß von allen getanzt wurde  
 that by everyone danced was

48)i)



ii)



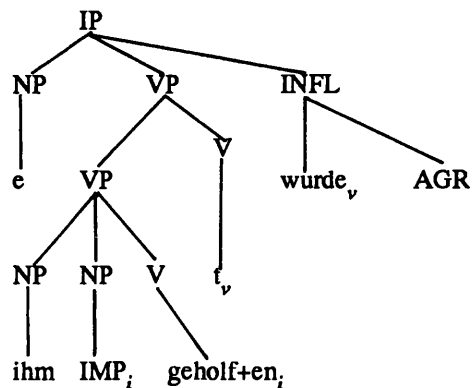
Roberts notes that in this derivation, the basic features are the same as in English passivization under his account in which: " '-en' is a DS clitic in INFL governing and coindexed with the subject. '-en' undergoes affix hopping in syntax, and so appears attached to V at SS." He suggests that the DS subject *all* moves into VP in order to remain governed by '-en' because of requirements on clitic chains. However, he does not talk about the subject position at SS. Presumably, if the NP *all* has moved from subject position, it will leave a trace. No mention is made of this. Roberts in talking about his (47), 48)ii) here, refers (p284) to the subject position there as expletive with no further comment.



Equally there is scant reference to the question of what happens with the subject position in cases where there is no agent phrase. For 49) he offers the SS 50) with no discussion of the empty element in subject position:

49) ...daß ihm geholfen wurde  
that to him helped was

50)



Roberts does give some discussion of *es* in Impersonal passives but, correctly, comes to the conclusion that it is not the subject but rather a place filler when there is nothing else in first position since it never appears in subordinate clauses or when some other element is fronted in a main clause. He concludes, again correctly, that *es* is not involved in any chain and does not need Case. However, he has still made no mention of what is in the subject position of Impersonal Passive clauses other than briefly mentioning that it is an expletive position.

To solve the original problem of Case assignment in Impersonal Passives, Roberts appeals to an idea from Hans den Besten of chain government needed independently in German and Dutch to account for nominative Case assignment inside VP. Thus in 50), '-en' is chain governed by AGR via the medium of  $t_v$ .

Perhaps Roberts' ideas on the Case requirements of '-en' are a little weakened by the Control examples with the dative verb *helfen* on page 287:

51) Er versuchte, PRO geholfen zu werden  
He tried helped to be

In 51), *helfen* has no accusative Case to assign and cannot assign nominative Case because the lower clause is untensed. There is no case available from the matrix verb either since the structure is a Control structure and there is no Exceptional Case Marking. Roberts concludes rather weakly that '-en' receives dative Case. In Baker, Johnson and Roberts (1989), a different solution is offered in competition with this one to the Case problem with Impersonal Passives. It allows the possibility of an argument not being Case marked by means of a revision of the Visibility condition suggesting that:

- 52) In order for an argument to be visible for  $\theta$  role assignment at LF, it must either
- a. be assigned Case, OR
  - b. have its head morphologically united with an X0.

This alternative suggestion is offered alongside the option that '-en' receives Case via chain government from some element which would not normally assign Case to it without either of the two proposals being preferred.

As noted above, Roberts does mention that there is a fairly strong animacy or humanness requirement on the NP in any *by*-phrase with an Impersonal Passive. He uses this to support his claim that '-en' is an argument and says nothing more about it. It is not made clear in what way this supports his claim of argumenthood for '-en'. One might be invited to infer that '-en' is an animate or human argument exclusively but this will not do since Roberts aims to account for Impersonal Passives in the same way as ordinary passives and to claim that '-en' has animacy restrictions on it in those circumstances is false. *John was killed* does not at all exclude an inanimate *by*-phrase such as *by the rockfall*, nor in absence of a *by*-phrase is one's interpretation necessarily that there was an animate agent.

None of the analyses examined in section 2. accounts for the distributional facts of the German Impersonal Passive which were demonstrated in section 1. above.

### 3.0 Further and Related Problems

In this section, I shall examine the problems, related to the treatments of the impersonal passive data of section 1., which can be drawn from section 2., and consider some further related questions.

### 3.1 Expletive *es*

At the end of 2.1 above, it was noted that there is a section in Safir (1985) examining the conditions under which the empty expletive which Safir proposes may appear. This is approached in terms of finding out when expletive *es* cannot or must be missing. Safir begins by noting that clause initial *es* must appear due to independent factors to do with the V2 phenomena in German. So the position of interest is the appearance of *es* after the tensed verb in a main clause, or its appearance at all in subordinate clauses, since the V2 phenomena do not occur in subordinate clauses. He claims that the *es* of impersonal sentences can always be missing, V2 constraints aside, but notes that *es* of weather constructions cannot be missing since it counts as an argument for the  $\theta$  criterion. It is unclear what he means by "impersonal constructions" in the previous sentence.

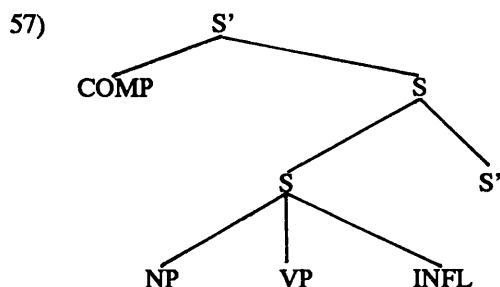
However, he turns his attention to 'S-*es*' or the *es* of sentential extraposition. He notes that according to the discussion so far, 'S-*es*' should only appear when required by the V2 phenomenon, but that for some speakers, missing 'S-*es*' is "noticeably less acceptable or impossible with a certain class of predicates". Consider the following:

- 53) \* Er sagte, daß es ihm erklärt wurde, daß...  
He said that it to him explained was that...
- 54) \* Er sagte, daß klar ist, daß...  
He said that clear is that
- 55) ? Er sagte, daß es ihm scheint, daß...  
He said that it to him seem that
- 56) ? Er sagte, daß ihn überrascht hat, daß...  
He said that him surprised has that

He points out there is a group of speakers "Group A" for whom all of these sentences are well-formed, but then attempts to find an explanation for the judgements given above by speakers of "Group B" who have the judgments given in 53)-56).

He observes that the differences in judgement correspond to a difference in predicate type, predicates that do not assign an external  $\theta$  role permit S-*es* to drop while predicates which do assign an external  $\theta$  role do not permit S-*es* to drop. Thus the raising verb *scheinen* and the passive *erklären* do

not assign an external  $\theta$  role while *klar sein* and *überraschen* do. He assumes the following structure for these sentence types:



- 58) a) daß es<sub>i</sub> klar ist daß..<sub>i</sub>  
 b) daß es e<sub>i</sub> erklärt wurde daß..<sub>i</sub>

Safir assumes that in the b) example the *daß* clause has been moved to the right of the sentence, leaving a trace in the VP. This trace counts as an argument for the  $\theta$  Criterion as required by the Projection Principle, and this position is related to the extraposed *daß* clause. Thus the S daughter NP subject position is expletive and as such may be empty without violating the ECP, but coming under the jurisdiction of the EMEX condition.

In the example in 58) a), however, the only  $\theta$  position that the extraposed clause can be related to is the subject position. Thus if the *es* in the a) example is dropped, the EC in subject position must count as a variable, excluding the possibility of it being an empty pronominal expletive, the only EC which would avoid the ECP, and so this results in a violation of the ECP since the variable subject EC is not properly governed. Thus Safir concludes that, for the Group B speakers, if they drop the *es* in structures of type a), then an ECP violation results.

Safir suggests that the difference in judgements between Group A and Group B speakers might lie in their having a different view of the process of extraposition, Group B speakers regarding it as an S-adjunction in which the sentence is moved to an A' position, Group A speakers regarding it as movement to an A-position as sister of VP, thus a potential  $\theta$  position. This only has the status of a suggestion.

As Safir notes in section 6.2, the above analysis only accounts for the conditions under which *es* must appear and may not appear in S-es constructions for certain speakers. There remains the problem of where *es* must not appear. Safir notes that in both groups of speakers, there is a strong preference to omit *es* in such examples as 59),

- 59) \* Er sagte, daß es an den Hund gedacht wurde  
He said that it about the dog thought was

and that there is a strong tendency to omit the *es* wherever it is not absolutely required, as for example by the V2 facts. He considers Chomsky's (1981) Avoid Pronoun Principle but rejects it on the grounds of its dubious theoretical status and because of the considerable variation in speaker judgment. He concludes that this area remains open for research.

To summarize, Safir notes that because of its different status, whether *es* can never be missing, and that matrix clause initial *es* can never be missing, for V2 reasons. He claims that with the exception of 'S-es', which he treats separately, the *es* of impersonal sentences in all other circumstances CAN be missing. In the case of the 'S-es', he notes that there are two different types of predicate, one with an external  $\theta$  role and one without, which behave differently in their ability to drop 'S-es' and that furthermore, there are different groups of speakers whose judgments vary concerning the possibility of dropping the 'S-es'. Finally, he considers the question of where *es* MUST NOT appear, and leaves the problem unsolved.

It must be assumed, that the case of the impersonal passive, whether in a subordinate clause or not, forms part of the unsolved problem of where *es* must not appear:

- 60) a) Er sagt, daß (\*es) getanzt wurde.  
b) Gestern wurde (\*es) getanzt.

The only conditions given by Safir under which *es* must appear are the V2 reasons or if the *es* is subject of a weather verb. There is however one important class of examples which Safir has not covered. The impersonal "reflexive passive":

- 61) a) Es tanzt sich gut hier.  
b) Hier tanzt \*(es) sich gut.

In 61) a), we can perhaps assume that *es* is in first position for V2 reasons. However, 61) b) is universally ungrammatical without *es*. Safir fails even to mention this let alone account for the possibility that *es* might be required for any reason other than V2 or being the subject of a weather verb.

The question of expletive *es* and empty subjects will be examined more fully below.

### 3.2 McKay (1985)

In section 2.2.1, McKay's (1985) investigation of German empty subjects was reviewed. A number of issues present themselves as worthy of further consideration. Firstly, McKay identifies five construction types in German which apparently have empty subject positions: Impersonal Passives, Passives, Impersonal Actives, Stylistic subject inversion and Raising:

(20 - 24 from section 2.2 repeated for convenience)

20) Impersonal Passives:

Weil gestern getanzt wurde  
because yesterday danced was

21) Passive:

weil dem Kind das Fahrrad geschenkt wurde  
because the[+DAT] child the bicycle presented was

22) Impersonal Active:

weil mich friert  
because me[+ACC] freezes

23) Stylistic Inversion:

weil den Virtuosen lautes Händeklatschen begrüßte  
because the[+ACC] virtuoso loud applause greeted

24) Raising:

a) weil mir Hans nicht besonders interessiert zu sein scheint  
because to me Hans not particularly interested to be seems

b) weil ihm geholfen worden zu sein scheint  
because him[+DAT] helped was to have seems

He questions whether these can be given a unitary treatment. He chooses to isolate Stylistic subject inversion concluding at the end of the chapter that this construction cannot be accounted for in the

same way as the others under consideration.

The question remains as to whether the remaining four construction types can or should be given a unitary treatment. As McKay notes, the [NP,S] position in all four construction types is a non-argument position which does not receive a  $\theta$  role, however, they differ in other features. In the Impersonal Passive and the Impersonal Active, there is no overt Nominative Case, where in the Passive and raising examples, there is, although it is not in [NP,S] position. ( 24) b) has no nominative case because the embedded clause is an impersonal passive.) With regard to case marking, there is also the question of the treatment of examples such as 21) where there is also a different order of elements in which on the face of it there would be no question of there being an empty subject, eg. 62):

- 62) weil das Fahrrad dem Kind geschenkt wurde  
because the bicycle the[+DAT] child presented was

It is not obvious that these four types of sentence should necessarily receive the same treatment.

### 3.3 *Lassen*

Although not overtly treated there, another problem arises from McKay's chapter on empty subjects in German. He uses the problem of embeddings under *lassen* to show that Chomsky's (1981) PRO-drop analysis fails for German because in constructions such as 63):

- 63) Er ließ PRO (von allen) tanzen.  
He made (by everyone) dance

the empty subject PRO would be governed and so excluded by the binding theory. It is on the basis of this evidence that McKay proposes that the empty subject is in fact expletive "small" *pro*. He does not give any detailed examination of these examples. However, they might be worthy of deeper investigation.

#### 3.3.1 Two verbs *Lassen*

McKay (1985, p71 ff), in the second chapter, the review of previous approaches, considers an analysis of *lassen* by Huber (1980). Here, Huber distinguishes two verbs *lassen*, one causative and one

non-causative. The causative verb has its accusative NP as subject of the lower clause while the non-causative verb is treated as a control verb with the accusative NP being the object of the matrix verb. Thus it is possible for some sentences with *lassen* to be ambiguous between causative and non-causative readings:

- 64) Ich ließ ihn essen  
I left/made him eat

has at least the following two possible syntactic analyses:

- 65) Ich ließ ihn [ PRO essen]  
I left him eating
- 66) Ich ließ [...?.. ihn essen ]  
I made him eat

According to the approach of Huber (1980), 65) above is the non-causative reading meaning *I let him eat* or *I did not prevent him from eating*. 66) however, has the causative reading of *I made him/it be eaten*.

One of the diagnostic tests for the distinction between these two different verbs *lassen* is the presence versus absence of the past participial form *gelassen* in perfect and passive contexts. In the perfect, only the non-causative verb may use the participle in the formation of the perfect tenses (examples originally from Huber (1980)):

- 67) Ich habe Kaffee und Kuchen stehen gelassen/lassen und bin aus dem Lokal gegangen  
I left coffee and cakes standing there and went out of the cafe.
- 68) Ich habe mir Kaffee und Kuchen kommen lassen/\*gelassen  
I had coffee and cakes brought to me.

McKay also notes Huber's observation that standard passivization can only occur with the matrix verb in a non-causative use of *lassen*:



- 69) \* Kaffee und Kuchen wurden von uns bringen lassen/gelassen.  
Coffee and cakes were by us bring made
- 70) Kaffee und Kuchen wurden von uns stehen gelassen.  
Coffee and cakes were by us standing left

The lower clause of a such a construction can have a passive interpretation along with an agent phrase, but that is the only similarity to standard passive constructions. The verb in the lower clause is not a participle, rather, it looks like an infinitive, and there is no passive auxiliary verb:

- 71) Ich ließ von ihm die Wand streichen.  
I had the wall painted by him.

By the tests described above, the structural ambiguity in 64) above can be made apparent. It is possible to form both the perfect and the passive of the matrix sentence with non-causative interpretation with the past participle:

- 72) Ich habe ihn essen gelassen  
I have let him eat
- 73) Er wurde essen gelassen  
He was allowed to eat

It is not possible to derive the passive/causative interpretation from 72). This is only possible with the infinitive form *lassen* instead of the past participle. A sentence equivalent to 73) but with the infinitive form instead of the past participle is absolutely ungrammatical.

However, it is possible to form the structure with the passive interpretation and optional agent phrase in the embedded clause:

- 74) Ich ließ ihn (von allen) essen  
I caused him/it to be eaten (by everyone)

Thus, perfect tense may be formed for both non-causative and causative *lassen*. In the latter case, the past participle may not be used, the infinitive form replacing it. Passive morphology may only be used with the non-causative *lassen*, causative structures with passive morphology being ruled ungrammatical, but a passive interpretation can be put on the embedded clause as in 74).

However, the position is rather more complicated than this. 64) is three ways ambiguous. As well as the interpretations *I let him eat* and *I made him/it be eaten*, it can also have a second causative meaning *I made him eat*. If Huber (1980) is correct in general about the difference in structure between causative and non-causative *lassen*, then the structural analysis is rather more interesting. As well as structures 65) and 66) repeated here,:

65) Ich ließ ihn [ PRO essen]  
I let him eat

66) Ich ließ [...?.. ihn essen ]  
I made him eat

we will have 75) in which the accusative NP is the subject of the lower clause, in contrast to 66) in which it is the object with an empty element in subject position, currently marked by '...?..':

75) Ich ließ [ ihn essen ]  
I made him eat

Both 66) and 75) are possible because *essen* subcategorizes an optional object. The ambiguity relies crucially on the option of interpreting the accusative NP in the lower clause as either subject or object of the lower verb. Example 74) disambiguates 66) and 75), that is, 75) is not possible with an agent phrase, since the accusative NP is in the subject position.

The control structure in 65) is not of direct interest to us at the moment. Instead we will concentrate on the causative *lassen*.

### 3.3.2 The causative *lassen*

If Huber (1980) is right, the non-causative *lassen* being a control verb and the causative *lassen* being an E(xceptional) C(ase) M(arking) or S-bar deleting verb, then, given that the interpretations of both 66) and 75) are causative, we would expect them to involve this second ECM *lassen*. However, this is problematic given McKay's (1985) expletive "small" *pro* account for the subject position of the clause embedded under causative *lassen*. Consider again 66) and 75) repeated here with the *pro* subject of 66) made explicit:

- 66) Ich ließ [ pro ihn essen ]  
 I made him eat
- 75) Ich ließ [ ihn essen ]  
 I made him eat

McKay provides no discussion of  $\theta$  theory or the  $\theta$  Criterion in relation to the proposal that the empty subject in 66) be expletive "small" *pro*. Plainly he must assume that in such cases as 66), there is suppression or absorption of the external  $\theta$  role of the embedded verb similar to what happens standardly in passives. However, if the three way ambiguity of 64) and the three analyses proposed here for them in 65), 66) and 75) are correct, then something needs to be said about the external argument of the verb in the lower clause. In 75), presumably the external argument of *essen* is assigned to the accusative NP *ihn* and not suppressed.

McKay (1985, p.148) does provide some indirect discussion of the  $\theta$  problems raised here. He notes that:

"...it would seem that in disallowing passive morphology and the auxiliary *werden* but allowing agent phrases, *lassen* itself optionally absorbs the Case of the V in its complement. Thus in examples of the following kind, Case absorption appears to force movement to the embedded [NP,S] position where Case is assigned via ECM:

- (75) Sie ließen den Verdächtigen von der Polizei kontrollieren.  
 They had the suspect searched by the police. ...."

If *lassen* optionally absorbs the VP-internal Case of the verb in its complement then presumably, it will have the same effect as Case absorption in the Passive, that of suppressing the external  $\theta$  role. 75) must be an example of the option of Case absorption not being taken up. McKay gives no discussion of this question.

In fact, he does not explicitly refer to the ambiguity in such sentences as 64) as illustrated by the structures 66) and 75). On pages 71-75, McKay discusses Huber's account of causative *lassen* and the example he cites first to illustrate the difference between causative and non-causative *lassen* is one in which the embedded verb is intransitive and so, presumably in his account, no Case absorption can take

place and the question of the  $\theta$  role of the subject of the embedded clause must arise:

- 76) Ich habe mir Kaffee und Kuchen kommen lassen/\*gelassen  
I had coffee and cakes brought to me

Presumably this is the same sort of structure as in 75) in which *Kaffee und Kuchen* is in the subject position of the embedded clause. This will receive accusative Case from *lassen* but it will not have been moved to [NP,S] position from elsewhere in the clause because *kommen* is intransitive.

However, this is not the case. In this instance, the verb involved, *kommen* is ergative and as such assigns no external  $\theta$  role, but assigns its one  $\theta$  role VP-internally. Thus this intransitive verb patterns with transitives like *kontrollieren* in McKay's (75) above in the quotation. In D-structure, the NP *Kaffee und Kuchen* is in object position and raises to [NP,S] position to receive Case from the matrix verb *lassen* not because of Case absorption by *lassen* but by the normal requirements for Case in ergative constructions. In McKay there is no hint that this might be the case.

Nonetheless, the problem illustrated by 66) and 75) still exists. Given McKay's final analysis of the empty subject problem in German, which we assume generalizes to all the cases he considers, the Case absorption and object NP movement analysis suggested in the quote above cannot be accepted. If the empty subject position is filled by an expletive "small" *pro*, the object NP cannot move to that position to receive Case. We must assume that in both 66) and 75) *lassen* continues to be an ECM verb with both the *pro* in 66) and the overt NP in 75) being marked with accusative Case. There is in principle no problem with there being two NPs marked with accusative Case such as 66) since just that happens with overt NPs:

- 77) Ich ließ ihn[+acc] den Dorsch[+acc] essen  
I let/made him eat the cod.

Given that there is both the causative and non-causative reading to 77), we have, according to Huber's analysis, a control structure and an ECM structure. It is the latter which we are interested in since that would have the same structure as in 66) but with two overt accusative NPs.

So, the Case assigning properties of *lassen* in 66) and 75) seem to be the same. The difference between them is one of the assignment of  $\theta$  role to the subject position of the embedded clause.

### 3.3.3 Causative *lassen* Affecting $\theta$ Structure of the Lower Clause

Now we wish to concentrate on structures such as 66):

- 66) Ich ließ [ pro ihn (von...) essen ]  
I made him (by ..) eat

This is interpreted as *I caused/made him/it to be eaten (by...)*. For the transitive examples discussed so far, the analysis given by McKay is satisfactory, assuming that *lassen* optionally has the passive-like property of suppressing the external  $\theta$  role of the lower clause, accounting for the difference between 66) and 75).

However, when it comes to the application of this analysis to intransitive verbs embedded under causative *lassen*, although there is again suppression of the external  $\theta$  role, it is not clear that it is sufficient. Just as there is a restriction on the sort of intransitive verb which can form Impersonal Passives, there is a restriction on the type of intransitive verb which may be embedded under causative *lassen*.

According to data from speakers whose mother tongue is German, the restrictions are the same as with Impersonal Passive; that is, only intransitive verbs which in active usage require a subject which is human and which are unergative may embed under causative *lassen*. Again, as with Impersonal Passives, other intransitive verbs in this construction are not strictly ungrammatical, but are at the very least semantically odd if not wholly anomalous:

78)

Er ließ tanzen  
He made dance

Er ließ lachen  
He made laugh

?Er ließ wachsen/sinken/kommen  
He made wash/sink/come

?? Er ließ verschlammen/vergehen/klirren/knirschen  
He made silt up/elapse/clink/crunch

The characteristics of the above verbs have been examined in section 1.2 above in this chapter.

Non-ergative verbs which take human subjects are perfectly acceptable in this construction, ergative verbs which may have a human subject are rather less acceptable and ergative verbs which disallow a human subject are very bad.

If the apparent  $\theta$  role absorbing properties of *lassen* are the same as the  $\theta$  role absorbing process in passivization, then we have a ready explanation for why among intransitive verbs, only non-ergative verbs may embed under causative *lassen*. As noted in 1.3 passive absorbs the external  $\theta$  role. Here too *lassen* appears to absorb the external  $\theta$  role of its lower clause. If the verb in the lower clause assigns only an internal  $\theta$  role, then there is nothing for *lassen* to absorb.

As with the Impersonal Passives, there remains the question of why there is a restriction that the external argument of the verb be human.

Passive-like constructions with *lassen* form an exact parallel to the standard passives, both personal and Impersonal. The passive interpretation of sentences with transitive verbs embedded under *lassen* is as free as standard passivization with transitive verbs and there are the same restrictions on intransitive passivization with *lassen* as there are with standard Impersonal Passives.

### 3.3.4 Reflexive *lassen*

Among the causative uses of *lassen* there are a number of examples involving reflexives. Among these three types can be identified: sentences with thematic subjects in which the lower verb is transitive and assigns dative case to the reflexive or allows a 'benefactive' dative reflexive, sentences with thematic subjects in which the lower verb is transitive and assigns accusative case to the reflexive, and thirdly, sentences with non-thematic subjects in which the lower verb is intransitive.

The first type is illustrated by 79) & 80):

- 79) Ich lasse mir einen Anzug machen  
I let to me a suit make  
I have a suit made for me
- 80) Hans ließ sich/\*ihm das Blüschchen kommen.  
Hans let to himself/\*him the kid come  
Hans had the kid come to him

In 79) the dative is clearly and unambiguously marked and is a benefactive. In 80) the reflexive is not obviously dative since there is no morphological distinction between the accusative and dative third personal singular reflexive pronoun. However, the corresponding ungrammatical dative pronoun is given coindexed with the subject to show that this position can be bound from the subject position. The dative this time is assigned directly from the verb as part of the normal case assigning properties of the verb *kommen*.

The second type is illustrated by 81) & 82):

- 81) Er ließ sich um 6 Uhr wecken  
He had himself at 6 o'clock wake  
He had himself woken at 6 o'clock
- 82) Das läßt sich leicht machen  
That lets itself easily do  
That can be done easily

The third type is illustrated by 83):

- 83) Es läßt sich hier nicht tanzen.  
It lets itself here not dance  
One cannot dance here

Of the first two types, involving transitive verbs, the dative examples can be analysed in just the same way as the transitive examples in section 3.3.2 above. Thus 79) could be analysed as 84)

- 84) Ich lasse [ pro mir einen Anzug machen ]  
I make to me a suit make

in which the dative reflexive pronoun *mir* is a benefactive argument of the verb. 80) can be analysed as 85) in which the dative *sich* is the "goal" argument of the verb *kommen*:

- 85) Hans ließ [ pro sich das Blüschchen kommen ]  
Hans made to himself the lad come

Benefactive arguments are generally optional and so, can be missed out. 79) reduces more obviously to the type of construction in 3.3.2 if the benefactive is omitted. Equally if the argument of the verb expressed by the dative reflexive is optional, as with *kommen*, then when this is missed out, the sentence again is more obviously the same as those in 3.3.2.

The second type above, involving transitive verbs, divides into two sorts. The first illustrated by 81) is similar to the examples in 3.3.2 above in that *ihn* can be substituted for *sich* and still leave a good sentence:

- 86) Er ließ ihn um 6 Uhr wecken  
He let him at 6 o'clock wake  
He had him woken at 6 o'clock

In 86), 'er' cannot be coindexed with *ihn* without violating the Binding Conditions. So the only difference between 81) and 86) is that of the Binding between the matrix subject and the pronominal in the lower clause.

The second sort involving an accusative reflexive pronoun illustrated in 82) is different in that under some circumstances, such substitution of pronominal for reflexive cannot take place leaving a grammatical sentence:

- 87) \* Das läßt ihn/sie leicht machen  
That lets him/her easily do  
That causes him/her to be done easily

The reason for the ungrammaticality in 87) is that there is a selectional restriction between *machen* and its object in that you cannot *make* or *do* someONE. However if 87) were 88):

- 88) Das läßt ihn/sie/es leicht machen  
That causes it to be done easily

where the personal pronoun stands for a process not a person, then the sentence is grammatical without coindexation between the matrix subject and the embedded pronominal. Thus, when there is such a restriction between the verb in the lower clause and its object, the possibility of substituting a pronominal for the reflexive is more limited.

In examples 81) and 82), the verbs in the lower clause do not have optional accusative arguments and so cannot drop the reflexive pronoun and still leave a good sentence:

- 89) \* Das läßt leicht machen  
That lets easily do



Taking the above discussion into account, examples 79)-82) reduce to the more general case in 3.3.2. However, the third type mentioned above illustrated by 83) poses a greater problem for analysis.

- 83) Es läßt sich hier nicht tanzen.  
It lets itself here not dance  
One cannot dance here

This example is taken from Harbert(1977) where it is noted that intransitive verbs which can form impersonal passives can also enter into this construction. Harbert notes the animacy restriction on the underlying subject with impersonal passives and also notes that there is a further, though in his work, unspecified restriction on them, namely unergative restriction. These restrictions governing the possibility of forming intransitive impersonal passives extend to the type of construction in 83). Thus such sentences with *laufen*, *schlafen*,... are perfectly grammatical but with *kommen* and *blühen*, to *bloom*, the examples given in Harbert, such sentences are not possible:

- 90) \* Es läßt sich blühen  
It makes/lets itself bloom
- 91) \* Es läßt sich kommen  
It makes/lets itself come

Thus we have here the same restrictions on the formation of the intransitive reflexive *lassen* construction as we do with the intransitive impersonal passives.

### 3.4 The Perception verbs

The verbs of perception, *sehen*, *hören*,... behave, according to some German speakers at least, in a similar way to *lassen*. In Hammer (1977), these verbs are grouped together with *lassen* in paragraph 419 as giving a passive meaning to the active infinitive following them. An example with *sehen* is given first:

- 92) Er sah die Kisten auf den Laster laden  
He saw the cases on the lorry load  
He saw the packing-cases being loaded onto the lorry

This is followed by some speculative discussion of the origin of this construction and finally by

some discussion of the fact that the embedded infinitive can not be passive. It is noted that *I heard him being called* would be:

- 93) Ich hörte, wie man ihn rief.  
I heard how one him called

It is also noted however that theoretically this could be:

- 94) Ich hörte ihn rufen  
I heard him call

and this is described as "obviously ambiguous". The ambiguity is between *I heard him being called* and *I heard him call*.

This construction with its passive meaning is not disallowed by the grammar as is the ungrammatical:

- 95) \* Ich hörte ihn gerufen werden.  
I heard him called be

The grammar also gives the following examples with intransitive verbs:

- 96) Auf der Strasse sah ich tanzen.  
In the street saw I dance  
In the street I saw dancing
- In der Küche hörte ich lachen  
In the kitchen heard I laugh  
In the kitchen I heard laughing

While an agent phrase is explicitly allowed with the *lassen* in this paragraph, nothing is said about the possibility of these perception verb constructions allowing an agent phrase.

Harbert (1977) provides some discussion of these structures. His evidence conflicts with that given in Hammer. The example with *rufen* is explicitly ruled out in the passive interpretation according to him.

Harbert (ibid p.130 note 11):

"...*Ich lasse ihn rufen* can mean either *I let him call/cry* or *I let him be called*.... *Ich höre ihn rufen* on the other hand, can only mean *I hear him call/cry*..."

Further on in the same note, he concedes that in an earlier period, the last century, both active and passive readings were possible with such constructions, and uses this fact to account for the few instances, according to him, in which the lower clause in such constructions can have a passive interpretation. Among these he gives:

97) *Ich höre ein Lied singen*  
I hear a song sing  
I hear a song being sung

He also notes that such structures as 98) are possible:

98) *Ich höre über ihn sprechen*  
I hear about him speak  
I hear spoken about/I hear them speaking about him

With the latter example however, he explicitly excludes the possibility of an agent phrase.

For such an example as 94) with the interpretation *I heard him call*, if we agree with McKay, the structure will be that of an ECM verb. That is, the accusative NP will be the subject of the lower clause, receiving its case from the matrix perception verb. If this is so, then we will assume that if 94) with the interpretation *I heard him being called* is possible, at least for some speakers, then in this case too *rufen* will be in the complement of an ECM verb.

The alternative position would be, in the case of the non-passive lower clause, that the accusative NP is the object of the perception verb and that it controls PRO in the subject position of the lower clause. Equally, in the passive interpretation under this non-ECM view, the accusative NP would be in the object position in the lower clause, receiving its case from the lower verb as normal and that the subject position would be filled by a non-controlled arbitrary PRO. If it were possible to allow an agent phrase in this construction, then the latter analysis would have to be revised since an agent phrase would "use up" the  $\theta$  role normally assigned to the arbitrary non-controlled PRO, which must be assigned a  $\theta$  role.

If the latter analysis is correct, then there is no problem in dealing with this construction unless agent phrases are allowed in the passive interpretation. However, if the perception verbs are ECM verbs, then we may have a similar problem to that in the case of *lassen*. Interestingly, the examples in 96) are unergative intransitive verbs which allow human subjects.

### 3.5 Copula + *zu* + Infinitive Constructions

Another passive-like construction which may be of interest is the Copula + *zu* + Infinitive Construction as in 99)-101):

99) Dieses Buch ist nicht zu haben.  
This book is not to have  
This book is not to be had

100) Das ist zu vermeiden.  
That is to avoid  
That is to be avoided

101) Ist der Direktor heute zu sprechen?  
Is the director today to speak  
Can the director be seen to today?

(examples taken from Hammer (1977) paragraph 432)

This construction allows an agent phrase:

102) Dieses Buch ist von niemandem zu haben.  
This book is by nobody to have  
This book is not to be had by anyone

99-102) illustrate two of the three main properties of standard passive: an optional agent phrase and a displaced deep object of the verb in the lower clause with nominative Case. They do not exhibit any passive verbal morphology. In all of the examples, the matrix nominative subject is in some sense to be made precise related to the unfilled object position of the verb in the lower clause. In sentence 101), the verb *sprechen* is found in the use where it takes accusative Case, instead of a *mit* or *über* prepositional phrase, meaning *to see* or *meet*.

With a verb such as *helfen* which takes the dative Case, the behaviour is similar to that in the standard passive where the dative object of the verb either fronts to first position in the sentence

retaining its Case or remains in its original position with the preverbal first position being filled either by some other element in the sentence or by a dummy *es*. Compare the standard passive examples in 103) with those in 104):

103)a) Mir wird jetzt geholfen.

To me is now helped

I am helped now

b) Es/jetzt wird mir geholfen

It/now is to me helped

(Now) I am helped

104)a) Mir ist jetzt zu helfen

To me is now to help

I must now be helped

b) Es/jetzt ist mir zu helfen

It/now is to me to help

(Now) I must be helped

It could be argued then that this construction shares the  $\theta$  role "suppressing" and the Case absorbing properties of the standard passive except that in this case, assuming that the structure is bi-clausal, this takes place across a clause boundary.

The same pattern is exhibited with unergative human-subject intransitive verbs:

105) Jetzt ist zu feiern

now is to celebrate

Now we must celebrate

but

106)a) \* Jetzt ist zu wachsen

now is to grow

Now we must grow

b)

\* Jetzt ist zu verschlammen

now is to silt up

Now we must silt up

105) & 106) show the by now familiar pattern of this sort of impersonal construction being allowed with human-subject unergative intransitive verbs but disallowed with intransitive verbs which are either ergative or which disallow a human subject.

Since I have found very little discussion of this construction in the literature and no theoretical analysis of it, there is no existing treatment of the question of whether this construction is mono-clausal or bi-clausal.

I shall assume that it is bi-clausal and on the basis of the fact that an agent phrase is possible in the lower clause, as illustrated in (102), that it is an *S*-bar deleting construction just as the other considered here. If it were not an *S*-bar deleting structure, the subject position of the lower clause would be ungoverned and so could be filled by PRO. If that were the case, then another analysis would be necessary for just those cases in which an agent phrase occurs, since in those cases, the external  $\theta$  role would be unavailable for the PRO subject, being "absorbed" in the agent phrase. If however, this were an *S*-bar deleting structure, then there would be no question of there being a PRO subject since the subject position would be governed. So by assuming *S*-bar deletion at the outset we will constrain ourselves to finding a more unified treatment of this construction both with and without agent phrase.

If this construction displays characteristics similar to or the same as the passive, then it is clear why it is limited with intransitive verbs to that assigning an external  $\theta$  role, since traditionally passivization "absorbs" the external  $\theta$  role. However as with all the construction types considered in this chapter, it is unclear why there should be the further restriction that the verbs involved be those which allow a human subject.

### 3.6 Reflexive Impersonal Passives.

Although already mentioned in a different context in section 3.1 example (61) above (repeated here below), it is worth considering Impersonal reflexive passives here briefly in light of the examination of the properties of reflexives with *lassen* in 3.3.

- 61) a) Es tanzt sich gut hier.  
b) Hier tanzt \*(es) sich gut.

As with Impersonal Passives of the intransitive verbs in German, it is only possible to form Impersonal reflexive passives with non-ergative verbs whose external argument is human. Thus it is possible to form this construction with *tanzen, spielen, lachen,...* but not with *wachsen, sinken, kom-*

*men*,... or *verschlammen*, *vergehen*, *klirren*, *knirschen*,... which are either ergative or require a non-human external argument.

Example 61) was originally given to show the difference of behaviour of *es* in Impersonal passives where it is not a subject and only appears in first position just in case no other element has moved there, and in Impersonal reflexive passives where it is a subject, being required post-verbally if some other element has moved to first position.

Another difference is that where Impersonal passives freely allow an agent phrase, this possibility is uniformly excluded with Impersonal reflexive passives.

### 3.7 Roberts (1987)

As an attempt to accommodate a marginal non-standard passive construction within a general theory of passives, Roberts (1987) and Baker, Johnson and Roberts (1989) provide a reasonable account which preserves the basic claims they make about the general case. However, there are aspects of the construction which they have ignored or failed to account for.

There is the question of the subject position in Impersonal passives. Roberts (1987) in his derivation of the sentence:

107) Es wurde von allen getanzt  
It was by everyone danced

proposes that the NP in the PP *von allen* was originally in DS subject position and has moved into the PP in the VP in the course of the derivation. Presumably, the subject position at SS is then a trace. However, what happens in the case of such a sentence without agent phrase? There is no real mention of this question in Roberts (1987). He does discuss there the status of *es* and comes to the generally accepted conclusion that it is just a place filler and subject to none of the usual conditions.

In Baker, Johnson and Roberts (1989), in footnote 16 on page 240, the question of the subject position of Impersonal Passives is raised in connection with two proposals given there for accounting for the question of Case assignment to the passive morpheme. One proposal is that either accusative or nominative Case is freely available for it in some languages and the other proposal is that in some

languages, it may lack Case. It is suggested that one may choose between these alternatives by inspecting the behaviour of infinitives. It is correctly pointed out that infinitives are only available under raising verbs. This suggestion is rejected since they point out that if '-en' did not need Case, then an empty subject required by the Extended Projection Principle might do. PRO cannot be expletive or governed and so would not do for subject position. They leave the issue there.

A second issue is the restriction on the verbs which may form Impersonal passives. Here, my criticism must be rather less than elsewhere. In Roberts (1987) on page 279, the additional restriction of animacy or humanness of the NP in the agent phrase is noted over and above the generally accepted limitation of Impersonal Passives to non-ergative verbs. However, Roberts does not go into this any further and only claims this without explaining why as further evidence of the argument status of the passive morpheme.

There is no attempt to use this fact to account for the distribution of the construction, the facts demonstrated at the beginning of this chapter. Perhaps the facts about the ability of verbs to form Impersonal Passives were not fully known to him or perhaps we are meant to extend this comment about *by*-phrases to Passives in general and infer that the humanness restriction is general.

As noted at the end of section 2.3, it is not clear why the existence of the apparent humanness constraint constitutes proof of the argument status of '-en'. If the claim is that '-en' is a human argument, then it is difficult to see how a unitary treatment can be given to both Personal and Impersonal Passives. There is a strong humanness requirement and interpretation with Impersonal Passives, but there is no such restriction on personal passives. Again as noted in 2.3 above, *John was killed* neither implies nor requires a human or even an animate agent. *The rockfall* can be the NP in the agent phrase or in the appropriate context the unexpressed understood agent.

Since it is not necessarily in the scope of the work, Roberts can not be criticised for not including treatment of the data discussed above in section 3.3, 3.4 and 3.5. However, if a unitary treatment of these phenomena can be given, it is not immediately clear how Roberts' approach would account for these, since there is no obvious syntactic equivalent of '-en'.



#### 4.0 Conclusion

In this chapter, in section 1. I have demonstrated that there is an as yet unexplained restriction on the ability of verbs to form Impersonal Passives. It is generally acknowledged that only unergative verbs may form Impersonal Passives and I have demonstrated that there is a further restriction on them, namely that their external argument be human.

In section 2., I have reviewed accounts by Safir, McKay, Reuland and Roberts all of which touch on the question either of the analysis of Impersonal Passives in German or empty subjects in German or both. None of the previous analyses accounts fully for the facts demonstrated in section 1.

Section 3. considers some of the specific problems arising from the analyses in section 2. Sections 3.3-3.6 investigate related impersonal constructions. 3.3 considers impersonal constructions with *lassen*, 3.4 investigates possible impersonal constructions with verbs of perception 3.5 considers the "Copula + *zu* + infinitive" impersonal construction and 3.6 considers the impersonal reflexive construction. What emerges is a striking similarity to standard passives. Each of the constructions in 3.3-3.5 has an equivalent to the personal passive and an equivalent to the Impersonal Passive complete with the same restrictions. The reflexive impersonal construction under *lassen* considered in 3.3.4 has its equivalent in the reflexive impersonal passive considered in 3.6.

Apart from the reflexive constructions, there appear to be three ways of forming passive-like constructions in German; 1) the traditional non-reflexive passive, complete with standard passive morphology, 2) non-reflexive passive with *lassen* and 3) non-reflexive passive with "Copula + *zu* + infinitive". Each of these methods allows both personal construction with or without agent phrase, and impersonal construction with or without agent phrase. In addition, each of the impersonal constructions is restricted to forming passive with unergative verbs with human external arguments.

In addition to this there is the reflexive passive which occurs in both personal and impersonal form, either standing alone or in the *lassen* construction and which never allows an agent phrase.

Section 3. concludes with a few remarks about Roberts' analysis, since it comes nearest to accounting for the facts demonstrated in section 1, but does not do so. In the light of the above summary of the similarity of the constructions considered in 3.3-3.6, it would appear that they should

receive similar treatment, and it is not clear that Roberts' analysis of pure impersonal passives can extend to the other two general cases.

## Chapter 3

### A Solution for Impersonal Passives

#### 0. Introduction

The analyses in chapter 2 do not account for the facts in 1.2 in any way. Although Safir provides an account of the possibility of German having subjectless sentences, he gives no explanation of the distribution in 1.2. The account given by McKay/Reuland only offers the possibility of a Quasi Argument in the subject position, which makes no claim to account for the distributional facts.

Section 1. of this chapter presents a description of the syntax of the German Impersonal Passive construction. Section 2. provides an overview of the literature on arbitrary interpretation and arbitrary constructions mainly from Romance languages. In section 3. I present an analysis of German Impersonal Passives which addresses and solves the problems raised in section 1. of chapter 2. Section 4. will provide a brief summary of the chapter.

#### 1. Description of German Impersonal Passive.

In this section I shall give a description of the syntax of Impersonal Passives of intransitive verbs, both in main and subordinate clauses.

##### 1.1 Main Clauses.

In the paradigm case, Impersonal Passives are of the following general form, with an agent phrase always possible:

*es + werden + (adverbial) + (agent phrase) + past participle*

as in 1:

- 1) Es wurde (gestern) (von allen) getanzt.  
It was yesterday by everyone danced

However, this is not the only possible word order. It is possible to move any constituent to the first position in the sentence:

- 2)a) Gestern wurde von allen getanzt.  
Yesterday was by everyone danced
- b) Von allen wurde gestern getanzt.
- c) Getanzt wurde gestern, nicht gespielt.  
Danced was yesterday not played
- d) Wurde gestern getanzt?

The examples in 2) show other possible word orders of the impersonal passive and the point to note is that when any constituent which comes after the tensed verb in 1. is moved to first position, *es* may not appear in the sentence.

- 3)a) \* Gestern wurde es von allen getanzt.  
Yesterday was it by everyone danced
- b) \* Von allen wurde es gestern getanzt.
- c) \* Getanzt wurde es gestern, nicht gespielt.  
Danced was it yesterday not played

Thus, *es* must appear in the first position if no other constituent is fronted, and must not appear post-verbally or at all if any constituent is moved from the body of the sentence to the first position.

As shown in section 1.2 of chapter 2, only non-ergative intransitive verbs which allow a human subject may form impersonal passives.

## 1.2 Subordinate Clauses.

In subordinate clauses, Impersonal passives appear with the constituents in the base underlying word order with the main verb and tensed or untensed form of *werden* at the end.

### 1.2.1 Tensed Subordinate Clauses.

In tensed subordinate clauses, impersonal passives have the following word order:

(adverbial) + (agent phrase) + past participle + werden

as in 4:

- 4) Ich weiß, daß gestern von allen getanzt wurde.  
I know that yesterday by everyone danced was

In subordinate clauses, because there are no Verb Second requirements, there is no question of any fronting and *es* does not appear. In fact *es* may never appear in subordinate impersonal passives:

- 5) \* Ich weiß, daß es gestern getanzt wurde.  
I know that it yesterday danced was

### 1.2.2 Non-tensed Subordinate Clauses.

Impersonal passives cannot appear as the non-tensed subordinate clause to a control verb. Thus 6. is ungrammatical:

- 6) \* Ich versuche, getanzt zu werden.  
I try danced to become

However, they can appear as the nontensed subordinate clause of a raising verb:

- 7) Es scheint, hier getanzt zu werden.  
It seems here danced to become

In 7), the *es* subject of *scheinen* is just that. It is inserted as the subject of the matrix clause and has not been raised from the lower clause. The adverbial can be raised into the matrix clause as in 8):

- 8) Hier scheint (es), getanzt zu werden.  
Here seems (it) danced to become

When this happens, the *es* is optional in the matrix clause in common with the impersonal *es* subject of many other impersonal structures (but see later). However, most speakers prefer the *es* to be absent in this construction.

## 2. Arbitrary Interpretation

In this section I shall review the literature on the theory of Arbitrary interpretation.

## 2.1 Rizzi (1986)

Rizzi (1986), in sections 2. and 3., presents a brief account of the properties, licensing and interpretation of arbitrary *pro* in object position in Italian, in the context of a wider discussion of null objects. In sections 2.1 - 2.3 he is concerned with establishing that the null object is in fact *pro*. In section 2.4 he examines the properties of 'arb' *pro*, noting that it shares the three basic properties of arbitrary PRO: [+ human, + generic, + plural], having already suggested that the [+ generic] specification is responsible for the restriction of arbitrary null objects to sentences with generic time reference. The [+ plural] specification accords with agreement facts and the [+ human] specification accounts for odd interpretations in structures where a human subject is assumed. *pro* can only refer to people and not stones or machines.

In section 3. Rizzi proposes a modified version of the standard "*pro* module". He observes that in common with the licensing and interpretation of other null elements, there should be two separate components to the "*pro* module". Standardly, licensing and recovery of the content of *pro* are unified under government by "strong Agr(eement)". This does not allow *pro* in object position. Accordingly, Rizzi first proposes a licensing principle for *pro*:

- 9) *pro* is governed by  $X_y^0$

This means that *pro* is licensed by a head of type 'y' where 'y' may vary across languages. In Italian, both V and INFL belong to the set 'y'. Other languages choose differently, languages such as English having no members in the set 'y'.

Next, Rizzi moves to the interpretation of *pro*. As with other empty elements, he assumes that *pro* is freely assigned  $\phi$ -features but that such inherent "content" must be fully recoverable from the overt linguistic context. He proposes the following:

- 10) Let X be the licensing head of an occurrence of *pro*: then *pro* has the grammatical specification of the features on X coindexed with it.

The recovery strategy is then binding from features on the local head. *pro* in subject position then is bound by the features person, gender and number from INFL which allow it to function as a

definite pronoun. Rizzi states in a footnote that 10) is neutral between assignment and recovery of these features but calls the procedure recovery, for convenience. He mentions the Italian arbitrary *si* construction saying that the *pro* involved in that is not definite but arbitrary in interpretation deriving its 'arb' features from coindexation with *si* (however see the section below on Cinque 1988). Rizzi mentions this construction here in order to clear the path for his account of arbitrary assignment. In the next paragraph, he states that *pro* 'arb' is exceptional in subject position, but the norm in object position. According to Cinque (1988)( again see below ), the situation is not as simple as this and by isolating the arbitrary *si* construction, Rizzi is seeking to restrict the domain of possible 'arb' assignment to object position in accordance with the rule he proposes. His rule of 'arb' assignment is:

- 11) Assign 'arb' to the direct  $\theta$ -role.

This rule he has already proposed to apply in the lexicon for English in those cases where the object  $\theta$ -role of a verb is not assigned to an overt element, but is not syntactically active, as in Italian, eg.

- 12) This leads to the following conclusion.

\* This leads to conclude that...

However, in Italian, this rule applies in the syntax and the object position has already been projected in accordance with the projection principle. The assignment rule applies and the object slot acquires the features associated with 'arb'.

Rizzi's account of 'arb' is limited to object *pro*. In light of later treatments such as Cinque (1988), it may be regarded as rather too specific to be of general appeal. However, his theory of licensing and interpretation of *pro* is of general interest. If it is assumed that 11) is not the only possibility for arbitrary assignment, Rizzi's approach to licensing of *pro* can be extended to other circumstances as proposed in chapter 5 below.

## 2.2 Jaeggli (1986b)

Jaeggli (1986b) aims to develop an analysis of arbitrary constructions which is generally applica-

ble, irrespective of whether or not the arbitrary pronoun involved is empty or overt.

He begins by examining the properties of the tensed, empty subject arbitrary construction in Spanish:

- 13) *pro* llaman a la puerta.  
are-calling at the door

He notes that this sentence is ambiguous between an arbitrary and a non-arbitrary (specific) referential reading.

Jaeggli notes that arbitrary plural *pros* are excluded from derived subject positions. Thus the *pro* subject of a passive can only have definite reference. The same restriction holds for Middle and Ergative verbs, although Ergatives can have arbitrary interpretation when used in the Impersonal *se* construction. Thus arbitrary *pro* is limited to the subject positions in constructions where there is an external argument.

Jaeggli then compares the Arbitrary Plural Construction with the Impersonal *se* construction and arbitrary PRO in Spanish, noting the greater syntactic freedom of the latter two.

Finally Jaeggli considers the arbitrary plural, *they* in English showing that essentially its properties are the same as its counterpart in Spanish. He gives a "condition (34)" which accounts for the syntactic distribution of both arbitrary *they* in English and arbitrary *pro* in Spanish.

Condition (34) (Jaeggli's numbering)

An arbitrary plural pronominal cannot be in a chain that is  
Case or  $\theta$  marked by a verb.

The final section in Jaeggli's paper is an attempt to provide a general account for arbitrary plural pronominals. The first point he makes is that the facts about English *they* show that any account of arbitrary pronominals cannot be based on the null subject parameter. It should be based on factors independent of that.

He proceeds to examine two questions: firstly, Why is the overt/empty alternation important in Spanish and not in English in relation to arbitrary pronominals? and secondly, What deeper principles



might be responsible for "condition (34)"?

Following an idea in Montalbetti (1984), Jaeggli proposes the following C(ondition) on A(rbitrary) P(ronominals) to account for the first question:

- 14) CAP  
Overt pronouns may not be arbitrary in reference iff the overt/empty alternation obtains.

Thus in English tensed clauses, where the overt/empty alternation is not possible, overt pronouns may be arbitrary. This provides a superficial answer to the first of the two questions posed above.

Jaeggli proceeds to provide some speculative discussion of possible principles of Universal Grammar which might lie behind the CAP.

He concludes the paper with a complex examination of the principles underlying "condition (34)". I shall not reproduce this discussion here, but turn directly to a review of Cinque (1988) which provides a more general treatment of arbitrary reference.

### 2.3 Cinque (1988)

Cinque (1988) presents a fresh analysis of Impersonal constructions in Italian involving *si*, accounting for restrictions on its use which have mostly not been treated before in the literature. He relates his approach to a general theory of 'arb'(itary) interpretation which he outlines in the third section.

In section 1., Cinque presents his data, noting that *si* occurs with verbs of all major classes in tensed constructions, but is excluded from untensed Control structures the usual reason for this being given as the requirement that *si* be Casemarked. If this reason for the ungrammaticality of *si* in Control structures is correct, then one would expect *si* constructions to be possible in those environments, such as Raising, in which the subject position of the lower clause is Casemarked. This in fact is the case but only in a very limited fashion. *si* constructions in the lower clause of a raising verb are only possible when the verb in the lower clause is transitive or unergative, that is when it assigns an external  $\theta$ -role. Cinque notes that such restrictions are not accounted for by any standard analysis.

In section 2., Cinque proposes a finer analysis of Impersonal *si*. He notes that section 1. raises the two following questions:

- 15) Why is there an asymmetry in nonfinite clauses between transitive and unergative verbs on the one hand and all other classes of verb on the other?
- 16) Why is such an asymmetry absent from finite clauses?

Cinque points out immediately that in answering 15), Case is irrelevant since in all cases under a raising verb, *si* will receive Case. Instead, he turns his attention to  $\theta$  theory. Transitive and unergative verbs assign an external  $\theta$  role, where the other classes of verb considered do not, and *si* as a subject clitic is an argument, and must be associated with a  $\theta$  role, specifically the external  $\theta$  role, at every level of representation. This requirement can only be fulfilled by verbs which assign an external  $\theta$  role, namely, transitives and unergatives. Thus, if we assume that *si* is an argument subject clitic, we have a simple answer to the question in 15). He notes that in languages such as German which allow Impersonal passives, the same grammaticality pattern is found, namely that passive is allowed with transitive and unergative verbs. This is so if one makes the standard assumption that passive morphology 'absorbs' or 'suspends' the external  $\theta$  role at D-structure, since only transitive and unergative verbs have the external  $\theta$  role to be suspended. He notes also the further difference in behaviour between *si* constructions and passives, that if passive morphology is not an argument, it may 'pass on' the external  $\theta$  role to an agent phrase but that *si* which is an argument, may not do so, hence the impossibility of agent phrases with *si* constructions.

Thus far, Cinque has only answered 15) above. If this solution is correct, it should predict that there will be a corresponding asymmetry in tensed *si* constructions. This is not the case and assuming that the above analysis for non-tensed constructions is correct, contrary to standard analyses, it is the behaviour of tensed *si* constructions which is marked or unusual. If *si* is an argument, then tensed constructions involving verbs which do not assign an external  $\theta$  role should be excluded since there would be no  $\theta$  role to be assigned to the subject clitic *si*. Cinque concludes that in such structures, *si* cannot be an argument and that the argument or nonargument status of *si* is the result of parametric choice. Thus there are two uses of *si* which share all features except for the specification of argumenthood.

Cinque suggests that [-arg] *si* serves as a syntactic means to assist in the "identification" of its *pro* subject as an arbitrary, unspecified number pronoun. As he notes, *Arriva* can only mean *he/she arrives* whereas *si arriva* means *one* (unspecified) arrives. Further, he suggests that as a marker of unspecified number, it will need to combine with personal Agr and so needs to govern and/or be governed by personal Agr. This means that [-arg] *si* will only be found in finite clauses. This answers question 16) above in that the asymmetry found in nonfinite clauses is a result of the inability of [-arg] *si* to appear in non-personal contexts, and the lack of asymmetry in tensed contexts is a result of the possibility of *si* being [+/-arg], the [-arg] option being allowed only in tensed (personal) contexts.

In section 2.2, he examines Portuguese examples of inflected, personal infinitives and the consequent ability of the Portuguese equivalent of *si*, *se* to occur with all verb types in non-tensed contexts. He concludes that Portuguese allows [-arg] *se* in non-tensed sentences just because the infinitive is personal, accounting for the difference in behaviour in comparison with Italian.

In section 3. Cinque considers the behaviour of *si* in finite clauses with specific time reference and a more general theory of 'arbitrary' interpretation. First he makes the observation that when *si* occurs in sentences with specific time reference, it only retains its 'arb' reference with transitive and unergative verbs. With the other verbs, it acquires a subtly different meaning including the speaker. This is difficult to see but can be made clear with a predicate which is incompatible with the inclusion of the speaker:

- 17) Oggi, a Beirut, *si* e ucciso un innocente.  
Today in Beirut, one killed an innocent.
- 18) ? Oggi, a Beirut, *si* e nati senza assistenza medicale  
Today in Beirut, one was born without medical assistance.

Cinque notes that these facts are similar to an observation made by among others (Belletti & Rizzi, 1988) and (Jaeggli 1986b) that in specific contexts, an impersonal reading of third person plural pronouns is only available for the subjects of transitive and unergative verbs. Although the similarity between these constructions and impersonal *si* in specific contexts is not complete, Cinque suggests that at some level there is a common property underlying them.

Cinque now begins an investigation of various 'arb' constructions. He begins by investigating two interpretations of the third person plural arbitrary construction, one being similar to universal quantification and the other similar to existential quantification. The quasi-existential and quasi-universal usages, he suggests, are two contextual variants of just one 'arb'. The quasi-universal usage is not constrained by  $\theta$  requirements:

- 19) Qui, lavorano anche di sabato. (Unerg)  
Here they work even on Saturday.
- 20) Qui, vanno a scuola gia a quattro anni. (Erg).  
Here they go to school when they are 4 years old.

Thus the universal interpretation is still open for the third person plural (empty) pronoun even with verbs which do not assign an external  $\theta$  role (20). Any continuation of the sentence implying that there is a single individual who satisfies the description gives rise to an unacceptable sentence. Equally, with the third person plural construction, the arbitrary interpretation is lost and only a specific interpretation is possible if the time of the verb is made specific. The behaviour of the quasi-existential reading is completely opposite. Cinque summarises the differences as follows:

Quasi-existential	Quasi-universal
21)	
a. Compatible with specific time reference	Incompatible with specific time reference
b. Incompatible with generic time reference	Compatible with generic time reference
c. Incompatible with contexts suspending specificity of time reference	Compatible with contexts suspending specificity of time reference
d. Compatible with the existence of individual satisfying the description	Incompatible with existence of individual satisfying the description
e. Restricted to [NP,S] $\theta$ marked in D_Structure	Not restricted to [NP,S] $\theta$ marked in D_Structure

Cinque notes that properties a-c in 21) can be regarded as effects of the same property. The key to the two different sets of properties seems to be the difference of the semantics of specific versus gen-

eric time reference. Cinque suggests that 'arb' or impersonal subjects acquire their quasi-universal and quasi-existential quantification as a result of the tense/aspect of their sentence. In other words they are contextual variants of a single 'arb'. This accounts for the differing properties a-d in the list above. Following Jackendoff (1972), Cinque assumes that generics are interpreted at S-Structure and so it is not surprising that quasi-universal interpretation is available for 'arb' subjects which are not  $\theta$ -marked at D-Structure. This accounts for the first half of e. As for the second part of e., Cinque assumes (without motivation) that the quasi-existential interpretation of 'arb' has to be matched with INFL at D-Structure - hence the restriction to transitive and unergative verbs.

Cinque continues by examining some possible predictions made by this rough analysis of the interpretation of arbitrary constructions. One such prediction is that any other 'arb' construction which does not restrict 'arb' interpretation to [NP,S] will share the rest of the properties of the right hand column above. This is the case with second person singular pronouns which can be used impersonally with all types of verbs.

- 22) *Li lavori poco e sei pagato bene*  
There you work little and you are paid well

In section 3.4, Cinque returns to the question of why *si* has a first person plural interpretation in specific contexts with verbs which do not assign an external  $\theta$  role. Part of the answer is predicted by the theory of 'arb' interpretation sketched above. Quasi-universal interpretation is incompatible with specific time reference and quasi-existential interpretation is restricted to verbs which assign an external  $\theta$  role. This explains why these sentences cannot have the usual 'arb' interpretation but says nothing about why they have a first person plural interpretation.

Another prediction is that 'arbs' in non [NP,S] positions should only allow quasi-universal interpretation. This is in fact the case.

- 23) *Pretendono sempre tutto da te e no ti danno niente*  
They always pretend everything from you and give you nothing

Partly on intuitive grounds and partly on the basis of empirical evidence, Cinque suggests that the first person plural interpretation of these structures is a sort of rescue attempt. He suggests that this

interpretation is a compromise between the requirement that sentences with specific time reference have a referential subject and the arbitrary meaning of *si*. The first person plural pronoun is the closest specific referential pronoun to an 'arb' pronoun because it is the most general, encompassing first second and third persons on its widest reading. He then cites evidence from Italian in general showing that in sentences of this type, interpretation really is first person plural.

- 24) Non si poteva ubricarci ogni mattina  
*si* could not get ourselves drunk every morning

Section 3.5 relates the French impersonal pronoun *on* to this account of 'arb' interpretation and 3.6 shows that the interpretation of 'arb' PRO could be accommodated within such an account.

To summarize, this section of Cinque (1988) has shown the interaction between the facts about argument and nonargument *si*, discussed in section 2. of the article, and a theory of 'arb' interpretation, which accounts for the different interpretation of *si* in contexts involving specific time reference.

Section 4. in Cinque (1988) shows that the distinction between argument and nonargument *si* is relevant for the proper analysis of *si* in transitive contexts. Where there is no "agreement with object", that is no passive or middle flavour to the construction, *si* is [-arg]. In the cases where there is "agreement with the object", Cinque distinguishes between a genuine impersonal construction involving [+arg] *si* and a middle construction for which he posits a third *si* variant which acts as a pure [-arg] passivizer, whose use is restricted in certain ways depending on the thematic nature of the object.

The final two sections of the article offer some comparative remarks on the use of *si/se* in various Romance languages and dialects and some remarks on the parametrization and acquisition problems concerning this analysis of *si*.

Finally in this section I must mention a paper by Brody and Manzini (1988) on Implicit Arguments. Here, a rather different approach is taken to the problem of arbitrary reference. They propose that 'Implicit Arguments' are not structurally represented. They propose a revision of the Projection Principle which will allow certain  $\theta$  roles associated with a verb to remain unprojected. They claim that the external  $\theta$  role and dative or indirect internal  $\theta$  role may still be part of the features of a verbal head and may remain unprojected while still being available for processes such as control of rationale

clauses.

Since this proposal is radically different from those considered here and from the analysis to be given in section three of this chapter, I shall defer a consideration of it until the final chapter in which I address the problems which the current proposal faces.

We will return to the question of arbitrary interpretation in section 3.3.2 of this chapter.

### **3.0 Theoretical Analysis of German Impersonal Passive.**

In this section I shall propose an analysis of the Impersonal Passive construction which accounts for the distributional facts given in 1.2 in chapter 2. Section 3.1 will provide as a background a brief review of some of the most recent general accounts of Passive within GB. Section 3.2 will provide the details of the analysis and section 3.3 will provide some discussion of the benefits of the approach.

#### **3.1 Passive in GB**

In recent GB literature, there have been two major attempts to provide a detailed general account of Passive, Jaeggli (1986a) and Baker, Johnson and Roberts (1989) which, as they acknowledge, is an elaboration of the ideas in Jaeggli's account. Alongside these attempts, there is also the work by Baker alone, Baker (1988), which provides a treatment of Passives in terms of his Incorporation Theory. In this section I shall review these approaches to form a backdrop against which to set the analysis in the following section.

##### **3.1.1 Jaeggli (1986a)**

The basic claim in Jaeggli (1986a) is that the passive morpheme '-en' is an argument. Jaeggli begins by noting the following two crucial properties of passives:

- 25)a) [NP,S] does not receive a  $\theta$  role
- b) [NP,VP] does not receive Case within the VP.

He proceeds to ask questions about these properties. Firstly, he addresses the question of what prevents the assignment of the external  $\theta$  role. This he answers simply, by claiming that the passive suffix '-en' is an argument and as such it must receive a  $\theta$  role. The external  $\theta$  role is thus assigned to

the passive morpheme and can no longer be assigned to [NP,S].

He raises two further questions about passive and  $\theta$  roles. Firstly he asks why it is the external  $\theta$  role which is assigned to '-en' and secondly, he asks what it means for the  $\theta$  role "to be absorbed".

In answer to the first of these questions he notes that the external  $\theta$  role is the only one to be "unlinked" in the lexical entry of a verb. Internal  $\theta$  roles are those assigned to the VP internal sub-categorised positions of the verb and as such are "linked" to those positions. The external  $\theta$  role is not "linked" to any position in the lexical entry of the verb. It is generally assigned compositionally by the VP to the argument in [NP,S] but there is no requirement, other than the requirements of the  $\theta$  criterion that an argument be assigned a  $\theta$  role, which forces the external  $\theta$  role to be assigned to an argument in [NP,S]. However, the internal  $\theta$  roles of a verb are explicitly associated with a slot in the frame of the verb. Thus since it is "unlinked" in this sense, the external  $\theta$  role is in principle free to be assigned to any argument which is not in the frame of the verb. According to Jaeggli, '-en' is one such argument.

In answer to the second question above, what it means for the  $\theta$  role to be absorbed, Jaeggli assumes that absorption is identical to feature assignment and that the passive suffix absorbs the external  $\theta$  role simply by being assigned it. This is possible assuming that bound morphemes may be assigned unlinked  $\theta$  roles under government, assuming certain ideas about word structure.

Since '-en' is an argument, then just as it needs a  $\theta$  role, it needs Case. This is the explanation of the second of the crucial characteristics of passives noted above. The passive morpheme is assigned the Case usually assigned to the direct internal argument. Once assigned, it is no longer available for assignment to an NP in [NP,VP]. It is this lack of Case which forces the typical movement of DS object to SS subject in passive structures, so that it can receive Case.

As Jaeggli observes, this idea of Case absorption is adequate for the core cases of passive. However, as it stands, it is inadequate to account for less central but in some languages, quite common variants of the core case. One such instance is the construction under consideration here, the German Impersonal Passive. The problem is that the passive morpheme needs Case and thus far, the assumption is that it is assigned objective or direct object Case. However, with Impersonal Passives, the verb is intransitive and is not standardly regarded as having a direct object Case to assign.



Jaeggli accounts for these problems by assuming that Case assignment to the passive morpheme is parametrized. In the Case of German, he assumes that structural VP internal Case is available in these instances and is assigned to the passive morpheme. In a footnote he mentions the alternative approach in Roberts (1987) which is also used in Baker, Johnson and Roberts (1989) (see below).

Thus the two crucial properties of passive are accounted for by assuming that the passive morpheme is an argument requiring both  $\theta$  role and Case.

Next, Jaeggli considers a third general property of passives, their ability to express the external  $\theta$  role in a *by*-phrase. He assumes that '-en' is involved in transferring the external  $\theta$  role to the NP in the *by*-phrase. He notes that in active sentences, *by*-phrases can only express instrumental or locative  $\theta$  roles. In passives, in order for the *by*-phrase to express other  $\theta$  roles, it is necessary that it should receive the external  $\theta$  role by some means. Jaeggli proposes that '-en' is capable of assigning the external  $\theta$  role, with which it has been marked, to the *by*-phrase PP under government. This is then percolated to the P head and then assigned to the NP which the P governs. However, this further assignment is optional as in the case of passives without a *by*-phrase when the external  $\theta$  role is retained by '-en'.

Jaeggli considers the phenomenon of implicit arguments and their interaction with purpose or rationale clauses. He concludes that there is no empty element bearing the implicit argument or controlling the rationale clause. This is one major difference from the analysis proposed by Baker, Johnson and Roberts (1989).

### **3.1.2 Baker, Johnson and Roberts (1989).**

The basic claim in B(aker), J(ohnson) and R(oberts) (1989), as in Jaeggli (1986) is that the passive morpheme '-en' is an argument. However, as noted above, there are significant differences. BJR (1989) differ from Jaeggli in their approach to the representation of implicit arguments which they regard as being "syntactically active", and in their approach to the Case marking of '-en' in the non-standard cases.

They propose that '-en' is base-generated under Infl and as an argument, must be  $\theta$  marked in this position. Since Infl is external to the VP, it can only be  $\theta$  marked with the external  $\theta$  role. These assumptions explain what BJR regard as the four salient properties of passives, namely:

26)

- a) The fact that the logical subject argument is not realized on an NP in passives
- b) The phenomenon of "implicit arguments" in passives
- c) The fact that the subject position is non-thematic in passives, permitting Movement into this position
- d) The 1-Advancement exclusiveness law (1AEX)

Concerning point a) in 26), the major item of interest is their approach to *by*-phrases. Very briefly, in one paragraph, BJR consider *by*-phrases. They propose to treat '-en' as a clitic(-like) argument which attaches to the verb, which in common with other clitics forms a chain with a full NP. This "full" NP may be a *by*-phrase or in the case of "short passives" they claim that there is an empty category linked to '-en'.

I shall not give further detail of the BJR analysis here but refer the reader to their text and turn instead directly to the analysis proposed by Baker (1988) which shares the same basic ideas, but which provides a far more detailed analysis, set in a much wider context.

### **3.1.3 Baker (1988)**

#### **3.1.3.1 Incorporation**

I shall not give a full exposition of Incorporation here but refer the reader to Baker (1988). Here I shall give enough of an overview of Incorporation in order to be able to present the Incorporation approach to Passives in 3.1.3.2.

Baker (1988) presents a theory of Grammatical Function Changing, based in Government and Binding, centered on the notion of "Incorporation". His arguments are based on data from a very wide selection of morphologically complex languages, not just languages from the Indo-European family.

The main idea of "Incorporation" is a move from viewing G(rammatical) F(unction) changes as resulting from the application of specific rules such as "passivization", to regarding these changes as the result of the application of deeper principles of Human language. The rules of the former rule-based approach may offer a description of the result of the application of the more general principles, but they do not offer an explanation of the GF changes.

Baker proposes that at the heart of GF changes is a particular application of the rule 'move- $\alpha$ ', specifically, movement of a lexical category or "X0 movement".

Baker notes that GF changing processes are typically associated with characteristic morphology appearing on the relevant verb. His proposal is that the characteristic morphology is base generated as an independent lexical element which combines with the verb, by X0 movement changing the GF of the verb. He suggests this as the fundamental idea, suggesting that all other characteristics of GF changing structures will follow from the interaction of other general principles of syntax.

A basic principle underlying his theory is the "Uniformity of  $\theta$  Assignment Hypothesis" (UTAH).

UTAH:

"Identical thematic relationships between items are represented by identical structural relationships between those items at the level of D-structure."

A consequence of the UTAH is that in a language where there are equivalent syntactic and morphological causatives, for example, then both sorts will have a similar if not identical D-structure. He cites Chichewa as such a language where the following will have the same D-structure:

- 27) Mtsikana a-na-chit-its-a kuti mtsuko u-gw-e  
a) girl do-CAUSE that waterpot fall
- Mtsikana a-na-gw-ets-a mtsuko  
b) girl fall-CAUSE waterpot

In 27), CAUSE represents a causative marker. 27a) is bi-clausal and b) is mono-clausal with a complex causative verb *make-fall*. By the UTAH, the two will have the same D-structure but will be differently derived. b) is derived by a raising-like process whereby the main verb of the lower clause is incorporated with the causative marker to form a complex verb, an instance of X0 movement. By the

Projection Principle, the history of the derivation of b) is preserved. The movement of incorporated elements leaves traces.

Baker gives a formal characterisation of the process of X0 movement and then proceeds to examine various manifestations of Incorporation. One of these is passivization.

### **3.1.3.2 Incorporation and passives.**

In a footnote at the beginning of the chapter on Passives and Incorporation, Baker acknowledges that basic ideas underlying the Incorporation analysis of Passives originate in BJR (1989) which was originally presented in 1985. It is in the exact implementation of these ideas that the Incorporation approach differs and is more detailed.

#### **3.1.3.2.1 $\theta$ -structure**

Baker regards the passive morpheme as an argument as do BJR. However, where BJR talk about the clitic '-en' adjoining to the verb, Baker accounts for the process in terms of the verb Incorporating into the passive morpheme. Baker proposes that the Passive Morpheme appears in the Infl node and that the verb moves to incorporate into it. This is achieved by X0 movement.

From the point of view of  $\theta$ -role assignment, Baker points out that the morpheme in Infl satisfies the structural requirements on external  $\theta$ -roles as well as the [NP,S] position since Infl too is a position external to the VP. He indicates that the idea proposed in Levin and Massam (1984), that the VP always assigns the external  $\theta$  role to Infl first and that it is then transferred to the [NP,S] position depending on the argument status of the element in Infl, is not incompatible with the analysis he presents. This idea is made use of later in this analysis in section 3.2.3.1. Under this approach, in an active sentence in which there is no argument element in the Infl node, the  $\theta$  role is assigned to Infl and then it is transferred to subject position. In a passive sentence, the external  $\theta$ -role of the VP is assigned to the argument '-en' in Infl and consequently may not be transferred to the subject position since it has already been assigned.

Baker points out that while the Incorporation analysis can be adopted literally for those languages which have morphological passives which involve a passive morpheme and no auxiliary verb, for languages such as English (and presumably German) which have a participial form of the main verb and an auxiliary verb, the Incorporation analysis cannot be literal. Movement of the main verb into the Infl position is impossible since Infl is already occupied by the auxiliary verb. He proposes that in these languages, there is "Abstract Incorporation" or reanalysis, a process which he has already proposed to account for the Romance Causatives. This is achieved by means of coindexation between the Infl node and the main verb. He proposes that this coindexation permits a "strictly local rule" to allow the passive morpheme to appear on the verb. Thus copular passives differ from morphological passives only in that the former are derived by abstract Incorporation or reanalysis where the latter are derived by full incorporation of the verb into the passive morpheme.

The assumption in Baker (1988) (as well as in BJR) that the passive morpheme is base-generated in Infl has desirable consequences for the analysis of passives. Where Jaeggli (1986a) assumes that it is a property of the Argument Passive morpheme that it be marked with the external role, Baker's analysis allows the fact that passivization involves the external argument to be captured by structural facts rather than the unnatural stipulation of the requirement of a particular argument. The argument in Infl, a VP external position, will be marked with an external  $\theta$ -role, since it is not governed by V, the normal conditions for assignment of internal  $\theta$ -roles.

Since the external  $\theta$ -role is assigned to the passive morpheme in Infl, the subject position will not receive a  $\theta$ -role and so is available as a landing site for movement.

#### **3.1.3.2.2** *By*-phrases

Baker proposes that a *by*-phrase, where it is allowed, is a sister to Infl and thematically dependent on it, that it is an adjunct to the sentence and not a VP internal argument of V. He notes too the fact established by Marantz (1984) that a *by*-phrase in a passive structure is marked with exactly the same  $\theta$ -role as the external argument of the equivalent active structure receives. The  $\theta$  properties of *by*-phrases are not inherent and are dependent on the passive process. Baker proposes to capture these facts by assuming that the external  $\theta$ -role when assigned to the passive morpheme may be "doubled" onto the

*by*-phrase. He assumes that it is a property of particular passive morphemes which allows the doubling, pointing out that in Italian *si* passives there is no possibility of a *by*-phrase. Thus it is a property of the passive morpheme '-en' in English and its equivalent in Italian for example that it allows "doubling" or transmission of the external  $\theta$ -role to an optional *by*-phrase, but the *si* morpheme in Italian does not allow this.

28)

- a) The chocolate cookies have been eaten (by Mario)
- b) I dolci al cioccolato sono stati mangiati (da Mario)  
The chocolate cookies have been eaten (by Mario)
- c) I dolci al cioccolato si mangiano in questa pasticceria (\* da Mario)  
The chocolate cookies are eaten in this patisserie (by Mario)

Thus an Infl containing a standard passive morpheme has the ability to transfer or "double" the external  $\theta$  role assigned to that position to a sister *by*-phrase.

### 3.1.3.2.3 Case

As a "quasinominal argument", the passive morpheme must have a  $\theta$ -index at LF and must be Case-indexed. Baker notes that there are two possible Case assigners - Infl itself or the main verb. He assumes that there are three possibilities for Case assignment to the passive morpheme. Either it receives Nominative Case from Infl, Accusative Case from the root verb or no Case at all.

Baker assumes that the passive morpheme in 28)a) and 28)b) above for example are of categorial type Infl but the passive morpheme *si* in 28)c) is of categorial type N.

With the assumption that "no category may assign Case to itself", it is clear that Infl type passive morphemes cannot receive Nominative Case from Infl and that they will only receive Object Case from a verb moved into Infl. There will be no such restriction however on passive morphemes of categorial type N and so the way lies open for the possibility for such a passive morpheme as *si* to be marked with nominative Case.

Baker proposes that there are four sets of circumstances for Case assignment or the lack of it to passive morphemes. The "standard" passive morpheme in a language like English is of category type

Infl and must receive Object Case only from a verb. In German Passives, to illustrate the second possibility, the passive morpheme apparently takes Case when it is available. This, in Baker's analysis accounts for the problem of Case assignment to the Passive morpheme in Impersonal Passives. Because the Passive morpheme is of type Infl, it can only receive Case from the verb. In intransitive Impersonal Passives, there is no such Case and so it is concluded that the passive morpheme optionally requires Case. The third possibility is that the passive morpheme does not need Case. This is illustrated by examples from Welsh, in which the passive morpheme is of type Infl and accusative Case surfaces in personal Passives. The fourth possibility is that the passive morpheme is of category N. It is claimed that because it is not categorially Infl, that it can either receive Nominative Case, Accusative Case or be unmarked for Case.

Thus in German, it is claimed that the passive morpheme may or may not have Case and in both instances it will still be an argument in Infl receiving the external  $\theta$ -role.

## **3.2 Present analysis**

### **3.2.1 Introduction**

Against the background of the analyses of Passive in the preceding section, I wish now to propose a treatment of the German Impersonal Passive data presented in chapter 2.

This analysis must account for the two crucial restrictions on the ability of verbs to form Impersonal Passives: a) the restriction to non-ergative intransitive verbs and transitive verbs which allow optional internal arguments and among those, the further restriction b) that the external argument of the verb be human.

It was shown in Chapter 2. that none of the specific treatments of German Impersonal Passives reviewed there accounts for these two restrictions and it is clear that while the general accounts of Passive reviewed in section 3.1 above provide an explanation for the restriction a) above, none of them accounts for the limitation on the reference of the external argument.

An explanation for the first restriction can be found in the review of Jaeggli (1986a) above in his

suggestion that the external  $\theta$ -role is assigned to the Passive morpheme '-en' and in the better motivated and more explicit explanation for the fact that only the external  $\theta$ -role of a verb can be assigned to the passive morpheme in Baker (1988). Only non-ergative intransitive verbs and transitive verbs have an external  $\theta$ -role to be absorbed by/assigned to the Passive morpheme. This accounts for the restriction a) in Impersonal Passives only on the assumption that the passive morpheme is an argument to which the external  $\theta$  role is assigned. However, as will be shown below, it is not clear that the Passive morpheme in Impersonal Passives is an argument and so the explanation offered in standard accounts of Passive for this restriction will have to be modified to account for Impersonal Passives.

The further restriction in b), which has not been seriously addressed in standard treatments, will be accounted for by proposing that the subject position in German Impersonal Passives is filled by an arbitrary reference "small" *pro*.

### 3.2.2 General Analysis

Assuming the "Barriers" framework of Chomsky (1986) and its application to the syntax of German as discussed and illustrated in Chapter 1, I propose the following as D-structure 30) and S-structure 31) for Impersonal Passives such as 29):

29) Es wurde getanzt.  
It was danced

30) [<sub>CP</sub> [<sub>C'</sub> [<sub>IP</sub> [<sub>pro</sub>] [<sub>i</sub>, [<sub>VP</sub> [<sub>VP</sub> [<sub>V</sub> tanzen] ] [<sub>V</sub> werden ] ] [<sub>i</sub>]]]]]

31) [<sub>CP</sub> [ es ] [<sub>C'</sub> [<sub>wurde</sub><sub>i</sub>] [<sub>IP</sub> [ pro ] [<sub>i</sub>, [<sub>VP</sub> [<sub>VP</sub> [<sub>V</sub> getanzt]] [<sub>V</sub> t<sub>i</sub> ] ] [<sub>i</sub> t<sub>i</sub> ]]]]]]

The derivation from 30) to 31) involves the raising of the passive auxiliary out of VP to I and then from I to C and the insertion of *es* in the spec position of CP to satisfy V2 constraints just in case no other element has been fronted to this position (see the discussion of *es* in chapter 5 however) .

The derivation of an ordinary Personal Passive 32) would be as follows in 33) and 34):





- 35) \* Der Junge hat geknirscht  
The boy has crunched
- 36) \* Es wurde geknirscht  
It was crunched
- 37) Der Schnee knirscht  
The snow crunches

37) shows that *knirschen* selects a non-human subject. 35) patently violates those selectional restrictions and 36) is accounted for in exactly the same way given the present analysis. That is, 36) is ruled out because of a selectional restriction violation between the verb and the arbitrary *pro* subject.

In 3.2.1 above, it is noted that the first restriction on the formation of Impersonal Passives is accounted for by the general theories of Passive outlined in 3.1. by assuming that the external  $\theta$  role is assigned to the argument passive morpheme. Given the current proposal that the subject *pro* is arbitrary in reference, then the explanation for the restriction of Impersonal Passive formation to non-ergative verbs cannot be just as in the standard theory. This would leave the *pro* of the current proposal without a  $\theta$ -role. Thus, there seems to be a tension between the  $\theta$  requirements of the *pro* in subject position in the current proposal and the  $\theta$  requirements of '-en' in the standard approaches to passive.

In earlier, less articulated accounts of Passive within GB theory, the external  $\theta$ -role was said to be "suppressed" under passivization. This notion was obviously imprecise and the theories outlined above are an attempt to sharpen the detail of the process. In all of the above accounts the suppression of the  $\theta$ -role is characterized more precisely as assignment of the external  $\theta$ -role to the passive '-en' morpheme, which is considered as an argument, requiring Case, according to the Visibility Hypothesis, as well as a  $\theta$ -role.

If '-en' is an argument, it behaves in a non-standard fashion from the point of view of Case. In Jaeggli's approach, the assumption is that it is the absorption of Object Case by '-en' which accounts for the second crucial property of Passive noted in 3.1.1 - namely that [NP,VP] does not receive Case within VP. This assumption is reasonable for cases of "core" transitive Passive, but causes problems in the case of Impersonal Passive, since there is no internal argument position in D-structure and so no Object Case to be absorbed by the passive morpheme.

Jaeggli assumes that in these instances structural VP internal Case is available and this is assigned to '-en'. This clearly is a marked option.

BJR (1989) criticise Jaeggli's solution to this problem for being ad hoc. They propose two possible solutions; either that some elements can be Case marked by items which do not minimally govern them or that some elements can be assigned a  $\theta$ -role at LF without being Case marked. The first of these proposals is based on ideas by Hans Bennis which are needed independently elsewhere in the grammar of German to account for VP internal Nominative marking. The second is based on work by Baker on Noun Incorporation.

Baker (1988) in his more detailed analysis proposes that the argument passive morpheme may vary across languages according to whether it must have Case, may have Case or whether it need not have Case at all.

All these solutions to problems of Case marking and the passive morpheme are marked in some way and undermine in the case of Baker at least what is an elegant theory for the "core" cases of Passive.

The above problems concerning Case suggest that the treatment of "core" Passive in the approaches reviewed above, relying crucially on the idea that the Passive morpheme is an argument, do not extend with complete comfort to the peripheral Impersonal Passives. If this is the case then the credibility of the strongest version of any general theory for Passive, which attempts to account for Impersonal Passives as well, must be called into doubt.

I propose in this treatment that the passive morpheme in Impersonal Passives in German is not an argument. This has the consequence that the external  $\theta$ -role will be available for the proposed arbitrary *pro* in subject position and will also avoid the requirement that the passive morpheme must be Case marked. Thus the lack of VP internal Case for the passive morpheme does not have to be overcome in some marked fashion, since it is natural that the non-argument passive morpheme will not require Case.

So the explanation offered by standard theories for the first restriction on the ability of verbs to form Impersonal Passives, that is the limitation that passives in general can only be formed with verbs which have an external argument, is likely to be inadequate, since it rests on the notion that an

argument '-en' is assigned the external  $\theta$ -role and the proposal here is that '-en' is not an argument in Impersonal Passives. There is plainly a problem here and it is clear that a "blanket" extension of treatments of standard Passives to Impersonal Passives is inadequate under current assumptions. The first restriction on the formation of Impersonal Passives will have to be motivated in a different way.

Let us retreat for the moment to the earlier, less precise approach to Passives under which no more is said than that the external  $\theta$ -role is "absorbed" or "suppressed". Under such an account, then, we still have the restriction that it is the external  $\theta$ -role which is absorbed and so we still have the explanation for why Impersonal Passives are only formed by verbs which possess an external  $\theta$  role. So under such an account, assuming that the "absorbed"  $\theta$  role can "surface" again, the way is not completely barred for such a proposal as the current one in which the external  $\theta$ -role is assigned to an arbitrary reference *pro* in subject position.

Thus, as given so far, the proposal is that the passive morpheme in Impersonal Passives is not an argument and that the empty subject, usually supposed to be expletive, is in fact an arbitrary reference *pro*. We turn directly to justifying and providing the evidence and detail for these proposals.

### **3.2.3 Detail**

#### **3.2.3.1 The Non-argument Passive Morpheme**

Having given a general outline of the proposed analysis of Impersonal Passives, I will now focus on the core problem identified above, namely, the nature of the "absorption" of the external  $\theta$ -role and its assignment to the arbitrary *pro* and provide more motivation for the difference in argument status of the passive morpheme in Impersonal Passives.

There is an important difference between the interpretation of an ordinary Passive without a *by*-phrase and an Impersonal Passive without a *by*-phrase. BJR (1989) (p. 228 f) provide a brief discussion of "Passives and arbitrary reference". They equate the content of '-en' with arbitrary PRO. As noted in chapter two above, in the discussion of Roberts (1987), ordinary Passives without a *by*-phrase are not limited to human interpretation let alone animate interpretation. However, BJR by equating the content of '-en' with PRO are implying that '-en' has animacy and humanness features and from this we are to

infer that "short" Passives receive a human interpretation. While it is certainly true that standard "short" Passives may have a human interpretation, Impersonal Passives by contrast **MUST** have a human interpretation (as the examples 44) and 45) in 3.1.3.2 below show, "long" Impersonal Passives must have a human interpretation too). BJR give examples involving *kill* and *believe*, saying that they are naturally paraphrased with a human interpretation.

Firstly, with regard to the *kill* example, as shown in chapter 2, one can be killed *by a rockfall* and this interpretation is not excluded in the short form of a passive. Although it can be pointed out that the *by*-phrase here is an instrumental rather than an agent *by*-phrase, we are still dealing with the external  $\theta$  role of the verb since the *rockfall* can be the subject of the active verb *kill* and also, one cannot double the *by*-phrase to allow one human and one instrumental *by*-phrase as in 38) and 39).

38) ??He was killed by Fred by the rockfall

39) ?He was killed by the rockfall by Fred

39) can only be interpreted as meaning that Fred started the rockfall without indicating that it was his intention to kill anyone.

Secondly, with regard to the *believe* example, only animate (human?) entities are capable of believing and so it is not surprising that a natural interpretation for 40) would be 41):

40) It is widely believed that...

41) People believe that...

Given this difference between the interpretation of "short" personal and Impersonal Passives along with the Case problems noted above for Impersonal Passives, one might wish to question whether they should be treated in an entirely uniform way, as most people wish to. Again, given this difference in interpretation, it might be natural to suppose that their difference would be reflected in their analysis.

Let us take the basic ideas in BJR (1989) and their finer implementation in the work of Baker (1988) and try to adapt them for Impersonal Passives. I shall adapt these approaches here only for Impersonal Passives and leave discussion of the treatment of other passive-like constructions discussed in Chapter 2 above until Chapter 4.

In Borer (1984, p.39) it is stated that "...the clitic is NOT an argument, it is not a full NP,...". The clitic is viewed as being an element which has to be associated with a  $\theta$ -role, while not satisfying the complement requirements of the head bearing the  $\theta$  role. Let us assume that in the case of German Impersonal Passives, the element '-en' is like a clitic in this sense, that is it is not an argument as claimed by BJR and Baker (1988), but that it does need to be associated with a  $\theta$ -role on a head.

In this case, the  $\theta$ -role is not "absorbed" or "suppressed" by or assigned to the Passive morpheme in the Impersonal Passive as in most standard accounts of the Passive in general and by extension of the Impersonal Passive. Rather, it is free to be assigned to the subject position as usual. There are some differences however, in the assignment of the external  $\theta$ -role in Impersonal Passives from the way it is assigned to the subject in active sentences. As noted above, the interpretation of Impersonal Passives is arbitrary in a very strict sense, that is the external argument must be human (or at least animate).

Let us adapt the idea in Borer (1984 p.39f) that the features on a clitic play a role in selecting the element to which the head assigns the relevant  $\theta$ -role. If there is a mismatch between the features on the clitic and the element assigned the  $\theta$ -role with which the clitic is associated, the result will be ill-formed. If this is so, then let us assume that it is the non-argument '-en' clitic-like element which has the features which determine the specific interpretation properties of Impersonal Passives. Although it is always an Argument, the *sich* in reflexive passives shares similar features. Its interpretation is always arbitrary in the very strict sense indicated above for Impersonal Passives. See Chapter 4 section 1. for discussion and for comparison with the non-argument '-en' proposed here.

The non-argument '-en' then will have features which impose strict selectional restrictions on the element which will fill the position to which the  $\theta$ -role it is associated with is assigned.

It will be grammatically singular since the auxiliary in these constructions is always singular. However, this places no restriction on the semantic interpretation of number in these constructions. It will have humanness features but not features capable of indicating a particular individual. The proposed arbitrary reference *pro* will have these features as well and the relationship between the non-argument passive morpheme and the arbitrary *pro* can be seen as being similar to that between the non-argument *si* proposed in Cinque (1988 p.530) and the subject in the constructions in which it is

involved. There, Cinque suggests that non-argument *si* "serves as a syntactic means to supplement personal Agr with features able to identify ... the content of *pro* as an unspecified (generic) person pronominal...". Thus the features shared between the non-argument passive morpheme and arbitrary *pro* will be at least:

Table 1

- [ + human,
- + singular (grammatical),
- + 3rd person (grammatical),
- +/- plural (reference),
- ..... ]

I shall now present the precise details of the analysis and attempt to flesh out the nature of the "association" between '-en' and the external  $\theta$ -role, given that '-en' is not an argument. Let us assume the analysis proposed in Baker (1988) for standard passives. That is, the passive morpheme is base generated in Infl and is an argument which is assigned the external  $\theta$  role of the main verb and which receives Case. I shall assume exactly the same structure for Impersonal Passives except that the passive morpheme is not an argument and that it does not require Case. Thus for an example such as 29) repeated here the D-structure would be 42) and S-structure would be 43):

29) Es wurde getanzt.  
It was danced

42) [<sub>cp</sub> [<sub>c'</sub> [<sub>ip</sub> [<sub>pro</sub>] [<sub>i'</sub> [<sub>vp</sub> [<sub>v</sub> tanzen]] [<sub>i</sub> ['-en'] [<sub>v</sub> werden ]]]]]]]

43) [<sub>cp</sub> [ es ] [<sub>c'</sub> [wurde<sub>i</sub>] [<sub>ip</sub> [ pro ] [<sub>i'</sub> [<sub>vp</sub> [<sub>v</sub> t<sub>j</sub>]] [<sub>i</sub> getanzt<sub>j</sub> [t<sub>i</sub>] ]]]]]]]

In light of the comments in Baker (1988: p311) about passive Incorporation in languages with copular passives, we might assume that the "abstract Incorporation" or reanalysis proposed there for passives involving auxiliaries and participles will apply and that there is no actual movement of the main verb to a separate position in Infl. The passive morphology appears on the main verb by means of the proposed "local rule" in Baker (1988: p312). However, as indicated in Chapter 1 above, we will assume movement of the verb to a position in I where it joins with the passive morpheme. As noted in Chapter 1, this follows the spirit of analyses such as Pollock (1989) in assuming separate positions for

tense and agreement.

42) and 43) differ then from 30) and 31) above in that they make clearer the representation for the INFL node assumed here. In what follows, this approach will be adopted but further research will be needed to test the full validity of such an approach.

At D-structure, the non-argument passive morpheme '-en' is base generated in Infl and is sister to the passive auxiliary. At D-structure, in 42), *tanzen* assigns its external  $\theta$  role externally. Since in this case '-en' is not an argument, the  $\theta$  role is ultimately assigned to the *pro* in subject position.

The idea proposed in Levin and Massam (1984), which Baker finds quite compatible with his analysis, that the external  $\theta$  role is always assigned first to the Infl position and then transmitted to the subject position if there is no Argument in Infl is the exact mechanism required here. If we assume that in 42) *tanzen* or the VP containing *tanzen* assigns its external  $\theta$ -role to the Infl position, since '-en' occupying that position is not an argument, the  $\theta$  role will be free to be transferred to the argument arbitrary *pro* in subject position.

By proposing that the external  $\theta$ -role be assigned to the *pro* in subject position via the non-argument '-en' in Infl, we provide a filter-like mechanism for the external  $\theta$ -role to be modified to receive the features of arbitrary interpretation, discussed above, along the lines of the idea in Borer (1984 p.39f) mentioned above. Thus the "association" between the external  $\theta$ -role and the non-argument '-en' can be characterised as the alteration of the features on the external  $\theta$ -role by the non-argument '-en' as a result of being assigned to the *pro* in subject position via the '-en' in Infl. Accordingly there will be a correspondence of features between the external  $\theta$  role and the arbitrary reference *pro* subject.

Thus, to summarize the proposal so far, for "short" Impersonal Passives, there is a non-argument '-en' clitic-like element associated with the main verb, which modifies the features on the external  $\theta$ -role in the appropriate way by means of the "filter" process, that is, being assigned via the non-argument passive morpheme in Infl position. The  $\theta$ -role since it has not been assigned to the non-argument '-en', is free to be assigned to the *pro* in subject position and will share the same arbitrary features as a result of having been assigned via the non-argument passive morpheme.



### 3.2.3.2 The *by*-phrase

We will now consider Impersonal Passives with a *by*-phrase.

For "long" Passives, the position is a little different and dependent to some extent perhaps on the treatment of "long" Personal Passives. Since the difference in interpretation between the "short" Passives is determined by the difference in the status and content of the passive morpheme, we would expect this distinction to be maintained in some way in the "long" passive. This is in fact the case. Where there is no special restriction apart from normal selectional restrictions in the interpretation of "short" standard Passives, there is no special restriction on the *by*-phrase. Where there is a strict humanness restriction on "short" Impersonal Passives, there is the same restriction on "long" Impersonal Passives. This is illustrated by an example given in Roberts (1987):

44) \*Es wurde von den Mücken getanzt  
It was by the mosquitoes danced

45) Die Mücken tanzten  
The mosquitoes danced

This might indicate that the treatment of *by*-phrases should be similar in the analysis of both personal and Impersonal Passives. The suggestion in BJR is that argument '-en' is a clitic related to the *by*-phrase in "long" Passives. They are not clear about the nature of this relation. They mention that the linking of the Passive morpheme with the *by*-phrase resembles clitic doubling, but provide no discussion of the crucial question of  $\theta$  structure in this situation. They have explicitly gone against the position adopted in Borer (1984), that the clitic is not an argument. In BJR (p.223), their whole approach is that '-en' is an argument. If that is the case, what is the status of the *by*-phrase or of the NP in the *by*-phrase and  $\theta$ -role assignment?

Let us explore the question of *by*-phrases in Impersonal Passives. There seem to be two possible approaches to this question on present assumptions, one in which the subject *pro* is still an arbitrary argument and one in which the subject contains an expletive *pro* when there is a *by*-phrase.

The latter approach would be forced if we assume that the NP in the *by*-phrase is in a chain (via the dominating PP) with the passive morpheme, since otherwise there would be two arguments in the

same chain. This is just the sort of problem noted above for the BJR analysis. However, if we allow an expletive *pro* in subject position, then such a chain would be possible.

The other approach, maintaining the arbitrary *pro*, would involve reassessing the nature of the link between the Passive morpheme and the *by*-phrase. As noted above, Jaeggli observes that in active sentences, a prepositional phrase involving 'by' can only express locative or instrumental roles. Jaeggli suggests that the external  $\theta$ -role of a Passive is "transferred" to the *by*-phrase. His notion is that the Passive morpheme is instrumental in this process. He suggests that the role is assigned to the PP and then percolated to the P head of the *by*-phrase and then reassigned by the P to its NP complement.

We could make use of this approach. Instead of the NP in the *by*-phrase being in a chain with the '-en', it is the PP which is in such a chain and assuming that the *by*-phrase PP is not an argument requiring a  $\theta$ -role itself, there would be no  $\theta$  criterion violation. The rest of the story would be as in Jaeggli, namely that the P head of the *by*-phrase now has the ability to assign the external  $\theta$ -role to its NP complement.

This approach is different from either Jaeggli or BJR in that it regards the relation between the Passive morpheme and the *by*-phrase as one of 'licensing'. By this I mean that the presence of '-en' permits the head of the *by*-phrase to assign a  $\theta$ -role the same as the external  $\theta$ -role to its NP complement. Ian Crookston (personal communication) has suggested to me that this might be formalised by saying that the '-en' in Passives has the effect of altering the argument structure of the verb by allowing the verb to subcategorise an optional extra argument position inside the VP which receives a copy of the external  $\theta$ -role. However, in 3.1.3.2.2 above it was noted that Baker (1988) regards *by*-phrases as elements external to the VP and dependent not on the verb, but on the passive morpheme in Infl.

Baker's approach could be maintained in this account of Impersonal Passives, by assuming that the ability to "transfer" the subject  $\theta$  role to a *by*-phrase is a property of '-en' regardless of its argument status.

We have now accounted for the two crucial restrictions on the ability of verbs to form Impersonal Passives noted in 3.2.1. The Passive morpheme while not being an argument must be "associated" in the way described above with a  $\theta$ -role. As shown above, this role must be the external role. Secondly,

the non-argument '-en' associated with the external  $\theta$ -role has arbitrary human features which force selectional restrictions between the VP and the subject position, disallowing an element with specific reference.

Finally, there is the question of why there may not be overt lexical material in the subject position of Impersonal Passives. It has been suggested above that the features of the external  $\theta$ -role with which the non-argument clitic-like '-en' is associated are changed by this association. It may be that the non-argument clitic has the effect of making the subject position underspecified for overt lexical material, disallowing even overt Impersonal pronouns such as *man*, *one*. If it is attempted to form an Impersonal Passive with *man*, the result is bad, but any attempt at interpretation of the structure is personal in nature:

- 46) \*Man wurde getanzt  
One was danced

The only possible interpretation which one can derive from 46) is one in which *man* is the DS object of *tanzen*, in an equivalent way to *Walz* in the sentence:

- 47) A Walz was danced

If this is the case, then why is overt lexical material able to appear in the *by*-phrase? A P typically has an overt NP complement unless its complement has been moved elsewhere in the sentence. While in principle there is nothing to prevent a PP having a head and empty complement, it would be bizarre in a Passive since the *by*-phrase is a means of expressing the external argument in such sentences overtly.

A more principled solution to this problem might be to adopt Baker's approach to *by*-phrases. As noted above, '-en' will have the ability to "double" or transfer the external  $\theta$  role to a *by*-phrase regardless of its argumenthood. Given that overt lexical material appears in the *by*-phrase, it is clear that transmission of the  $\theta$ -role to the *by*-phrase is different from the transmission or assignment of the external  $\theta$ -role to the subject *pro* via '-en'.

The question of *by*-phrases will be taken up again in the next chapter in the context of the treat-

ment of the other phenomena presented in section 3 of chapter 2. For the moment however, I will assume the approach to *by*-phrases proposed by Baker (1988) and that in Impersonal Passives the subject position is filled by the arbitrary *pro* in both "short" and "long" Passives. The *by*-phrase is "licensed" by the verb plus the passive morpheme in the way suggested by Baker. This mechanism is shared with Personal Passives and the difference between Personal Passives and Impersonal Passives lies solely in the different argument status of the passive morpheme. A Personal Passive has an argument clitic-like Passive morpheme and an Impersonal Passive has a non-argument clitic-like Passive morpheme, both of which are capable of licensing a *by*-phrase.

### 3.2.3.3 Case

Finally in this section, we must consider Case assignment and this analysis. In the analyses of standard Passive by BJR and Jaeggli, a certain amount of energy is expended in explaining how the argument '-en' which they propose for the general Passive morpheme will receive Case in Impersonal Passives. The various methods adopted have been reviewed above and were all found to be at least marked in some way.

Baker (1988) allows for the possibility that in some languages, the passive morpheme receives Case where it can. Languages such as German are included in this set. Given the Visibility Hypothesis, it is rather strange that an argument may or may not have Case, apparently depending on whether or not it is available.

An advantage of the current proposal is that since the '-en' in Impersonal Passives is not an argument and thus is not assigned the external  $\theta$ -role, we do not have to adopt convoluted or unmotivated explanations of how it receives Case in order for it to be 'visible' at LF or how it may avoid receiving Case when not available, since it does not need Case as does an ordinary argument (however see section 3.3.1.2.3 below).

The subject *pro* by contrast is an argument and does need Case. This it receives via the normal routes for Case assignment to subject position. In short, Case theory and its requirements sit very comfortably in this proposal.

### 3.3 Consequences and Support

In this section, I shall examine how the proposal in section 3.2 treats and accounts for the data given in section 1. above and point out some advantages of this over and above the goals of section 3.2 which were to account for the limitations on the use of the construction.

#### 3.3.1. Practical Consequences

##### 3.3.1.1 Main Clauses

The analysis in 3.2 was illustrated by the following main clause Impersonal Passive:

- 48) Es wurde getanzt.  
It was danced
- 49) [<sub>CP</sub> [<sub>C'</sub> [<sub>IP</sub> [<sub>pro</sub>] [<sub>i</sub>] [<sub>VP</sub> [<sub>v</sub> tanzen]]] [<sub>i</sub> ['-en'] [<sub>v</sub> werden ]]]]]
- 50) [<sub>CP</sub> [<sub>es</sub>] [<sub>C'</sub> [<sub>wurde<sub>i</sub></sub>] [<sub>IP</sub> [<sub>pro</sub>] [<sub>i</sub>] [<sub>VP</sub> [<sub>v</sub> t<sub>j</sub>]]] [<sub>i</sub> getanzt<sub>j</sub> [<sub>t<sub>i</sub></sub>] ]]]]]

For the details concerning movement of the verb to the second position see Chapter 1. Here, we need only reiterate that when no other element is inserted in spec position of CP, a dummy *es* is inserted.

The current proposal has an interesting consequence for the problem of the distribution of Impersonal *es* in German. In previous proposals, which assume an expletive *pro* in the subject position of such constructions, there has been no explanation of why the position may not be filled by an overt expletive (however, see the discussion of Cardinaletti (1990) in chapter 5). Above, I have suggested that lexical material may be barred from the subject position because the '-en' which modifies the  $\theta$  role assigned to the subject position is underspecified for overt lexical material. As far as I am aware this proposal has not been made before and previous analyses must have assumed some other mechanism for preventing an overt expletive from occupying subject position.

Safir (1985) offers a discussion of the distribution of Impersonal *es* pointing out that there is considerable variation in native speaker judgement on this matter. What emerges is that there are several instances in which *es* may be missing but does not have to be. Examples are with constructions involving *scheinen*:

- 51) Mir scheint (es), daß ...  
To me seems (it) that ...

Not all native speaker would accept each of these alternatives, however many do and so we have here evidence for a circumstance in which expletive material may be either lexical or empty freely.

With Impersonal Passives, there is no disagreement in native speaker judgements that such variation is impossible. Safir (1985) notes at the end of his paper that there is an unsolved problem, namely, that of explaining the cases in which *es* MUST NOT appear. The example he gives of a sentence in which *es* must not appear is an Impersonal Passive, albeit of a verb which has a PP object:

- 52) \* Er sagte, daß es an den Hund gedacht wurde  
He said that it of the dog thought was

In the analysis in 3.2, it is a natural consequence that *es* will not appear since the subject position in an Impersonal Passive is assigned a  $\theta$  role. The question of Impersonal *es* in other more general contexts will be addressed more fully in Chapter 5.

### 3.3.1.2 Subordinate clauses

#### 3.3.1.2.1 Tensed subordinate clauses and *scheinen*

There is little to say about tensed subordinate clauses except to note that there is no verb fronting and that  $\theta$  role assignment to the *pro* is by the same means as in ordinary active tensed subordinate clauses. We can assume that the S-Structure of the tensed subordinate clause 53) will be as in 54):

- 53) Es scheint mir, daß getanzt wurde  
It seems to me that danced was

- 54) [<sub>CP</sub> [<sub>C'</sub> [<sub>CP</sub> [<sub>IP</sub> [<sub>pro</sub>] [<sub>I'</sub> [<sub>VP</sub> [<sub>V</sub> t<sub>i</sub>]] [<sub>I</sub> getanzt<sub>i</sub> [<sub>VP</sub> ]]]]]]]

The complementizer will be in CP and the auxiliary verb will only have raised to I. I shall treat raising structures with *scheinen* directly below.

With *scheinen* and raising structures, the picture is rather more interesting. 55) is the sort of sentence concerned:

- 55) Hier scheint (es) getanzt zu werden.  
Here seems (it) danced to be

We will assume that *scheinen* is in fact a raising verb. As noted in section 1.2.2 most speakers prefer the *es* in 55) to be absent. An explanation for this could be that the *pro* in the DS of the lower clause needs Case and raises to the non-argument position of the matrix clause to receive it. Thus the *pro* is  $\theta$  marked in its DS position of lower clause subject position and is Case marked in the S-Structure matrix subject position. In fact, it is a standard case of raising.

55) is a variant of 53) for the same reasons as Impersonal Passives sometimes appear with *es* in first position. That is the *es* is not a subject, but is moved into first position just in case nothing else is fronted. In 55), *hier* has been fronted and with *pro* having been raised to matrix subject position, it is not surprising that most speakers prefer the version without *es*, since the *es* is in the position of the subject. Thus in 53) *es* is a dummy place filler.

### 3.3.1.2.2 Control and Impersonal Passives

In 1.2.2, it is noted that Impersonal Passives cannot form the non-tensed clause of a control verb.

- 56) \* Ich versuche, getanzt zu werden.  
I try danced to become

and

- 57) \* Alle versuchen, getanzt zu werden  
Everyone tries danced to be

despite the main clause Impersonal Passive with *by*-phrase:

- 58) Es wurde von allen getanzt.  
It was by everyone danced

This at first sight might appear surprising since in a controlled structure, the controlled element is PRO which can be an arbitrary reference argument which must neither be governed nor Case marked. In 56), the subject position is a site which will allow PRO and according to this analysis, the external  $\theta$  role is arbitrary and available to be assigned to the subject position.

However, on reflection it is not so surprising that 56) and 57) should be ill-formed. In a control

structure, the controlled PRO is no longer arbitrary in reference but takes on the referential properties of its controller. Thus it is impossible for 56) to mean *I try for there to be dancing* which would be the expected interpretation if the lower clause could remain an arbitrary Impersonal Passive. Instead, the only way in which 56) could be interpreted would be by assuming that the lower clause was a standard Personal Passive, which it cannot be, since the verb *tanzen* here is intransitive, with the PRO adopting the reference of the matrix subject, and so the sentence is barred in any interpretation. There is a feature mismatch on the PRO between those of the controller and those of the Passive morpheme.

One possible Control structure which these observations might fail to account for is the case in which the subject of the Control verb is the overt Impersonal pronoun *man*. It is arguable that the referential features of this element would be compatible with the features of the arbitrary controlled PRO of the lower clause. However, such a structure is ungrammatical:

- 59) \* Man versuchte, getanzt zu werden  
One tried danced to be

Thus far there is no way of excluding 59) if there is no feature conflict. The comments below on Case in section 3.3.1.2.3 below explore this issue further.

With the exception of the above example with *man*, this explains for the moment why there are no controlled Impersonal Passive structures.

These remarks about Control and Impersonal Passives predict that the following examples should be ungrammatical:

- 60) Er versuchte, PRO geholfen zu werden  
He tried PRO helped to be
- 61) Er versprach, PRO geholfen zu werden  
He promised PRO helped to be

60) and 61) are from Roberts (1987) and pose problems for his analysis as well as for the one presented here. Surprisingly, 60) and 61) are grammatical. Roberts accounts for these examples in his general theory of Passive by noting that PRO does not need Case and that *helfen* has Dative Case to assign. Thus exceptionally, *helfen* assigns Dative to the Passive morpheme. This is exceptional since in



matrix clauses, the Dative Case of *helfen* is not assigned to the '-en', rather it is assigned to the internal argument which is then optionally fronted (see example 62)).

For the present analysis, the problem is that as shown above, control of an arbitrary subject by an overt NP is impossible. If Passives with Dative verbs such as *helfen* are Impersonal Passives in matrix sentences, then one would presume that they would be in subordinate clauses. However, as noted control of an arbitrary element is impossible if that element is to remain arbitrary in reference. Thus even though *helfen* may form a matrix Impersonal Passive, it is impossible for it to form an Impersonal Passive as the lower clause of a control verb.

Roberts (1987) notes that 60) and 61) are not accepted by all German speakers. To account in any way for their acceptability, I shall have to follow the spirit of Roberts' solution. I propose that such Passives, where they are acceptable, are treated by analogy as personal constructions. *helfen* Passives in matrix sentences are, apart from Case, often superficially similar to standard Passives. When the Dative NP has been fronted, there is an apparent structural similarity to standard passive:

- 62) Mir wurde geholfen.  
To me was helped
- 63) Ich wurde gesehen.  
I was seen

Since it is impossible for Dative to surface in a structure such as 60), because this would force an impossible arbitrary interpretation, there is an apparent similarity to matrix Passives. Indeed, I shall assume, along with Roberts, that this is a marked structure but not an Impersonal Passive, rather a standard Passive in which Dative is assigned to the Passive morpheme.

### 3.3.1.2.3 Non-control infinitival clauses

There remains one class of infinitival clauses which must be addressed. Sentential subjects of the sort in 64) are not allowed with Impersonal Passives.

- 64) \* Getanzt zu werden ist wunderbar  
Danced to be is wonderful

It must be pointed out that standard analyses of Passive account for this type of sentence naturally. Roberts (1987) accounts for the ungrammaticality of (64) (his example) by pointing out that in his analysis '-en' needs Case and here there is no Case available.

In the current analysis, there is nothing to rule out (64) with a PRO in the subject position of the sentential subject. The external  $\theta$ -role of the untensed verb could be assigned to the PRO via the non-argument '-en', and the presumably arbitrary reference PRO would neither be governed, Case marked nor controlled and so the structure should be licit. However, as is shown, (64) is ungrammatical.

As the current proposal stands, there seems to be no solution to this problem.

A possible way to overcome the problem might lie in adapting the standard explanation for this problem. Roberts' (1987) solution to this problem involves the lack of availability of Case to be assigned to the argument Passive morpheme. In the current analysis, the passive morpheme in Impersonal Passives is a non-argument clitic-like element which is associated with a  $\theta$  role in that it modifies the features on the  $\theta$  role in the appropriate way, but which does not receive that  $\theta$  role. We could suppose that the non-argument '-en' differs from the argument '-en' in a parallel way from the point of view of Case theory. More precisely, we could suggest that non-argument '-en' needs to be associated with Case but does not need to be assigned Case and that this need is satisfied by its relationship to the *pro* in subject position, which is Case marked.

If the above assumption is correct, we then have an explanation for the ungrammatical status of (64), since the Passive morpheme will be associated with an arbitrary PRO which is ungoverned and does not receive Case. If Case assignment is to chains and the link between the non-argument '-en' is chain-like, then any chain involving PRO and the Impersonal Passive morpheme will be ruled out since there will be a conflict in Case requirements.

As proposed above the Impersonal Passive morpheme might need to be associated with Case. PRO may not be Case marked and so cannot form a chain with non-argument '-en' (or in fact argument '-en', though for not the same reasons)

If this approach to the problem of Impersonal Passives and Control or non-Control Infinitivals had any validity, then it would help to resolve the outstanding problem of lack of Control by the Impersonal

overt pronoun *man* noted above. While it is still true for the other cases of Control structures involving an Impersonal Passive in the lower clause that there would be a feature mismatch between the Controller and the arbitrary reference element in the lower clause, we now have a more general solution to the question of why an Impersonal Passive may not appear in a tenseless clause with a PRO subject.

Looking back at all of the grammatical instances of Impersonal Passives which we have considered, we notice that in each of them, the '-en' is "associated" with Case and more precisely with Nominative Case. This is true even in the raising example with *scheinen*, 55), (disregarding the cases in which *es* appears post-verbally). Here, the *pro* is raised to subject matrix position where it receives the Nominative Case of the matrix verb.

However, I do not propose to adopt this tentative solution to the problem of Impersonal Passives and Control and non-Control infinitivals. I can only note that one of the few things which standard approaches to Impersonal Passives deals with in a natural fashion seems problematic in the approach put forward here.

### 3.3.2. Cinque and arbitrary reference

In section 2. above, various accounts of arbitrary reference were reviewed. The conclusion of that section was that the account offered in Cinque (1988) was the most general and articulated and that it would form a background for the present analysis.

Cinque (1988) suggests that there are two possible interpretations for arbitrary constructions, one quasi-existential and one quasi-universal which are contextual variants of just one 'arb'. He summarises their differences as follows (repeated from above):

Quasi-existential	Quasi-universal
21)	
a. Compatible with specific time reference	Incompatible with specific time reference
b. Incompatible with generic time reference	Compatible with generic time reference

c. Incompatible with contexts suspending specificity of time reference	Compatible with contexts suspending specificity of time reference
d. Compatible with the existence of individual satisfying the description	Incompatible with existence of individual satisfying the description
e. Restricted to [NP,S] $\theta$ marked in D_Structure	Not restricted to [NP,S] $\theta$ marked in D_Structure

Cinque's predictions on the basis of this analysis are that any 'arb' constructions in which the arbitrary element is not restricted to [NP,S] will share the properties of the right hand column above and that arbs only occurring in non-[NP,S] positions will only allow Quasi-universal interpretation.

We cannot test these predictions directly here since the arbitrary *pro* which we are proposing here is limited to [NP,S] position.

However, we can note that any evidence which Impersonal Passives do furnish does not run counter to the properties of arbitrary interpretation given in the table above. Consider the following:

- 65) Gestern Abend ist getanzt worden,  
Yesterday evening is danced been,  
  
(es war der alte Hans glaube ich)  
(it was old Hans think I )
- 66) Hier wird gewöhnlich getanzt,  
Here is usually danced  
  
\* (es ist der alte Hans glaube ich)  
(it is old Hans think I )

With specific time reference, it is possible to have a single individual who satisfies the description. With generic time reference, it is not. Thus, although both examples involve a *pro* in [NP,S] position, the judgment is compatible with the table.

The interpretation in 65) is that of Quasi-existential arbitrariness, the time reference is specific and it is possible to identify one individual who is the 'actor'.

The interpretation in 66) is that of Quasi-universal arbitrariness, the time reference is generic and it is impossible to identify one individual who is the 'actor'. Additionally, the last characteristic in the

right hand column in the table is satisfied, since there is no restriction of the arbitrary element to [NP,S] position, but equally, there is no exclusion of it from this position.

Cinque's view of arbitrary interpretation will be tested further in chapter 5., when possible object arbitrary constructions are considered in light of the treatment reviewed above by Rizzi (1986). However, thus far, the analysis of German Impersonal Passives as constructions involving an element with arbitrary reference proposed here does not conflict with the proposals made by Cinque (1988).

#### 4. Summary

In this chapter, I have, in section 1., presented the data of the Impersonal Passive construction. Section 2. provides a discussion of approaches to arbitrary interpretation.

Section 3. presents the current analysis of Impersonal Passives in German. In 3.1 I provided, as background information, a brief review of three of the most recent analyses of Passive within GB theory, Jaeggli (1986a), Baker (1988) and Baker, Johnson and Roberts (1989).

In 3.2 I provide the detail of my analysis, proposing that the subject position of Impersonal Passives is occupied by an arbitrary reference *pro* which receives its  $\theta$  role by means of its being assigned via the non-argument passive morpheme in Infl. The non-argument passive morpheme does not require Case and so Nominative Case is assigned as usual to the element in subject position - the arbitrary *pro*. The non-argument passive morpheme has arbitrary reference features and serves as a means of identifying the arbitrary subject by modifying the features on the external  $\theta$  role. There is some discussion of *by*-phrases in these structures. The proposal in Baker (1988), that it is a property of passive morphemes that they may allow the doubling of the external  $\theta$  role into a *by*-phrase, is adopted here. This is a property of both the argument passive morpheme and the non-argument passive morpheme proposed here.

3.3 provides a more detailed examination of the application of the proposal to the different syntactic realizations of Impersonal Passives which were outlined in section 1., showing the advantages of such an approach, as well as a brief consideration of this approach in light of Cinque's (1988) proposals concerning Arbitrary Interpretation.

## Chapter 4

### Extensions

#### 0. Introduction

In this chapter, I shall consider the rest of the constructions examined in chapter 2. These are the so-called Impersonal Reflexive Passive, the so-called *Lassen* Passives, Reflexive and non-Reflexive, Passive-like constructions with the verbs of Perception and the so-called Copular Passive constructions.

Section 1. will treat the reflexive passives, both transitive and intransitive. Section 2. provides an account of *lassen* passives. 2.1 treats pure *lassen* passives and 2.2 provides a treatment of reflexive *lassen* passives. Section 3. treats passive constructions with the verbs of perception and section 4. provides a treatment of the so-called Copular Passives, both transitive and intransitive.

At the end of Chapter 2, it was noted that in light of the similarity between the restrictions governing the distribution of the constructions examined in Chapter 2 sections 3.3-3.6 and those governing the Impersonal Passive, they should receive a similar treatment.

The analysis proposed in Chapter 3 was aimed directly at Impersonal Passives and involves certain crucial standard characteristics of Passives, namely the Passive morpheme '-en' and its ability to transfer or double the external  $\theta$  role to a *by*-phrase.

Since none of the constructions to be considered in this chapter shares these characteristics of Passives exactly, it is obvious that the analysis developed in chapter 3 cannot be adopted unaltered here. The general difference which they all share is that none of these Passive-like phenomena has the Passive morpheme '-en'. Thus the title of the chapter 'Extensions' refers to an extension of the spirit and basic idea presented in Chapter 3 rather than a wider use of the exact analysis.

The differences from the Impersonal Passives exhibited by the structures mentioned above are the following.

Reflexive Passives do not allow *by*-phrases, do involve movement to [NP,S] position in transitive cases but do not have the Passive morpheme '-en' ( although, as we will see, they are the nearest of all the constructions considered here to having an obvious equivalent ).

Lassen Passives allow expression of the external  $\theta$  role in a *by*-phrase and may involve movement of the internal argument to receive Case (though not nominative) in a Personal construction. The Passives with verbs of Perception in so far as they are considered grammatical behave in a similar way to those with *lassen*.

Those structures involving both *lassen* and *sich*, the reflexive element, do not allow a *by*-phrase and share properties of both *sich* and *lassen* constructions. However the interaction is not straightforward.

Finally, Passive 'Copula+zu+infinitive' constructions also allow a *by*-phrase and involve movement of the internal argument of the lower clause in the Personal structure, to the matrix subject position in order for it to be Case marked. However, see the discussion.

Thus it can be seen that the approach in chapter 3, which relies on the non-argument '-en' and arbitrary *pro* to account for Impersonal Passives, will have to be adapted to enable a similar approach to account for the above constructions. None the less, the basic idea underlying the analysis in chapter 3 will be maintained; namely, that the distributional facts can be accounted for by the same sort of selectional restriction holding between the verb (phrase) and an arbitrary reference element somewhere in the sentence.

## **1.0 Reflexive Passives**

In this section I shall consider how to account for the distributional properties of "Impersonal Intransitive Reflexive Passives" discussed briefly in Chapter 2. section 3.6, and examine their relationship to the "Transitive Reflexive Passive". 1.1 will contain an overview of the different possible forms of these Reflexive constructions. 1.2 will discuss briefly the "Transitive Reflexive Passive" and 1.3 will present a treatment of the data presented in 1.1.

### **1.1 Intransitive Reflexive Passives**

#### **1.1.1 Main Clauses.**

In the paradigm case, Intransitive Reflexive Passives are of the following general form, with an

agent phrase never possible:

*es* + verb + *sich* + adverbial(s)

as in 1:

- 1). Es tanzt sich gut hier  
It dances SICH well here

However, this is not the only possible word order. It is possible to move one of the adverbials to the first position in the sentence:

- 2) a) Hier tanzt es sich gut  
Here dances it SICH well
- b) Gut tanzt es sich hier  
Well dances it SICH here

The point to note is that, in contrast to the Impersonal Passive, *es* must appear in the sentence, cf

3).

- 3) \* Hier tanzt sich gut  
Here dances SICH well

Thus, *es* must appear in the first position if no other constituent is fronted, and must appear post-verbally if any constituent is moved from the body of the sentence to the first position.

As shown in chapter 2, only non-ergative intransitive verbs which allow a human subject may form Impersonal Reflexive Passives.

### 1.1.2 Subordinate Clauses.

In subordinate clauses, Impersonal Reflexive Passives appear with the constituents in the base underlying word order with the main verb at the end of the clause.

#### 1.1.2.1 Tensed Subordinate Clauses.

In tensed subordinate clauses, Impersonal Reflexive Passives have the following word order:



*es* + *sich* + adverbial(s) + verb

as in 4:

- 4). Ich weiss, daß es sich hier gut tanzt  
I know that it SICH here well dances

In subordinate clauses, because there are no Verb Second requirements, there is no question of any fronting and *es* must appear as normal in subject position.

- 5). \* Ich weiss, daß sich hier gut tanzt  
I know that SICH here well dances

### 1.1.2.2 Non-tensed Subordinate Clauses.

Impersonal Reflexive Passives cannot appear as the non-tensed subordinate clause of a control verb. Thus 6. is ungrammatical:

- 6). \* Ich versuche, es/0 sich gut zu tanzen  
I try it/0 SICH well to dance

However, they can appear as the non-tensed subordinate clause of a raising verb:

- 7). Es scheint sich hier gut zu tanzen  
It seems SICH here well to dance

In 7., the *es* subject of *scheinen* has been raised from the lower clause. An adverbial also can be topicalized into the matrix clause in such raising constructions:

- 8). Hier scheint es sich gut zu tanzen  
Here seems it SICH well to dance

## 1.2 Transitive (Personal) Reflexive Passives

The designation Personal Reflexive Passive is probably inappropriate for such a sentence as in 9):

- 9) Dieses Hemd wäscht sich leicht  
This shirt washes SICH easily

It could be described as "personal" by analogy with Personal Passives since the surface subject in sentences such as 9) is equivalent to the subject of a Personal Passive in that it bears the internal  $\theta$  role.

However, there is a difference from the Passive in that it is not possible to express the external  $\theta$  role in a *by*-phrase.

On a point of terminology, the question must be raised here of what it means to be an Impersonal construction. There seem to be two main criteria. Firstly, there is the question of whether the external  $\theta$  role of the verb is "absorbed" by some property of the morphology rather than being assigned to the (overt) subject, and along with this, whether the external  $\theta$  role is able to be expressed by some other means. Secondly, there is the question of whether absorption of the external  $\theta$  role is possible with intransitive verbs. I do not intend to provide an answer to this question here. I raise the point to justify the terminology chosen in the following paragraphs.

Given that the distinction between the sentence in 9) and those in 1) and 2) above ostensibly rests on the question of transitivity, I shall call those of type 1) and 2) "Intransitive Reflexive Passives" and those of type 9) "Transitive Reflexive Passives".

I shall not provide an exhaustive treatment of the transitive Reflexive Passive but shall assume (along with treatments of similar Reflexive constructions in other languages) that the element *sich* "receives" or "absorbs" the object Case of the verb and the external  $\theta$  role in a way to be made more precise in the next section. It is this feature of the transitive Reflexive Passive which is most interesting in the present discussion, since apart from transitivity, it is in the behaviour of *sich* that any difference between the transitive and intransitive Reflexive Passive lies. They both disallow a *by*-phrase.

In 9) if we assume that the surface subject *hemd* is an object at D-Structure, then what is the status of the element *sich*? In a D-Structure such as 10) which must underlie 9) on the current assumption, *sich* must be considered to be clitic-like:

10) ...<sub>[ip</sub> [e] [<sub>i</sub> [<sub>vp</sub> [<sub>np</sub> Hemd] [<sub>advp</sub> leicht] [<sub>v</sub> waschen+sich] ] [<sub>i</sub> ]]]

In 10), *hemd* is in object position. In the course of the derivation, it moves to subject position just as in a standard non-Reflexive Passive. We will assume that this movement is forced for the same reasons as in Passives, namely that Object Case can no longer be assigned to the NP in object position, since Object Case in Transitive Reflexive Passives has been assigned to *sich*.

For the object to be able to move to subject position, which it plainly does, since it receives Nominative Case, the subject position must be a non- $\theta$  position. Again, the formal similarity to standard Passive is striking.

The reason why a verb such as *waschen*, which in normal usage assigns both external and internal  $\theta$  roles and Cases, should have its  $\theta$  and Case properties changed is that the clitic *sich* is performing the same function as '-en' in Personal Passives, namely receiving the external  $\theta$  role and Object Case of the verb.

*sich* differs from '-en' however, in that where '-en' has the ability to transmit its  $\theta$  role to a *by*-phrase ( or license a *by*-phrase, if Baker's approach, adopted in Chapter 3. has any validity ), a Passive structure with *sich* never allows a *by*-phrase. Thus *sich* in German, like *si* in Italian is a passive morpheme which simply does not have the ability to "double" the external  $\theta$  role onto a *by*-phrase.

This, I hope, demonstrates the similarity of Reflexive Passives to standard Passives, as well as outlining the crucial difference between the two, namely the lack of ability of a Reflexive Passive to have a *by*-phrase.

### 1.3 An Approach to Reflexive Passives

If we can treat transitive Reflexive Passives in a way equivalent to standard Personal Passives, apart from questions concerning *by*-phrases, we are faced with the question of how to treat their intransitive counterparts. If we treat the transitive constructions in a similar way, do we maintain the parallel in the treatment of the intransitive structures? Do the intransitive Reflexive Passives behave in a similar way to the (intransitive) Impersonal Passives? This is the question to be explored in section 1.3.1. Section 1.3.2 provides a treatment of these Reflexive Passives. Section 1.3.3. compares the treatment of Impersonal Passives, given in the previous chapter with this treatment of Intransitive Reflexive Passives in more detail.

#### 1.3.1 Discussion

As shown in 1.2 above, the *sich* in the transitive Reflexive Passives acts in a similar way to '-en' in standard Personal Passives. It "absorbs" both object Case and the external  $\theta$  role. However, as noted

above, there is an important difference between *sich* and '-en' in Personal Passives. The "absorption" of the external  $\theta$  role by *sich* is absolute, in the sense that there is no possibility of transmission or "doubling" to a *by*-phrase. The absorption of the external  $\theta$  role by '-en' in Personal Passives is in some way not absolute in that it can be doubled to a *by*-phrase.

Where Passives always allow a *by*-phrase, Reflexive Passives never do. Thus one might suppose that we will be able to provide an analysis for Intransitive Reflexive Passives which differs from Transitive Reflexive Passives in a similar way to the way in which the analysis for Impersonal Passives given in chapter 3 differs from the standard analysis of Personal Passives, given that the only apparent differences between the two types of Passive lie in the ability to have a *by*-phrase and the difference between '-en' and *sich*.

This is not the case however. In the analysis proposed in chapter 3, '-en' in Impersonal Passives is not an Argument, as it is for Personal Passives in the analysis proposed by BJR. With the Reflexive constructions however, in both the transitive and intransitive case, it seems that *sich* is always an argument. This is suggested by the lack of ability of the external  $\theta$  role to be expressed overtly, even on a *by*-phrase, and as shown below accounts for the obligatory expletive subject *es* appearing both pre and post-verbally as shown in 1.1 above.

Thus an immediate answer to the question posed in 1.3 above is that we cannot maintain the parallel between the intransitive and transitive Reflexive Passives that might have existed with the Passive constructions.

If this is so, then we might expect some corresponding differences in behaviour to be observed. In chapter 3, it was noted that Personal Passives are interpreted differently from Impersonal Passives in that there is a strict humanness requirement on the latter which does not exist with the former. This difference in behaviour was ascribed to the difference in status and features of '-en' in the two constructions. It might be expected if *sich* is an argument in both cases with the Reflexive Passive, that there will be no such corresponding difference in the possibilities of interpretation. This expectation is indeed borne out. There is a strict humanness requirement on the intransitive construction which is seen also with the transitive construction.

With the intransitive examples, it is easy to show that only a human interpretation is possible, by trying to form an intransitive reflexive passive with a verb such as *knirschen* - a non-ergative verb which does not allow a human subject.

- 11) \* Es knirscht sich gut hier.  
it crunches SICH well here

This is not possible. It is rather more difficult to show that a transitive verb may only be used with human interpretation on the external argument. *knirschen* never takes a human external argument even in active structures though it is possible in general to find other intransitive verbs with this property. With transitive verbs however, it is rather difficult to find such examples. However, a sentence such as 12), is understood as it being possible for SOMEONE to wash a shirt easily.

- 12) Dieses Hemd wäscht sich leicht  
This shirt washes SICH easily

It is to be noted that in both reflexive passives, the argument *sich* has strict human interpretation whereas with Impersonal Passives, it is the non-argument '-en' which has the strict human interpretation.

It must be pointed out here that there is a wide variety of transitive Reflexive constructions of which I only deal with the sort illustrated in 9. It would take me far too far afield to provide a full treatment of Reflexive constructions in German in general.

Thus, the similar status of *sich* in both transitive and intransitive Reflexive constructions is matched by the similar interpretive possibilities of the two Reflexive constructions.

Another reflex of the fact that in intransitive Reflexive Passives as well as transitive Reflexive Passives *sich* is an argument is the fact that in the former as shown in section 1.1, *es* always appears, whether in first position or post-verbally when some other element is in first position. In this construction, *es* is truly an expletive subject rather than a dummy filler of the first position in the sentence as in the Impersonal Passive.

- 13) Hier tanzt es sich gut  
Here dances it SICH well

The behaviour of *es* in this construction is interesting since it is exactly the opposite of that with Impersonal Passives. The two constructions define the extremes in its behaviour, its impossibility to appear in subject position in what looks like an Impersonal construction and the absolute necessity that it appear in subject position with no hint of the optionality found with some other Impersonal constructions. A section in chapter 5 will examine the question of *es* more generally, but for the moment, it is enough to note the difference in behaviour of *es* between the Intransitive Reflexive Passives and the Impersonal Passives as a reflex of the fact that the external  $\theta$  role is not assigned to subject position in the former because it has been assigned to the argument *sich*, where it is (in the current proposal) in the latter.

On the basis of the "lack of *by*-phrase" evidence, the obligatory human interpretation evidence and the evidence provided by the behaviour of *es*, we can conclude that we do not maintain the parallel with the Passives in the treatment of the Reflexive Passives, but that we view the element *sich* as an argument in both cases. Thus it appears that the naming of these Reflexive constructions as transitive or intransitive rather than Personal or Impersonal reflects the difference between them more clearly.

### 1.3.2 A Treatment

On the basis of the previous discussion, I shall now provide a treatment of these Reflexive Passive structures, bearing in mind the caveat given above, that it is not the place of this study to provide a full treatment of Reflexive constructions in general in German. I shall restrict myself to those Reflexives which can be regarded as Reflexive Passives.

In light of the above discussion, the next question to answer is that of whether both transitive and intransitive Reflexive Passives should receive the same sort of analysis, since we have ruled out the sort of differing analyses which distinguish the two Passives in Chapter 3. I propose that, apart from some minor secondary differences which arise purely because of the difference in transitivity, they should receive the same analysis.

In both transitive and intransitive cases, the clitic *sich* is an argument which absorbs/is assigned the external  $\theta$  role completely with no possibility of licencing a *by*-phrase. A transitive verb has Object

Case to assign to its internal argument whereas an intransitive verb does not. It is in this regard that the secondary differences in the treatment arise, concerning the question of how the argument *sich* receives case.

With transitive Reflexive Passives, the question is straightforward. *sich* receives object Case, forcing the internal argument to move to subject position in order to be Case marked. Thus *sich* receives Case just as the argument '-en' does in standard Personal Passive analyses.

With intransitive Reflexive Passives, the problem is not so easily solved. There is a parallel here with the Case problems posed for standard treatments of Passive which attempt to accommodate Impersonal Passives. There is no Object Case to assign to *sich* just as in standard Passive analyses there is no Object Case to assign to the Argument '-en' with intransitives. However, this is where the parallel ends.

As noted above, there is always an overt expletive subject *es* in these constructions. Presumably, this element is assigned nominative Case by INFL. The only solution for the Case assignment problem here is to assume that *sich* is in a chain with the expletive subject *es* and that its Case requirements are satisfied by being a member of a chain to which Case is assigned.

Thus the proposal for Intransitive Reflexive Passives is that *sich* is an Argument which receives the external  $\theta$  role, just as in the case of transitive Reflexive Passives. Its behaviour is different in Intransitives in that instead of receiving Object Case as with transitives, since with Intransitives such a Case is not available, its Case requirements are met by being in a chain with the expletive subject which is marked with Nominative Case.

A D-structure of 9) above was proposed in 10) above both repeated here.

9) Dieses Hemd wäscht sich leicht  
This shirt washes SICH well

10) ....[<sub>ip</sub> [e] [<sub>i</sub> [<sub>vp</sub> [<sub>np</sub> Hemd]] [<sub>advp</sub> leicht] [<sub>v</sub> waschen+sich] ] [<sub>i</sub> ]]

We must consider now whether 10) is in fact the appropriate D-structure for such examples. The clitic *sich* appears next to the verb *waschen* in the surface string. However, when there is an auxiliary verb such as *haben* in the perfect tense, *sich* is no longer necessarily adjacent to the main verb, but is next to the tensed auxiliary.

- 14) Das Hemd hat sich leicht gewaschen.  
The shirt has **SICH** easily washed

Thus it is clear that the clitic is not attached to the main verb but rather to the tensed verb in the clause. This brings into question the initial D-structure representation proposed in 10). An idea in Baker (1988 p308 ff., see also the discussion of Baker in Chapter 3 above) provides a suggestion for how to deal with this. His idea there is that the passive morpheme '-en' in ordinary passive constructions is in the Inflection node at D-structure. We could adopt this idea more generally for all forms of passive morphemes (see Baker 1988). If we assume that *sich* is not attached to the main verb at D-structure but that in the course of the derivation, the verb which ultimately appears in the second position of a V2 language like German, the tensed verb, combines with the clitic *sich* then we have an explanation for this distribution.

Thus the D-structure for 9) will now be 10'):

10') ....[<sub>ip</sub> [e] [<sub>i'</sub> [<sub>vp</sub>[<sub>np</sub> Hemd][<sub>advp</sub> leicht] [<sub>v</sub> waschen] ] [<sub>i</sub> sich]]]

*waschen* is raised from the VP to the Infl(ection) node where it joins with *sich* and then the verb and clitic are raised to the second position.

This accounts for the surface distribution of *sich* in these constructions and suggests that the D-structure in 10') might be appropriate. Now we must examine the mechanism of  $\theta$  role and Case assignment to *sich*. In Baker (1988 p308 ff.) cited above, there is some discussion of  $\theta$  role assignment to the passive morpheme in Infl. Infl as sister to VP is outside the maximal projection of V and so assignment of the external role of the verb to this node when it contains a noun-like element is no more unlikely than assignment of the external  $\theta$  role to the [np,s] position. We will assume this mechanism for assigning the external  $\theta$  role to *sich* in Infl position.

Now we must consider Case assignment to *sich*. In Baker (1988 p340 ff.) there is a discussion of Case and the Passive morpheme and the idea is proposed that in certain instances, the passive morpheme does not need Case. This is the idea which underlies the extension of the BJR analysis for standard Passive to include Impersonal Passives. I have already argued against this view. However,



discounting the optionality of Case approach to some passive morphemes, in this section in Baker (1988), there are some ideas about how the passive morpheme does receive Case.

Baker notes that assuming that the passive morpheme is in the Inflection node, there are two possible Case assigners - Infl itself, or the verb which has raised to the Infl node. Case assignment takes place under Government and the passive morpheme will be governed in either of these instances.

Thus an intermediate representation between 10') and its eventual surface structure might be 10'')

10'') ....[<sub>ip</sub> [e] [<sub>i</sub> [<sub>vp</sub>[<sub>np</sub> Hemd][<sub>advp</sub> leicht] [<sub>v</sub> t<sub>i</sub>] ] [<sub>i</sub> waschen<sub>i</sub> sich]]]

where, unlike in 10'), there is a C-command relation between *waschen* and the reflexive element *sich*. Let us assume this account for the transitive reflexive passives.

Now consider Case assignment to *sich* in intransitive reflexive passives. It is suggested above that because there is no internal Case to assign to *sich*, since the verb is intransitive, that the solution would be for *sich* to receive Nominative Case as a result of its membership of a chain with *es*. We are now in a position to provide some detail for this proposal.

Above it is noted that a passive morpheme might receive nominative Case from Infl itself under government by a sister. Let us assume that that is what happens here. Thus for a sentence such as 15), there is the D-structure d1):

- 15) Es tanzt sich gut.  
it dances SICH well
- 16) ....[<sub>ip</sub> [es] [<sub>i</sub> [<sub>vp</sub>[<sub>advp</sub> gut] [<sub>v</sub> tanzen] ] [<sub>i</sub> sich]]]

*tanzen* as normal raises to the Infl node at which point it is sister to *sich*. It has no internal Case to assign to *sich*. The intermediate representation will be 17):

17) ....[<sub>ip</sub> [es] [<sub>i</sub> [<sub>vp</sub>[<sub>advp</sub> gut] [<sub>v</sub> t<sub>i</sub>] ] [<sub>i</sub> tanzt<sub>i</sub> sich]]]

*sich* receives no Case from *tanzen*. The suggestion from Baker is that the passive morpheme may receive Nominative Case from Infl. *sich* is governed by Infl in this representation and so would be in a position to be marked with Nominative Case. However, this is still an intermediate representation and it is not clear that Case marking will necessarily take place at this level. The tensed verb and *sich* appear

adjacent to each other at S-structure, so perhaps it is not just the verb which is raised to the second position in German, rather it might be the whole Infl node. (see Baker (1988) on Infl to Comp movement.)

This latter suggestion would give some structure to the idea that *sich* is a clitic in some sense. At S-structure, the tensed Infl node will still govern *sich* marking it with Nominative Case. *sich* forms a chain with *es* the empty expletive subject and the expletive-argument chain is Case marked with the result that the free expletive NP *es* receives Case by virtue of membership of the chain and does not fall foul of the Case filter.

### 1.3.3 Comparison with Impersonal Passives

The treatment of Case problems in Intransitive Reflexive Passives given above may lead one to reconsider the analysis proposed in Chapter 3 for Impersonal Passives in which it was proposed that the non-argument clitic '-en' may need to be associated with Case. This need, it is proposed, is satisfied by its membership of a chain which receives Case.

One of the difficulties for the standard analyses of Impersonal Passives which maintain that '-en' is an argument, is the question of how it receives Case - essentially the same problem as in 1.3.2 above. If the solution proposed above is sufficient for the Reflexive case, then why can it not suffice for Impersonal Passives? Why cannot '-en' in Impersonal Passives be the same argument as in Personal Passives, receiving Case as a result of its membership of a Case marked chain?

In order to maintain that '-en' is an argument in Impersonal Passives, we would have to assume that the subject position is occupied by an expletive *pro* which is assigned Nominative Case, or that '-en' receives Nominative Case in the way suggested above and that it is in a chain with an expletive *pro*. This, or something similar has indeed been proposed by others (Safir, McKay). However, in those studies, no account was taken of the distributional data nor of the treatment of the related constructions presented here. As has been shown, *es* when it appears in Impersonal Passives is not the subject and is presumably not Case marked. In principle, there is nothing wrong with assuming that an expletive *pro* could form a chain with an Argument '-en' in Impersonal Passives and that the Case requirements of '-

en' could be satisfied either by being a member of a Case marked chain, or by means of the mechanism outlined above.

Apart from questions concerning when empty expletives may, must or must not appear in general in German which I shall examine in the next chapter, the main objection to such an analysis for Impersonal Passives concerns their interpretative possibilities compared with those of Personal Passives. Under such an analysis, '-en' in Impersonal Passives would be the same as in Personal Passives - an Argument. The difference between the two would be reduced to transitivity, just the same as in the Reflexive Passives. However, as shown, there is more than just transitivity which distinguishes the Personal and Impersonal Passive. There is a crucial difference in interpretative possibilities which does not exist in the corresponding Reflexive structures.

It is clear that the Argument *sich* is different from the Passive morpheme '-en' since it does not allow transmission of the external  $\theta$  role to a *by*-phrase. It is this which distinguishes the Reflexive from the non-Reflexive Passives. Where there is no difference in behaviour between *sich* in transitive and Intransitive Reflexive Passives apart from that which arises from the difference in transitivity, the non-Reflexive Passives differ not only in transitivity but also in their interpretative possibilities. The analysis presented in Chapter 3 accounts for these facts whereas extending this treatment of Intransitive Reflexive Passives to the Impersonal Passives would leave these facts unaccounted for.

*sich* is a different sort of element from '-en'. While they are both clitic-like in some way, it is clear that *sich* is more of an independent element than the Passive morpheme. It is a lexical unit which at least from the point of view of popular perception is not merely a piece of inflectional morphology. *sich* in these constructions is an argument which is a marker of arbitrary human reference, like Italian *si*. In German, this Reflexive element is always an argument. It seems that its argument status is not variable as is the Passive morpheme's argument status, according to the analysis which I propose in Chapter 3.

Thus the overt Argument clitic *sich* has the appropriate features on it to limit the interpretative possibilities of Reflexive Passives inherently. It determines that the interpretation placed on the external argument in a structure in which it is used will be human in the case where human interpretation is

possible and it disallows the use of the structure with verbs which allow only a non-human external argument.

The Passive morpheme by contrast only has the appropriate features which enable it to limit the interpretation of the structures in which it is found when it is a non-argument. Thus its interpretation features are not inherent but rather depend on the choice of its status as argument or non-argument.

Thus, although the sort of treatment given above for Reflexive Passives could in principle be extended to deal with the Impersonal Passives, the analysis proposed in chapter three accounts for Impersonal Passives rather better in isolation and the contrast between the two analyses reflects the differences between the two constructions.

To conclude this section we note that in both transitive and intransitive reflexive passives, the reflexive element *sich* is an argument which is Case marked and which is marked with the external  $\theta$  role of the verb. This is possible because *sich* is in Infl at D-structure and is consequently external to the maximal projection of V and so can be marked with the external  $\theta$  role. The tensed verb raises to Infl in the course of the derivation to a position from which it governs *sich*. *sich* receives the internal or object Case of transitive verbs under government by the verb, whereas it receives Nominative Case in intransitive constructions under government from Infl itself and by virtue of forming a chain which is Case marked with the expletive subject *es*, the Case requirements of that item are satisfied. The section immediately above has highlighted the difference between *sich* and the passive morpheme '-en', justifying the differences in the analyses of the two constructions.

## 2.0 *lassen* Passives

This section will provide an examination of the *lassen* passives discussed in Chapter 2. 2.1 will deal with the pure *lassen* cases and 2.2 will deal with the Reflexive *lassen* cases. 2.3 will provide a brief summary of the *lassen* passives.

This section will attempt to account for the data presented in Chapter 2, section 3.3 where various different verbs *lassen* were distinguished. Firstly, the Control verb *lassen* was distinguished from the non-control varieties. It was decided to concentrate on the latter and to leave aside consideration of the

Control verb. That policy will be continued here.

Instead we will examine the causative *lassen* distinguished by Huber. In section 3.3.2 in chapter 2, it was argued that the causative *lassen* is an ECM verb. 3.3.3 in chapter 2 shows the Passive-like  $\theta$  structure changing properties of some of the constructions with causative *lassen*. In those two sections it was noted that the causative *lassen* may have two subtypes; one which does not change the  $\theta$  structure of the lower clause and does not allow a *by*-phrase eg. 18), and one which does change the  $\theta$  structure of the lower clause and does allow a *by*-phrase eg. B). In the following we will consider mainly the latter, although there will be some discussion of the former.

- 18) Ich liess [ihn essen]  
I made/caused him eat
- 19) Ich liess [... ihn von dem Wolf fressen]  
I made/caused him by the wolf eat

## 2.1 Pure *lassen* Passives

### 2.1.1 Syntactic Distribution

#### 2.1.1.1 Main Clauses.

In the paradigm case, non-reflexive *lassen* Passives are of the following general form, with an agent phrase always possible:

NP + *lassen* + clause

as in 20)a), or in constructions involving an auxiliary, the general form is:

NP + aux + clause + *lassen*

as in 20)b)

- 20)a). Er läßt ihn von den Soldaten schießen  
He makes him by the soldiers shoot
- b) Er hat ihn von den Soldaten schießen lassen.  
He has him by the soldiers shoot made

20)a) contains a clause with a transitive verb. The clause may contain an intransitive verb provided that it is not ergative and that its external argument may be human; eg 21):

- 21) Er läßt von allen lachen  
He makes by everyone laugh

Intransitives exhibit the same behaviour as in 20) when the matrix clause involves an auxiliary verb.

Thus as shown in chapter 2, only non-ergative intransitive verbs which allow a human subject may form intransitive *lassen* Passives.

#### 2.1.1.2 Subordinate Clauses.

In subordinate clauses, *lassen* Passives appear with the constituents in the base underlying word order with the main verb at the end of the clause.

##### 2.1.1.2.1 Tensed Subordinate Clauses.

In tensed subordinate clauses, *lassen* Passives have the following word order:

as in 22):

- 22) Ich weiss, daß er ihn von den Soldaten schiessen läßt.  
I know that he him by the soldiers shoot makes

That is the infinitive verb of the clause subordinate to *lassen* is adjacent to *lassen* itself in the surface structure. The word order is similar in non-tensed subordinate clauses.

#### 2.1.2 General Discussion of *lassen* Passives

Consideration of the so-called *lassen* Passives provides a perplexing problem. In both the standard Passive and the Reflexive Passive considered already, there is a piece of overt morphology which can be seen to play a part in altering the  $\theta$  properties of the verbs. With the *lassen* Passives, there is evidence of a Passive-like process in the shape of *by*-phrases, but there is no overt morphology to account for the alteration of the  $\theta$  behaviour of the embedded verbs. In chapter 2, section 3.3.2 above, there is a quote from McKay in which he assumes that *lassen* itself optionally absorbs the Case of the verb in its

lower clause. He does not provide any discussion of  $\theta$  structure and *lassen*, but this is a line we might follow. First of all, however, let us examine the interpretative properties of the *lassen* Passives, both Personal/transitive and Impersonal/intransitive.

As noted already and already exemplified, *lassen* Passives allow a *by*-phrase. This distinguishes them from the Reflexive Passives and allies them with standard Passives. As example 19) above illustrates, *lassen* Passives of transitive verbs are not limited to human interpretation or to verbs which only allow human external arguments. As noted in section 3.3.3 chapter 2, *lassen* Passives of intransitive verbs are limited in just the same way as Impersonal Passives, in that they are only possible with verbs which allow a human external argument. Thus the *lassen* Passives pattern in exactly the same way as the standard Personal and Impersonal Passives and exhibit the same interpretative possibilities.

Given these similarities, it would seem natural to attempt to adopt exactly the same analysis for these structures as for the standard Passives. The only problem is that analysis of standard Passives relies on the variation of the Argument status of the Passive morpheme, '-en'. There is no such overt morpheme and no obvious equivalent here and secondly, the structures here are bi-clausal. The suggestion from McKay given above that *lassen* itself might be involved at least in the Case absorption evident in personal (or transitive) *lassen* passives, offers the only path to a solution involving the overt, observable elements of the sentence. Any other solution must involve not only the postulation of an empty subject, which is there in Impersonal Passives whichever solution is advocated, but also the postulation of some other empty element to account for the passive-like behaviour of these constructions. There is no 'a priori' reason to rule out a solution of the latter type, but it is perhaps preferable to start with observables.

In Chapter 2, section 3.3 above, there is no actual analysis proposed for *lassen* passives, there is only a review and criticism of McKay's proposals for them. Here I shall provide a proposal for an analysis, referring to the McKay analysis only to highlight the differences.

In light of the above general observations on the similarities between standard and *lassen* passives, we will assume now that similar processes to those in the standard passives are going on in the transitive and intransitive *lassen* structures. For the moment, however, we will beg the question of what

the equivalent is of the passive morpheme, and just assume that there is some element which performs its function and behaves in a similar way.

### 2.1.3 Detail

#### 2.1.3.1 Transitive *lassen* Passives

Let us begin with the transitive *lassen* Passive. With an example such as 19), repeated here as 23), we might suppose an underlying representation such as that in 24), with details of the lower clause only, for the moment:

23) Ich liess [... ihn von dem Wolf fressen]

I made him by the wolf eat

24) [<sub>ip</sub> [ ] [<sub>vp</sub> ihn [<sub>von\_pp</sub>] [<sub>v</sub> fressen]]]

The Passive process, which presumably involves Case and  $\theta$  role absorption, forces and permits the movement of the object np of the lower clause *ihn* to the subject position of the lower clause in order to be Case marked. Movement to that position is permitted since the external  $\theta$  role of the verb in the lower clause has been "absorbed" or assigned in some way. The np *ihn* cannot be case marked in subject position by an element in its own clause since the clause is tenseless. As noted above, we assume *lassen* in these cases to be an ECM verb thus *ihn* receives Object Case from *lassen* in the higher clause. The S-structure of the lower clause will be as in 25):

25) [<sub>ip</sub> [<sub>ihn<sub>i</sub></sub>] [<sub>vp</sub> t<sub>i</sub> [<sub>von\_pp</sub>] [<sub>v</sub> fressen]]]

Apart from the lack of any overt Passive verbal morphology, the processes underlying the transitive or personal *lassen* Passives are just the same as those underlying the standard Personal Passives, and the two share the same freedoms in their interpretative possibilities.

#### 2.1.3.2 Intransitive *lassen* Passives

The prediction being made by the whole of this section is that the analysis of Passives in general translates to *lassen* Passives all apart from the question of passive verbal morphology. Consideration of examples such as 26) and 27) confirms this prediction.



- 26) Er liess (von allen) tanzen  
He made (by everyone) dance
- 27) Er liess (von allen) lachen  
He made (by everyone) laugh

Just as with Impersonal Passives, there is no movement of an NP since the verb is intransitive, there is a possible *by*-phrase and there is an apparently empty subject position. Given these similarities, I shall assume that the analysis of Impersonal Passives carries over to these examples in the appropriate way. The D-structure (and in all important points the S-structure) of the embedded clause of 26) for example will be as in 28):

- 28) [<sub>ip</sub> [<sub>pro</sub>] [<sub>vp</sub> [<sub>von\_pp</sub>] [<sub>v</sub> tanzen]]]

We will assume that unlike the transitive examples above, since there is no Case absorption, there is also no absorption of the external  $\theta$  role. So, I assume that here the *pro* in subject position of 28) is the same arbitrary reference Argument proposed in chapter 3 for the subject position of the Impersonal Passives. This similar analysis reflects the fact that the set of verbs which may form Impersonal Passives is identical to the set of verbs which may form Impersonal/intransitive *lassen* Passives, that is intransitive unergative verbs which allow a human external argument. As with the transitive *lassen* passives, *lassen* is an ECM verb and so *pro* is Case marked as required.

In section 3.2.3 in Chapter 3, it was suggested that the reason why overt lexical material cannot appear as the subject of Impersonal Passives is that the non-argument '-en' is in some way underspecified and will not sanction overt material in subject position. '-en' plainly does not appear in *lassen* constructions and so whatever its equivalent is, it does not necessarily need to have exactly the same properties. It may do of course, but there may be evidence that it differs in at least this respect. Where with Impersonal Passives, one cannot have:

- 29) \*er wurde getanzt  
He was danced  
'He danced'

with intransitive *lassen* passives, one can have an equivalent:

- 30) Ich liess [ihn tanzen]  
I made him dance

This is equivalent to the example in 18) above. It is a causative construction distinct from the control structure identified in Chapter 2. The difference between this and the intransitive *lassen* passive considered in this section is that the subject is not arbitrary and it is overt. This may be an instance in German where overt lexical material may alternate freely with *pro*, the *pro* never being the non-arbitrary element. However, there is also the difference that structures like 30) do not allow a *by*-phrase. Given this latter difference, it is more likely that such alternation between *pro* and lexical material is only apparent and that there is some deeper reason for the similarity between 30) and 26) above for example. This question will be taken up again directly in the context of the discussion of the passivizing element.

#### 2.1.4 The Passive and causative nature of *lassen* Passives

The interpretative and formal similarities of Standard Passive to *lassen* Passives have been demonstrated above. The question which remains unanswered is that of what the *lassen* equivalent of the standard Passive '-en' is.

Above, reference was made to McKay's suggestion that the verb *lassen* itself was instrumental in the apparent passivization in the constructions in which it is involved. I suggested that it might be preferable to attempt to account for the passivization by making use of observable elements, in the first instance at least.

Let us assume then that it is some element on *lassen* itself that causes the passive effects in the lower clause of passive-like *lassen* causatives. If this is so, then for transitive examples, it is an element in the matrix clause which absorbs the internal Case and the external  $\theta$  role of the lower VP. Apart from any formal problems to do with such long distance action, especially with the Case absorption, one must ask why this element does not absorb the external  $\theta$  role and internal Case of *lassen* itself. It could be lexically stipulated that the passivizing element on *lassen* has as its provenance of action the subcategorized lower clause. However, this would merely be stipulation and would have to be optional in light of examples such as 30) above, where the sentence is just causative.

In this discussion to date, there has been some confusion between the causative properties of *lassen* and the apparent passive properties which it sometimes has. It would be instructive to look at the literature on Romance causatives, particularly that of the French causatives. In (Kayne 1975), (Rouveret and Vergnaud 1980), (Zubizarreta 1985), (Burzio 1986) and (Baker 1988) passive or *faire-par* causatives are distinguished from others in which the external argument of the lower VP is either expressed as an NP with object Case or in a PP with another preposition than the *by*-phrase preposition. In the references above, most argue for at least some sort of semantic reanalysis of the causative verb and the verb in the lower clause to create a complex predicate.

It has been noted (Wilder 1988) that *lassen* passives are reminiscent of the French *faire-par* constructions. These constructions have been treated in the literature cited above. In Baker (1988, p.487 note 38), there is a footnote which suggests a line for treatment of these structures. The footnote is in a chapter on the interaction of incorporations. The suggestion is that in *faire-par* constructions, there are two processes interacting. The matrix verb is causative and in the lower clause, there is some kind of passivizing element. As Baker notes, there never seems to be any overt evidence of the passivizer in the lower clause however.

I wish to separate the issues of the causative nature of *lassen* constructions in general from the passive nature of those causative *lassen* constructions which exhibit passive characteristics. To do this I will first look at the German data in light of Baker's treatment of the Romance causatives and then investigate the line of research suggested in the footnote given above for the *faire-par* structures.

#### **2.1.4.1 Baker on Romance Causatives.**

I shall not give a full exposition of Incorporation here but refer the reader to Baker (1988) and to 3.1.3 above where there is a brief introduction to Baker's ideas.

Baker (1988 p.200-204) provides a short discussion of Romance causatives. He notes that although these structures share many syntactic properties of morphological causatives, in the behaviour of the subject of the verb in the lower clause, they exhibit one crucial difference. The causative and the embedded verb are still two separate words and so there is no morphological Incorporation. Baker seeks

to find an Incorporation analysis for the Romance causatives without actual morphological Incorporation.

31)

- a) Maria fa lavorare Giovanni  
Maria makes work Giovanni
  
- b) Maria fa riparare la macchina a Giovanni  
Maria makes repair the car to Giovanni

In 31), the subject of the intransitive lower clause in a) surfaces as an accusative direct object and the subject of the transitive lower clause in b) surfaces as an oblique, dative object. Baker notes that this is the same pattern as exhibited in Chichewa and Malayalam.

His suggestion is that there is in this case Abstract Incorporation or Reanalysis which is effected by coindexation between the two verbs at the level of LF. Thus there is never any overt evidence of Incorporation at PF since LF does not feed the phonological component.

#### 2.1.4.1.1 German causatives and Incorporation?

German causatives with *lassen* are not immediately obvious candidates for Incorporation, even at LF. Although the two verbs in a causative construction are often adjacent, this is really only a by-product of the facts of German syntax. Let us take the German equivalent of 31)b):

- 32) Maria liess Hans das Auto reparieren.  
Maria made Hans the car repair

Firstly, the causative verb *lassen* and the verb in the lower clause do not form a morphological unit. Secondly, the behaviour of the subject of the lower clause illustrated in 31)b) is not reproduced here. *Hans*, the subject, is in subject position of the lower clause and although it is not overtly marked, receives accusative Case. There is no question of *Hans* being an oblique object marked with an oblique Case.

In a tense involving an auxiliary verb and in a subordinate clause, the two verbs are indeed adjacent:

33)

- a) Maria hat Hans das Auto reparieren lassen.  
Maria has Hans the car repair make
  
- b) ...,daß Maria Hans das Auto reparieren läßt.  
that Maria Hans the car repair makes

If one considered only the sort of data in 33) b), ignoring the effects of V2 constraints in main clauses or 33)a), then one might think that there would be good grounds for regarding these as Incorporation structures. However, the example in 32) must argue against this in the same way as the facts about the Italian causative constructions argue against actual morphological incorporation.

There remains the question of LF Incorporation or Reanalysis. Presumably Baker does not propose that Incorporation, either morphological or at LF, is a necessary feature of causatives in general, but that it only exists when there is morphological evidence or evidence in the shape of the behaviour of such features as the embedded subject as in the Italian examples, pointing to LF Incorporation.

On page 147, Baker gives as his first example, an English causative with *make*, which he says is bi-clausal in every respect, in particular in meaning. When talking about English causatives, Baker has not yet introduced the notion of LF Incorporation and so it is unclear whether it could apply in the English case. However, we presume that English causatives do not involve even LF Incorporation.

Do *lassen* causatives in German involve LF Incorporation? German *lassen* causatives differ from English *make* causatives only superficially. The juxtaposition of the two verbs in most of the examples given above is the result of the fact that German has SOV underlying word order where English is SVO and the V2 facts about German. Thus in subordinate clauses and main clauses in which there is an auxiliary verb, the main verb remains in underlying final position of the lower clause. This makes it adjacent to *lassen* in the matrix clause. This is just not possible in English. Since it is possible for *lassen* to be in second position, actual "physical" incorporation is unlikely in these constructions.

Reanalysis or LF incorporation seems to be unlikely also. Baker's claim for English is that the matrix clause and the lower clause are separate in all respects. If we abstract away from the word order differences between English and German noted above, the German causatives become very similar to

the English *make* causatives. The evidence which Baker provides for Romance causatives undergoing LF reanalysis is that aside from "physical" incorporation, they exhibit many of the features of morphologically complex languages. This evidence is to do with cliticization of object pronominals of the lower verb and expression of the subject of a transitive lower verb as an oblique object. These factors are not present in English and they are not present with the German causatives. Thus it seems that pure German causatives at least are not candidates for Reanalysis or LF Incorporation.

The bi-clausal nature of these constructions is supported in general by McKay (1985).

#### 2.1.4.2 *lassen* Passives and Incorporation

Let us now consider the Passive aspect of *lassen* Passives. In the above section we have shown that *lassen* causatives do not involve incorporation and that they remain bi-clausal, very similar to English *make* causative. Given this and the fact that *lassen* causatives may or may not be passive in nature rather freely, it becomes apparent that the passive issue can be addressed separately.

Above, the similarity of *lassen* passives to French *faire-par* constructions was noted and reference was made to Baker's footnote concerning a possible line of treatment for them. I shall now pick up that point.

Let us suppose that in these *lassen* passives, there is a passivizing element in the lower clause which raises at some point in the derivation, following Baker's suggestion, to attach to the tensed verb in the matrix clause. At the moment it is not vital to establish whether the passivizing element raises or not. This question becomes important in connection with the problems surrounding the lack of *by*-phrase in the reflexive passives considered below. Let us further assume that it has exactly the properties of the matrix Passive morpheme '-en'. If this is the case, then with transitive verbs it will be an argument, which is assigned the external  $\theta$  role and the internal case of the verb in the lower clause. Let us assume also that, like the matrix clause passive morpheme in the proposal in chapter 3, it may or may not be an argument. Thus with intransitive verbs in the lower clause, it will be a non-argument 'passivizer' and we will assume that it has the same properties as the matrix passive non-argument '-en'. In section 2.1.1 and 2.1.2, it was shown that *lassen* passives have exactly these properties.

Baker's caveat in his footnote was that there is a problem for such an approach because there never seems to be any evidence of the supposed passive morpheme, apart from the passive symptoms, either on the tensed matrix verb or in the lower clause. The same is the case here.

I propose however, that the overt passive morpheme '-en', both in its argument and non-argument form, has an identical, phonetically empty equivalent. Such an element would be the invisible passivizer whose existence is implied in Baker's footnote. Not only would it account for the Romance *faire-par* structures, but it would also account for the *lassen* data above.

This separation of the causative nature of *lassen* passives from their passive nature into two separate phenomena helps to resolve the question raised in the discussion of examples 29) and 30) above. Causative *lassen* is always just that. The empty passivizing element in the lower clause of *lassen* passives is optional and this optionality accounts for the free variation of active and passive causatives. We shall consider below the conditions under which this proposed element may occur.

Let us call this empty passive morpheme '-en0'. I shall suffix it with a '-ARG' or '+ARG' as appropriate. I shall now flesh out the details of such an analysis involving '-en0'. Let us consider first the transitive *lassen* passive 23) repeated here:

- 23) Ich liess [... ihn von dem Wolf fressen]  
 I made him by the wolf eat

We will assume the D-structure 34) underlies 23):

- 34) [<sub>ip</sub> [<sub>np</sub> Ich ] [<sub>vp</sub> [<sub>ip</sub> [<sub>np</sub> e ] [<sub>vp</sub> [<sub>np</sub> ihn] [<sub>pp</sub> von dem Wolf] [<sub>v</sub> fressen]] [<sub>i</sub> '-en0+ARG']] [<sub>v</sub> lassen]]]

"-en0+ARG", being an argument, is assigned the internal Case and external  $\theta$  role of the verb in the lower clause, leaving its subject position empty and without a  $\theta$  role.  $\theta$  and Case assignment are carried out in the same way as they are to *sich* in the reflexive passives described above. The  $\theta$  role is assigned VP externally at D-structure to the element in Infl. The verb in the lower clause raises to Infl to be marked with tense, or in this instance to be marked as tenseless. When in Infl, the lower transitive verb assigns its internal Case to '-en0+ARG'.

The object NP of the lower clause [ihn] is consequently not assigned Case in its D-structure posi-

tion and must move to the subject position of its clause. Since *lassen* is an E(xceptional) C(ase) M(arking) verb as argued by McKay (1985), [ihn] is marked with Accusative Case by *lassen* in the subject position of the lower clause. [ihn] may move to this position because it is not a  $\theta$  marked position, the external  $\theta$  role of the verb in the lower clause having been assigned to the '-en0+ARG'.

In the case of the intransitive examples such as 27), I assume that '-en0' is '-ARG'. Thus the representation of 27), repeated from above, would be as in 35):

27) Er liess (von allen) lachen  
He made by everyone laugh

35) [<sub>ip</sub> [<sub>np</sub> Er ] [<sub>vp</sub> [<sub>ip</sub> [<sub>np</sub> pro+arb ] [<sub>vp</sub> [<sub>pp</sub> von allen] [<sub>v</sub> lachen]]]<sub>i</sub> '-en0-ARG']] [<sub>v</sub> lassen]]

In 35), the empty passive morpheme '-en0-ARG' is not an argument and has the same properties as its overt non-argument counterpart, proposed in Chapter 3. It is not assigned the external  $\theta$  role of the verb, but by being a clitic-like element on it associated with the external  $\theta$  role, it imposes the interpretation restrictions on the bearer of the external  $\theta$  role which are met by arbitrary *pro*. This accounts for the restriction on the verbs which may form this construction, just as with the Impersonal Passives. Since *lassen* is an ECM verb, *pro* correctly receives Case.

I suggest that in both of these constructions, the empty passive morpheme raises at some level to attach to the tensed matrix verb or at least has some relation to it, although this is not crucial here. It will be seen below that this idea may be important in the interpretation of reflexive passives.

The empty passive morpheme is thus identical in content to the overt passive morpheme all apart from the fact that it has no phonetic content. Its behaviour is the same apart from the fact that at D-structure, it is in a tenseless subordinate clause and that it may have to raise to attach to the tensed matrix clause. As yet there is no evidence for the latter statement. However, some evidence for the possible raising of this element will be produced when the complex reflexive *lassen* structures are treated below.

In general it is interesting to note that where in English it is possible to have an overtly passive lower clause to a verb like *let* and rather more marginally with *make*,



36) He let/(? made) the car be repaired  
in German, this is not possible:

37) \* Er liess das Auto repariert werden.

This contrast is more clearly seen in the case of the "copula passives" examined in 4.0 below.

Further evidence will be produced for the existence of the empty passive morpheme. It will be shown below that all the other passive-like structures examined in Chapter 2 above involve an empty passive morpheme in the lower tenseless clause. This will provide a unified treatment of all the apparently disparate bi-clausal passive-like phenomena discussed in chapter 2. However, to conclude the section on *lassen* structures we turn now to reflexive *lassen* constructions.

## 2.2 Reflexive *lassen* constructions

### 2.2.1 General Comments

In section 1. of this chapter, a treatment of mono-clausal reflexive passives was proposed. Section 2.1 presented a treatment of pure *lassen* passives. Here we wish to deal with a construction involving both. The structures concerned are discussed in 3.3.4 in chapter 2. Here I shall give two examples:

38) Das läßt sich leicht (\* von allen) machen  
That makes SICH easily (by everyone) do

39) Es läßt sich hier (\* von allen) tanzen  
It makes SICH here (by everyone) dance

If the proposal for the analysis of passive *lassen* given above and the treatment of the mono-clausal reflexive passives in section 1. are valid and there really is a passive process going on in each type of clause, then if the two types CAN occur side by side in a biclausal structure, it is most likely that we have here a structure with two passive processes - passivization of the lower clause by means of the empty passive morpheme and passivization of the main clause by means of *sich*. If this assumption is correct, then the most natural attempt at a treatment is to suggest that the clause is to be analysed in exactly that way - by the combination of the two analyses already given.

Before continuing to elaborate an analysis for the structures in 38) and 39), it is worth checking that there really are two passive processes in such sentences, at least from a syntactic point of view. Let us consider example 38) first.

The first point to note in this example is that the surface matrix subject bears the internal  $\theta$  role of the verb in the lower clause. Thus at some level, *das* is object of *machen*. Thus one must assume that whatever passive process(es) is/are at work here, it or they are not limited to just one clause, since it appears that the D-structure object of the lower clause is in subject position of the matrix clause at S-structure.

The second point to note is that, as shown in 38) and 39) above, a *by*-phrase is never allowed with this sort of structure. This is generally a feature of reflexive passives and so it is clear that that aspect of their mono-clausal behaviour at least has been carried over into this structure. Further to that, given that this is a bi-clausal structure, one might expect that moving the *by*-phrase to a different point in the sentence (i.e. to the other clause) would have the effect of making it grammatical. However, no matter where in the sentence the *by*-phrase is placed the result is still ungrammatical. This might imply a mono-clausal structure and one passive process since *by*-phrases are uniformly allowed with *lassen* passives. However, see below.

A third point to note is that usually, *lassen* assigns an external  $\theta$  role and, by the analysis above, assigns case to the subject of its complement clause. However, here it must be the case that the subject position of *lassen* does not receive a  $\theta$  role, since in 38) *das* is free to move into it and in 39), it is occupied by an overt expletive. Given that *das* in 38) does move to the matrix subject position, *lassen* cannot be able to assign Case to the subject position of the lower clause because otherwise *das* would not need to 'raise' so far. This argues for a passive morpheme being attached to *lassen*. It is assigned the external  $\theta$  role and the internal Case of *lassen*.

The clearest candidate for the passive morpheme assigned to *lassen* is *sich*. Even if the sentence involves an auxiliary verb, with no movement of the matrix main verb to second position, *sich* is still associated with the tensed higher clause, the *lassen* clause:

- 40) Das hat sich leicht (\* von allen) machen lassen  
That has SICH easily (by everyone) do make

Thus we assume that the reflexive passive morpheme *sich* acts on the matrix clause and so at least from the syntactic evidence above, the matrix clause displays behaviour similar to the mono-clausal reflexive passives.

Let us now consider the lower clause. As already noted, with a transitive verb, the internal Case is no longer available to be assigned to the D-structure object. Above, it is assumed that this is the result of a passive process. However, since the reflexive morpheme *sich* has already received the internal Case of the matrix *lassen*, it is clear that it plays no part in the passivization of the lower clause, and yet the lower clause does display passive characteristics.

If we assume the empty passive morpheme proposed above for the simple *lassen* passives, then we have an answer at least to the question of the Case problem in the lower clause. Just as in the simple *lassen* passive, the internal Case of the lower verb is assigned to the empty passive morpheme, forcing movement of the object of the lower clause.

Again, as in the case of the simple *lassen* passive, the empty passive morpheme is assigned the external  $\theta$  role of the lower V(P). This must also be the case in order to allow movement of the object via the lower clause subject position to matrix subject position to receive Case. Thus we appear to have two passive processes in the same sentence.

With 39) above, there is a similar point to make about the external  $\theta$  role of *lassen*. It is clear that in such examples *sich* is performing the same role as in 38), that of absorbing or being assigned the external  $\theta$  role, since there is an expletive subject. This can be shown by fronting some other element to first position:

- 41) Hier läßt \* (es) sich (\* von allen) tanzen  
Here makes (it) SICH (by everyone) dance

41) shows that *es* really is a subject just as it is with mono-clausal reflexive passives, since it remains, even under inversion. This shows that the same passive process is going on in the matrix clause of both 38) and 39).

Linked to this point is the question of whether there is a non-argument empty passive morpheme in the lower clause of 39). I shall assume in this analysis that there is such a passive element in the lower clause and I shall also assume that there is an arbitrary reference *pro* at least in the D-structure subject position of the lower clause of 39).

The external  $\theta$  role of the lower clause is still assigned to arbitrary *pro* subject just as with the intransitive *lassen* passives and the Impersonal Passives. If we did not assume that the subject of the lower clause in 39) contained arbitrary *pro* at D-structure at least, it is unclear what else could be in that position. If there is no passive process in the lower clause, then the  $\theta$  role would be assigned to the subject position in any case, but without the referential limitation which is assumed for the empty non-argument passive morpheme. It is generally acknowledged that fully referential *pro* does not exist in German and so this option is ruled out. Another alternative would be for the subject position to be filled by "big PRO". This is unlikely however, since at least in the transitive example 38) and presumably 39) as well, the subject position is governed from the matrix clause. This would disallow PRO.

If the lower clause is passive but involves the argument empty passive morpheme then there would be the problem of how it receives Case, since it usually receives the internal Case of the verb it is associated with and in a structure such as 39) there is no internal case for the verb to give it. Also, this element would receive the external  $\theta$  role of the lower verb. Usually the argument passive morpheme is not associated with arbitrary interpretation. These structures are always arbitrary and are limited to the same set of intransitive verbs as Impersonal Passives and the other constructions considered so far, and under these different assumptions, the explanation of the strict arbitrary interpretation would be lost. (see below for discussion of the interpretative properties of 38 and 39).

We will assume that the lower clause of 39) does contain an empty non-argument passive morpheme. However, this particular construction is rather more difficult than the others considered so far to analyse with ease within this approach or for that matter any other approach. Below, we will provide a more detailed exposition of these problems and attempt a solution.

There remain some unanswered questions however. Above it was noted that a *by*-phrase never appears in the constructions in 38) and 39) and that this is a property of reflexive passives. *lassen*

passives, or more generally speaking, passives involving either the '-en' morpheme or its proposed empty counterpart, by contrast do allow *by*-phrases, but even though there is evidence for an empty passive morpheme in the lower clause of such examples as 38) and 39) above, no *by*-phrase may ever appear.

Another problem concerns the question of how the arbitrary *pro* which I propose for the subject position of the lower clause in 39) receives Case, given that the internal Case of the matrix verb is assigned to the *sich* and that there is no case assigned to the subject position of the lower clause since it is untensed.

Considering the Case problem first, recall that with the monoclausal intransitive reflexive passives there were problems for the assignment of Case to the argument *sich*. In section 1.3.2 above it was proposed that in these cases, the Case requirements of the argument *sich* were satisfied by its membership of a chain with the expletive subject *es* to which nominative Case is assigned. The same solution can be provided here. *sich* must receive Case. It usually receives the internal Case of the verb with which it is associated but in those instances where it may not, it is free to form a chain with the expletive subject. In that case, *lassen* is free to assign its internal Case to the arbitrary *pro* in the subject position of the lower clause. This is not a new device but an extension of the Case solution for the monoclausal intransitive reflexive passives proposed above. It just happens to be interacting with a verb which does assign internal Case.

The answer to the *by*-phrase question for both transitive and intransitive reflexive passives may lie in the various ideas about reanalysis which have been proposed in the last ten years. The interaction of two passive processes may force their merger into a single clause at some level. Thus if the empty passive morpheme attaches to the higher verb, it would merge with *lassen+sich*. As a result, the whole clause would adopt some of the chief characteristics of reflexive passives eg. lack of *by*-phrases and genuine expletive subjects. As informal evidence for possible monoclausal interpretation, consider the fact that 38) and 39) both translate to a monoclausal structure in English as in 42) and 43) respectively:

42) You can do that easily / That can be done easily

43) You can dance here

In the next section, I shall provide the detail of this analysis which accounts for the bi-clausal syntactic behaviour of these structures illustrated in this section and discuss their monoclausal interpretation.

### 2.2.2 An analysis for Reflexive *lassen* constructions

In this section I shall present the detail of the analysis discussed in the previous section. Let us begin with the transitive reflexive *lassen* passives as in 38) above repeated here:

38) Das läßt sich leicht (\* von allen) machen  
That makes SICH easily (by everyone) do

Our proposal is that there is a passivizing element in both clauses. A D-structure for such a proposal would be as in 44)

44) [<sub>ip</sub> [e] [<sub>i</sub> [<sub>vp</sub> [<sub>ip</sub> [e] [<sub>i</sub> [<sub>vp</sub>[<sub>np</sub> das][<sub>advp</sub> leicht] [<sub>v</sub> machen] ]][<sub>i</sub> '-en0+ARG']]] [<sub>v</sub> lassen]] [<sub>i</sub> sich] ]]

Let us start with the lower clause first. The verb *machen* assigns its external  $\theta$  role to the empty passive morpheme in [<sub>i</sub>]. It then moves to the head position of [<sub>ip</sub>], namely [<sub>i</sub>] itself which is non-tensed. Here it marks the empty passive morpheme with its internal Case. This forces the object NP *das* to raise "in search" of Case. It moves to the empty subject position of the lower clause and it can do this legally since the external  $\theta$  role is no longer assigned to this position. This gives us this intermediate representation:

45) [<sub>ip</sub> [e] [<sub>i</sub> [<sub>vp</sub> [<sub>ip</sub> [das]<sub>j</sub>] [<sub>i</sub> [<sub>vp</sub>[<sub>np</sub> t<sub>j</sub>][<sub>advp</sub> leicht] [<sub>v</sub> t<sub>i</sub>] ] [<sub>i</sub> machen<sub>i</sub> '-en0+ARG']]] [<sub>v</sub> lassen]] [<sub>i</sub> sich] ]]

We must now consider what happens in the matrix clause before we can complete this. The external  $\theta$  role of *lassen* is assigned externally to the VP to *sich*. *lassen* raises to the Infl node to become sister of *sich* and assigns its internal Case to it. Thus *lassen* now has a non- $\theta$  subject position and no longer can assign its internal Case. This gives us the following structure:

46) [<sub>ip</sub> [e] [<sub>i</sub>, [<sub>vp</sub> [<sub>ip</sub> [das<sub>j</sub>] [<sub>i</sub>, [<sub>vp</sub>[<sub>np</sub> t<sub>j</sub>][<sub>advp</sub> leicht] [<sub>v</sub> t<sub>i</sub>] ]][<sub>i</sub> machen<sub>i</sub> '-en0+ARG']]] [<sub>v</sub> t<sub>k</sub>] [<sub>i</sub> lassen<sub>k</sub> sich ] ]

The object of the lower clause *das* which has raised to the subject position of its own clause, will not receive Case in this position since the internal Case of *lassen* has been assigned to *sich*. So *das* is forced to raise again to be Case marked. It moves to the matrix subject position where it is marked with nominative Case. It can move to this position because *sich* has received the external  $\theta$  role of *lassen* which would normally have been assigned to that position. This results in the following representation:

47) [<sub>ip</sub> [das<sub>j</sub>] [<sub>i</sub>, [<sub>vp</sub> [<sub>ip</sub> [t<sub>j</sub>] [<sub>i</sub>, [<sub>vp</sub>[<sub>np</sub> t<sub>j</sub>][<sub>advp</sub> leicht] [<sub>v</sub> t<sub>i</sub>] ]][<sub>i</sub> machen<sub>i</sub> '-en0+ARG']]] [<sub>v</sub> t<sub>k</sub>] [<sub>i</sub> lassen<sub>k</sub> sich ] ]

This leaves us in the position just before raising of the tensed verb and the *sich* to second position and before *das* is finally fronted to first position, to give the surface string:

48) Das läßt sich leicht machen.

If we now consider the intransitive reflexive *lassen* passives, we find that they reflect in their analysis the parallel to the intransitive reflexive passive and the intransitive *lassen* passive which the above transitive analysis has to its transitive counterparts.

Let us consider 39) above repeated here:

39) Es läßt sich hier (\* von allen) tanzen  
It makes SICH here (by everyone) tance

Let us assume the following D-structure:

49) [<sub>ip</sub> [e] [<sub>i</sub>, [<sub>vp</sub> [<sub>ip</sub> [pro] [<sub>i</sub>, [<sub>vp</sub>[<sub>advp</sub> hier] [<sub>v</sub> tanzen] ]][<sub>i</sub> '-en0-ARG']]] [<sub>v</sub> lassen]] [<sub>i</sub> sich ] ]

Consider the lower clause first. The empty passive morpheme is a non-argument and so, when the verb assigns its external  $\theta$  role, it is assigned to the subject as usual. The verb *tanzen* has no internal Case to assign and so, when it raises to the Infl node, the empty passive morpheme is not Case marked. This gives the following representation:

50) [<sub>ip</sub> [e] [<sub>i</sub>, [<sub>vp</sub> [<sub>ip</sub> [pro] [<sub>i</sub>, [<sub>vp</sub>[<sub>advp</sub> hier] [<sub>v</sub> t<sub>i</sub>] ]][<sub>i</sub> tanzen<sub>i</sub> '-en0-ARG']]] [<sub>v</sub> lassen]] [<sub>i</sub> sich ] ]

The subject of the lower clause needs Case and this is assigned by *lassen*. *sich* in the matrix clause needs both Case and  $\theta$  role. It receives its  $\theta$  role in the expected manner, that is *lassen* assigns its external  $\theta$  role to *sich* which is outside the VP. *lassen* then raises to the sister position of *sich* in Infl. Since *lassen* has already assigned its internal Case to the subject position of the lower clause, the second Case assigning strategy assumed for non-*lassen* intransitive reflexive passives above can be employed here. *sich* being adjacent to Infl can be marked by it with Nominative Case in just the same way as in the non-*lassen* reflexive passives above.

The above provides an account for the biclausal syntactic processes in reflexive *lassen* passives. We have accounted for the behaviour of these complex constructions by applying to them the analyses given above for their component parts. The combination of the separate analysis for monoclausal *lassen* and reflexive passives accounts well for these biclausal structures. The perhaps marked treatment of Case assignment to *sich* in the intransitive reflexive passives extends naturally to the equivalents in the reflexive *lassen* passives.

There is one feature of reflexive *lassen* passives which is surprising and which the above analysis has neither captured nor explained. It was noted above that a *by*-phrase is never possible in these constructions. This is a feature of reflexive passives, though not of *lassen* passives and it is rather surprising that a *by*-phrase is completely excluded. In this respect, the behaviour of the clause is monoclausal. That means that the restrictions which *sich* places on the expression of the external argument of the verb to which it is attached extend to cover the lower clause as well as the matrix clause.

Above, we have argued against morphological 'Incorporation' in German and in the case at least of the causative nature of *lassen* we have argued against reanalysis or the "Incorporation without incorporation" of Baker.

However, it seems that there may be some evidence here for some kind of incorporation of the passive element of the lower clause into the passive element of the matrix clause. Above, I suggested without any evidence that the empty passive element in the lower clause might raise to attach to the tensed main verb. The behaviour here provides the evidence needed perhaps.



It is the interaction of the two sorts of passive which prevents the expression of a *by*-phrase. Non-reflexive *lassen* passives do not exclude the *by*-phrase in the lower clause. It is only when *lassen* is passivized by *sich* that this effect is observed. Either this is to be accounted for by some scope relation which the higher passive exercises over the rest of the clause, or there is a physical linking of the two passive morphemes with the higher one dominating. This physical linking, if it is the explanation for the lack of *by*-phrase question, could be the as yet unjustified raising of the empty passive morpheme to attach in some way to the tensed matrix verb.

Given that this is the only evidence for movement of the empty passive morpheme, and that there is no alteration of the interpretation properties of the other constructions which involve the empty passive morpheme in the tenseless lower clause, we might leave the question unanswered here since there is not enough evidence to adopt the incorporation solution. We will assume that the empty passive morpheme stays in the lower clause and that in examples such as 23) and 27), the verb in the lower clause raises to INFL as assumed in the reflexive passive cases above.

### 2.3 *lassen* Conclusion

To conclude this section on *lassen* constructions, I wish to give an overview of the discussion so far.

The passive-like behaviour of the pure *lassen* constructions both transitive and intransitive is accounted for if we assume an empty passive morpheme which is just the same in all its properties as its overt counterpart '-en' apart from having a phonetic matrix. This identity of properties with the overt morpheme extends to the parametrization of the Argument status. The argument empty passive morpheme is involved in *lassen* passives with transitive verbs in the lower clause. The non-argument empty passive morpheme is involved in *lassen* passives with intransitive verbs in the lower clause. It must be noted also that we have another occurrence of the arbitrary *pro* proposed for the analysis of Impersonal Passives in Chapter 3. It is found in the subject position of the lower clause in intransitive *lassen* passives.

In the reflexive *lassen* passives, the proposal for the non-reflexive *lassen* passives carries over and

combines with the proposal made above for the mono-clausal reflexive passives in a natural manner. The only unexpected feature is that the property of reflexive passives which prevents a *by*-phrase generalizes to the whole of the reflexive *lassen* passive.

The three important points to note in this section are the proposal of an empty passive morpheme, '-en0+/-ARG', the interaction of two passives in a biclausal structure and another instance where arbitrary *pro* is found in German.

### 3.0 Perception verbs

In section 3.4 in chapter 2 above, there is a discussion about perception verbs. Although they may be marginal to some extent, given that these constructions are generally less acceptable than those considered up till now, it is worth looking at them again in light of the analysis of the pure *lassen* constructions given above. Consider examples such as 51) and 52), taken from chapter 2:

51) Er sah die Kisten auf den Laster laden  
He saw the cases on the lorry load  
'He saw the packing-cases being loaded onto the lorry'

52) Auf der Strasse sah ich tanzen.  
In the street saw I dance  
'In the street I saw dancing'

In der Küche hörte ich lachen  
In the kitchen heard I laugh  
'In the kitchen I heard laughing'

The discussion in chapter 2 is inconclusive and the evidence for the passive interpretation of the structures involving these verbs is conflicting. There is some doubt whether *by*-phrases for example are permissible. One source, Harbert (1977) regards those examples which he claims are licit in modern German to be survivors from an earlier period in the history of the German language.

However, the German reference grammar, Hammer (1977) allows the examples such as 51) and 52) above freely, but says nothing about *by*-phrases.

For the moment, let us assume that the judgments in Hammer are correct and, since nothing is said there about *by*-phrases, we will assume that they are permitted. If these constructions were more

productive in earlier German, as claimed by Harbert, then the fact that they may or may not be so productive today does not matter, since presumably, the present analysis could be applicable to an earlier stage of German.

### 3.1 An analysis

If we make the above assumptions, then we can see a similarity between these perception construction verbs and the *lassen* passives examined in section 2. Accordingly, we will extend the analysis given in section 2 to account for these examples. Let us consider the transitive example in 51) above first.

51) Er sah die Kisten auf den Laster laden

This is just the same as a transitive *lassen* passive in the sense that you can replace the verb *sah* with *ließ* and create a perfect *lassen* passive:

53) Er liess die Kisten (von ...) auf den Laster laden  
He made the cases (by...) on the lorry load

We will assume that the D-structure in 54) underlies 51):

54) [<sub>ip</sub> [<sub>np</sub> Er ] [<sub>vp</sub> [<sub>ip</sub> [<sub>np</sub> e ] [<sub>vp</sub> [<sub>np</sub> die Kisten] [<sub>pp</sub> auf den Laster] [<sub>v</sub> laden]]][i '-en0+ARG']] [<sub>v</sub> sehen] ][<sub>i</sub> ]

As with the *lassen* passives, the lower clause is tenseless and we assume that the argument empty passive morpheme is in the Infl of the lower clause. The external  $\theta$  role of *laden* is assigned VP externally to the argument empty passive morpheme and then the verb raises to Infl to be marked as tenseless and at this point, it assigns its internal object Case to the empty passive morpheme. This gives us the intermediate structure in 55):

55) [<sub>ip</sub> [<sub>np</sub> Er ] [<sub>vp</sub> [<sub>ip</sub> [<sub>np</sub> e ] [<sub>vp</sub> [<sub>np</sub> die Kisten] [<sub>pp</sub> auf den Laster] [<sub>v</sub> t<sub>i</sub>]][<sub>i</sub> laden<sub>i</sub> '-en0+ARG']] [<sub>v</sub> sehen] ][<sub>i</sub> ]

The NP *die Kisten* in D-structure object position no longer receives Case and raises to the subject position of its clause where it receives the object Case of the matrix verb, which like *lassen* is an ECM

verb. *die Kisten* may move to the subject position of its clause because no  $\theta$  role is assigned to this position, the external  $\theta$  role of *laden* having been assigned to '-en0+ARG' in Infl.

Just as there are transitive structures involving the verbs of perception, so, as pointed out in Chapter 2, there are intransitive structures which are very similar to the *lassen* passives. Here too, we will assume that *by*-phrases are possible, although they will not be crucial to these examples. Consider 56):

- 56) Er sah auf der Strasse tanzen  
He saw on the street dance

Again if *sah* is replaced by *liess*, we have a perfectly well formed *lassen* passive:

- 57) Er liess auf der Strasse tanzen  
He made on the street dance

Here we have the non-argument empty passive morpheme in the lower clause along with the arbitrary reference *pro*:

- 58) [<sub>ip</sub> [<sub>np</sub> Er ] [<sub>vp</sub> [<sub>ip</sub> [<sub>np</sub> pro ] [<sub>vp</sub> [<sub>pp</sub> auf der Strasse] [<sub>v</sub> tanzen]]]<sub>i</sub> [-en0-ARG']] [<sub>v</sub> sehen ] [<sub>i</sub> ]]

*tanzen* assigns its external  $\theta$  role outside the VP. The empty passive morpheme is not an argument and so the  $\theta$  role is assigned to the *pro* in subject position. When *tanzen* raises to the Infl of its clause to receive its tense features, in this case to be marked as tenseless, it has no internal Case to assign and since the Infl is tenseless, no external Case is assigned. The matrix ECM perception verb marks the *pro* subject of the lower clause with its internal Case, in just the same way as *lassen* does.

Thus we see that the same processes are at work here as with the *lassen* passives both in the transitive and intransitive examples.

### 3.2 Perception Verb Conclusion

The evidence for *by*-phrases is conflicting, in that Harbert (1977) explicitly disallows them with these perception constructions, whereas other sources including some native speakers do allow them. It is not to be wondered at that Harbert disallows *by*-phrases, since he disallows the passive interpretation of such constructions as these in general apart from in a few phrases which he regards as "residual

formulae" from a period where such passive interpretation was allowed.

One of these "residual formulae" which he gives in a footnote is 59):

- 59) Ich habe ihn taufen sehen  
I have him baptize see  
"I saw him (be) baptized"

Presumably he would allow an equivalent extended "residual formula" as in 60):

- 60) Ich habe ihn von dem Pfarrer taufen sehen  
I have him by the priest baptize see  
"I saw him baptized by the priest"

This is an assumption, but a reasonable one. The point to be made here is that although passive interpretation of the tenseless subordinate clauses of perception verbs may be impossible for some speakers, in a period when it was universally possible and also for those speakers today for whom it is possible, the passive property goes hand in hand with the ability to express the external argument in a *by*-phrase.

If this is correct then the phenomena described here, whether legitimate historically or temporarily, are capable of being accounted for by the mechanisms discussed here. This shows the wider applicability of the ideas developed here whether to contemporary problems or to historical problems.

#### 4.0 'Copula+zu+infinitive' Passive Constructions

In section 3.5 in Chapter 2, the 'Copula+zu+infinitive' Passive Constructions as in 61) were discussed.

- 61) Dieses Buch ist von niemandem zu kaufen.  
This book is by nobody to buy  
'This book is not to be bought by anyone'

In Chapter 2, it was noted that these constructions occur both with transitive and intransitive verbs and that there are the usual restrictions on the formation of this construction with intransitive verbs, namely that they be unergative and that their external argument be human. 62) and 63) illustrate intransitive examples:

62) Es ist jetzt zu feiern  
It is now to celebrate  
'Now we must celebrate'

63) Jetzt ist (\*es) zu feiern  
now is \*it to celebrate  
'Now we must celebrate'

As this shows, the behaviour of *es* in these constructions is similar to ordinary Impersonal Passives in that *es* only occurs in first position when nothing else has been moved there.

In 3.5 in Chapter 2 it was pointed out that these constructions share all the properties of ordinary passives except that they do not have any overt passive morphology and also that they are bi-clausal. I shall continue to assume that they are bi-clausal.

Given the discussion of the *lassen* passives and the passives with the verbs of perception above, a solution to the problem posed by 61) and 62) suggests itself immediately. Here we have a biclausal structure with all the usual passive features other than overt passive morphology. It is to be noted in all of the above examples where '-en0' is proposed, that the lower clause of the structure is tenseless. Here again we have a tenseless lower clause. Accordingly, I propose that this is another instance of the empty passive morpheme '-en0'.

Let us examine this more closely. In 61), the verb in the lower clause is transitive. The subject of the matrix verb *Dieses Buch* is the D-structure object of the verb *kaufen*. Thus in the derivation of 61), there has been movement of the object over a long distance, similar to the movement of the D-structure object in reflexive *lassen* passives. However, the conditions here are rather different in that there is no apparent passivization of the matrix clause.

62) and 63) illustrate the similarity in behaviour in the intransitive variant to Impersonal Passives from the point of view of the behaviour *es*. It was demonstrated in 3.5 in Chapter 2 that these structures share the same limitation as Impersonal Passives in that they can only be formed with non-ergative human subject intransitives. However, this structure too is bi-clausal and shows no obvious passive morphology. Apart from the behaviour of *es* and the facts surrounding *sich*, these intransitive copular constructions are similar to the intransitive reflexive passive structures.

The above comments lead to a rather unclear general picture concerning the similarities of this copular passive to the other passives examined so far. In clarifying this picture, it is useful to look at the two clauses of this bi-clausal structure separately.

#### 4.1 Transitive copular passives

Let us examine 61) again more closely.

- 61) Dieses Buch ist von niemandem zu kaufen.  
 This book is by nobody to buy  
 'This book is not to be bought by anyone'

In the above discussion, it was assumed that the matrix subject is D-structure object of the lower clause. If we assume that '-en0+ARG' is in Infl of the lower clause, then we have an explanation for the movement of this element out of its D-structure position. Consider 64) as a representation of the lower clause just prior to the movement of *Dieses Buch* out of D-structure object position:

- 64) ...<sub>[i<sub>p</sub>]</sub> [e] [<sub>v<sub>p</sub></sub> [<sub>n<sub>p</sub></sub> dieses Buch] von... [<sub>v</sub> t<sub>i</sub>]] [<sub>i</sub> kaufen<sub>i</sub> '-en0+ARG']] ...

In 64), *kaufen* has already assigned its external  $\theta$  role to the empty passive morpheme and has been raised to Infl. Here it assigns its internal Case to the passive morpheme and consequently cannot assign it to the object NP *dieses Buch*. *dieses Buch* needs Case and so it raises to the subject position of its own clause.

In the reflexive *lassen* passive construction similar to this, the same processes occur, because up to this point we are in the domain of the empty passive morpheme of the lower clause in both sorts of construction. However, it is at this point that the similarity breaks down. In the reflexive *lassen* construction, the NP which has been moved from the D-structure object position raises to matrix subject position because the passivizing element *sich* prevents it from receiving Case in subject position of the lower clause because *sich* has been assigned the internal Case of the higher ECM verb.

In the copular construction, the moved NP has to raise further also, but for quite different reasons. There is no passivizing element in the matrix clause of the copular constructions, but the moved NP behaves as if there is since it has to move from the subject position of the lower clause and it may

move to the matrix subject position.

This implies that there is no internal case assigned to the subject position of the lower clause by the copula and that the subject position of the copula is not a  $\theta$  position. Thus the copula in these structures displays characteristics of a verb which has been passivized, without actually having undergone passivization. So I assume that the copula is just naturally deficient in these properties. This is a reasonable assumption for the Case properties of the copula in German. It is clear that *sein* does not assign object Case:

- 65) Er ist der Mann, der...  
He is the(L+*NOM*) man who...

In 65), where in <sup>an</sup>English we would usually say *It is me*, there being some disagreement on whether the copula in English assigns Case internally, there is no uncertainty in German. In an example such as 65), there must be some sort of Case copying since the NP<sub>der Mann</sub> has Nominative Case.

Once we assume this, then the analysis of 61) is straightforward. Consider 66):

- 66) [<sub>ip</sub> [e] [<sub>vp</sub> [<sub>ip</sub> [<sub>np</sub> dieses Buch<sub>j</sub>] [<sub>vp</sub> [<sub>np</sub> t<sub>j</sub>] von.. [<sub>v</sub> t<sub>i</sub>] [<sub>i</sub> kaufen<sub>i</sub> '-en0+ARG']]] [<sub>v</sub> sein]] [<sub>i</sub> ]]

We merely assume that the copula assigns neither internal Case nor external  $\theta$  role and the way is open for the NP in subject position of the lower clause to raise to receive nominative Case from the matrix Infl.

#### 4.2 Intransitive copular passives

Let us now consider the examples in 62) and 63) above repeated here:

- 62) Es ist jetzt zu feiern  
It is now to celebrate  
'Now we must celebrate'

- 63) Jetzt ist (\*es) zu feiern  
now is \*it to celebrate  
'Now we must celebrate'

Given the above discussion of the  $\theta$  and Case properties of the copula, there are no problems in



providing an analysis for these examples which explains their distribution and behaviour easily.

We will assume, as with all of the bi-clausal constructions considered in this chapter with an intransitive verb in the lower clause, that the non-argument empty passive morpheme is in the Infl of the lower clause. From this it follows that at D-structure, the subject position of the lower clause will be filled by arbitrary *pro*:

67)  $..[_{ip} [ pro ] [_{vp} von.. [_v t_i] [_i feiern; '-en0-ARG']]]..$

67) shows a representation of the structure after the verb of the lower clause has been raised to Infl to be marked with +/- tense features. *feiern* assigns no internal Case and so correctly, '-en0-ARG' is not Case marked. Since Infl is not tensed, *pro* is not Case marked. In the reflexive *lassen* passive equivalent, *pro* is Case marked by ECM from the matrix verb. However, as has already been established above, the copula has no internal Case to assign.

It was noted above that the distribution of *es* in such constructions as 62) and 63) is the same as that with Impersonal Passives. We now provide the reason for that similarity. Just as we assume that in 66) above *Dieses Buch* must raise again to the subject position of the matrix clause to be Case marked, so in 67) must *pro* raise to the matrix subject position to be Case marked:

68)  $[_{ip} [pro_j] [_{vp} jetzt [_{ip} [t_j] [_{vp} von.. [_v t_i] [_i feiern; '-en0-ARG']]] [_v t_k] [_i ist_k]]]$

68) shows the structure after all V raising is complete and after *pro* has raised to matrix subject position to receive Case.

Now the position is similar to monoclausal Impersonal Passives in that there is an arbitrary reference *pro* in matrix subject position and because of that, we see the same distribution of *es*, namely we only see it in first position if nothing else has been moved there. *es* is not a subject.

### 4.3 Copula conclusion

The Intransitive Copular Passives are particularly interesting in that they provide perhaps the clearest evidence for the existence of '-en0'. The distribution of these structures is exactly the same as

the Impersonal Passives. However, in these structures the only possible overt element which could account for the distribution is the copula. With Impersonal Passives, as proposed in this study, the distribution is accounted for by the selectional restrictions holding between the arbitrary *pro* and the external  $\theta$  role assigned via the non-argument passive morpheme. However there are no selectional restrictions possible with the copula and so the distribution of these structures has to be accounted for in another way.

If one assumes '-en0' in the lower clause, then the selectional restrictions are accounted for and the distribution of *es* follows naturally under such an account.

The treatment of both transitive and intransitive copular passive constructions given in 4.1 and 4.2 above shows the further applicability of the ideas developed in this study. I have accounted for the passive nature of these structure, the interpretative limitation of the intransitive examples and the distribution of the dummy *es* in the intransitive examples. This analysis is a further use of arbitrary *pro* and of the empty passive morpheme '-en0' proposed in this study.

## 5.0 Conclusion of the Chapter

In this chapter, I have accounted for the apparently unrelated constructions examined in Chapter 2 sections 3.3-3.6. To do this I have introduced only one theoretical innovation, namely the empty passive morpheme '-en0'. I have extended the innovations proposed in chapter 3 which account for the distribution and behaviour of Impersonal Passives, namely arbitrary *pro* and the idea of varying the Argument status of the overt passive morpheme '-en'. I suggest that the proposed empty passive morpheme shares the Argument status varying properties of its overt counterpart.

Together these proposals provide a coherent and unified account for the apparently disparate structures examined in Chapter 2 sections 3.3-3.6.

Section 1. provides a treatment of Reflexive Passives which finds its origins in Belletti's (1982) treatment of equivalent Italian structures. The proposal here is that *sich* is an argument, with the appropriate arbitrary and Human features, which is assigned the external  $\theta$  role of the verb and the Internal Case of a transitive verb. Here I propose that in Intransitive examples, *sich* receives Nominative

Case. *sich* is a passive morpheme, in Baker's terms, which does not license a *by*-phrase.

Section 2. provides an analysis of *lassen* passives. In section 2.1, I highlight the similarities between standard passives and pure *lassen* passives. I provide discussion separating the causative nature and the passive nature of these constructions and then I account for the passive nature by proposing the empty passive morpheme '-en0' which can be either an Argument or a non-Argument as can its overt counterpart, in the present proposal.

Section 2.2 provides a treatment of reflexive *lassen* passives which combines the treatment of monoclausal reflexive passives proposed in section 1. with the treatment of pure *lassen* passives proposed in section 2.1. There is some discussion of this interaction, but the question of the lack of *by*-phrase is left unresolved.

Section 3. provides a discussion of the marginal passive constructions found with perception verbs. These are marginal in that they are either regarded as archaic or if accepted by contemporary speakers, it is only by relatively few. Nevertheless, these structures can be accounted for by the same assumptions and mechanism proposed for the *lassen* passives, whether diachronically or synchronically and they thus show another environment in which the proposed empty elements are used.

Section 4. provides a treatment of the 'copula+zu+infinitive' passives. As with the other biclausal structures considered here, they provide another environment in which the empty passive morpheme is used in both its argument and non-argument form. The raising of the arbitrary *pro* subject from the subject position of the lower clause to receive Case provides an explanation for the identity of behaviour of the dummy *es* in these constructions to that in the Impersonal Passives.

In this chapter in proposing '-en0', I have not examined in detail the circumstances under which this element may appear. All I have said is that it appears in non-tensed clauses. As shown with both the *lassen* examples and the copula examples, it occurs in non-tensed clauses both with and without *zu*. In chapter 5, section 1., I shall investigate its distribution further.

The postulation of an argument arbitrary reference *pro* in German, the variation of the Argument status of the passive morpheme '-en' and the assumption of an empty equivalent to '-en', namely '-en0' which shares the variation of its Argument status and which appears only in non-tensed clauses,

accounts for the variety of data presented in Chapter 2 in a coherent fashion. The analyses presented in Chapter 3 and in this Chapter provide such an account.

## Chapter 5

### Discussion, Conclusions and Problems

#### 0. Introduction

In this chapter, I shall look at the ideas presented in chapters 3 and 4 in a broader context and examine some alternative approaches to the problems treated in this study, approaches which differ substantially from the sort of analyses reviewed in chapter 2 and from the analysis developed in chapters 3 and 4.

In section 1. I shall look at the innovations proposed here, namely the variation of the argument status of the passive morpheme, the empty passive morpheme and arbitrary *pro* in German. I shall also consider the element *sich* in this broader context.

Section 2. will examine the possibility of there being object arbitrary *pro* in German along the lines of Rizzi (1986) looking at data in Cardinaletti (1990), and return to the question of the formal licensing of *pro*.

Section 3. will attempt to draw some conclusions about arbitrary interpretation in German in light of section 2. above and the various approaches to it reviewed in chapter 3 section 2.

Section 4. will look at the possibility of extending ideas developed in chapters 3 and 4 to other languages.

In section 5., I will look at the approach to Implicit Arguments developed by Brody and Manzini (1988) and will examine Haider's rather different approach to the problem of empty subjects in German and the question of configurationality. Also in this section, I shall consider further, Cardinaletti (1990) where rather different assumptions are made about the argument status of *es* in many positions in German.

In section 6., in light of the examination of Cardinaletti (1990) above, I shall provide a discussion of the distribution of *es* in general in German.

Section 7. will provide a summary of the chapter and a general conclusion.

## 1.0 The Innovations

In chapter 3, I proposed that German allows arbitrary *pro* and that the passive morpheme may vary its argument status. In chapter 4, I proposed that the passive morpheme may be overt or empty. I shall now attempt to set these ideas in the context of German syntax and in the wider context of GB syntax in general.

### 1.1 Variation in Argument Status of the Passive Morpheme

The proposal in chapter 3 above that the passive morpheme may or may not be an argument is motivated on the grounds that, if in order to account for the selectional restrictions displayed by Impersonal Passives one may assume that there is an arbitrary reference *pro* in subject position, such a variation in argument status must be allowed in order to avoid a  $\theta$  criterion violation. If the passive morpheme in Impersonal Passives were an argument, then such an approach, involving arbitrary reference *pro* would be ruled out by the  $\theta$  criterion.

This motivation for the difference in argument status is based on the prior assumption that the subject position is not expletive and is filled by *pro* arb. This assumption in turn is an attempt to account for the observations in chapter 2 about the interpretative possibilities of Impersonal Passives. The motivation provided so far, which is internal to the attempt to account for the distribution of these phenomena, can be supported by the general fact, independent of this attempt, as observed in chapter 3, that the interpretative possibilities of Impersonal Passives are much more restricted than with standard passives. This fact cannot be captured by assuming one general account of Passive in which there is just one passive morpheme with presumably just one set of features which does not reflect this difference in interpretative possibilities. Assuming that the passive morpheme in Impersonal Passives is a non-argument with a different set of features is one way of representing and accounting for this difference.

On the nature of the relation between arbitrary reference and argumenthood, see Brody (1990), where it is suggested that *pro* cannot function as an argument unless 'arb' assignment has applied. As noted above, there are different possibilities for the interpretation of Personal and Impersonal Passives, 'arb' only being assigned in the Impersonal Case. For the possibility of licensing *pro* in German and

assigning its 'arb' reference, see below.

Allowing a passive morpheme to vary its argument status is not entirely unknown. If we assume, along the lines of Baker (1988) that *si* in Italian reflexive passive constructions is a passive morpheme, then we can point to Cinque's (1988) treatment of *si* as being an element which may vary its argument status freely according to the context in which it appears. However, the reasons for this variation are purely syntactic and reflect no variation in interpretative possibility. The results of the variation in argument status of *si* are rather different from those with the passive morpheme in German (see below). The only difference in features between Cinque's argument and non-argument *si* is the specification of argumenthood. In all other respects they are identical.

One may ask why the equivalent reflexive passive morpheme in German, *sich*, does not display the same characteristics. This question will be taken up below in section 1.4.

As well as providing a means of capturing and perhaps explaining the different interpretative possibilities of Impersonal Passives compared to standard Personal Passives, assuming that the passive morpheme may be a non-argument overcomes the thorny problems of Case assignment which standard approaches to Impersonal Passives have. The non-argument passive morpheme does not need to be assigned Case.

If the function of the non-argument passive morpheme is purely that of "filtering" the external  $\theta$  role to make it arbitrary in reference, then perhaps one might expect that it might occur with transitive verbs. There would be nothing to prevent this. The only constraint would be that there could be no lexical material in subject position, since from the analysis in chapter 3, it seems that non-argument '-en' cannot license lexical material, not even the impersonal pronoun *man*.

Evidence for this is hard to come by. However there are examples such as 1)a):

- 1)a) Es wurde Karten gespielt.  
It was cards played.
- b) ??Es wurde neuen Karten gespielt.  
It was new cards played.

The passive auxiliary is singular but the noun *karten* is plural. This is not a case of standard pas-

sive because if it were, the auxiliary would agree with *karten* which would be in subject position. The popular perception is that *Karten spielen* is some form of complex intransitive verb and it is not really possible to modify the noun *karten*. If this is the case then 1)a) would be just a case of a standard Impersonal Passive. However, as shown, the two words are still written separately. Perhaps this is evidence for the use of the non-argument passive morpheme with a transitive verb. If so, the behaviour is exactly as expected. Since the non-argument passive morpheme does not need Case, the internal Case of *spielen* is still able to be assigned to its object and so *karten* does not raise out of the VP to be Case marked. The subject position is consequently occupied by arbitrary *pro* and there is a singular passive auxiliary.

The behaviour of *es* is just as with standard Impersonal Passives. That is it only appears in first position.

- 2) Gestern wurde (\*es) Karten gespielt.  
Yesterday was (\*it) cards played.

Another example might be 3):

- 3) ?Es wurde Apfel gegessen.  
it was apples eaten
- 4) Es wurden Apfel gegessen.  
there were apples eaten

Because 3) is less of a fixed expression than 1), it is perhaps marginally less acceptable and also has a standard personal passive equivalent 4), with *Apfel* in subject position and presentative *es* in first position. There is a difference in the interpretation of 3) and 4). 3) has the sense that *apple eating went on* in the same way as *Es wurde getanzt* means that *dancing went on*, whereas 4) just says that *apples were eaten*.

It would not be surprising if the examples in 1) and 3) were generally acceptable. Within an analysis of passives in German which allows the passive morpheme to be an argument or non-argument with the corresponding differences in interpretative possibility, it would be a natural consequence that such structures should exist, since there would be nothing to bar the non-argument overt passive morpheme attaching itself to transitive verbs.



However, it is more likely the case that where such constructions are possible, the structures have undergone reanalysis and become a complex verb, perhaps involving the non-argument passive morpheme in the reanalysis process however.

Again, if the function of the non-argument passive morpheme is purely that of "filtering" the external  $\theta$  role, we must ask what happens if there is no external  $\theta$  role. Why is it impossible to have Impersonal Passives with ergative verbs, in the same way that Italian non-argument *si* may form passives with ergative verbs (Cinque 1988)? As yet we have assumed that because the non-argument passive morpheme filters the external  $\theta$  role of the verb, this accounts for why Impersonal Passives are formed with non-ergative or transitive verbs. However, since the passive morpheme in this case is not an argument there is as yet nothing to require absolutely that Impersonal Passives are formed with verbs which have an external  $\theta$  role unless we stipulate the fact and this is in one way a step backwards in comparison with other treatments which assume a single argument passive morpheme.

Thus the claim in chapter 3 that we had accounted completely for the distribution of Impersonal Passives may not be fully accurate. 5) is ungrammatical with the argument passive morpheme because there is no external  $\theta$  role to be assigned to it. If, as seems to be the case, the non-argument passive morpheme does not permit lexical material in subject position, we may in this fact have an indication for the reason for the ungrammaticality of 5):

- 5) \* Hans wurde angekommen  
Hans was arrived
- 6) \*? Es wurde angekommen  
It was arrived

For 6) to be grammatical, we must assume an arbitrary *pro* in D-structure object position, since that is the only  $\theta$  position in the sentence. The *pro* would raise to receive Case in subject position. Thus we cannot argue that there would be a Case conflict at S-structure.

The question of arbitrary *pro* in object position will be taken up in section 2. below where we will return to this issue. However at the moment, it seems unlikely that such structures as 6) can be allowed, since those structures which allow a possible object arbitrary *pro* do not seem to be able to be

passivized. If arbitrary *pro* is allowed in object position and, marginally, may be passivized, then this might explain the occasional occurrences, especially in literature, of Impersonal Passives formed with ergative verbs.

- 7) Im Krieg wird gesungen, geschossen, geredet, gekämpft und gestorben  
In war is sung, shot, talked, fought and died

7) comes from "Nicht nur zur Weihnachtszeit" by Heinrich Böll. When I was asking native speakers to judge examples, they always found Impersonal Passives with the ergative verb *sterben to die* impossible. Perhaps this is acceptable here just because it comes at the end of a row of legitimate Impersonal Passives or perhaps it is for the reasons given in the paragraph above the example. We return to the question in section 2. below.

## 1.2 The Empty Passive Morpheme

Proposing a conditioned alternation in the behaviour of an observable element of morphology on the basis of the observable behaviour of the elements surrounding it and their interpretative possibilities as we have done for the overt passive morpheme is rather simpler than positing the existence of a new empty element. However, in suggesting that the overt passive morpheme in both its forms has an empty equivalent, we have done just that. In chapter 4, I have shown some of the conditions under which such an element could exist and shown how positing its existence helps to provide a unified treatment for a set of apparently disparate phenomena and how it contributes towards explaining the limitations on their occurrence. Particularly, with the Copular Passive such as example 63) in section 4. of chapter 4, *Jetzt ist zu feiern*, only if we assume the existence of the empty passive morpheme, or something equivalent in function, can we explain the referential restrictions exhibited by these constructions.

Now, I must examine in greater detail the exact conditions under which the empty passive morpheme may and may not appear.

It is noted in chapter 4 that the empty passive morpheme is proposed only for non-tensed subordinate clauses. Specifically, it is proposed in non-tensed subordinate clauses of causative *lassen* and the verbs of perception, if the passive structures with them are considered grammatical, and of the Copula.

All of these structures exhibit passive characteristics. They allow a *by*-phrase; in transitive examples, the element which is thematically the object is moved from that position to a subject position; and in intransitive examples the same selectional restrictions are exhibited as with standard Impersonal Passives.

Other non-tensed subordinate clauses have not as yet been considered. We will now examine other structures to see where else if anywhere the empty passive morpheme occurs.

### 1.2.1 Control Structures

In chapter 4, it was proposed that the empty passive morpheme mirrors its overt counterpart in having both an argument and non-argument form. We must test both possibilities in deciding whether they can occur with any other type of matrix verb.

Standard Personal Passives may occur in the lower clause of a Control structure. Consider 8) (from McKay 1985):

- 8) Man riskierte PRO totgeschlagen zu werden  
One risked being beaten to death

Using the same predication as in 8), let us see if a transitive or personal passive with an empty passive morpheme is possible:

- 9) \* Er riskierte PRO (von der Polizei) tot(zu)schlagen  
He risked by the police (to) beat to death

This is not possible. Let us see if an Impersonal or Intransitive Passive is possible with an empty non-argument passive morpheme:

- 10) \* Er versuchte PRO (von allen ) (zu)tanzen  
He tried by everyone (to) dance

10) is ungrammatical on the intended reading. Without the *by*-phrase in the lower clause, we would indeed have a grammatical structure. However, it would just be an ordinary control structure. In the intended sense, which is made clear by the *by*-phrase, the sentence is ungrammatical.

The reasons for the ungrammaticality of 10) are familiar from chapter 3. *Er* and PRO in this structure should share reference. However, the  $\theta$  role assigned to the external argument of the lower clause is arbitrary in reference because the empty non-argument passive morpheme has "filtered" it and so is incompatible with the referential properties of the subject of the controller. Thus Impersonal Passives with both the overt and empty passive morpheme are excluded from being the subordinate clause of a control verb for the reason that the matrix subject and the subject of the lower clause cannot share reference (even if the matrix subject is *man* - see chapter 3 for some discussion).

The ungrammaticality of 9) is less easy to account for. The argument empty passive morpheme is assigned the internal Case of the verb in the lower clause as usual. In normal circumstances, this would cause the movement of the deep object to subject position or higher, in order for it to be Case marked. This is incidental here, where PRO does not require Case and must not be governed and it moves to the subject position presumably to avoid government. PRO should be able to be controlled from the matrix clause in this structure but the sentence is ungrammatical. Note however, that the overt passive morpheme is possible in the lower clause in 8), where the empty passive morpheme is not possible in the lower clause of 9).

### 1.2.2 Raising Structures

As shown in chapter 3, standard passives both Personal and Impersonal are possible as the lower clause of a raising verb.

11) Er scheint bemerkt zu werden  
He seems noticed to be

12) Hier scheint getanzt zu werden  
Here seems danced to be

The proposed empty passive morpheme is not possible in these circumstances:

13) \* Er scheint (von niemandem) (zu) bemerken  
He seems by noone to notice

14) \* Hier scheint (von niemandem) (zu) tanzen  
Here seems by noone to dance

The reasons for the ungrammaticality of 13) and 14) are not clear. As with the control examples above, where the overt passive morpheme is possible, the empty passive morpheme is not possible.

### 1.2.3 Modal Structures

The picture with Modal Verbs is the same as with the raising verbs.

- 15) Er kann bemerkt werden  
He can noticed be
- 16) Hier kann getanzt werden  
Here can danced be

It is not clear what the analysis of modal verbs is or should be. However, they are similar to raising verbs but lack *zu* in the lower clause (assuming that they are bi-clausal).

- 17) \* Er kann (von niemandem) bemerken  
He can by noone notice
- 18) \* Hier kann (von niemandem) tanzen  
Here can by noone dance

Again, the reasons for the ungrammaticality of 17) and 18) are not clear and again we notice that where the overt passive morpheme is possible, the empty passive morpheme is impossible.

### 1.2.4 *lassen* and the Perception Verbs and Copular Passives

As already demonstrated in chapter 4, the empty passive morpheme is found with *lassen*, Perception Verb and Copular Passives. It remains to be seen whether the overt passive morpheme is possible with these constructions.

- 19) \* Er läßt ihn von den Soldaten geschossen werden  
He makes him by the soldiers shot be
- 20) \* Er läßt von allen gelacht werden  
He makes by everyone laughed be

In chapter 4, the examples equivalent to 19) and 20) with the proposed empty passive morpheme are perfectly grammatical. The picture is the same with the rather less central examples with the verbs of perception.

The same pattern is found with the Copular Passive:

- 21) \* Dieses Buch ist von niemandem gekauft zu werden.  
This book is by nobody bought to be
- 22) \* Es ist jetzt gefeiert zu werden  
It is now celebrated to be

Again, the equivalents to 21) and 22) in chapter 4 with the empty passive morpheme are completely grammatical. It is not clear as yet what governs the distribution of the overt and empty passive morpheme, but what emerges from this section is that they are in complete complementary distribution. This might suggest that there is one passive morpheme in German, which may or may not be overt according to certain conditions which are yet to be discovered.

### 1.2.5 Summary

I shall attempt a summary of the conditions under which the empty and the overt passive morpheme appear.

As established above, the overt passive morpheme may appear in the tenseless subordinate clauses to Control verbs, Raising verbs and Modal verbs as well as in tensed clauses. The empty passive morpheme may appear only in tenseless subordinate clauses to causative *lassen*, the Perception verbs and the copula. Both sorts of passive morpheme may appear in tenseless verbal groups with and without *zu*. For the overt morpheme, compare the examples with Modal verbs on the one hand and Control and Raising verbs on the other. For the empty passive morpheme, compare the *lassen* and Perception verb examples on the one hand and the Copular examples on the other.

Within the set of examples involving the overt passive morpheme, the Control verb examples have a PRO subject and the Raising examples have a trace subject of the lower clause. Thus with the Control examples, the subject position of the lower clause is ungoverned and in the Raising examples it is governed. With the examples involving the empty passive morpheme, the subject position of the lower clause is always governed but with the *lassen* and perception verb examples, the subject position is Case-marked by the Matrix verb and contains either the raised object of the lower clause or an arbitrary *pro* subject. With the Copular examples however, the subject position is not Case-marked and

contains the trace of the raised object of the lower clause, which has been further raised to matrix subject position, in the case of the transitive examples, or the trace of the arbitrary *pro* which has been raised to matrix subject position.

As yet there seems to be no one characteristic which distinguishes the use of one form of the passive morpheme from the other.

### 1.3 Arbitrary *pro*

The existence of some form of *pro* in German syntax is generally accepted in most treatments which view German as a configurational language and which accept the Extended Projection Principle, requiring the presence of a structural subject. Another view of the structure of German is put forward by among others Hubert Haider (1988) in a collection of papers which do not view German as a Configurational language and consequently do not accept the necessity for *pro* to exist in German. See section 5. below for a discussion of this approach.

All approaches to German syntax which allow *pro* assume that it is an expletive subject *pro*, apart from Grewendorf (1989) and Cardinaletti (1990) who allow the possibility of arbitrary object *pro* along the lines of Rizzi (1986), while still maintaining that the *pro* in subject position in German is expletive. I shall look at this work in more detail below in section 2., where I shall provide a discussion of the conditions under which arbitrary *pro* may appear in German. The innovation in this study is that arbitrary *pro* is assumed for certain subject positions in German which in other works have always been regarded as expletive. However, section 6. tries to show that expletive *pro* does not exist in German.

### 1.4 *sich* - some Questions

Section 1. in chapter 4 provides a treatment of reflexive passives in German. The treatment presented there is probably the most conventional of all of the treatments presented in this study. However, in light of the ideas about the variable argument status and the ability of the passive morpheme to be overt or empty, we should consider why there is just an overt argument *sich*.

Cinque (1988: p529 ff) proposes for Italian that *si* may or may not be an argument in order to account for structures involving *si* which do not assign an external  $\theta$  role. One such structure occurs in

the sentence in 23) involving the ergative verb *arrivare* with a representation of the D-structure in 24):

23) Spesso si arriva in ritardo  
Often one arrives late.

24) [ spesso  $e_j^k$ ; Agr<sup>k</sup>  $si^k$  arriva  $e_j$  in ritardo ]

The only  $\theta$  role to be assigned in this structure is to the element  $e_j$ , which Cinque points out must be *pro*. The point about this is that *si* which normally is an argument cannot in this case be one.

In German, as Cinque himself points out in a footnote on page 527, citing examples from Boschetti (1986), such structures do not exist. There are no reflexive passives with constructions which do not have an external  $\theta$  role.

25) \* Hier kommt es sich schnell an.  
Here arrives it *sich* quickly

Thus for German, it is clear that the option of *sich* varying its argument status does not exist. It is always just an argument (see also the discussion of *sich* in chapter 4).

At the end of section 1.1. above, the question of ergative verbs and the non-argument passive morpheme was addressed in a similar light. This question will be taken up again in section 2.

The other point to be noted is that *sich*, as well as always being an argument, only appears in an overt form. I can offer no proper explanation for this but can only observe that where *sich* is one single clitic-like lexical item, the passive morpheme is an item of morphology which can vary in its realization. However, see the discussion of the features of the passive morpheme, *pro* and *sich* in section 3.2 below.

## 2.0 More about *pro*

In this section, I shall consider evidence for the existence of arbitrary object *pro* in German along the lines of Rizzi (1986). Grewendorf (1989) and Cardinaletti (1990) give examples of structures which may contain such an element. In my own research when questioning native speakers about such examples, the reaction I have received in many cases was mixed if not negative. However, I will trust the judgement at least of Grewendorf and note that Cardinaletti points out that some of her examples are



considered marginal by some speakers.

## 2.1 Object *pro*

In section 2.1 of chapter 3, I reviewed Rizzi's (1986) approach to arbitrary interpretation. It is based on evidence from a set of syntactic structures in Italian which also exist in German, though not in English. Grewendorf (1989) and Cardinaletti (1990) give the following sorts of example, after Rizzi (1986), to show that object *pro* exists in German:

Empty object as controller:

- 26)a) Das schöne Wetter lädt *pro* ein [ PRO zu bleiben ]  
The nice weather invites PRO to stay
- b) Das führt *pro* dazu [ PRO auf folgendes zu schließen ]  
That leads PRO to the following to conclude

Empty object as the antecedent of an anaphor:

- 27) Ein gutes Gespräch kann wieder *pro* miteinander versöhnen  
A good conversation can again one to another reconcile

Empty object modified by a small clause:

- 28) Der Doktor untersucht *pro* nur nüchtern  
The doctor examines only sober

*pro* as matrix verb-governed subject of an argument small clause:

- 29) Diese Musik macht *pro* froh  
This music makes happy

In light of these examples and the discussion of them by Grewendorf and Cardinaletti, it is clear that there is the possibility of *pro*, and arbitrary *pro* at that, appearing in object position and even in the subject position of an adjectival small clause as in 29). In fact 29) is reminiscent of the intransitive passives under causative *lassen*.

We must now look at the conditions under which this *pro* and the expletive *pro* assumed elsewhere for subject position may appear in German. However, see section 6. where it is proposed that expletive *pro* does not exist in German.

As noted in chapter 3, Rizzi (1986) proposes that the formal licensing of *pro* and the conditions

for the recovery of its content are separate. I repeat them here:

- 30) *pro* is governed by  $X_y^0$
- 31) Let X be the licensing head of an occurrence of *pro*: then *pro* has the grammatical specification of the features of X coindexed with it

Grewendorf (1989: p127 ff.) considers the German data given above and reviews Rizzi's licensing conditions for *pro*. In his discussion he observes that in 30), *y* varies across languages, noting that in German and Italian  $X_y = \{\text{INFL}, \text{V}\}$ , in French  $X_y = \{\text{V}\}$  since there are empty objects in French and in English the set is empty. Independently of statements about the content of *pro*, this groups German and Italian together as being languages which allow *pro* in subject and object position.

Grewendorf says very little about the recovery condition, 31). He notes that the content of *pro* will be determined locally and that there may be languages with no recovery process at all, allowing *pro* to be empty or expletive (see section 6. however).

I wish to investigate the recovery process further. Given that the examples in 26) to 29) above involve arbitrary *pro*, the recovery strategy for the content of *pro* in German cannot be completely absent. We might assume that the procedure for assigning arbitrary interpretation proposed in Rizzi (1986) is generally applicable.

- 32) Assign 'arb' to the direct  $\theta$  role

Perhaps the same procedure proposed for the interpretation of Italian empty objects can be adopted for the German examples. In the current proposal in which the *pro* in subject position of certain passive constructions is arbitrary, we have to find a way of interpreting that *pro* as arbitrary.

In these cases, the licensing head is INFL or an element in INFL. German does not have fully referential subject *pro* and thus the content of its INFL differs from Italian in some way, presumably in that its AGR features are not rich enough. However, there is no reason why there should not be an element in INFL which is capable of "recovering" the content of an arbitrary *pro*. I suggest here that the non-argument passive morpheme is such an element.

Cinque (1988) suggests that his non-argument *si* is just such an element in Italian. Although as noted already, non-argument *si* and the non-argument passive morpheme proposed for German are different things, they can be seen as performing a similar function in the sense that they serve to help identify the content of an arbitrary *pro*.

In fact one may not need to specify that it is the non-argument passive morpheme which has this ability. We may be able to say that the passive morpheme has this ability in general, but that because of the facts about the circumstances in which the argument form appears, only the non-argument form is capable of licensing an arbitrary reference *pro*. An argument passive morpheme will always be marked with the external  $\theta$  role of the verb and so any *pro* generated in subject position will not receive a  $\theta$  role. A *pro* generated in the object position of a verb will have had to be licensed in that position and will thus have been assigned 'arb' by the other interpretation strategy.

We could say that the passive morpheme in general is capable of recovering the content of arbitrary *pro* in subject position but that in practice, it is only the non-argument form which actually does, because the argument morpheme is incapable of allowing the external  $\theta$  role to be assigned to the *pro*.

Because *sich* shares the arbitrary features of the passive morpheme, theoretically, it too could be able to recover the content of an arbitrary subject *pro*. However, like the standard passive morpheme, it is an argument and so cannot allow the external  $\theta$  role which has been assigned to it to be assigned to a subject *pro*. According to the data from reflexive passives, it seems that *sich* is not even capable of formally licensing expletive *pro*, since the overt expletive must always be in subject position in such sentences.

Thus it seems that arbitrary reference *pro* can be licensed by the (non-argument) passive morpheme in subject position and by the fact that  $X_y = \{\text{INFL}, \text{V}\}$  along with the arbitrary assignment rule in 32) above it can appear in object position. However, the precise details of arbitrary object *pro* in German are not clear.

In light of the above discussion, I shall now return briefly to the problem raised at the end of section 1.1 above, of the possibility of ergative verbs appearing with the non-argument passive morpheme.

It has been shown that arbitrary *pro* may occur in object position in German. Recall that above it was noted that if this was possible, then the way might be open for Impersonal Passives to be formed with ergative verbs, given that the non-argument passive morpheme does not require a  $\theta$  role. It was also noted that such Impersonal Passives are marginally possible. The reason for their questionable status may well be that they involve two possible ways of identifying an arbitrary *pro*. Firstly, there is the rule given in 32) above, assigning 'arb' to the direct  $\theta$  role. Secondly, there is the redundant non-argument passive morpheme which does not have a  $\theta$  role assigned through it. Perhaps it is the interaction of these two modes of arbitrary identification which leads to the questionable status of such structures. It could be that when such examples are embedded in a list of standard Impersonal Passives, the ambiguity of possible interpretation strategies disappears and the incorrect Impersonal Passive is interpreted as a standard Impersonal Passive. However we will leave this matter now and turn to look at Cinque's (1988) conditions for the interpretation of arbitrary structures.

### **3.0 More about Arbitrary Interpretation**

#### **3.1 Cinque (1988)**

In Chapter 3, section 2.3, various approaches to arbitrary interpretation were reviewed and in section 3.3.2, subject arbitrary *pro* was considered briefly in light of the set of properties of the two different possibilities for arbitrary interpretation listed in Cinque (1988: p546). It was observed that the behaviour of the proposed subject arbitrary *pro* was correctly consistent with the predictions made about Quasi-existential Interpretation but that nothing could be said about the predictions concerning Quasi-universal Interpretation because as yet, the proposed arbitrary *pro* was limited to subject position. However, as we have now seen, object arbitrary *pro* is possible in German and we are able to test those predictions.

I shall not repeat the list of predictions here but refer the reader to section 3.3.2 in chapter 3. It is predicted that Quasi-existential Interpretation will be possible only in constructions with specific time reference, where the arbitrary element is restricted to  $\theta$  marked subject position in D-structure and there could be a single individual who satisfies the description. Quasi-universal Interpretation on the other

hand will be possible only in constructions with generic time reference, where the arbitrary element is not restricted to  $\theta$  marked subject position in D-structure and there cannot be a single individual who satisfies the description.

Where we showed in chapter 3 that the subject arbitrary *pro* is compatible with the conditions for Quasi-existential Interpretation, we are now in a position to show that object arbitrary *pro* is consistent with the conditions for Quasi-universal Interpretation.

Let us take just one of the object *pro* examples from above( 26)a) repeated here as 33):

33) Das schöne Wetter lädt *pro* ein [ PRO zu bleiben ]  
The nice weather invites PRO to stay

34) ?? Das schöne Wetter hat gestern eingeladen zu bleiben  
The nice weather has yesterday invited to stay

34) shows that with the arbitrary element in object position, the time reference may not be specific. If we attempt to identify a single individual who "is invited to stay" in the example with generic time reference, 33), the result is illformed:

35) ?? Das schöne Wetter lädt ein zu bleiben: es ist Hans  
The nice weather invites to stay: it is Hans

Thus it seems that the predictions made by Cinque (1988) about arbitrary interpretation hold good in German with the assumption of arbitrary *pro* within the analysis presented here.

### 3.2 Features for *pro*, '-en' and *sich*

If we assume the licensing and recovery procedures for arbitrary *pro* proposed by Rizzi (1986) and the extension in Grewendorf (1989) which allows the set of XO governors of *pro* to contain INFL and V in German, and if we assume that '-en' can be the INFL governor, we can account for the distribution of *pro* in German. The passive morpheme '-en' is the licensing head for *pro* in subject position, with which it is coindexed and whose features it shares.

In section 3.2.3.1 in chapter 3, the following table of features shared between *pro* and the passive morpheme was given:

Table 1

[ + human,  
+ singular (grammatical),  
+ 3rd person (grammatical),  
+/- plural (reference),  
..... ]

If we assume that there is just one passive morpheme '-en' which varies according to the context in which it appears, then we must establish which features the base form possesses. The features in Table 1 are typical arbitrary features and so will not be shared between all the variants of '-en' both arbitrary and non-arbitrary as a common set. As Rizzi (1986) points out, when we refer to an element as arbitrary, we should keep in mind that we are in fact talking about a collection of features which together characterise arbitrary items. These features, according to Rizzi, include [ +human, +generic, +/-plural,... ]. It is clear that non-arbitrary elements do not have this set of features. Thus we could refer to this collection of features with the single attribute "Arbitrary" with values '+' or '-'.

We could characterise the neutral '-en' morpheme in German as having at least the following features,

Table 2

[ +/- Argument,  
+/- arbitrary,  
+/- phonetic content,  
double external  $\theta$  role,  
.....]

where "arbitrary" stands for the collection of characteristic arbitrary features in the same way that "phonetic content" stands for the collection of features which defines its phonetic form. However, one would have to ensure that the values for "Argument" and "arbitrary" are always opposite. In fact, one could regard "+/-arbitrary" as a value of a complex attribute "Argument", the "+arbitrary" option being selected with the "-" value for "Argument".

Values for person and number in the neutral passive morpheme will be unspecified since in the non-argument form, they will be fixed by the set of arbitrary features and in the argument form, they will be set by agreement with the surface subject. The neutral passive morpheme will have the inherent capacity to double the external  $\theta$  role to a *by*-phrase. This capacity does not vary in any of its

manifestations. For a discussion of the ability of passive morphemes to double the external  $\theta$  role, see Baker (1988) and the discussion of *by*-phrase above in chapter 4.

For German the features in Table 1 characterize arbitrary reference.

The features for *pro* will be [ + Argument, + arbitrary, - phonetic content,... ]. The features shared between '-en' and *pro* will be the set in "+ arbitrary". They will not share argument status. If they did there would be a  $\theta$  criterion violation with two Arguments sharing the same  $\theta$  role. They do not necessarily share the specification for phonetic content.

The feature set for *sich* will be as in table 3:

Table 3

[ + Argument,  
+ arbitrary,  
+ phonetic content,  
do not double external  $\theta$  role,  
.....]

This shows that apart from its ability to double the external  $\theta$  role, *sich* could be seen as the overt equivalent of arbitrary *pro*. However, *sich* is clitic-like whereas *pro* is an independent pronominal. Given that *sich*, as shown in Table 3, is always arbitrary in reference, and always an Argument and that it shares these characteristics with arbitrary *pro*, it is perhaps not surprising that there is no empty *sich*.

I will not investigate the overt Impersonal German pronoun *man*. I will only assume that it has inherent arbitrary features.

#### 4.0 Extension to other Languages?

##### 4.1 French

In Wilder (1988) it was noted that the German *lassen* constructions with passive-like qualities in the lower clause are similar to French *faire-par* constructions (Kayne 1975). It was a footnote in Baker (1988) concerning *faire-par* constructions which led me to develop the empty passive morpheme analysis proposed above to account firstly for the *lassen* passives in German and then its extension to the other non-tensed passive structures examined. I wish now to turn to consider briefly French

impersonal constructions in light of this treatment of German. I shall start by considering Impersonal Passive constructions in French, in so far as they exist, and then continue to see if there are French equivalents to the other German impersonal structures considered here.

#### 4.1.1 French Impersonal Passives

In Kayne (1975: p247, footnote 56), the sort of Impersonal Passive found freely in German with non-ergative intransitive verbs, is ruled out for French, but verbs which have a PP complement allow them:

- 36) \* Il sera dansé (par Marie)  
It will be danced by Mary
- 37) Il sera parlé de vous par tout le monde  
It will be spoken about you by everyone

In the same footnote, Kayne points out that the sort of passive formed in 37) is not possible with all verbs of the appropriate type (a limitation which in later work is accounted for by the Ergative Hypothesis) and notes also that Impersonal Passive formation is much freer in German. Thus, there is a limitation on the formation of Impersonal Passives which shows that French is not exactly the same as German in this respect.

A second set of relevant facts concerns the possibility of forming Impersonal Passives with transitive verbs in French. Kayne (1975: p245) notes that the following is possible:

- 38) Il a été mangé beaucoup de pommes hier soir  
It has been eaten many apples yesterday evening

This is reminiscent of the German example 3) in section 1.1 above. Here we have a passive showing auxiliary agreement with a singular subject, in this case *Il*. This is a passive structure, as shown by the verbal morphology, with what appears to be a plural NP still in object position. I assume that *beaucoup de pommes* is an NP even though it is composed of a quantifier and a PP. There is an ordinary personal passive equivalent to 38), where as expected, the tensed verb is plural:



- 39) *Beaucoup de pommes ont été mangés hier soir.*  
Many apples have been eaten yesterday evening

39) shows that whatever *beaucoup de pommes* is, in 38) it receives object Case from the verb *manger* since it is this phrase which has undergone movement as a result of passivization in 39).

There are other surface facts of Impersonal Passives in French which are different. French is not a V2 language and the subject *Il* in 37) and 38) is a true expletive subject where *es* in the equivalent German structure is not:

- 40) \* *Hier soir a été mangé beaucoup de pommes*  
yesterday evening has been eaten many apples

40) shows that *Il* must be present and that not just any material may come before the verb without there being a subject. Apart from the V2 differences between French and German, which can be ignored in order not to cloud the issue, this shows a major difference between French and German. In French in these structures, there is always overt subject material whereas in German there is not. However it is analysed, *Il* has some connection to the subject position. This suggests, apart from the other differences noted above, that the analysis of Impersonal Passives in German cannot be adopted wholesale for French.

If we assume that *il* is a subject, then we cannot assume the arbitrary *pro* subject proposed for German. This forces us to revise the argument properties of the passive morpheme when dealing with French. We could assume that the passive morpheme in French is always an argument. This would account for the distribution of subject material. In personal passives, the direct object is moved to subject position, as expected, and in Impersonal Passives, the expletive *il* is inserted in subject position.

The argument passive morpheme will receive the external  $\theta$  role as usual and could receive Case by virtue of forming a chain with the expletive subject.

This leaves us with the problem of arbitrary interpretation in these structures. The proposal for German is that when the passive morpheme is an argument, it has no special interpretative properties and when it is not an argument, it has arbitrary interpretation. Here I suggest that the French passive morpheme has different properties. I propose that it is always an argument but that it can vary its

interpretative possibilities. As yet, I shall say nothing about its phonetic realization. Thus a first proposal for the features of the passive morpheme in French might be as in Table 4:

Table 4

[ + Argument,  
+/- arbitrary,  
? phonetic content,  
double external  $\theta$  role,  
.....]

A passive element with such features would account for the arbitrary interpretation of all of the impersonal passive examples given and the distribution of the expletive subject. Since the passive morpheme is always an argument, an expletive subject is necessary. It will account for both 38) and 39) if we assume the +/- setting of the arbitrary feature. In 39) we assume that the passive morpheme receives the internal Case of the verb and in 38) that it receives Case via its membership of a chain with *il*. It seems however, that there may have to be a stipulation that one sort of interpretation is linked to one sort of Case marking option.

This account does not provide an explanation for the difference in grammaticality between 36) and 37). Generally across languages, Impersonal Passives are more acceptable if there is an adverb or a modifying temporal or locational prepositional phrase in the sentence. It could be that this is the case in French and that 36) is excluded on these grounds. It has been suggested by informants that examples such as 36) are improved with a prepositional phrase

- 41) ? Il sera dansé sur ce bateau par tout le monde  
It will be danced on this boat by everyone

Thus it may be a stylistic filter that excludes 36). Note that in 37) there is other material than the verbal group and the *by*-phrase.

This brief consideration of Impersonal Passives in French has shown that they differ from their German equivalents at least in as much as they have an overt expletive in subject position where German has an arbitrary *pro*. This leads us to suggest that the passive morpheme in French is always an Argument but that it may or may not have arbitrary reference.

On the basis of this, we may perhaps predict that *pro* will not appear in subject position in French. If this is true, then we can assume that INFL is not one of the set  $X_y^0$  in French. This will have the consequence that constructions which in German require the presence of arbitrary *pro* will not find counterparts in French. Thus if we assume the possibility of an empty passive morpheme in French, we may predict that bi-clausal transitive German Passives which do not require a *pro* in the subject position of the lower clause will have equivalents in French where their intransitive alternatives do not. We will test this prediction below.

This account is not exhaustive and it is not intended to be. It serves merely to illustrate how the approach to Impersonal Passives in German might be extended to French by altering just one aspect of the feature set to produce the feature set in Table 4. This goes some way towards accounting for the distribution of Impersonal Passives, both transitive and intransitive in French.

I shall now turn to the question of the feature "phonetic content" in Table 4 and the prediction concerning the distribution of biclausal passives in French. I shall not consider French reflexive constructions and arbitrary interpretation.

#### 4.1.2 French Copula Passives

The prediction made above is that if the French passive morpheme is always an argument which may be "+/- phonetic content", transitive copular passives will exist but that intransitive copular passives will not. Consider the following:

- 42) Ce travail est à terminer pour vendredi  
This work is to finish for Friday
- 43) \* Il est à célébrer  
It is to celebrate

The prediction indeed is borne out. If we assume that the empty passive morpheme is on the non-tensed verb *terminer* in 42) and that the structure is bi-clausal, then as with the German equivalent, the empty Argument passive morpheme is assigned the internal Case of the verb and its external  $\theta$  role. This forces the D-structure object of the lower clause to raise "in search of" Case. It raises to the subject position of the lower clause, since this position is no longer a  $\theta$  position. However, because the

lower clause is not tensed and because the Copula in the matrix clause has no internal Case to assign to it, the object *ce travail* has to raise further to the subject position of the matrix clause in order to be Case marked.

All of this assumes that the behaviour of the Copula in French with respect to its internal Case assignment and its external  $\theta$  role assignment is the same as assumed in German, namely that it lacks both.

The equivalent of 43) in German is grammatical, but requires the presence of arbitrary subject *pro* and a non-argument passive morpheme. As noted we assume that these are not available in French and so the ungrammaticality of 43) is not surprising if we attempt the same sort of analysis as for German.

We might wonder, however why 43) could not be grammatical if we were to assume that *il* were inserted initially in the subject position of the lower clause, which is a non- $\theta$  position since the lower clause has an empty argument passive morpheme which receives the external  $\theta$  role. It could then be raised to the subject position of the matrix clause to receive Case. This is not possible however and the reason for it is unclear unless expletives are inserted after the application of move-A in French.

So far then, it seems that the predictions about French are correct. We assume a passive morpheme which is always an argument and which may be overt or empty.

#### **4.1.3 French Causative and Perception Verb Passives**

As noted above in 4.1, it was a comment by Baker (1988) about the French *faire-par* causative structure which led me to develop the empty passive morpheme analysis for German. The assumption here is that it will be possible to extend it to French to account for the *faire-par* examples as well as the other bi-clausal passive structures.

There is extensive literature on *faire* constructions in French (see Kayne 1975, Rouveret and Vergnaud 1980 and Burzio 1986 among others). The *faire-par* construction is identified by its ability to express the external  $\theta$  role of the non-tensed verb in a *by*-phrase.

(From Kayne 1975)

- 44) Elle fera manger cette pomme (par Jean)  
She will make eat this apple by John

I do not intend to provide a complete treatment of such structures but refer the reader to Rouveret and Vergnaud (1980) or Baker (1988) for a thorough treatment. Here it is my intention to explore the consequences of extending the empty passive morpheme approach to these structures.

In light of the evidence in 4.1.2, let us fill in the "?" in Table 4 above with "+/-":

Table 5

[ + Argument,  
+/- arbitrary,  
+/- phonetic content,  
double external  $\theta$  role,  
.....]

A consequence of assuming Table 5 as the description of the passive morpheme in French and the assumption that INFL may not license *pro* is that we predict the existence of other bi-clausal structures with transitive verbs which show passive characteristics. Obviously the *faire-par* structures are such items.

However, let us look at them. In light of the Incorporation approach to Romance Causatives, in Baker (1988), it is not clear that these structures are bi-clausal at S-structure. I shall not reproduce the Incorporation analysis here but refer the reader to the relevant section of Baker (1988). However, I shall observe here that the proposed empty passive morpheme is just the passive morpheme hinted at in the footnote in Baker (1988). Presumably in accordance with the analysis of causatives proposed there and the suggestion in the footnote, the empty passive morpheme incorporates into the matrix verb, combining the (empty) passive and causative morphology.

It is to be expected that *faire-par* constructions with intransitive verbs will not occur since they would require a *pro* in subject position of the D-structure lower clause (assuming that incorporation in these constructions acts on an initial bi-clausal structure). As assumed here, subject *pro* is not licensed in French. Thus 45) is impossible:

- 45) \* Jean fera célébrer (par tout le monde).  
John will make celebrate by everyone

Ignoring the effects of the causative nature and hence mono-clausal nature of 45), at D-structure the argument empty passive morpheme in the lower clause will disallow any possibility of there being an arbitrary *pro* in the lower subject position. If there were an argument *pro* in the subject position of the lower clause as well as there being an argument passive morpheme, there would be a  $\theta$  criterion violation. In any case, argument *pro* will not be possible because of the fact that French cannot license subject *pro* in general, and this explains why there cannot even be an expletive *pro* here.

In Kayne (1975) in footnote 42 on Page 239, it is noted that there are structures such as 46)

- 46) Cela fait rire (\* par tout le monde)  
That makes laugh by everyone

In that footnote it is observed that this sort of example does not allow a *by*-phrase. This patterns together with the German examples which involve an object *pro* controlling a PRO in the lower clause. Above, it was noted that Grewendorf (1989) suggests that French includes V as its only member of the set  $X_y^0$ , the set of items which can license *pro*. Perhaps this is an example of object *pro* in French. Kayne gives a further example of such a structure involving a perception verb:

- 47) J'entends aboyer (\* par tout le monde)  
I hear bark by everyone

Apart from the fact that *aboyer* has typically a non-human but animate subject, this fits the same pattern. He assumes also that this does not allow a *by*-phrase.

Perhaps *faire* and the perception verbs are among the set of verbs which can license arbitrary *pro* in object position. The examples in 46) and 47) can be considered as totally separate from the passive examples discussed for French so far and should be analysed as control of a PRO subject of the lower verb by the *pro* object of the matrix verb as with the equivalent examples in Rizzi (1986). See the discussion of the equivalent Italian structures in 4.2.2 below.

## 4.2 Italian

In Italian, it has already been shown in the literature (Rizzi 1986) that object arbitrary *pro* is possible fairly freely. What needs to be addressed here is the question of whether subject arbitrary *pro* is freely available and if so under which conditions and also whether the passive morpheme in Italian is always an argument and always overt.

Given that this is such a huge area and that Italian syntax has been heavily treated in the literature, I cannot hope to provide an exhaustive examination of this question. All I intend to do here is to look at the specific questions raised in this study to see if they have any relevance to the syntax of Italian.

### 4.2.1 Impersonal Passives

Burzio (1986: p180) shows that Impersonal Passives are very marginally possible in Italian.

- 48) ?? Gli fu parlato a lungo  
To him was talked at length

He does not give any examples without a Dative, so presumably such examples are completely ungrammatical. While there is no question that Italian allows *pro* in subject position, one might assume from these facts that arbitrary *pro* is excluded from subject position. This would be extraordinary since Italian allows fully referential *pro* in subject position and there could be little motivation for excluding arbitrary reference *pro*. Cinque (1988) assumes the existence of subject arbitrary *pro* in Italian and Rizzi (1986) whose concern is to establish a treatment of object arbitrary *pro* accepts at least that it is exceptionally possible in subject position. Thus it is unlikely that we can account for the marginal status of 48) by excluding the possibility of arbitrary *pro* in subject position.

Given that here we are not as yet discussing the question of whether there is an empty passive morpheme in Italian, we can limit our investigation to the argument status and possibility of arbitrary interpretation of the passive morpheme in Italian.

We could assume that the passive morpheme in Italian is not capable of being marked for arbitrary interpretation. Consider the following (50) is from Cinque 1988):

49) È spesso trattato male  
is often treated badly

50) Si è spesso trattati male  
One is often treated badly

50) is clearly arbitrary in reading, 49) is more specific in reading. The difference between the two is that *si* identifies the structure as arbitrary. This might provide the reason for the at least questionable status of 48). If we assume then that the passive morpheme in Italian might be non-arbitrary in reference, and in addition that it is always an argument, we will begin to find an explanation for the lack of Impersonal Passives.

51) \* *pro* fu lavorato  
*pro* was worked

Assuming that the passive morpheme is an argument, and that it might not be allowed arbitrary interpretation, let us consider the *pro* subject in 51). It cannot be the arbitrary or fully referential *pro* since there would be a  $\theta$  criterion violation. The only possibility would be that it could be expletive *pro*.

If the proposal in Manzini (1989) that there are no expletives in Italian whatsoever has any validity, then we have an explanation for the lack of Impersonal Passives. If there is no expletive overt or empty in Italian and the passive morpheme is an argument, then there is no possible filler for the subject position in 51).

So the proposal so far is that the passive morpheme in Italian is an argument which might not have arbitrary interpretation. The question of the arbitrary interpretation of the passive morpheme in Italian will be taken up in the next section again. We should note that if the passive morpheme is an argument and that there is no expletive *pro* in Italian, Impersonal Passives will be ruled out whether or not arbitrary interpretation is possible. This relies on the additional assumption from Manzini (1989) that there are no expletives in Italian. We shall now consider the question of whether the passive morpheme may be empty in Italian.



#### 4.2.2 Bi-clausal Passives

Let us consider the Italian equivalents of the *faire-par* construction. These are freely possible with transitive verbs in the lower clause. I shall assume an initial bi-clausal structure and leave out the question of an Incorporation analysis. Consider 52), from Burzio (1986):

- 52) Farò leggere il libro da Giovanni  
I will make read the book by Giovanni

I shall assume an empty passive morpheme in the lower clause which accounts for the passive-like behaviour as with such structures in other languages. The interpretation of these sentences without a *by*-phrase is arbitrary. 52) without the *by*-phrase will mean *I will make X read the book*, where X is arbitrary in reference, showing that the passive morpheme in Italian may have arbitrary reference. This shows that the ungrammaticality of 51) is not to be accounted for by assuming that the passive morpheme in Italian cannot have arbitrary reference. It is the lack of expletive and the argument status of the passive morpheme which accounts for the ungrammaticality of 51). There is little more to say about this.

This construction with an intransitive verb in the lower clause is rather more interesting. Burzio (1986: p253) notes that *fare* structures with intransitive verbs and without a *by*-phrase occur rather freely:

- 53) In quella scuola fanno lavorare molto  
In that school they make work much

This then would seem to be the intransitive equivalent of a structure like 52). However, how can this be the case? If the empty passive morpheme is an argument, then what can be the subject of the lower clause? It cannot be a referential *pro* of any description, since that would result in a  $\theta$  criterion violation. Given the assumption above that there are no expletive elements in Italian, it cannot be expletive *pro*. It would seem that this cannot be a passive construction in the lower clause at all. Support for this comes from the fact that 53) may not appear with a *by*-phrase:

- 54) \* In quella scuola fanno lavorare molto da tutti  
In that school they make work much by everyone

This shows that whatever the structure in 53) is, it is not a passive. The behaviour of these structures is reminiscent of the equivalent structures in French in 46) above. The assumption for French is that its passive morpheme too is always an argument and as such would require an expletive subject for the lower clause in such structures. In French, *pro* is not licensed at all in subject position and so 46) is ungrammatical as a passive. In Italian, *pro* exists, but as noted, according to Manzini (1989), expletives and so expletive *pro* do not exist. Thus our assumptions about the nature of the passive morpheme in Italian along with the assumptions about expletives in Italian will predict the ungrammaticality of 54) and the grammaticality of 52). It remains to be seen how we can account for 53), which as a passive should be ungrammatical.

Burzio (1986: p253) notes that it is unclear how to account for the difference in grammaticality of examples such as 53) and 54). Under the current analysis, such a difference is to be expected. As noted, 53) is similar to the French case in 46) of object *pro* controlling PRO in a lower clause. We can extend that analysis to 53). If we assume that *fare* is one of the set of verbs which may have an arbitrary reference object *pro* which can control PRO in a lower clause, then we have a reason for the contrast between 53) and 54). So 54) is ungrammatical on two counts. Firstly, for the reasons given, it cannot be interpreted as a passive structure and secondly, as a case of control by object *pro* there is no means of licensing a *by*-phrase. Adopting this approach to the passive morpheme has the interesting consequence that it accounts for the problem noted above by Burzio.

Finally in this section, I shall consider possible copular bi-clausal passives in Italian. The assumptions made about the passive morpheme in Italian are that it is the same in features (apart from phonetic features) as the French passive morpheme which is described in Table 5 above. I shall repeat it here:

Table 5

[ + Argument,  
 +/- arbitrary,  
 +/- phonetic content,  
 double external  $\theta$  role,  
 ....]

If this is correct for Italian, then we would expect there to be copular passives with transitive verbs but not with intransitive verbs, since the argument passive morpheme would require there to be an expletive subject for the intransitive verb. We have assumed that expletives are not allowed in Italian in general.

Copular passives with transitive verbs are indeed possible. The following example is from Jones (1972):

- 55) Questi sbagli sono da evitare  
These mistakes are to avoid

The analysis for this is as expected. The empty passive morpheme on the lower verb *evitare* is assigned its external  $\theta$  role and internal Case. This forces the underlying object *questi sbagli* to raise in order to be Case marked. It raises to the subject position of the lower clause where because the Copula has no object Case to assign, it raises further to the non- $\theta$  subject position of the matrix verb. This analysis is in line with many treatments of the Copula as a raising verb (see Burzio 1986).

According to an informant, as predicted, copular passives are not possible with intransitive verbs. Thus 56) is ungrammatical:

- 56) \* *pro* è da ridere  
*pro* is to laugh

This is ungrammatical because the passive morpheme in the lower clause is an argument which is assigned the external  $\theta$  role of the intransitive verb *ridere*. This would require an expletive subject and as assumed, expletives are not possible in Italian.

The approach adopted to passive morphemes in this study is useful in explaining the distribution of passive structures in Italian, especially in indicating an explanation for the problem noted by Burzio concerning examples 52)-54). I have provided no treatment of *si* constructions in Italian. I assume a treatment along the lines of Cinque (1988). This extension of the treatment to Italian passives is not an exhaustive study however and further research is needed to test it thoroughly.

### 4.3 English

I should say something about this approach to the passive morpheme in relation to English.

Bi-clausal passives such as are found in German, French and Italian are not found in English.

Passives with perception verbs and the Copula involve overt passive morphology in English.

57) John saw the rabbit being fed

58) This rabbit is to be congratulated

Although the passive morpheme is overt in an example such as 58), the same process of raising of the D-structure object to the matrix subject position via the embedded subject position, as is proposed for copular passives in French, German and Italian, is evident here.

Passives with causative verbs are marginal:

59) ? He made the criminal be beaten

From this one can conclude that there is no overt/empty alternation for the passive morpheme in English. This assumption will immediately exclude bi-clausal passives with intransitive verbs and an empty passive morpheme as in 60) or 61).

60) \* It is to laugh

61) \* pro is to laugh

61) is also excluded on the grounds that the set  $X_y^0$ , the set of possible licensors of *pro*, is empty in English. The equivalent of 60) with overt passive morphology is also ungrammatical.

62) \* It is to be laughed

This fact is related to the impossibility of forming mono-clausal Impersonal Passives in English.

63) \* It was danced

This can be attributed to the fact that the passive morpheme in English is always an argument, requiring both external  $\theta$  role and Case. In 62) and 63), the passive morpheme receives the external  $\theta$  role, but one must presume that Case is not available for it, not even by coindexation with the expletive

subject. Impersonal Passives of a sort are allowed in English if the verb is a transitive verb which sub-categorizes a possible *that*-clause.

64) It is to be noticed that.....

65) It was understood that.....

Here one can assume that the *that*-clause does not need Case and so, the argument passive morpheme receives both external  $\theta$  role and the internal Case of the verb. Thus this sort of Impersonal Passive is possible and provides support for the assumption that the passive morpheme in English in an example such as 63) cannot receive Case via membership of a chain with the subject *it*.

Thus far, we have shown that the passive morpheme in English is always an argument and is always overt, but have said nothing about its interpretative possibilities. The initial assumption is that it will not have an arbitrary interpretation. However, in 64) and 65) it seems that interpretation must be arbitrary. Thus, we will have to allow the possibility of arbitrary interpretation for the passive morpheme in English.

The feature set for the passive morpheme in English then will be as in Table 6.

Table 6

[ + Argument,  
(?)+/- arbitrary,  
+ phonetic content,  
double external  $\theta$  role,  
.....]

I have marked "arbitrary" as "(?)+/-" since it is not clear under which conditions arbitrary interpretation in the correct sense is possible with English passives. In addition, to complete the picture, it must be pointed out that the set  $X_y^0$  is empty in English.

#### 4.4 Summary

Here I shall present a summary of the discussion of the application of the ideas developed for German in this study, to French, Italian and English.

The feature sets for the passive morpheme in the languages considered are the following.

For German the feature set in Table 2 with all features variable and with the set  $X_y^0$  where  $y = \{\text{INFL when '-en'}, V\}$ .

Table 2

[ +/- Argument,  
+/- arbitrary,  
+/- phonetic content,  
double external  $\theta$  role,  
.....]

For French the feature set in Table 5 with '-en' always an argument and the other features variable and the set  $X_y^0$  with  $y = \{V\}$ .

Table 5

[ + Argument,  
+/- arbitrary,  
+/- phonetic content,  
double external  $\theta$  role,  
.....]

For Italian also Table 5 but without the possibility of expletive elements and  $X_y^0 = \{\text{INFL}, V\}$

Table 5

[ + Argument,  
+/- arbitrary,  
+/- phonetic content,  
double external  $\theta$  role,  
.....]

For English Table 6 with possible arbitrary interpretation and the set  $X_y^0$  where  $y = \{\}$ .

Table 6

[ + Argument,  
+/- arbitrary,  
+ phonetic content,  
double external  $\theta$  role,  
.....]

Let us assume that "+/-arbitrary" is indeed correct for the English feature set. If this is so, then this is one feature which all of the passive morphemes considered share. Perhaps the possibility for arbitrary interpretation is freely available across languages for the passive morpheme. If this is so, then

what are the limitations on arbitrary interpretation in passives? In the English examples, arbitrary interpretation is only possible for passives in the one set of circumstances in which there is not fully referential material in the surface subject position. This observation holds true for all of the passive structures in the languages considered here.

Cinque (1988: p547) notes, referring to Jackendoff (1972), that the interpretation of generics must be taken to apply at S-structure. He says that "...it is not surprising that a quasi-universal interpretation is available to surface 'arb' subjects which are not  $\theta$  marked in [NP,IP] at D-structure". Clearly, we are not always dealing with arbitrary subjects, but the argument passive morpheme is not  $\theta$  marked in [NP,IP] at D-structure. However, when there is no fully referential element in surface subject position, there is either an empty arbitrary element, or an expletive element with an argument passive morpheme in INFL in subject position. We could perhaps interpret the feature specification "+/- arbitrary" in the passive morpheme to mean that, at S-structure the level at which arbitrary interpretation is assigned, unless there is definite reference material in the subject position, assign arbitrary interpretation. Thus perhaps we can assume that arbitrary interpretation is the default interpretation for passive structures, just in case there is no element of definite reference in subject position.

To conclude this section, I note that an approach to passive structures developed initially for German can be extended with some success to other European languages. Assuming that the passive morpheme has a set of features whose values can be set differently in different languages has the consequence that we are able to characterise the differences in behaviour of various passive structures across languages as the different setting of the value of these particular features. In particular, the assumption that the passive morpheme may be "+/- phonetic content" enables us to account for a set of constructions not previously treated in passive analyses, as simple cases of passive.

The examination of this approach to other languages presented in this section is not exhaustive and the full validity of the claims presented should be tested further. However, thus far, the approach seems to be successful.

## 5.0 Other Approaches

In this section, I shall examine some other approaches to the sort of problems examined here which make rather different basic assumptions. Firstly I shall look at Brody and Manzini (1988) who claim that Implicit Arguments are not structurally represented and propose a revision of the Extended Projection Principle. Secondly I shall look at Haider's approach to empty subjects in German, which assumes German to be a non-configurational language and that empty *pro* subjects are not necessary. Finally, I shall look in greater detail at Cardinaletti (1990) who assumes that *es* in German is nearly always an argument.

### 5.1 Brody and Manzini (1988)

The basic idea in Brody and Manzini (1988) is that certain  $\theta$  roles associated with a verb can remain unprojected. To account for this assumption, they propose a revision of the Projection Principle in terms of the projection of structural Case rather than of  $\theta$  roles. Also, they assume a revision of the theory of empty categories along the lines of Brody (1985) which assumes PRO to be a pure anaphor rather than a pronominal anaphor, and thus subject to Principle A of the Binding theory. See Brody (1985) and Brody and Manzini (1988) for the detail of this analysis of PRO. Under the assumption that PRO is an anaphor, it will be possible to account for its choice of antecedent.

The sort of data which this approach is based on is the following.

- 66) Mary was saying to leave
- 67) The book was written to make money

66) is to be interpreted as *Mary was saying to X, X leave* in which the dative argument is not projected. 67) involves a rationale clause and is interpreted as *the book was being written by X for X to make money* in which the external argument is not projected. Each of these examples involves a PRO subject of the lower clause being bound by an Implicit Argument.

Brody and Manzini exclude the possibility of the phenomenon of Implicit Arguments being accounted for by assuming that they are *pro* because they claim that such an approach would lack explanatory power. All other possible empty categories are discounted as impossible or non-explanatory.



The conclusion is that Implicit Arguments are not projected but remain on the verb.

The standard version of the Projection Principle allows agent Implicit Arguments, at least in principle, since it says nothing about external  $\theta$  roles. However, it will disallow Dative Implicit Arguments and consequently will have to be altered. It will have to be altered in such a way as to allow Dative Implicit Arguments but not object Implicit arguments, since in English at least, the direct or object  $\theta$  role may not be unprojected. This is achieved by proposing that obligatory projection is in terms of Case rather than  $\theta$  role. Thus it is proposed that structural Case must be projected. Dative elements are marked with inherent Case and so need not be projected.

Brody and Manzini mention German Impersonal Passives in passing, when they assume that passive morphology is contingent on the non-projection of the external  $\theta$  role, rather than the absorption of Accusative Case. Clearly, their view is that the external  $\theta$  role is not assigned at all but retained as an Implicit Argument.

A fuller representation of the relevant parts of 66) and 67) are 68) and 69)

68) Mary was saying+ $\theta$  [PRO to leave]

69) the book was written+ $\theta$  [PRO to make money]

Consider first 69). As Brody and Manzini note, Jaeggli's (1986a) treatment of passive (and presumably those later ones in similar vein reviewed above) realize a similar approach by assuming that the external  $\theta$  role in passives is assigned to the passive morpheme. This is criticised as not being of sufficiently general value since it leaves Dative Implicit Arguments unaccounted for.

Incidentally, a possible explanation for the difference in grammaticality between 70) and 71), noted as a problem by Manzini and Brody is to be found in light of the comments on default arbitrary interpretation of passives at S-structure at the end of section 4.4 above.

70) \* John was promised [PRO to leave]

71) It was decided [PRO to leave]

*promise* is a subject control verb. *John* in 70) is the D-structure object of *promise* which has been passivized. Since there is a definite reference NP in subject position, arbitrary interpretation for 70) is

not possible. *John* as deep object will not control the PRO and the passive morpheme cannot control PRO since it cannot be arbitrary and has no overt definite reference. In 71) by contrast, the subject is expletive and so the passive argument morpheme may have arbitrary interpretation and may control PRO.

While it is true that Jaeggli's and subsequent accounts of passive do not explain Dative Implicit Arguments, there is no reason to abandon such approaches to passive. In fact the proposal for Dative Implicit Arguments runs into difficulties in that it fails to exclude certain possibilities. Ian Crookston (personal communication) has pointed out that under a Dative Implicit Argument approach, 72) would not be excluded:

72) \* John showed themselves

73) John showed Mary herself

On the assumption that *Mary* in 73) is a Dative Argument, it should be possible to omit the Dative Argument in 72) and have an Implicit Dative Argument binding *themselves*. This is not possible.

If there are serious problems with Dative Implicit Arguments, then this approach might be reduced to coping only with External Implicit Arguments. In that case, the approach to passives proposed in this study would be a possible alternative.

Rizzi's (1986) proposals for object *pro* also provide problems for the Brody and Manzini approach to Implicit arguments. Rizzi proposes a correlation between the existence of object *pro* and subject expletive *pro* in a subordinate clause. Brody and Manzini account for the possibility of these two sorts of phenomena separately, showing no correlation. As they acknowledge, they must show that such a correlation is accidental and does not hold in a wider selection of languages in order to refute Rizzi's analysis.

## 5.2 Haider's Approach to German Syntax

In a series of papers, Haider (1986) and Haider (1988) (three papers in a volume of working papers from Stuttgart referred to here as Haider (1988:1,2,3)) he puts forward an approach to German syntax in general and the issues addressed in this study in particular which starts with rather different

assumptions from those made here. In my study, following among others Fanselow (1987) and Grewendorf (1989) and as discussed in chapter 1, the assumption is that German is a configurational language, having a structurally defined subject position. Along with this, the Extended Projection Principle of Chomsky (1982) is assumed, which requires a sentence to have a structural subject.

In Haider's work, these assumptions are not made. German is assumed to be a non-configurational language, that is a language without a structurally defined subject position. As a consequence of this assumption, the Extended Projection Principle cannot hold for German. For Haider, a subject in German is generated inside the VP as a sister to the other arguments of the verb and like them, may be optional. Thus for him, when a German sentence has no (overt) subject, this is because it really does not have a subject and he has no need to assume a *pro* in German as most configurational analyses do.

Haider points to the underlying SOV word order and the rich Case system in German claiming that because of this, the subject does not need to be structurally identified.

He further, (1988:1), notes that there are no expletive empty categories in the acknowledged "pro-drop" languages such as Italian, and that if there are "semi pro-drop" languages, then their properties must be a subset of the "full pro-drop" languages. Any analysis which assumes German to be a "semi pro-drop" language with expletive *pro*, violates the above assumption. He proposes that expletive *pro* does not exist, excluding the possibility of treating German as a "pro-drop" language of any sort. This of course assumes that the *pro* proposed for German Impersonal Passives is expletive. If as proposed in this study, Impersonal Passives have an arbitrary *pro* subject, German could be considered a "semi pro-drop" language, since arbitrary *pro* has been proposed for "full pro-drop" languages.

As mentioned, Haider assumes German to be a non-configurational language which lacks an obligatory structural subject position. There is a subject in German when there is a  $\theta$  role to be assigned to it and when it appears, it may be VP-internal or it may be moved to the optional structural subject position, SPEC-I. When there is no  $\theta$  role to be assigned to the subject, SPEC-I being optional is not realized. This is the case with Impersonal Passives for example. Haider explains the appearance of *es* only in SPEC-C position in Impersonal Passives on the basis of his assumption that the structural subject position just does not exist in these cases. For Haider then, Impersonal Passives are really subjectless. It

is not clear how he can account for the apparent selectional restrictions which determine the distribution of Impersonal Passives, nor is the difference in interpretation between personal and impersonal passives discussed. Also, there appears to be no discussion of the reflexive Impersonal Passives in which *es* is in SPEC\_I position and obligatory. Presumably, Haider would assume that *es* is an argument to which a  $\theta$  role is assigned.

The constructions analysed in this study as bi-clausal such as *lassen* passives, are treated by Haider as mono-clausal structures involving a base-generated verbal complex and so the question of subject position of the lower clause will not arise since for Haider there is no lower clause. In any case, for him subject positions are optional. He accounts for the passive effect by assuming an Incorporation approach to these structures. He assumes that the external argument of the embedded infinitival verb becomes an implicit argument as a result of argument unification. There is no account of 'by-phrases' however, unless it is assumed that argument unification produces exactly the same characteristics as passive morphology. See chapter two and the references cited there for a discussion of the bi-clausal nature of these structures.

I cannot provide here a full refutation of the analyses proposed by Haider because they are based in a different set of assumptions about the structure and nature of German. They represent the fullest and most coherent treatment of the German phenomena discussed in this study, and within their own terms provide a credible alternative treatment. However, given that the current approach is set in a configurational analysis of German, Haider's proposals cannot be accepted. See chapter 1 for a full discussion of the issue of configurationality in German.

### 5.3 Cardinaletti (1990)

I shall provide a more detailed examination of the work by Cardinaletti than either of the other two analyses treated in this section since she deals with some of the same problems within a framework which makes the same basic assumptions of configurationality as I do and her analysis is thus more obviously open to criticism and to comparison with my proposals.

Cardinaletti (1990) provides an investigation of *es* and *pro* in German in which it is proposed

that, contrary to most assumptions thus far, expletive *es* is limited to just one position, first position of a verb second clause. She proposes that all other occurrences of *es* are argumental uses, quasi-argumental and fully argumental. She further notes that *es* and *pro* are in almost complete complementary distribution in German, assuming that *pro* in German is expletive.

First Cardinaletti tries to demonstrate that *es* and *pro* are in complementary distribution. She establishes that referential, "weather" and "idiomatic" *es* may not be left out:

- 74) Ich habe *es*/\**pro* [das Kind] in der Schule getroffen  
I have it [the child] in the school met
- 75) Ich finde *es*/\**pro* warm hier  
I find it warm here
- 76) Er hat *es*/\**pro* schlecht  
He has it bad

In other cases, *es* is excluded and *pro* must appear:

- 77) Hans sagt, daß *pro*/\**es* getanzt wurde  
Hans says that was danced was
- 78) Hans sagt, daß *pro*/\**es* ein Mann gekommen ist  
Hans says that a man come has

Cardinaletti assumes that this behaviour is explained in terms of  $\theta$  theory, *es* in examples 74)-76) being in a  $\theta$  position and *pro* in 77) and 78) being in a non- $\theta$  position.

Next Cardinaletti considers sentence initial *es* in examples such as 79) and 80):

- 79) Es wird getanzt  
It is danced
- 80) Es wurde ein Buch gestohlen  
It was a book stolen

Generally, *es* in such examples is considered to be inserted to satisfy Verb-second requirements. Cardinaletti however assumes that in such examples, the subject where there is one remains in the government domain of the verb, receiving partitive Case from it along the lines of Belletti (1988), and proposes that *es* is generated in subject position and then moved to SPEC-C. Thus the proposal for these examples is that this is the only example of expletive *es* in German. According to the licensing

conditions for expletive *pro* (see below) which she proposes for German, Cardinaletti assumes that it cannot be licensed in this position and this gives rise to the only example of expletive *es*. Expletive *es* is barred from other non-argument positions by the Avoid Pronoun Principle (Chomsky 1981).

The licensing strategy for *pro* adopted by Cardinaletti is based on the proposal in Rizzi (1986). However, Cardinaletti assumes that the set  $y$  of possible licensing heads for *pro* in German is  $y = \{C_0, V\}$  where  $V \theta$  marks its object. Licensing of *pro* according to Cardinaletti takes place under government and in the examples in 79) and 80)  $C_0$  could not govern an element in SPEC-C.

The final section of Cardinaletti's paper is concerned with the problem of optional *es*. As she notes, examples involving such optionality cast doubt on the proposed complementary distribution of 'es and *pro*. The general proposal for such cases is that *es* when it appears is argumental rather than expletive *es*. The sort of example under question is that in 81):

- 81) Gestern wurde (??es) behauptet, daß er gewonnen hatte.  
Yesterday was it claimed that he had won

There is a variety of such examples which vary greatly in the extent to which they allow *es*, ranging from the almost mandatory to the impossible. 82)-85) come from Puetz (1975):

- 82) Dann wurde (\*es) berichtet, daß die Straße doch gebaut werde  
Then was it reported that the road indeed built was
- 83) Gestern wurde \*(es) abgelehnt, daß die Sozialisten gewonnen haben  
Yesterday was it rejected that the Socialists won have

Cardinaletti makes the interesting observation that the same pattern is found with the active equivalents of 82) and 83).

- 84) Er berichtete (\*es), daß die Straße doch gebaut werde  
He reported it that the road indeed built was
- 85) Peter lehnt \*(es) ab, daß die Sozialisten gewonnen haben  
Peter rejected it that the Socialists won have

Between the two extremes of behaviour of *es* shown in 82)-85), there is a range of judgements with other examples. It seems to be an idiosyncrasy of the verb concerned whether or not it permits *es*.

Cardinaletti's proposal, on the basis of such evidence, is that in examples like 82) and 83) where *es* is possible, it is just the deep object of a verb which allows such an object, which has undergone passivization and is therefore an argument in subject position. In general the impossibility or possibility of *es* in passive clauses with a verb which has an embedded clause corresponds to its possibility or impossibility in the active equivalent in object position. Her analysis captures this generalization well.

The question remains of the status of the embedded clause in such structures. Cardinaletti proposes that the embedded clause behaves as a non-argument as expected when the anticipatory pronoun *es* is present, but that it behaves as an argument when it is not. She also concludes that the embedded clause in construction with *es* is generated in an adjoined position and thus is not an argument.

The approach to structures containing possible *es* and an embedded clause proposed by Cardinaletti is an elegant, valuable analysis which can stand by itself. However, her analysis of contexts in which *es* is obligatory or excluded is not so secure. Firstly, she has not treated the case of reflexive passives, analysed in chapter 4 above. As noted there, intransitive reflexive passives provide an example of the obligatory presence of *es* in subject position. Presumably, under her analysis, *es* in these structures is an argument.

- 86) Hier tanzt es sich gut  
Here dances it *sich* well

In the analysis which I proposed in chapter 4 above, *sich* is an argument passive morpheme which is assigned the external  $\theta$  role of the intransitive verb. Such an analysis finds its equivalent in Italian for example (Cinque 1988), where it is proposed that *si* in equivalent structures is an argument receiving the external  $\theta$  role. The extension of such an analysis to German does not seem unreasonable, given the similarity of the constructions involved.

If the above is correct, then it is not clear how Cardinaletti will account for an example such as 86). For her, *es* must be an argument. This is impossible without a completely new proposal to account for the passive nature of 86).

A further point is that under Cardinaletti's proposals for the analysis of Impersonal Passives in which the subject position is filled by expletive *pro*, there is no way of accounting for the arbitrary

interpretation, since the passive morpheme will always be an argument and there will be no grounds for assigning different interpretation.

There is another set of possible problems for this analysis. Cardinaletti says that *es* in so-called "weather" uses may not be left out. 75) is just such an example. However, there are cases of this sort of *es* which are optional.

87) Mir ist (es) kalt

87) appears to provide a problem in that if *es* is genuinely optional here, according to Cardinaletti, we would have a position which in one case would allow an argument *es* and in the other, an expletive *pro*.

In the next section, I shall consider these problems from the point of view of the analysis proposed in this study.

## 6.0 The Distribution of *es*

In this section, I shall consider the distribution of *es* in German in light of the proposals made by Cardinaletti in section 5. above and attempt to account for the problems which face her analysis in terms of the approach developed here to Impersonal constructions.

The analysis proposed above by Cardinaletti for the occurrence of *es* in sentences containing embedded clauses will be assumed unaltered here. As acknowledged above, it is an elegant analysis. It does away with the necessity of assuming optional expletive *es* or *pro* in many places and this is a desirable result, since it is not clear what would have governed the choice of either the expletive *es* or the *pro*.

The desire to eliminate such alternation in general is good and Cardinaletti's whole analysis is just such an attempt. However, given the problems which it faces noted above, it seems that the rest of the attempt is on the wrong track. If we make the opposite assumptions about the argument status of *pro* and some of the examples of the element *es* in the rest of the cases she considers, it seems that we will be more on the correct path.



The proposal for the analysis of Impersonal Passives given in this study is that their subject position contains an arbitrary reference *pro*, the opposite assumption from that made by Cardinaletti and all other treatments. *es* may never appear in subject position with Impersonal Passives.

The example in 86) was noted as a potential problem for Cardinaletti's approach to *es*, since assuming, as she would have to, that *es* in 83) is an argument would require a complete revision of approaches to reflexive passives. In this study, the assumption is that *es* in that structure is expletive and that *sich* is an argument. *es* may not be missing from reflexive passives and if expletive *pro* exists, it is to be explained why it may not appear as an alternative to *es* here.

It is clear that *es* is an argument when it is fully referential and that such a thing as "weather" *es* exists which one may call a quasi-argument. However, it is not clear that Cardinaletti's so-called "idiomatic" *es* is a quasi-argument. She provides no discussion of evidence for the claim that *es* in such contexts is a quasi-argument. What is clear is that whether it is a quasi-argument *es* or an expletive *es*, these "idiomatic" uses of *es* provide a context in which an expletive *pro* may not appear.

Let us assume that *es* may be an expletive more widely than is assumed by Cardinaletti and that expletive *pro* does not exist and that arbitrary *pro* does exist in German. Under these assumptions, we explain why with reflexive passives there is no possibility of leaving out the *es*, since there is no empty expletive. In the analysis of Impersonal Passives presented in this study, there is no problem with the lack of expletive *pro* since the *pro* assumed for that structure is arbitrary.

Under these assumptions, the only circumstances in which an expletive *pro* would be necessary would be in examples such as 88)

- 88) Hans sagt, daß *pro* gestern ein Mann gekommen ist.  
Hans says that yesterday a man come has

In this sort of example, there is always a nominative NP with which the tensed verb agrees. This word order is not obligatory and what might be regarded as the normal word order with the subject in subject position possible:

- 89) Hans sagt, daß ein Mann gestern gekommen ist.  
Hans says that a man yesterday come has

In 89), there is no need to postulate *pro* in subject position. If we assume that there is no expletive *pro* in German, then 88) might be explained as being the result of some form of scrambling or topicalization in a subordinate clause. This is a problem if we do not allow expletive *pro* in German, however, we will proceed on that assumption.

Above, it was noted that 87) is a problem for Cardinaletti because it is an example of the non-complementary distribution of *es* and *pro*. Cardinaletti shows that *es* is obligatory with 90)

90) Hier ist *es*/\**pro* kalt

If this judgment and that for 87) are correct, it is unclear how to account for the inconsistency as well as for the lack of complementary distribution in 87). It is interesting to note that more generally, when there is a personal dative in such constructions, it is easier to leave *es* out.

91) Mir ist (*es*) gelungen, ....  
To me is (it) succeeded ...

92) Hier ist ??(*es*) gelungen, ...  
Here is (it) succeeded ...

Such examples as 91) are rather less Impersonal in a sense than that in 92) in that they contain a personal dative pronoun. In fact, such structures are reminiscent of the dative passives considered in section 3 3.1.2.2 in chapter 3. There it was proposed that dative passives under control verbs are treated as personal passives under control verbs and that mono-clausal dative passives are exceptional examples of personal passive in which dative Case is assigned to the argument passive morpheme. It may be that all of these dative structures have an uncertain status in contemporary German. Perhaps the dative element is being reinterpreted as fulfilling a subject role and is undergoing the same process of change that the equivalent structures in English underwent earlier in its history. For example, there was a set of impersonal verbs in Old English which were similar to these German examples in having a Dative experiencer. The best known such example is *lician* whose descendant *to like* has a Nominative experiencer.

93) Me licað....

94) I like....

Under this assumption, the optional status of *es* in 91) and 87) is explainable. Either the dative pronoun is a subject-like element when *es* is missing or a pure fronted dative when *es* is present. If this is so, then there is no question of there being expletive *pro* in such structures.

Under the assumption that *es* may be more freely an expletive element as well as an argument and a quasi-argument and also assuming that it may fulfil Verb second requirements in constructions such as Impersonal Passives and assuming also that *pro* in German may only be arbitrary, we have accounted for the problems for Cardinaletti's analysis raised at the end of the previous section. The freer availability of expletive *es* and lack of expletive *pro* account for the reflexive passive example in 86), the analysis proposed for Impersonal Passives involving arbitrary *pro* accounts for the interpretation of such structures and the assumptions made about the ambiguous status of dative constructions in modern German accounts for the apparently optional *es* in examples such as 87) and 91).

We have however left ourselves with the problem of scrambling or topicalization of elements in the subordinate clause of examples such as 88). I shall leave this problem however and note that if it can be solved, then we have succeeded in eliminating expletive *pro* from German syntax. This is a desirable consequence since as Haider points out a "semi pro-drop" language should contain a subset of the properties of a "full pro-drop" language. Arbitrary *pro* has been argued for in "full pro-drop" languages and so if as proposed German has arbitrary *pro* it may legitimately be regarded as a "semi pro-drop" language.

## **7. Conclusions**

### **7.1 Summary of the Chapter**

The first three sections of this chapter were concerned with setting the analyses proposed in the rest of the study in the wider context of German syntax in general. Section 3 concludes with a proposal for a set of features which characterize the passive morpheme in German.

Section 4. contains an examination of similar passive structures in other European languages and makes use of the feature set proposed for German '-en'. It is shown that by setting the values of the passive morpheme features differently and by assuming different members of the set  $y$  in  $X_y^0$ , we can account for the difference of distribution of passive types in the languages considered.

Section 5. considers briefly some other rather different approaches to various aspects of the problems considered and concludes with a review of Cardinaletti's (1990) explanation for the distribution of *es* in German.

Section 6. proposes some revisions of Cardinaletti's work which in the best case will result in the elimination of expletive *pro* in German, allowing German to be considered a "semi *pro*-drop" language - a language which has a subset of the properties of "full *pro*-drop" languages.

## 7.2 Conclusion of the Thesis

This thesis provides first of all an analysis in chapter 3 of the well known Impersonal Passives in German as in 96) discussed in chapter 2, which accounts for their syntactic behaviour and the limitations controlling the sort of verb which may form an Impersonal Passive.

- 96) Es wurde getanzt  
It was danced

The limitation that such constructions are limited to verbs with a human external argument is accounted for by proposing an arbitrary reference *pro* in subject position which is licensed by a non-argument passive morpheme in INFL. The limitation that such Passives may only generally be formed with unergative verbs is discussed in sections 1.1 and 1.2 above. Since the passive morpheme in Impersonal Passives is not an argument requiring the external  $\theta$  role, it is proposed that if *pro* is licensed in object position and is then moved to subject position to be Case marked in such structures, if in fact *pro* may be licensed in object position with these verbs, at S-structure *pro* will be licensed by two different methods. It will have been assigned 'arb' in object position according to the analysis in Rizzi (1986) and also, it will be marked 'arb' at S-structure by the non-argument passive morpheme.

Secondly, in chapter 4, this thesis extends the ideas underlying this analysis of Impersonal Pas-

sives to account for the second set of data discussed in chapter 2, namely, the bi-clausal passives both personal and impersonal involving *lassen*, the verbs of Perception and the Copula illustrated in 97).

- 97)a) Er läßt ihn von den Soldaten schießen  
He makes him by the soldiers shoot
- b) Er läßt von allen lachen  
He makes by everyone laugh
- c) Er sah die Kisten auf den Laster laden  
He saw the cases on the lorry load
- d) Auf der Straße sah ich von allen tanzen.  
In the street saw I by everyone dance
- e) Dieses Buch ist von niemandem zu kaufen.  
This book is by nobody to buy
- f) Es ist jetzt von allen zu feiern  
It is now by everyone to celebrate

To account for these, a further modification of the passive morpheme is proposed. It is suggested that the passive morpheme may be empty or overt, the empty passive morpheme being limited to verbs in non-tensed clauses and is attached to the verbs in the lower clauses of the above examples. The distribution of the empty passive morpheme is described in section 1.2 in chapter 5.

By means of these two alterations to the feature set of the passive morpheme, we are able to account for the whole set of passive phenomena discussed in chapter 2.

In chapter 5, after a deeper examination of the details of the proposed innovations in German, it is shown that by setting the values of the appropriate features of the passive morpheme proposed for German along with certain assumptions about the distribution of *pro*, we can derive correctly the distribution of mono and bi-clausal passives in French, Italian and English.

Chapter 5 concludes with an examination of the distribution of *es* in German. This examination points to the possibility of excluding expletive *pro* in German, a highly desirable consequence in light of its dubious status in other languages.

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