**Predicate-argument structure, relational typology and (anti)passives:
Towards an integrated localist case grammar account**

ROGER BÖHM

Predicate-argument structure, relational typology and (anti)passives:
Towards an integrated localist case grammar account

ROGER BÖHM

Department of English Language
University of Hamburg

0. INTRODUCTION

If any single one construction type could claim a prize for playing a central role in the development of divergent lines of generative research, the passive construction, such as is typified by the English (1),

(1)   *The Aiwa was dismantled by the kids.*

would probably qualify as the prime contender.*

What follows is an attempt to provide an account of the passive construction in terms of the restrictive parameters of the relational typology set by localist case grammar (CG hereafter) (cf. ANDERSON 1971a, 1977, 1979a,b, 1986a and in press; BÖHM 1982, 1983). Apart from characterising what I take to be the most salient properties of the construction in CG terms, this will involve spelling out the CG assumptions of the 'linking' between semantic functional relations (i.e. the case relations of the case grammar tradition or the Θ-roles of GB work) and syntactic functional relations, and determining the structural relevance of case relations in a grammar in which they are uniquely basic to initial syntactic structures.[1]

The remainder falls into six parts. Section 1 outlines the CG position on the role of case relations (henceforth CRs) in a lexicon-driven syntax. Section 2 addresses the issue of the relationship between CRs and grammatical functions and, in keeping with earlier CG work, suggests that differences in the relational typology of languages arise from a parameterized conception of subject-formation, which views the grammatical relation subject as representing one of a small set of typologically relevant derived 'principal relations' or syntactic 'pivots' (in the sense of DIXON 1979). Subjecthood is absent from initial syntactic structures and is assigned, if at all, on the basis of the CRs present in a predication.

---

[1] The term case relation (CR) is used here for constructional and, more specifically, for labelled dependency relations between predicates and arguments. The CR labels, which are interpreted as labels for the semantic import of the constructional relations to the compositional semantics of a predication, are assumed to have categorial (syntactic) status as functors. Reference to CRs and their labels as 'roles' is potentially misleading to the extent that it is prone to confusing what is extralinguistic with the linguistic representation thereof. Witness in this regard, for instance, JAEGGLI's (1986: 600) contention (following CHOMSKY 1981:104-5) that in (i) below the Θ-role of the subject NP must he assigned compositionally by the verb and its object NP, given that '*John* is an Agent (...) but also the patient of (or affected by) the action expressed by the verb'.

(i)   *John raised his hand.*

For arguments against compositional Θ-role assignment, cf. BRESNAN (1982a: §5.2).

Part 3 offers a CG analysis of passives. It argues that the prototypical passive construction may be characterised in CG terms as providing a 'remedial strategy' in an accusative language to maintain the subject-forming character of sentences with respect to predications from which subjecthood is lacking. As the absence of subject-formation is the distinctive property of ergative systems, passives are claimed here to form a construction type which enables the integration of actional transitive predications with an ergative relational structuring into the syntax of an accusative language. The crucial notion involved is that of 'argument sharing': the relationally basic argument of an ergative structure, the absolutive argument, is associated with the absolutive CR of a superordinate intransitive 'auxiliary' predicate and thereby permitted to subjectivize in accordance with a hierarchy of case relations which determines the assignment of subjecthood in an accusative (or subject-forming) language.

Section 4 deals with certain peculiarities in passives of agentive-directional verbs. It develops the 'argument sharing' conception of passives and suggests an explanation for the failure of 'recipient' (or 'indirect object') arguments of 'give' verbs in languages like German to 'advance' to subject in passives which is based on the interaction of the CR borne by such arguments and the array of CRs projected by the passive auxiliary.

Section 5 takes up the issue of derived intransitivity. It considers derived intransitive constructions in the light of a restrictive concept of valency saturation and proposes an analysis of derived intransitives which preserves the distinctive lexical valency properties of the basic transitive predicate from which the corresponding intransitive is derived. The obligatory argument of a derived intransitive verb is argued to bear a multiply labelled CR which involves asymmetrical combinations of the CR specifications of the transitive predicate.

Finally, section 6 reconsiders the perennial question of the relational structuring of ergative systems in terms of the account of derived intransitivity and argument sharing developed in sections 3 to 5. It offers an analysis of 'antipassive' constructions and suggests that the defining grammatical properties of such constructions (derived intransitivity, potential for fake reflexivity and others) which have frequently been noted in current descriptive and theoretical typological work may be derived from the restrictive interplay between a parameterized notion of (derived) principal or 'pivot' formation and argument sharing.

1. PREDICATE-ARGUMENT STRUCTURE AND SYNTAX

1.1. The case grammar hypothesis

1.1.1. Localist case grammar is perhaps most appropriately characterised and distinguished from other current modes of grammatical theorising in terms of subscribing to the non-reductionist view of the character of case relations (or 'Θ-roles') and their structural relevance in the lexicon and in the syntax embodied in the hypothesis given under (2) (cf. ANDERSON 1982, 1984a: 6, 1985a, 1986a: 79, 1987a: 106, in press: §§3.1-3.4).[2]

(2)   *The case grammar hypothesis*

Syn-semantic functional or case relations (CRs) are (a) syntactically primitive, and alone are (b) lexically contrastive and (c) as relations uniquely basic to initial syntactic representations (projections) of lexical predicate-argument structure.

By (2.b), which (at least in spirit, though not always in practice) also informs approaches other than CG (cf., for example, CHOMSKY 1981: §2.2, 1986: §3.3.3.2, MARANTZ 1984, LEVIN & RAPPAPORT 1986: §4.1, among others), the relational semantico-syntactic information that is required by lexical entries of predicates is limited to information concerning the CRs of the predicate's arguments, in that it is this information that is particular or idiosyncratic to a specific predicate in serving to distinguish it as an instance of a particular type from other types of predicates. Other structural properties such as e.g. grammatical functions of subcategorised arguments, their linear order relative to the predicate and manner of Θ-role assignment (cf. MARANTZ 1984: §2.1.1.1, and see below §5.1), that could in the absence of (2.b) potentially be attributed to predicates in their lexical entries are not lexically contrastive or distinctive in the appropriate sense and are hence not to be specified therein. Consider in this regard, for example, the predicates *collapse* and *dismantle* instanced in the sentences under (3) and (4).

(3)   *The Aiwa collapsed.*

(4)   *The kids dismantled the Aiwa.*

---

[2] For discussion of the various subhypotheses involved in (2) see ANDERSON 1968, 1971a, 1975a, 1977, 1982, 1984a, 1986a, in press, BÖHM 1981, 1982.

Note in this connection that as a constraint to minimize idiosyncracy in lexical predicate-argument structures the ban of lexically non-distinctive properties such as linear order would rule out attempts like that of JACKENDOFF (1987) to define Θ-roles in terms of linear position of arguments relative to their predicate. In the system proposed by JACKENDOFF no two predicates ever contrast by virtue of one of them taking, say, an agent and a patient argument in that order and the other taking a patient and an agent argument. This is unsurprising in the light of (2) and merely reflects the fact that CR contrasts are essentially notionally based.

Given an appropriately constrained universal set of CRs (see §1.2 below), the lexical relational specification of *collapse* involves (minimally and maximally) a statement to the effect that as a member of the lexical category verb it takes a (nominal) absolutive ('patient' or 'theme') argument (i.e. an argument related to its governing predicate by a dependency relation labelled absolutive), with *dismantle* differing from *collapse* in taking, apart from an absolutive term, also an ergative (or 'agent') argument, as shown in (5) and (6),

(5)   a.   *collapse*: {P;X}/[absolutive]

(6)   a.   *dismantle*: {P;X}/[absolutive] – [ergative]

where the categorial feature P ('predicativity') enclosed within the braces ('{' and '}') serves to identify *collapse* and *dismantle* as members of the class of (potentially finite) verbs and X is a variable over categorial component features other than P alone (cf. below). The slash ('takes as a complement') introduces as the only structurally relevant subcategorisation property the label(s) of the CR(s) contracted by the predicate's argument(s). However, the specification of the verbs in (5.a) and (6.a) for a dependent absolutive argument is not contrastive: an absolutive term is obligatory with any verb (cf. ANDERSON 1968, 1971a: §3.1, 1977: §2.1.2, CHAFE 1970, GRUBER 1965: §2.1, 1976: §3.1, HALLIDAY 1967/68: §8.2, and STAROSTA 1978, 1982) and can accordingly be introduced by a redundancy rule after the fashion of (7).[3]

(5)   b.   *collapse*: {P;X}

(6)   b.   *dismantle*: {P;X}/[ERG]

(7)   {P(;X)} $\Rightarrow$ /[ABS]

---

[3] However, some predicates (such as e.g. 'zero-valent' predicates denoting metereological processes) are marked lexically as failing to take an ABS argument semantically and merely satisfy the ABS requirement by associating the ABS functor with a minimally specified nominal, an expletive nominal (whose presence may he reflexed in some languages only in the verbal morphology). Non-referentiality of the expletive should not be taken as evidence for its occupying a 'non-thematic' structural position or bearing the Θ-role of 'quasi-argument' (in the sense of CHOMSKY 1981:37,47, 325). Its distribution is precisely that of absolutive terms and shows the familiar 'ergative' pattern, i.e (in a language like English) subject in intransitive and object in transitive sentences; cf. ANDERSON 1988b, 1991: §5, and POSTAL & PULLUM 1988.

Note, too, that (6) fails to distinguish causative predicates (including ergatives in the original sense of ANDERSON 1968, 1970a, 1971a, 1977, HALLIDAY 1967/68, 1985 and LYONS 1968) like *dismantle* and, say, *change* from 'ordinary' non-causative transitives such as e.g. *read*. I shall for the time being ignore this distinction and its treatment in the grammar of ANDERSON (1971a: §§5, 11, 1977, 1986a, in press); but see section 5.2 below.

1.1.2. The representations of lexical predicate-argument structure in (5) and (6) assume, following current work in dependency case grammar cast within the wider perspective of 'notional grammar', that lexical categories or, rather, word classes are distinguished categorially in terms of two unary notionally-based features, N ('nominality') and P ('predicativity').[4]

The preponderance of P in their categorial representation is distinctive of the members of the word class which prototypically denotes location and change of location in space and time, i.e. of verbs. The categorial representation of the most event-specific members of the class, viz. of finite verbs, involves the feature P only. Preponderance of the feature N in its categorial structure is associated with the word class whose prototypical members are characterized notionally as denoting first-order entities (in the sense of LYONS 1977: §11.3, 1989), i.e. with the class of nouns. The members of the class with the most entity-specific reference, names and personal pronouns, are categorially specified for N only. Other word classes are characterized categorially as articulated complexes of N and P structured by the dependency relation, such that either N or P governs the other feature, with the notional and grammatical properties associated with the governing component, though preponderant, being proportionally 'diluted' by those of the dependent component. The word classes allowed for by this system accordingly range from those showing unique presence of N and P (names and finite verbs), through those in which N unilaterally governs P and vice versa (common nouns and non-finite verbs), to those, wherein N and P are mutually governing (adjectives), as shown in (8.a) (where the braces enclose bundles of categorial features, and ';' and ':' designate preponderance (unilateral government) and equipollence (mutual government), respectively).

(8)   a.   *primary (᾽first-order᾽) word classes in notional grammar*

       {N}   name, pronoun, determiner

       {N;P}   common noun

       {N:P}   adjective

       {P;N}   non-finite verb

       {P}   (finite) verb

       { }   functor (= null combination of N and P, i.e. adposition, complementizer)

---

[4] Cf. ANDERSON 1988b, 1989a,b, 1990, ms a,b, in press: ch. 5, in preparation: ch.2 for fuller discussion of the notional substance of the P and N features. More generally on the identification of word classes on notional grounds in recent linguistic work see LYONS 1966, 1968: §7.6, 1977: §11.3, 1989, CROFT 1984, 1991: chs. 2 and 3, GIVÓN 1979, DIXON 1984, HOPPER & THOMPSON 1984, SCHACHTER 1985 among others.

The introduction of second-order complexes involving the combination of a complex {P,N} categorisation with one of the categorial representations in (8.a) extends the range of classes allowed for in the way shown in (8.b). The table in (8.b) orders the word classes (except for the class of functors) by increasing degree of predicativity, where degree of predicativity is measured in terms of the relative preponderance of the P feature as shown by the P/N ratios to the right of the word class labels.

(8)   b.   *word classes in notional grammar*

first-order classes			P/N ratios
	second-order classes		
{N}		name, personal pronoun, determiner	0/4
{N;P}		common noun	1/3
	{(N;P);(P;N)}	derived nominal	3/5
{N:P}		adjective	2/2
	{(N;P):(P;N)}	nominal gerund (action nominal)	1/1
	{(N:P);(P;N)}	derived adjective	9/7
	{P;(N;P)}	verbal gerund	13/3
	{P;(N:P)}	participle	7/1
	{P;(P;N)}	non-finite verb	15/1
{P}		(finite) verb	4/0
{ }		functor (adposition, complementizer)	0/0

The categorial representations in (8) determine the gross distributional properties or basic syntax of the class of elements they characterize.[5] Presence of P in its catego-

---

[5] The notation {P,N} leaves the preponderance (dependency) relation unspecified and serves to indicate the mere combination of P and N. On the re-categorisation in (8.b) of {P;N}s (non-finites) as {P;(P;N)} within the overall system of word classes appropriate for English, which is not exhausted by (8.b), see ANDERSON (1991: 309, in preparation: §§2.6.3, 3.3.). For ease of reference I shall continue to designate non-finites as {P;N}. The P/N ratios in (8.b) are calculated on the basis of the numerical values given in (i) (where the variable X ranges over P and N),

(i)   X   ('solitary X')   = 4
       X;   ('unilaterally governing X')   = 3
       X: ('non-unilaterally governing X')   = 2
       ;X   ('unilaterally governed X')   = 1
       Ø   ('absence of X')   = 0

so that e.g. the P/N ratio of the primary or first-order complex in which N unilaterally governs P (i.e. the categorisation of common nouns) is 1/3. In terms of one of the two alternative algorithms available for the computation of their P/N ratios, the P/N measure of second-order

rial structure allows an element predicative syntactic function and, in the absence of any other categorial component specification, headhood in 'full' finite (as opposed to 'small') clauses, associated in English with (inter alia) the ability to take (derivatively) a subject argument. Predicates whose predicative potential is diluted by the co-presence in their categorial structure of N (non-finites, adjectives, etc.) are more restricted in the array of arguments available to them and in their distribution: they cannot head full sentences and as predicatives must be dependent on a predicate that (other things being equal) is categorially {P} only in order for the predication to meet the universal well-formedness condition which requires the presence of a {P} head in sentences.[6]

Within each word class, subclasses may be distinguished by a distinct set of notionally-based 'secondary' categorial features, such as e.g. gender and number features for various subclasses of common nouns/pronouns, deictic features for demonstratives, etc., or, where appropriate, valency features which specify more finely the combinatorial syntactic potential of an item in terms of the number and type of complements it takes.

With verbs, as illustrated by (5) and (6), subcategorisation by valency potential in-

complexes is calculated as follows: the values supplied in (i) are first attributed to the primary components; these are then weighted in terms of the factor appropriate for the second-order dependencies and summed. Thus, for {P;(N;P)} (verbal gerunds) the respective P/N ratios of the first-order components, which are 4/0 (for {P}) and 1/3 (for {N;P}), are multiplied by the factor 3 and 1 respectively, given that {P} unilaterally governs {N;P} on the second-order level, yielding a P/N ratio for the entire complex of 13/3 (= 12/0 + 1/3).

More importantly, observe that (8.b) is largely equivalent to ROSS' (1973) nouniness hierarchy and GIVÓN's (1990:§§12, 13, *passim*) finiteness hierarchy, and, as far as I can make out, accommodates the range of phenomena which ROSS (1973) and GIVÓN (1990) take to be suggestive of the scalarness if not non-discreteness of word classes and their syntactic projections without relinquishing the assumption that word classes are discrete; on this aspect of (8.b) and possible cross-classifications it allows for see again ANDERSON (1989a,b, 1991, in press, ms a, in preparation: ch. 2), and BÖHM (1991). On the structural analogy of the categorial representation of word classes with the categorial gesture of phonological segments in Dependency Phonology cf. ANDERSON (1988b, 1989a,b, 1990, in press).

[6] This assumes a definition of the syntactic construction sentence familiar from case grammar as well as categorial and valency grammar work which treats sentences as zero-valent finite predicates, i.e. constructions headed by a {P} element whose syntactic binding potential or valency is saturated (cf., for example, BARTSCH ET AL. 1977:§3.5.2 and MATTHEWS 1981: ch.5). In terms of the notational conventions established in works in Dependency Phonology (cf. e.g. ANDERSON & JONES 1974, ANDERSON & EWEN 1980: §3.2, 1987, DURAND 1990: §8.3.1.1), the exhaustive interpretation of a categorial feature, such that e.g. {P} designates the class containing only P, is shown by the presence of the operator '||' ('only') in the categorial representation: {|P|}. Notice that '||' is redundant at the lexical level, in that, for instance, {P} in (8) is unambiguously contrastive.

volves annotation of the categorial specification with the functor categories (or case relation labels) which are contrastive with respect to the verb's complements, i.e. with the argument structure that must be satisfied in order for the verb to constitute the head of a well-formed predication. The CR-labels, that is, distinguish between various notional subcategories of the categorially unspecified class of functors ({ }), whose gross distributional properties, viz. adpositional/co-verbal distribution or simultaneous (cumulative) expression with other word classes, again reflect their categorial structure, which is neither predicative nor referential. In the unmarked case, the major expression class of functors, adpositions, require a nominal to complement them, so that the redundancy formulated in (9) is appropriate.

(9) $\{\ \}\ [\kappa] \Rightarrow /\{N(;X)\}$

(where $[\kappa]$ is the secondary, i.e. subcategorial bundle of features, with κ as a variable ranging over the set of CR labels, and $\{\ \}$ the primary, categorial partition, which the representations in (5)-(7) above have suppressed for expository reasons).

Lexical specification for a predicative $\{P(;X)\}$ complement overrides (9) and yields the subclass of complementizers (cf. ANDERSON 1972, 1976, 1977: §2.3.3, EMONDS 1985: esp. ch.7 on the categorial identity of adpositions and complementizers). Similarly, within the class of nominal categories, subcategorisational valency properties distinguish between non-relational and relational nominals. Common nouns designating part-whole relations, for example, require complementation by an adnominal locative or ablative noun complement. The same is true of determiners, which, as elements specified categorially for N only, differ from the former in (among other things) being barred from predicative positions, but are likewise relational in taking an ablative-partitive noun complement:[7]

---

[7] This view of determiners is suggestive of an analysis of noun phrases which treats e.g. determiners and attributive adjectives , which are traditionally considered modifiers in noun phrase structure, as transitive heads with an obligatory adnominal (partitive) complement, such that each partitive complement refers to a more inclusive subset of entities. On the (re)analysis of NPs as Determiner Phrases see ANDERSON 1975c, 1976: §3, 1989b, HORROCKS 1987: §5.1, HUDSON 1984, 1987, LYONS 1977: §§10.3, 11.1, *passim*, THRANE 1980. With adjectives, 'attributive' (as well as predicative) distributional potential reflects their categorial structure with equally preponderant measures of P and N. ANDERSON 1989b, 1990, and in press: ch.5 suggests that (unless overruled lexically with specific items) adjectives are redundantly $\{P:N\} \Rightarrow \{N\}/\{\ \}[abl]$, and thereby allowed 'attributive' distribution. I shall assume here (though nothing in what follows hinges on this) that the functor subcategory introduced as part of the above redundancy for 'attributive' adjectives is the same as that for which $\{P:N\}$s are subcategorized anyway: viz, typically (but not exclusively so) with adjectives the ABS provided by (7), or, more generally, the CR which in predicative adjectival constructions determines the assignment of subjecthood to (one of) the adjective's subcategorized argument(s). On a rather more mundane point, note that I shall henceforth for reasons of typo-

(10)   {N}/{ }[ablative]

1.1.3. With this much (or little) said about word classes, consider now how – assuming a lexicon-driven syntax (cf. ANDERSON 1990, 1991) – initial syntactic representations are constructed monotonically on the basis of the (sub)categorial specifications of words. Given for instance the unordered set of words in (11.a) and (12.a),

(11)   a.   P;N   N/ABL   N
              ⋮   ⋮   ⋮
              ⋮   ⋮   ⋮
            collapse   *the*   *Aiwa*

(12)   a.   P;N/ERG   N/ABL   N;P   N/ABL   N
              ⋮   ⋮   ⋮   ⋮   ⋮
              ⋮   ⋮   ⋮   ⋮   ⋮
            dismantle   *the*   *kids*   *the*   *Aiwa*

wherein each word has been paired with its lexical categorial representation, the function of the syntax is limited to providing ordered tactic complexes of words by relating valency-carrying items and elements which may satisfy these valency requirements via the binary asymmetric relation of dependency. In (11.a) and (12.a), apparently, this fails: the elements present therein cannot be endowed with the dependency relation, given the lack of the functor categories required to satisfy the valencies of the P and N elements. In order for a nominal term to have an argument function with respect to a given head, it must complement a functor, which, in turn, complements or satisfies the valency of that head: arguments are functor→nominal complexes (where '→' designates dependency). As they stand, then, (11.a) and (12.a) simply do not yield well-formed syntactic structures. More promising in that regard are (11.b) and (12.b):

(11)   b.   P;N   ABS   N/ABL   ABL   N
              ⋮   ⋮   ⋮
              ⋮   ⋮   ⋮
            collapse   *the*   *Aiwa*

(12)   b.   P;N/ERG   ABS   N/ABL   ABL   N   ERG   N/ABL   ABL   N;P
              ⋮   ⋮   ⋮   ⋮   ⋮
              ⋮   ⋮   ⋮   ⋮   ⋮
            dismantle   *the*   *Aiwa*   *the*   *kids*

---

graphic economy omit the braces enclosing the partitions in categorial representations and refer to functor categories by their secondary CR partition only.

wherein superimposition of the dependency relation upon pairs of elements turns the tactically unrelated set of words/categories into a well-formed syntactically structured complex in which each category whose presence is required in order to saturate the lexical valency of a valency-carrying element depends on or, conversely, is governed by that item. Under a graph-theoretic interpretation of this, whereby each category is associated with a vertex whose placement on the perpendicular axis of the graph expresses relative degree of dependency, each pair of categories/vertices contracting the dependency relation is related by a directed arc initiating in the governing category and terminating in the dependent one, as shown in (11.c) and (12.c).

(11)   c.
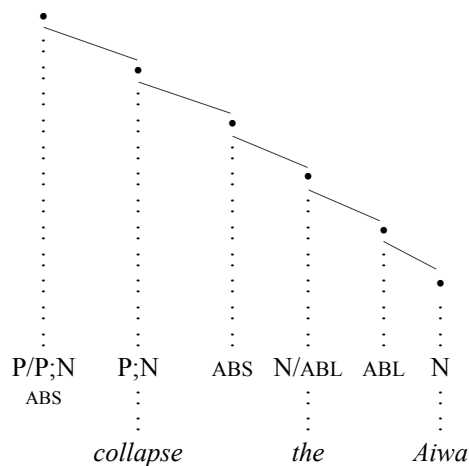
(12)   c.
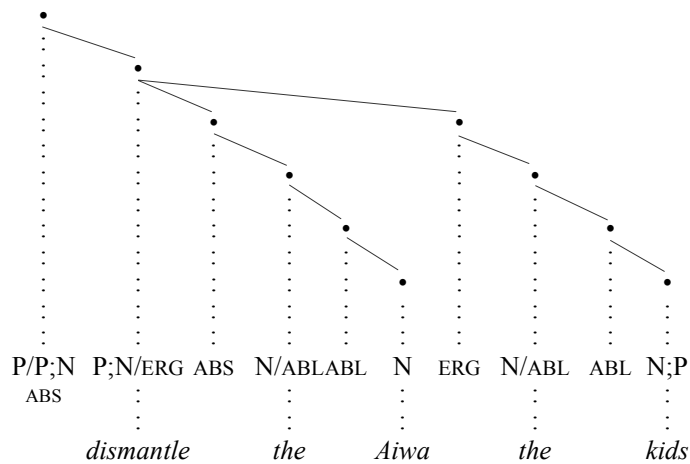
Placement of elements on the horizontal axis of the graph correlates the dependency relation with linear order, such that dependent elements are serialized to the right of their governors, in conformity with the centrifugal (head-left) character of English. Incorporated into (11) and (12) is now also as head of the entire construction a fully predicative/finite, but otherwise notionally empty P element which is introduced by convention into every predication in the absence of a notionally significant lexically finite P such as a modal or 'auxiliary' verb and which, like these, requires complementation by a P;X (and, more specifically in this instance, P;N) predicate (cf. ANDERSON 1972,1990, 1991, in press).[8]

The aspects of syntactic structure shown in the dependency graphs under (11.d.) and (12.d), viz. constituency, linear order (other than that already imposed in (c) by the dependency relation) and cumulative expression of lexically empty heads and their
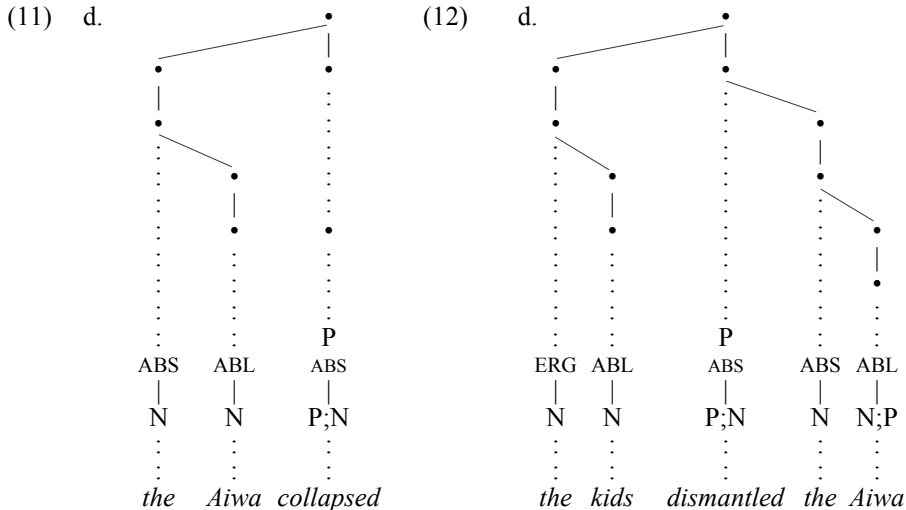
---

[8] In terms of the framework developed in ANDERSON (1972, 1976, 1988b, 1989a,b, 1990, 1991, in press) modals are categorially specified for P only; 'auxiliaries' are P(;X), i.e. they are similarly finite, but, unlike modals, are allowed non-finite forms by the optional (;X) component in their categorial specification. Both subcategorize for (whatever else) a dependent P;X predicate, as formulated in the redundancy in (i):

(i) $P \Rightarrow /P;X$

where, for English, X is N for modals (they take a dependent infinitive), and N:P for auxiliary *have* and *be* (they take participles). Non-modal/auxiliary verbs, which are lexically non-finite, must have a P to complement, in the same way in which an initially present N(;) must complement a functor in order for it to have a syn-semantic function in the syntax. The defining morphological categories of finiteness – such as tense, modality and person/number properties – are accorded featural status in the subcategorial 'gesture' or partition of a verb's internal (sub)categorial structure and may be considered 'prosodic' properties of sentences by virtue of being associated with P elements only (on tense as a property of sentences or, rather, their heads, and the possibility of it being derived from a temporal locative, see ANDERSON 1972, 1973b, 1976, as well as works in the Generative Semantics tradition such as ROSS 1969). With the notionally empty P, the ABS introduced by (7), which otherwise serves as the host for raising (see §3.1.2 below), is regularly subjoined under its governor if P and its dependent P;N are not serialized distinctly, and may be thought of as hosting agreement features.

Implicit in this is (*inter alia*) the assumption – axiomatic in a linguistic theory which maintains a distinction between unordered (morphological) and ordered (syntactic) grammatical complexes (cf. MULDER & HERVEY 1980) – that the elements of syntax are words/word class categories. Recourse in the syntax to non-word categories such as T(ype) in earlier dependency grammar work (cf. ROBINSON 1970, VATER 1975) and INFL(ection) or AGR(eement) in GB work (CHOMSKY 1981) is simply illegitimate on this view: it attributes syntactic constituent status and, more specifically, syntactic headhood to elements which are typically realized morphologically, which even in terms of e.g. the GB framework, is somewhat dubious, given that headhood in a syntactic construction is otherwise exclusively associated with lexical classes.

dependents (such as the P→P;N and { }→N constructions) arise derivatively on the basis of the dependency cum case-relational information present in structures like (11.c) and (12.c).

(11)   d.

		P
ABS	ABL	ABS
N	N	P;N
the	*Aiwa*	*collapsed*

(12)   d.

		P		
ERG	ABL	ABS	ABS	ABL
N	N	P;N	N	N;P
the	*kids*	*dismantled*	*the*	*Aiwa*

Pre-predicate position of one of the arguments of the predicate in English is contingent on subjecthood, and this, in turn, is determinate with respect to and derivative of the set of the case-relationally specified arguments associated with the predicate. An argument is derivatively accorded subjecthood in a predication in conformity with its rank on a hierarchy of CRs (cf. ANDERSON 1971a, 1975a, 1977, BÖHM 1982, and see below), and all (if any) non-subject arguments are included derivatively in a construction (verb phrase) wherein the predicate is right-modified. Neither grammatical functions nor linear position of arguments relative to each other and their head, however, are lexically distinctive: *dismantle*, for example, does not contrast with *collapse* or any other verbal predicate, for that matter, in taking a (nominal) subject argument to its left or having any non-subject arguments serialized to its right. Both grammatical functions (or the configurations that may define them) as well as linearisation (other than that introduced contingently by the dependency relation) are thus absent from the initial internal syntactic structure of a sentence, which is simply a projection of the valency of its predicate stated in terms of the notionally defined CRs of its arguments.

The viability of the restrictive hypothesis embodied in (2.b/c) and the claim as to the derivativeness of structural properties of sentences that are not lexically distinctive of their heads depends, of course, on the adequacy of a hierarchy of CRs which, in an 'accusative' language like English, determines the assignment of subjecthood to

one of the predicate's arguments. Let me therefore give some consideration to the character of the CR hierarchy alluded to in the preceding and, indeed, the inventory of CRs it presupposes.

1.2. Case relations and the localist hypothesis

1.2.1. I am taking it, in line with past and present work in CG, that a principled delineation of the set of case relations necessary and sufficient in linguistic theory is imposed by the localist hypothesis (LH). With respect to the domain of semantic functions, the LH in essence involves the universalist claim that the only admissible CR distinctions in language are those which are relevant to the linguistic representation of spatial relationships (and their absence). In such terms, the set of CRs in a grammar embodying the LH is co-extensive with the set of relations necessarily displayed in simple predications denoting location and direction/movement (change of location) and includes four CRs: ABSolutive, ERGative, LOCative and ABLative.[9] They can be defined and distinguished in terms of their intrinsic notional content by two unary features ('place' and 'source'), as shown in the table under (13) (cf. ANDERSON 1971a: §12.3, 1973b, 1977: 116).

---

[9] For extensive discussion of the substantive content of the LH and detailed exemplification of its appropriacy both with respect to the domain of case relations and a range of other phenomena see ANDERSON 1971a, 1973a, 1975a, 1977, 1986a and elsewhere; JESSEN 1974; LYONS 1977:§15.7, BÖHM 1982, MILLER 1985, and cf. outside the CG framework the semilocalist proposals on semantic functions by GRUBER 1965, 1976, IKEGAMI 1969, 1987, JACKENDOFF 1976, 1983: §§9 and 10, as well as recent work in 'cognitive grammar' such as e.g. LANGACKER 1987. On the history of localist ideas especially in the 19th century philological tradition see HJELMSLEV 1935, 36-61 and the short accounts in ANDERSON 1971a: §§1.2, 1.3, *passim*, 1977: §2.4, BÖHM 1982: §1.2.2, JESSEN 1974, MILLER 1985. For an early localist statement (long before the advent of 'cognitive grammar') on the persuasiveness and ubiquity of 'suppletive' spatial metaphors in the linguistic structuring of seemingly non-spatial domains see e.g. WHITNEY 1882, and in current localist work ANDERSON 1971a: §1.42, 1973a,b,c, 1987a, and JESSEN 1974. For recent discussion of evidence from language acquisition which supports (13) and, in particular, the grouping of 'agent' arguments with ablatives ('sources') see CLARK & CARPENTER 1989.

(13)   *case relations/functor subcategories (* '*Ɵ-roles*' *)*
             in notional (localist) *grammar*

ABS(olutive)	ERG(ative)	LOC(ative)	ABL(ative)
		place	place
	source		source

In terms of (13) ABS labels the predicate-argument relation that is the least specific
notionally, being designated as neither a place nor a source relation. It is obligato-
rily present in any one predication (recall (7)) and has its specific functional value
determined by the predicate which induces it.[10] This 'intimacy' of the semantico-
syntactic bond between the predicate and its absolutive argument is what underlies
the syntactically privileged status of absolutive terms in ergative languages. In
'deep' ergative systems, the syntax exclusively refers to the initially available CRs,
of which the ABS CR is accorded a privileged role on account of its obligatory pres-
ence across otherwise distinct predication types (cf. ANDERSON 1977: §3.5, 1979a,
b, BÖHM 1981, 1982: §2.2, and see below). 'Centrality' of the absolutive argument
is also reflected, unsurprisingly in view of (2.b), by the ergative pattern of various
lexical regularities, the potential of absolutive terms for incorporation into the predi-
cate, and the delicacy of selectional restrictions predicates impose on their ABS ar-
gument. Verbs may require, for example, that the denotata of their ABS argument be
(conceivable of as) capable of emitting sound (e.g. *sound, rattle, buzz*, etc.), have a
curved surface (e.g. *roll*) or, say, have some degree of elasticity (e.g. *bend*) (cf.
ANDERSON 1980: §4, 1982, 1984a, MORAVCSIK 1978: §2.4, SMITH 1978: §5.2). No
such restrictions are imposed on non-absolutive arguments, with which there may at
best be associated preferential tendencies – whose grammaticalisation is subject to
cross-linguistic variation – such that, for instance, they be prototypically entity or
place-referring or their denotata be human. In locational and directional predica-
tions, instanced by sentences like (14) and (15),

(14)   *The MIDI-In socket is at the back of the synth*.

(15)   *Pitch dropped from MIDI note 89 to 31.*

ABS is associated with the argument whose referent is located with respect to the site
referred to by the locative argument or is involved in a 'journey' (cf. JESSEN 1974,
LYONS 1977: §15.7) whose source and goal locations are referred to by the ABL and
LOC argument, respectively. In ('essential') property-ascribing and process predica-

---

[10] Cf. the characterisation of the *theme* relation in GRUBER 1965: §§3.1, 3.2, *passim,* 1976:
§§2.1, 2.2, *passim,* and JACKENDOFF 1972: §2.2, or *objective* in FILLMORE 1968, and *affected*,
neutral and *patient* in HALLIDAY 1967/68, STOCKWELL ET AL. 1973, CHAFE 1970, and
STAROSTA 1978, respectively.

tions exemplified by, say, (16) and (17),

(16)   *That synth is beautiful.*

(17)   *Beppi tripped* (*over his dinky keyboard*).

the ABS argument refers to the entity that is ascribed a property and is undergoing the process being described, respectively. The ergative CR, given its characterisation in (13) as a non-spatial source relation, introduces the argument whose referent is conceived of as the energy source and, as such prototypically animate/human controller or initiator of the situation that is being denoted, as in an actional transitive sentence such (4) above, wherein the ABS argument designates the entity acted upon, the 'goal' of the action, as it were.

1.2.2. Semantic functions other than the four admitted by the localist hypothesis such as e.g. 'experiencer' or 'dative', 'recipient', 'benefactive', 'instrumental', etc., which are frequently appealed to in non-localist case grammar and other work, can be denied distinct primitive CR status on account of their being 'extra-propositional' instances or, alternatively, combinations of the CRs licensed by the LH (cf. ANDERSON 1977, 1986a). The untenability of a bi-uniqueness constraint which may be associated with (one interpretation of) the 'Θ-criterion' in GB work and which would require a one-to-one mapping between CRs and arguments (cf., for example, FILLMORE 1968, CHOMSKY 1981: 36, *passim*) is most transparent in 'agentive intransitive' predications like (18),

(18)   *Beppi retreated* (*to his dinky keyboard*).

in which the non-local argument, as introducing a self-moving agent, is most appropriately labelled as [ERG,ABS]. Designating it exclusively as either ABS or ERG is not only semantically inappropriate, but also misses a number of syntactic and/or morphosyntactic generalisations (such as e.g. the marking of such arguments in non-subject forming nominal predications, see below and the references in note [11]) whose unified statement crucially depends on the argument being multiply labelled for two CRs. I shall assume without further argument the adequacy of multiple CR labels and merely illustrate at this point a range of such with examples from English.[11]

---

[11] For motivation and detailed exemplification cf. again ANDERSON 1968, 1970a,b, 1971a, 1977, 1980, 1986a, and elsewhere, and BÖHM 1982, and see, too, on agentive intransitives as involving combined CRs the discussion in e.g. GRIMES 1975, HALLIDAY 1967/68: §8.2, HUDDLESTON 1970 and JACKENDOFF 1972. For discussion of the 'unaccusative hypothesis' of Relational Grammar (cf. PERLMUTTER 1978, PERLMUTTER & POSTAL 1984a, ROSEN 1984), which is essentially an attempt to capture the distinction between actional and non-actional intransitives in terms of grammatical relations, and the analogous 'ergative verb' hypothesis of GB and earlier work (cf. BOWERS 1981: §2.7, CHOMSKY 1981, HALL 1965), see ANDERSON 1980, 1982, 1985a, 1986a: §5.1, and in press: ch.3, *passim*, and BÖHM 1982: §2.2, 1983,

The combination of LOC and ABS into a multiple [LOC,ABS] CR characterises the pre-verbal term in possessive-locative and attributive-locative ('holistic') sentences like (19) and (20), wherein the other argument contracts the ABS CR,

(19)   *The SY99 has/includes a sample player.*

(20)   *The operating system is crawling with bugs.*

as well as the immediately post-verbal arguments in agentive-directional sentences such as (21) and (22).

(21)   *Nippon Gakki equipped the SY99 with a sample player.*

(22)   *Some clown infested the operating system with bugs.*

In combination with ERG, LOC is associated with the (typically animate) 'possessor' or 'experiencer' argument in locational sentences like (23) and (24), where the nominal labelled [LOC,ERG] is construed as referring to both the 'site' of the entity designated by the ABS term and the 'potential controller' of the situation that is being described (on the localist interpretation of (23) and such like, cf. ANDERSON 1969, 1971a: ch.7, 1977: §§1.7, *passim*, 1984c, 1986b, 1988a, BÖHM 1982: §§2.1.3, *passim*). It also labels the 'recipient' arguments in non-agentive and agentive directional sentences such as (25) and (26),

(23)   *Beppi* (*secretly*) *owns a dinky keyboard.*

(24)   *Frances* (*secretly*) *fancies Matthew's silver Thunderbird.*

(25)   *Beppi* (*secretly*) *got/received a dinky keyboard from Molly.*

(26)   *Matthew* (*secretly*) *gave Frances a flashy batmobile.*

where, in the latter, the (immediately post-verbal) [LOC,ERG] term is in English, arguably, also specified for the ABS CR (cf. ANDERSON 1977: §§2.7-2.8, 1978a,b, 1984b, 1986a: §7, BÖHM 1982: §2.3.2, 1986a and section 3.2.3 below on so-called 'indirect object' terms) and the pre-verbal argument, as simultaneously designating the initiator of the action and the source of the ('abstract') trajectory, instances the combination of ERG and ABL.

Apart from being notionally appropriate and allowing functions that seemingly fall outside the scope of the localist hypothesis to be accommodated within the the LH, the complex CRs provide the basis for descriptive generalizations over natural sub-sets of CRs which would otherwise involve an unnatural or arbitrary grouping of unrelated and primitive distinct functional relations. Notice, for instance, that the [LOC,ERG] terms in (23)-(25), apart from sharing with other ergative arguments the preference for human denotata, like ergative terms, but unlike absolutives (cf. (27) and (28)), also, for example, permit modification by an adverbial like *secretly*, but

---

1986b.

not, unlike simple 'volitive' ERGs, *deliberately*, while, like simplex locatives, they participate in the 'consequential' relationships (in the sense of LYONS 1977: §9.2) displayed in the sentences under (29) and (30).

(27)　　　　*The operating system secretly disintegrated.*

(28)　　　　*Beppi secretly tripped* (*over his keyboard*).

(29)　　a.　*Frances has put the silver Thunderbird into the garage.*

　　　　b.　*The silver Thunderbird is in the garage* (*now*).

(30)　　a.　*Beppi has obtained the keyboard from Molly.*

　　　　　Molly has given Beppi the keyboard.

　　　　b.　*Beppi* (*now*) *has the keyboard.*/*The keyboard is with Beppi* (*now*).

2. GRAMMATICAL RELATIONS

2.1. On subjects and objects

2.1.1. What emerges from the relational assignments in the examples under (14)-(30) is the CR hierarchy for subject selection formulated in (31) (cf. ANDERSON 1971a: §12.3, 1973: 28, 1975a: 41, 1977: §2.1.4, 1986a: §3, and BÖHM 1982: §2.1, 1983, for discussion and further empirical motivation):

(31)   *subject selection hierarchy*

              ERG ‹case› » ABS,case » ABS

              (where '»' is to be interpreted as '... outranks ... with respect to eligibil-
              ity for subject-formation' and 'case' is any optionally present '‹   ›'
              member of the set of CR labels in (13) above distinct from the element
              already specified in the complex). [12]

---

[12] For earlier formulations of a subject-selection hierarchy in CG and related terms see FILLMORE 1968, 1971, HALLIDAY 1967/68: 45, 195, 214, STOCKWELL ET AL. 1973: ch.2, and the critical discussion in KIRKWOOD 1970, 1973, and especially ROHDENBURG 1971, 1974.

More recent attempts at reviving FILLMORE's 1968, 1971 ill-fated proposals outside the CG framework can be found in e.g. DIK 1978:§5.1 , 1989: §l0, GIVÓN 1984a: §5, and BRESNAN & KANERVA 1989. I say ill-fated because the insistance on simplex CR labels (as in FILLMORE 1968, DIK 1978, 1989 and much other non-CG work) together with naive hypotheses on the linking of CRs and grammatical functions (cf. the 'Universal Alignment Hypothesis'/'Prin-ciple of Initial Determination' in PERLMUTTER & POSTAL 1984a: §5, POSTAL 1982, ROSEN 1984 or the 'Universality of Theta Assignment Hypothesis' in BAKER 1988 and LARSON 1988) inevitably leads to the problems documented and discussed by KIRKWOOD 1970, 1973, 1978 and ROHDENBURG 1971, 1974 under the heading of 'secondary subjectivisation' (and rediscovered in some current work under the label 'sporadic subject advancement', cf. PERLMUTTER & POSTAL 1984a: §3.2). Illustrative examples are given in (i) and (ii),

(i)   *Blood was dripping from the wound.*

(ii)   *The wound was dripping blood.*

wherein the ablative in (i) is outranked by the absolutive term and in (ii) outranks the ABS for subjectivisation, thus making it impossible to hierarchize ABS and ABL with respect to each other without claiming that in either one of (i) or (ii) subjectivisation contravenes the CR hi-erarchy. In the present terms subjectivisation of the ABL argument in (ii) is entirely regular and conforms to (31), given that *drip* is specified lexically as

(iii)   *drip*: P;N/[ABL<,ABS>]   (where '< >' = optionality)

That is, *drip,* apart from the ABS term introduced for predicates by the redundancy in (7), in-volves as an option an additional ABS specification in its functional structure which combines with the ABL into a complex [ABL,ABS] CR and so outranks the simple ABS for subject-formation in (ii). On the basis of evidence like (i) and (ii) and a range of other 'secondary subjectivisations' HAWKINS (1986) is led to conclude that English shows a wider range of subjectivisable semantic argument types than e.g. German, which excludes subjectivisation of

(31) simply states that in the presence in a predication of an ERG argument (either ERG alone or in combination with another CR label) it is the ERG that is selected for subject-formation, otherwise, if no ERG is available, a multiply labelled ABS argument is selected, and in default of that a simple absolutive. Access to subjecthood is determinate with respect to the array of CRs that predicates are individually subcategorized for. It is lexically non-contrastive and need not be encoded as part of a predicate's lexical functional structure. Subject-formation applies to the argument selected in accordance with (31) and, as formulated in (32), adds an ERG to its initial CR specification.

(32)   *subject-formation*

             case $\Rightarrow$ [ERG,case]
             (where *case* designates the hierarchically highest CR in a predication)

(32) embodies the claim that, in languages where the notion of subject is appropriate, ergative arguments constitute 'prototypical' subjects on account of e.g. the high degree of empathisability and topicality of their referents, given the strong tendency for human discourse to be anthropocentric (cf. ANDERSON 1979a, 1980, BÖHM 1982: §2.2.2, GIVÓN 1979, 1984a, PLANK 1979 and the references cited there for discussion). Subjecthood of other argument types is 'parasitic' upon this (cf. LYONS 1968: §§8.2.2, *passim*, DANEŠ 1968). (32) applies cycle-finally and partially assimilates initial non-ERG terms to the ergative CR. Subject-formation thus introduces (a degree of) neutralisation into the cyclic syntax, in that by (32) otherwise functionally distinct terms are endowed with a uniform relational identity that is reflexed both in their paradigmatically non-distinctive encoding as well as in their shared syntactic ('behavioural') properties. Once subject-formation has applied in a

---

the ablative argument of *tropfen* ('drip') (in the presence of a distinct ABS argument):

(iv)   *Aus der Wunde tropfte Blut.*
         'from' 'the':DAT 'wound' (DAT) 'dripped' 'blood'(NOM)

(v)   **Die Wunde tropfte Blut.*

But this conclusion is quite unwarranted, for (v) merely illustrates the absence of the additional ABS option in the functional structure of a predicate like *tropfen* in German (cf. BÖHM 1982: §2.2.2.5, 1988), which limits *tropfen* to structures like (iv) or, indeed, with ABL and ABS combined, to (vi) (cf. BÖHM in preparation).

(vi)   *Die Wunde tropfte.*

Where the additional ABS is lexically present, German, of course, too may subjectivise ABL arguments, as e.g. (vii) shows. For discussion of the functional motivation of 'secondary subjectivisations' such as (ii) and their relative paucity in a language like German see KIRKWOOD 1970, 1973, 1978.

(vii)   *Der Baum hat seine Blätter verloren.*
         'the'(NOM) 'tree'(NOM) 'has' 'its'(ACC) 'leaves'(ACC) 'lost.

predication, the CR contrasts on the basis of which subject-selection applies may be ignored by the cyclic syntax and subject (derived ERG) is the DERIVED PRINCIPAL RELATION in a predication, which as such is (ceteris paribus) obligatory (cf. ANDERSON 1977, 1979a,b, BÖHM 1981, 1982; and DIXON 1979, who refers to this (derived) principal relation as PIVOT). This is in essence what underlies the subjecthood criterion in (33) (cf. ANDERSON 1979a, 1979b: 131/2, 1980: 205, BÖHM 1983: 117):

(33)   *subjecthood criterion*

         A language possesses subjects if, in the unmarked instance the CR-hierarchically topmost arguments in distinct predication types share non-contingent morpho-syntactic properties that are not available to the (simple) ABS argument in predications also containing a distinct (basic) ERG (and the arguments so identified are subjects).

In terms of (33), English is, indeed, subject-forming: the hierarchically highest arguments in distinct predication types involving a predicate with a (unilaterally) governing instance of P in its categorial specification share, for example, the eligibility as victims for raising, etc., as well as (in the unmarked instance) pre-predicate position and, as dependents of a finite verb, unmarked 'nominative' case. The pertinent structural properties of sentences that are contingent on subject-formation in English, i.e. leftward serialisation with respect to its head of the hierarchically highest argument, concomitant VP-formation, and absence of a linearity distinction between the subject [ERG,case] functor and its dependent nominal are introduced into syntactic representations by the parameterized instantiations in (35) of the linearization schemata in (34) (cf. ANDERSON 1977: §3.6.2, 1990: 354, ANDERSON & EWEN 1987: §3.1.5), where '→' denotes dependency (with the governor at the tail of the arrow) and α-δ range over syntactic units. (34.a) serializes a dependent to the left ('←|') of its governor; (34.b) renders a head with no lexical exponence equivalent in precedence ('↓') with its dependent, such that the head and its otherwise adjacent modifier are realized simultaneously.

(34)   a. $\alpha \rightarrow \beta \ \Rightarrow \ \beta \leftarrow\!| \alpha$

        b. $\chi \rightarrow \delta \ \Rightarrow \ \chi \downarrow \delta$

(35)   a.   *subject-serialisation*

               $P(;N) \rightarrow [\mathbf{ERG},\text{case}] - \kappa \quad \Rightarrow \quad [\mathbf{ERG},\text{case}] \leftarrow\!| P(;N) |\!\rightarrow \kappa$

        b.i   *VP-formation*

               $P \rightarrow \text{ABS} \rightarrow P;N |\!\rightarrow \kappa \ \Rightarrow \ P \downarrow \text{ABS} \downarrow P;N |\!\rightarrow \kappa$

               (where P has no lexical exponence, and κ, as in (a), is a variable over the set of functor (CR) labels other than [$\mathbf{ERG}$,case] and may be null)

b.ii 'nominative' *case-assignment*

[**ERG**,case]→N(;X) ⇒ [**ERG**,case]↓N(;X)$_{nom}$

iff P→[**ERG**,case]

By (35.a) the argument that has undergone subject-formation is positioned to the left of its governing predicate. Any other modifiers of the predicate are serialized to the right ('⊢→') of their governor. (35.b.i) makes a finite predicate with no lexical manifestation and the non-finite lexical verb it governs equal in precedence, i.e. the dependency relation is not accompanied by a distinction in linearity between the governing P and its P;N modifier; the modifier in this case is subjoined rather than adjoined to its governor. Finite lexical verbs thus represent derived 'amalgamations' of the 'empty' finite P predicate and the dependent lexical non-finite (cf. ANDERSON 1972, 1976, 1990, ANDERSON & EWEN 1987, BÖHM 1982, and RADFORD 1988, following CHOMSKY 1986 on the GB analogue). Internally, that is, finite lexical verbs involve two levels of government. They govern two constructions: the sentence, in which the component P predicate is left-modified by the subject term, and the verb phrase, in which the P;N predicate, that is serialized along with its P governor, is right-modified. In the absence of an overt modal or auxiliary verb, sentence and verb phrase share a head, but are identifiable as distinct constructions by the difference in direction of modification and the difference in degree of dependency assumed by their respective modifiers. The case-assignment rule in (35.b.ii) similarly serialises the head and its modifier, i.e., in this instance, the governing [ERG,case] functor and its dependent N(;X), non-distinctly and yields a configuration which enables the subjoined nominal and its governing CR to be realized cumulatively as a simultaneous morphological complex (cf. ANDERSON 1985c for discussion of the appropriate word structure rules).

Also embodied in (35) is the assumption that the morpho-syntactic expression of subjecthood (i.e. the presence of a derived [ERG,case] functor), as nominative case requires the presence of an appropriately specified, i.e. finite predicate: only if the governing predicate is categorially specified as P can (in English) the ERG CR of the argument that has undergone subject-formation be realized or reflexed morpho-syntactically. In the absence of such, and unless the governing [ERG,case] functor can be expressed prepositionally as in e.g. (36), in which *for* marks the subject of the dependent clause (cf. EMONDS 1985: §7.4), 'raising' occurs.

(36)   *For the SY77 to have better drum samples would be great.*

In these terms, the function of raising, understood here as argument sharing (cf. ANDERSON 1979c, 1990, 1991, BÖHM 1982, HUDSON 1984, 1988, and §3.1.2 below), i.e. the 'linking' of an argument from a dependent clause with the ABS CR of an immediately higher predicate, is to enable the morpho-syntactic expression or realization of the (derived) ERG CR of the argument that undergoes it in those instances where the predicate that lexically assigns the 'raisee's' initial CR is unable

to take a subject argument on account of its reduced predicativity (finiteness).

2.1.2. Apart from the structure-building effects encoded in (35), the introduction of subjecthood into a predication also has the effect of denying the absolute argument therein, where it is distinct from the subject term, continued syntactic primacy. In clauses in which it is outranked for subject-formation by a hierarchically higher argument, the absolute term may be associated with the secondary derived grammatical function of (direct) object. Within the present framework objecthood may be defined along the lines of (37) (cf. ANDERSON 1977: §3.6.2, 1984b):

(37)   *objecthood criterion*

             A language possesses objects to the extent that the residually highest
             absolutive arguments in distinct predication types that have been denied
             derived relational primacy (i.e. subjecthood) by a distinct CR-hierar-
             chically higher term share a specifiable set of morpho-syntactic proper-
             ties (and the arguments so identified are objects).

As formulated in (37), the attribution of objecthood to an argument presupposes the presence in the same predication of a term that has undergone subject-formation, and this seems to me to express a typologically viable generalization: as far as I am aware, language-(sub)systems whose cyclic syntax fails to attribute the derived grammatical function of subject to an argument show no sign whatsoever of a secondary grammatical function of (direct) object. By the same token, the assignment of derived relational primacy to an argument in defiance of (31), i.e. the introduction into the syntax of a derived syntactic principal other than subject, does not associate objecthood with any other argument in a predication. It is this correlation, i.e. the contingency of objecthood on the presence of a subject, which lies at the core of the conceptually related principles ('Burzio's generalisation', and 'case absorption') that form the basis of the GB account of the passive construction (cf. section 3.2.1 below).

Whereas, as noted, the attribution of subjecthood to an argument involves (partial) neutralisation of initial CR distinctions, 'objectivisation', involves rather diversification, in that by (37) not all derivatively non-primary absolutive arguments are (direct) objects and different syntactic regularities may invoke (partially) distinct sets of (non-primary) absolutive terms. In English, for instance, all of the immediately post-verbal ABS arguments in e.g. (38)-(41) resist interpolations between them and their governing predicate (cf. POSTAL 1974 and ANDERSON 1984b on the 'interpolation ban').

(38)   *That keyboard has* (*mysteriously*) *no MIDI interface*.
(39)   *Nippon Gakki have equipped* (*cleverly*) *the SY99 with a sample player*.
(40)   *Matthew gave* (*happily*) *Frances a Dinky*.

(41)   *Matthew gave (*happily) the Dinky to Frances*.

However, only the non-subject absolutives in (39)-(41), but not the ABS in (38), can undergo 'promotion' to subject in passives; and of the post-verbal ABS terms in (40) and (41) only the simple ABS terms in (41), but not the complex [ABS,LOC,ERG] argument in (40) is available for 'complex NP-shift'. Cf. (42)-(45).

(42)   *Matthew gave to Frances the Dinky, which had been sitting in the attic for a year.*

(43)   **Matthew gave the Dinky Frances, who had always wanted a flashy car.*

(44)   **No MIDI interface is had by that keyboard.*

(45)   *The SY99 has been equipped with a sample player.*

To the extent that the set of (non-subject) absolutive arguments involved in different syntactic regularities is not constant, objecthood is thus a variable. And this would suggest that, at best, 'object-assignment' can be associated only with an 'expression' rule analogous to (35.b.ii) above, whereby, unless this is overruled lexically, diverse ABS terms are provided with a paradigmatically non-distinctive encoding in terms of 'oblique' or (in systems with a richer system of case inflexions) 'accusative'/'objective' case:[13]

---

[13] (46) ignores subregularities in the (prepositional) marking of non-subject ABS terms which are predictable from the array of CRs present in a predication. So, in English ABS phrases outranked by a [LOC,ABS] that is not also labelled as ERG are typically marked prepositionally by *with*. Presence of a non-subject [ABL,ABS], whether also ERG or not, associates the simple ABS with *of*. Compare (i)-(ii).

(i)   a.   [LOC,ABS] *The bread is spread/covered* [ABS] *with Marmaid*

      b.   *Beppi usually spreads* [LOC,ABS] *his bread* [abs] *with Marmaid.*

      c.   *Molly sent* [ABS,LOC,ERG] *her granny* [ABS] *a bottle of Bushmills.*

(ii) a.   *Beppi stripped* [ABL,ABS] *the boat* [ABS] *of its paint.*

      b.   *Molly robbed* [ABS,ABL,ERG] *her granny* [ABS] *of her savings.*

For other subregularities in the inflexional marking of (particular referential types) of non-subject absolutives not covered by (46) see e.g. ANDERSON 1985c, MORAVCSIK 1978. Observe, too, incidentally that (46) appropriately exempts e.g. adjectives, in whose categorial structure P and N are mutually governing, from having objecthood assigned to their non-subject ABS argument (if present); but cf. ANDERSON 1988b, ms a, in preparation: §2.6 on object-assignment 'leaking' into P:N headed structures with specific P:Ns such as *worth* and *like*.

(46)   'objective'/'accusative' *case-assignment*

P;X→ABS<,case>→N(;X) ⇒ P;X→ABS<,case> ↓ N(;X)_{obl/acc}

iff P;X→[**ERG**,case] (where ABS,case » ABS)

2.2. The grammatical relation parameter

2.2.1. It is clear, given the hierarchy in (31), that passive sentences such as (1) present something of a dilemma, as is indeed acknowledged indirectly in e.g. FILLMORE (1968), seemingly suggesting that subject selection may be counter-hierarchical and thereby casting serious doubt on the empirical validity of (31). There is, however, an organisational possibility embodied in (2) that I have already hinted at in passing with respect to ergative systems. The assumption that grammatical relations arise derivatively, their assignment/formation being predictable on the basis of the CRs that are present in the predication at that stage in the derivation, makes available the hypothesis concerning the relationship between CRs and derived grammatical functions formulated as the GR-parameter in (47).

(47)   *GR-parameter*

In all or particular P(,N)-headed construction types in a given language derived grammatical relations may not arise at all.

(47) is the major determinant for variation in the RELATIONAL TYPOLOGY, i.e. the 'linking' of CRs and derived grammatical functions, among languages. The absence of derived syntactic functions and corresponding persistence throughout the cyclic syntax of the initially available CRs coupled with a syntactically privileged status of absolutive terms (on account of their obligatory presence across otherwise distinct predication types) is characteristic of ('deep') ERGATIVE systems such as the notorious Dyirbal (cf. DIXON 1972). ACCUSATIVE systems like English show cyclic subject-formation (for some refinement, see §3.3.2 below), with syntactic functional primacy being conferred derivatively upon case-relationally diverse argument types in accord with the hierarchy of CRs in (31). In still other systems, of which (the by now equally notorious) Tagalog and other Philippine languages are representative, derived syntactic principal status is associated with a term in defiance of (31): unlike in accusative or subject-forming systems, the assignment of a derived CR-neutralizing syntactic function ('topic/focus' in Philippinist terminology) in a clause is not bound by the CR hierarchy and may affect extra-propositional or circumstantial elements such as non-subcategorized locatives and instrumentals (cf. ANDERSON 1979a,b, 1980, 1986a, who refers to this derived function as PRIME, and BÖHM

1982: §1.1.3 as well as the references there).[14]

2.2.2. Not untypically, two or all three of these types of relational structuring may co-exist within a given language. German, for instance, like numerous other languages which are otherwise subject-forming, shows optional lack of subject-formation in syntactic causative constructions (cf. Böhm 1981). In (50) below, which involves a transitive complement subordinate to the causative predicate *lassen* 'cause'/'make', the dependent predication lacks subject-formation and accordingly shows the relational encoding and syntax typical of ergative systems. Unlike the ergative argument in the transitive component clause in (49), which as derived cycle-final subject in its predication is available for raising and is associated derivatively with the upper ABS relation, the lower ergative term in (50) has failed to have subjecthood conferred upon it and is distinctively marked by the non-subject ergative marker *von* ('from'/'by'), with eligibility for raising accordingly being passed over to the ABS argument (cf. Böhm 1981, Lee 1974).

(48)   *Beppi ließ seine Freundin warten.*
         Beppi(NOM) 'caused' 'his'(ACC) 'girl-friend'(ACC) 'wait'(INF)

(49)   *Beppi ließ seine Freundin den Wagen fahren.*
         Beppi(NOM) 'caused' 'his'(ACC) 'girl-friend'(ACC) 'the':ACC 'car'
         (ACC) 'drive'(INF)

(50)   *Beppi ließ den Wagen von seiner Freundin fahren.*
         Beppi(NOM) 'caused' 'the':ACC 'car'(ACC) 'by' 'his':DAT 'girl-friend'(DAT) 'drive'(INF)

In English, derived nominals and gerund constructions, i.e. predications headed by a predicate that is specified categorially as (N;P),P; (the cross-class of second-order categories involving the combination of (N;P) and P;) similarly constitute construction types which may be structured either on an ergative, accusative or, indeed, 'topicive' (derived principal/prime-forming) basis.[15] Derived nominal and nominal gerund ('verbal noun'/'action nominal') constructions, whose heads have a relatively low degree of predicativity (in terms of (8) above), given the governing (N;P) com-

---

[14] This does not exhaust the relational-typological possibilities made available by (47), given that subject-formation may apply both cyclically as well as post-cyclically (cf. Anderson 1977: §3.5.8, 1986a: §6, 1986b, 1988a, in press: ch.4, Böhm 1983) and either one or both of cyclic and post-cyclic subject-formation may be lacking in a (sub)system. Cf. §3.3.2 below.

[15] Cf. Anderson 1977: §3.5.10, 1979a, 1980, 1982, 1984a, 1985a, 1987b, 1988a: §3; Böhm 1981, 1983, Stockwell et al. 1973: chs. 1, *passim,* and, outside the CG framework, Dik 1989: §11.3, Williams 1987, Wilkins 1988, who also recognize the ergative (non-subject-assigning) pattern in nominalizations. For discussion of the relational structuring in nominal predications other than canonical transitives, cf. Anderson 1977: §3.5.10, esp. 269-271, 1984b, 1987b, and Amritavalli 1980, Rappaport 1983.

plex in their categorial structure, may lack derived grammatical functions altogether
or else may show assignment of a derived function that is not bound by the hierar-
chy in (31). In the absence of derived grammatical functions, both derived nominals
and nominal gerunds show the expected semantically-transparent pattern of rela-
tional encoding that is characteristic of 'ideal' ergative (or active) systems: the abso-
lutive terms of both intransitive and (actional) transitive heads are marked by *of* ,
and the ergative argument of transitives is distinctively marked with *by*; the obliga-
tory argument in agentive-intransitives, being multiply labelled as [ERG,ABS], shows
both possibilities. Witness (51) and (52).

(51) a. *the* (*bold*) *removal of the whiskey by the crofters* (*last night*)

      b. *the* (*sudden*) *disappearance of the whiskey* (*last night*)

      c. *the* (*hasty*) *flight of/by the crofters* (*last night*)

(52) a. *the* (*bold*) *removing of the whiskey by the crofters* (*last night*)

      b. *the* (*sudden*) *disappearing of the whiskey* (*last night*)

      c. *the* (*hasty*) *fleeing of/??by the crofters* (*last night*)

As well as exhibiting the ergative pattern, both derived nominals and nominal ger-
und constructions may alternatively show the presence of a derived grammatical
function which neutralizes initial CR contrasts. The arguments which have this rela-
tion conferred upon them uniformly occupy pre-predicate position and are marked
by 'attributive' possessive case. However, this derived grammatical function does
not qualify as a subject in terms of the above definition of subjecthood, given that
access to it is not governed by the CR-hierarchy. A temporal locative adjunct as in
(51) is eligible for the assignment of the derived attributive (or prime) relation in the
same way as a 'nuclear' or subcategorized ergative or absolutive argument is
(though with nominal gerunds the latter possibility is at best marginal); cf. (53) and
(54).[16]

---

[16] Compare this with the relational encoding in e.g. Tagalog, where (*ceteris paribus*) argu-
ments, including circumstantials have free access to the derived 'topic' or prime function
(marked by *ang*) and any non-topic argument is accompanied by its particular functor marker.
Any attempt to lump Tagalog 'topics' together with subjects obscures the distinct relational
properties of the two and renders the notion of subject devoid of any typological interest. On
the still ongoing debate of the relational-typological features of Tagalog (accusative or erga-
tive or neither) see, among others, the contributions by GERDTS, DEGUZMAN, and VERHAAR
in MCGINN 1988, and from a perspective close to the CG view argued for in ANDERSON
1979a, DROSSARD 1984.

On a slightly different tangent, observe that although the *by* variant of (52.c) is of somewhat
dubious acceptability, as is (even more so) (54.d) below, showing assignment of the *'s* at-
tributive relation to the ABS term of a transitive nominal gerund ('verbal noun'/'action nomi-
nal'), the *by* variants of the agentive-intransitive nominal gerunds under (i) will probably pass

(53) a.   *the crofters' (*bold*) removal of the whiskey*

      b.   *the whiskey's (*sudden*) disappearance*

      c.   *the crofters' (*hasty*) flight*

      d.   *the whiskey's (*bold*) removal by the crofters*

      e.   *last night's removal of the whiskey by the crofters*

(54) a.   *the crofters' (?*bold*) removing of the whiskey*

      b.   *the whiskey's (*sudden*) disappearing*

      c.   *the crofters' (*hasty*) fleeing*

      d.   ?**the whiskey's (*bold*) removing by the crofters*

      e.   (?)*last night's removing of the whiskey by the crofters*

What is more, in accord with (37)/(46) above, conferment of the attributive relation to the ergative argument in transitive structures such as (53.a) and (54.a) does not concomitantly involve the assignment of objecthood to the ABS argument. Arguments other than the neutralized attributive term continue to be accompanied by their prepositional CR-marker: *of*, as in the ergative construction in (51) and (52),

---

unnoticed, as will (*pace* e.g. FRASER 1970) the transitives with attributive ABS arguments in (ii).

(i) a.   *the cheering of/by the audience*

     b.   *the laughing of/by the kids*

     c.   *the quarrelling of/by the neighbours*

(ii) a.   *the statue's unveiling by the Queen Mother*

      b.   *the engine's servicing by unauthorized personnel*

      c.   ?*the children's whipping by the headmaster*

The limited acceptability of transitive nominal gerunds with non-ERG attributive terms (i.e. the preference for a derived principal, if any, whose selection conforms with the CR-hierarchy) may be taken to reflect the (P;N):(N;P) categorisation of nominal gerunds and thus their intermediate status between derived nominals and verbal gerunds. The properties of nominal syntax (such as CR-hierarchically unbound principal-formation), which are unrestrictedly available to the elements of the class with preponderant N (i.e. derived nominals) 'trickle out' in or, conversely, only 'leak into' the less nominal class of verbal nouns (with an equal measure of N and P), before they 'become' completely unavailable to the members of that class (i.e. verbal gerunds) in whose categorial structure P preponderates over N. For fuller discussion of such 'leaks' as well as the syntax of nominal predications and, in particular, the dual status of the *'s* marked attributive term in structures like (53) as determiner to and argument of the nominal predicate see ANDERSON, in preparation: §§2.6, 3.3, and cf. also HUDDLESTON 1984: §9.1, GIVÓN 1990: §12.6. For discussion of factors such as animacy and definiteness and their contribution to the acceptability or otherwise of structures like (ii) see further KILBY 1984: ch.8 and MACKENZIE 1982.

marks non-grammaticalized absolute arguments, and *by* identifies non-neutralized ergative terms in both the ergative and the attributive construction.

On the other hand, verbal gerund constructions, whose categorisation involves a P-governed occurrence of (N;P), show subject-formation and display the pattern of grammaticalisation of CRs that is also witnessed in verb-headed clauses or, more generally, in constructions with a head whose categorial structure involves a unilaterally governing instance of P. Unlike in action nominals, the assignment to an argument of derived relational primacy follows the CR-hierarchy and concomitantly associates objecthood with a non-subject absolute argument (where such is present). Also, as in verb-headed constructions, 'modification' by an adjunct is adverbial (rather than adjectival), 'circumstantial' terms such as temporal locatives are not accessible to the subject function, and the 'counter-hierarchical' assignment of subjecthood to the ABS argument of transitives requires the structural complexities associated with the passive construction:

(55)   a.   *the crofters*(') (*boldly*) *removing the whiskey* (*from the ship*) *last night*
            The crofters (*boldly*) *removed the whiskey* (*from the ship*) *last night*.

        b.   *the whiskey*('*s*) (*suddenly*) *being removed* (*from the ship*) *by the crofters*
            The whiskey was (*suddenly*) *removed* (*from the ship*) *by the crofters*.

        c.   *last night('*s*) *being removed* (*of*) *the whiskey by the crofters*
            **Last night was removed the whiskey by the crofters*.

3. PASSIVES

3.1. Passives as initially non-subject-forming

3.1.1. Let us say, then, given the organisational possibilities made available by the GR-parameter in (47), that in subject-forming or accusative system the passive construction provides a strategy for reconciling the absence or failure of subject-formation in particular predication types with the system-specific well-formedness constraint whereby derivatively sentences must have subjects (cf. ANDERSON in press: §4.1, BÖHM 1982: §1.1.2). I am thus assuming, in line with the case grammar tradition since its beginning, that the 'extension' of the Projection Principle (cf. CHOMSKY 1982) in GB work and similarly the so-called Final 1-Law of Relational Grammar (cf. PERLMUTTER 1978) is but one of the options provided by Universal Grammar, holding, if at all, in non-initial structures in language systems or subsystems which meet (31). And, as suggested by the preceding discussion, the range of construction types to which the subjecthood requirement applies, even among languages which are predominantly subject-forming, may show some variation: subject to language-specific parameterisation, particular predication types which are definable in terms of (sub)categorial and distributional properties of their heads may simply be exempt from (32). English, as we have seen, lacks subject-formation in derived nominals and nominal gerunds. German, where similarly subject-formation is absent from nominalisations, also shows lack of subject-formation in complex sentences headed by modal *sein* ('be to') (cf. HAIDER 1984a) and *gehören* ('have to', lit. 'belong'), and, optionally, in syntactic causatives.

In causatives, as I have argued elsewhere (cf. BÖHM 1981, 1982: §2.3), the optional lack of subject-formation is 'functionally' motivated by factors relating (inter alia) to the information or presentational structure of the dependent non-causative predication, including the empathy rating of (the referents of) the arguments involved, and serves to enable the sequential ordering of arguments to follow an unmarked theme-rheme perspective or match the degree of relative empathisability of their referents. The same is true of passives, in that in the prototypical instances of such, too, exemption of the ergative argument in transitives from subject-formation and denial to it thereby of the syntactic function which, in a language like English, provides the grammaticalized unmarked repository for thematic elements is motivated by the same 'communicative' factors (on this aspect of passives cf. the numerous works in the Prague School tradition such as HALLIDAY 1967/68 and KIRKWOOD 1970, 1973 among others, and more recently DIK 1978, 1989, FOLEY & VAN VALIN 1984, 1985, GIVÓN 1979, 1984a, 1990, SIEWIERSKA 1984 and the references cited there). However, more important for our present concern is the formal implementation of the notion that the passive construction reconciles the functionally motivated failure of subject-formation to apply in particular predication types with the otherwise subject-forming character of an accusative system.

3.1.2. To see what is involved in passives, recall to begin with that as heads of sen-

tences in English predicative elements whose categorial representation includes P
and N, but in which the N does not unilaterally govern, i.e. (among others) basic and
derived adjectives, participles, and infinitives, are unhappy with a subject argument
(cf., for example, QUIRK ET AL. 1985: §3.56), given that the morpho-syntactic ex-
pression of subjecthood requires the presence of a finite P head; cf. (56)-(59).

(56)   *_Molly very competent._

(57)   *_He pretty depressed._

(58)   *_The kids dismantling the Aiwa._

(59)   *_Frances_ (_to_) _hate Matthew's hideous German car._

As sentences, (56)-(59) are salvaged by the presence of a superordinate finite head
which enables the subject term to be associated with a morpho-syntactic realization
by incorporating it into its argument structure. In each case, the 'missing' head is
provided by a raising predicate: typically be with adjectives, _be_ and _have_ with parti-
ciples, and the whole range of raising (including 'control') predicates with infini-
tives:

(60)   _Molly was/seemed/looked very competent._

(61)   _They thought/considered Molly very competent._

(62)   _He was/seemed/looked pretty depressed._

(63)   _I thought/considered him pretty depressed._

(64)   _The kids are dismantling the Aiwa._

(65)   _They saw the kids dismantling the Aiwa._

(66)   _Frances seems to hate Matthew's hideous German car._

(67)   _Matthew believes Frances to hate his hideous German car._

(60)-(67) are each associated initially with a bi-predicational structure wherein the
superordinate predicate takes as a dependent a non-finite predication, which has one
of its arguments 'externalized' by 'raising' (cf. ANDERSON 1972, 1975c, 1976,
1990, HUDDLESTON 1975, PULLUM & WILSON 1977, HOEKSTRA 1984, among oth-
ers on the so-called 'auxiliaries' as raising verbs). 'Raising', as conceived of here,
is STRUCTURE-BUILDING, and involves neither movement nor destruction of struc-
ture. Rather, as shown in the dependency graphs in (68) and (69), it adds a depend-
ency relation to link a nominal complement (the 'raisee') of the governed non-finite
predicate with the ABS functor introduced by (7) as a dependent of the P;X predi-
cate, and yields an ARGUMENT SHARING structure in which the 'raisee' is governed
by both the dependent and the superordinate predicate (cf. ANDERSON 1979c, 1990,
1991: §5, BÖHM 1982: §3.3, HUDSON 1984: 112-116, _passim_, 1987, MATTHEWS
1981: ch.8).

(68)   (69)
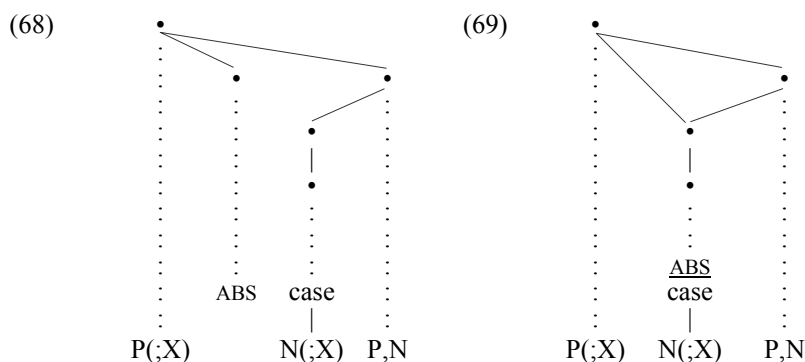
I shall henceforth use the terms 'raising' and 'argument sharing' (without inverted commas) interchangeably, attaching to them the structure-building sense (and not the 'movement' sense implied by the very 'raising' metaphor) provided by the dependency graphs in (68)/(69). Also, still on the matter of terminology, I may occasionally in the following employ the term 'advancement/promotion' or 'advancee' for, respectively raising/argument sharing and 'raisee' or 'argument from dependent predication involved in argument sharing'. The latter rather laborious circumlocution should make plain why. These terms are again mere terminological shortcuts and are to be understood without any implication of 'NP-movement' or their intra-predicational grammatical relation-changing sense in a framework like Relational Grammar, even though argument sharing may induce cross-predicational grammatical relation alterations and linearity effects. However, these are licensed by and derivatively assigned on the basis of the CR serving as the host for the raisee and are thus, again, structure-building and not structure-destroying.

With the CG conception of raising clarified, consider again (56)-(59). What forces raising in these instances is both the inability of the dependent non-finite predicate to 'accommodate' a subject argument and the requirement that the ABS functor introduced with the superordinate finite predicate be associated with a dependent nominal term. As is apparent from the examples under (60)-(67), the argument that has the upper ABS relation conferred upon it is the CR-hierarchically topmost argument in the dependent predication. We can associate this with cyclic subject-formation having occurred in the dependent predication on the cycle preceding the one on which raising applies, in conformity with the cycle-final conception of subject-formation. The advancee that comes to be associated with the ABS relation in the current cyclic clause is the subject in the embedded clause; the ABS CR in the current cyclic clause, in turn, determines the cycle-final grammatical function of the raisee and induces the familiar ergative pattern of grammaticalisation: viz. subject in intransitives, as e.g. in (60), and object otherwise, as in e.g. (61), where cycle-finally the ABS has been denied access to subjecthood by a CR-hierarchically higher term.

3.1.3. Consider now *-en* participles. Unlike with other non-finite (P-dominant) predicates in English, subject-formation in predications headed by the *-en* participle is <u>optional</u>: as the unmarked option in particular syntactic environments determined by the presence of an appropriate superordinate raising predicate it does not apply (cf. further section 4.2.3 below). This, I am suggesting, is precisely the case in passives.[17]

In the passive construction, the component predication headed by the *-en* participle lacks subject-formation and the argument that is otherwise eligible for raising into the upper finite predication is not – as non-subject – available as a raisee, so that eligibility for raising is passed over to another argument. In what are assumed here to constitute the core instances of passives, this is the absolutive argument of an actional transitive predicate.

Essentially, that is, the 'passive' predication is syntactically ergative in lacking a derived cycle-final syntactic principal and raising operating on the term that is syntactically primary before and in the absence of subject-formation, the absolutive. On this view, the 'passive' predicate, i.e. (in English) the *-en* participle in whose domain cyclic subject-formation has failed to occur, and the corresponding 'active' verb share a common functional structure and do not differ with respect to the arguments for which they are subcategorized: if the verb takes an ERG and an ABS term, then so does the corresponding 'passive' (i.e. non-subject-assigning) participle, and similarly for any other subcategorized argument type.[18] The CR constancy

---

[17] I will assume without argument that there <u>cannot</u> in principle be <u>clause-internal</u> relation-changing rules; cf. ANDERSON 1986a, in press, who derives this from the syntactic interpretation of the Strict Cycle Condition in phonology. Passive must thereby involve bi-predicational structures, as argued on independent grounds in e.g. ANDERSON 1972, 1977, HASEGAWA 1968, HUDSON 1984, LAKOFF 1971, LANGACKER & MUNRO 1975.

[18] Some workers (e.g. JAEGGLI 1986, LASNIK 1988, MARANTZ 1984, PERLMUTTER 1984, PERLMUTTER & POSTAL 1984a: §6) have maintained that 'one can give no semantic characterization of the semantic roles borne by the object of *by* in passive sentences' other than it bears 'the full range of semantic roles carried by logical subjects in English' (MARANTZ 1984:129). This is trivially true and yet, in a non-trivial sense, false in that access to ('logical') subjecthood in actives and conversely denial to the otherwise eligible argument of 'logical' subjecthood in passives is determinate with respect to the array of CRs present in a predication, as argued in §2.1.1. MARANTZ (1984:129), for example, lists the passives in (i)-(v)

(i)   *Hortense was pushed by Elmar.*

(ii)   *Elmar was seen by everyone who entered.*

(iii)   *The intersection was approached by five cars at once.*

(iv)   *The porcupine crate was received by Elmar's firm.*

(v)   *The house is surrounded by trees.*

that is commonly associated with the active-passive relationship thus falls out natu-
rally in these terms without the need to appeal to powerful artifacts such as e.g. 'Θ-
role transmission' via 'passive morphology' to the *by* phrase in passives (cf.
JAEGGLI 1986, BAKER 1988: §6.2.4).

What distinguishes the verb and its 'passive' participle is whether they license selec-
tion of the CR-hierarchically highest argument and, more precisely, for the proto-
typical instances of passives, the ergative argument of an action predication for cy-
clic subject-formation: the verb does, the participle in the passive construction does
not.[19] Rather, lexically the participle exempts any ergative argument, i.e. ERG alone
or in conjunction with another CR, that is otherwise eligible from undergoing sub-
ject-formation. Whereas predications headed by P;N predicates (in English) are
subject to (32), predications with a *-en* participial head fail to undergo it, unless the
participle is governed by a predicate such as auxiliary *have* which specifically re-
quires the predication dependent on it to be subject-forming (see below §3.2); cf. the
redundancy in (70) (where the first part relates verbs and their *-en* participles):

---

to conclude that the roles carried by the object of *by* 'include agents, experiencers, themes,
recipients or goals, and various other roles that seem to fit none of the classes that I have seen
defined in the literature'. But this statement merely reflects the inability of an unprincipled
and underarticulated system of theta-roles to capture the relevant generalisation here: in the
present framework, the CR-hierarchically topmost arguments which have been denied subjec-
thood in (i)-(v) are all labelled as ERG, and more precisely (in that order): [ERG,ABL] ('agent'
in (i)), [LOC,ERG] ('experiencer' or, following GRUBER's 1967 analysis of *see,* [ERG,ABL] in
(ii)), [ERG,ABS] ('theme' in (iii)), [LOC,ERG] ('recipient'/'goal' in (iv)) and [ERG,ABS] in (v)).
For discussion and motivation of these CR assignments see, of the CG references already
cited, especially ANDERSON 1971a, 1977: ch.1. On the metaphorical extension of the notional
characterisation of the ergative CR involved in sentences like (v) cf. ANDERSON 1977: §1.7.2,
1987a, GIVÓN 1984a: §4.2.5.3, LYONS 1977: §12.5 and NISHIMURA 1989.

[19] Marginally, the failure of the CR-hierarchically highest term to subjectivize may extend
into participial predications in English whose head is not subcategorized for an ergative term.
The examples below with *contain* and *include,* which in actives take 'inessive' [LOC,ABS]
subjects, are illustrative.

(i)   a.   *The group includes some people from the Central Committee.*

      b.   *Some people from the Central Committee are included in the group.*

(ii) a.   *That paper contains interesting data.*

      b.   *Interesting data are contained in that paper.*

Indeed, in those otherwise subject-forming languages which, pace PERLMUTTER (1978) and
PERLMUTTER & POSTAL (1984a), allow impersonal passives of 'unaccusative', i.e. non-
actional intransitives (cf. NERBONNE 1982, among others), passivisation involves just that:
denial of subjecthood to the hierarchically highest (and not necessarily ergative) term.

(70)   a.   P;N/ERG ... $\Rightarrow$ {{P;(N:P)}-*en*}/ERG ...

        b.   {{P;(N:P)}-*en*}/ERG ... $\Rightarrow$ ¬(32)

The ERG argument which is denied cyclic relational primacy accordingly lacks any
of the morphosyntactic correlates associated with subjecthood and (in English) is
marked prepositionally, as is typical of arguments which fail to have a derived
grammatical function assigned to them. Typically, in English the preposition that
marks a non-subject ERG term is *by*, with *to* being an option for the composite
[LOC,ERG] argument of certain 'experiential/cognitive' predicates, such as e.g.
known in (71).

(71)   *The DX7 success saga is known by/to everyone.*

Also, though part of the lexical argument structure of the predicate, the non-subject
ergative argument in passives may be covert or 'implicit' (cf. ANDERSON 1971a:
§4.43, JAEGGLI 1986: §6, ROEPER 1987), in the sense that the predicate's subcatego-
rised ERG feature may optionally not be spelt out in the syntax as an argument
phrase. This, too, like the CR constancy of the active-passive relationship, follows
without stipulation in the present framework. Other things being equal, overt syn-
tactic expression of the ergative argument for which a transitive predicate is sub-
categorized is a reflex of its syntactic function as derived principal in a subject-
forming system, given that in such a system, at the stage in the derivation at which
subjecthood is introduced, the subject is obligatory (cf. ANDERSON 1977: §3.5.4,
1979a, BÖHM 1981, 1982: §2.2.2, and in somewhat different terms DIXON 1979 for
discussion of the non-triviality of this seemingly trivial fact). In the absence of sub-
ject-formation, however, obligatory presence in the predication is distinctive of ab-
solutive arguments.

Given this, dispensability of the ergative argument in passives merely reflects the
absence of subject-formation and, analytically, the non-obligatoriness of subjects in
an ergative structure such as is constituted initially by the non-subject-assigning par-
ticipial predication. And this, rather than reflecting demotion of the ergative term to
'chômeur' or extra-predicational adjunct status, as some other frameworks would
have it (cf., for example, PERLMUTTER & POSTAL 1977, LARSON 1986: §3.3.1), is no
more remarkable than the syntactic 'dispensability' of the ergative argument in, for
instance, the classic Dyirbal (72) (cf. DIXON 1972: §4.1.5; NM = deictic noun
marker, I/II = noun class).

(72)   a.   *bala-Ø-n   ɖugumbil   baŋgu-l   yaɾa-ŋgu   balga-n.*
              NM-ABS-II 'woman'(ABS)   NM:ERG-I   'man'-ERG 'hit'-NONFUT

        b.   *balan ɖugumbil balgan*

Non-subject-forming predicates, that is, are redundantly specified as in (73),
whereby a subcategorized ergative argument is accorded the status of an optional

participant.[20]   (73) is a default option which enables the overt syntactic expression or otherwise of a non-subject ergative argument to be determined exclusively by the familiar range of discourse-pragmatic factors (such as its degree of 'topic worthiness', empathy rating, etc. relative to the ABS term). (73) may be overriden lexically by specific predicates (cf., for example, QUIRK ET AL. 1985: §3.71, SIEWIERSKA 1984: §2.1.2) or, indeed, in its entirety by those systems which either reject passives with 'agents' altogether or, conversely, have 'agents' obligatorily.

(73)   ¬(32)   ⇒   …/‹ERG›   (where '‹ ›' signifies optionality)

What potential covertness of the ergative argument in both passives in an accusative language like English and in active transitives in an ergative language like Dyirbal reveals is that the ergative argument in the structures in question never is or has been a subject to begin with and, as non-subject, is, other things being equal, syntactically optional on account of the non-obligatoriness of subjects in a non-subject-forming (sub)system or structure.[21] Unlike in Dyirbal or, more generally, deep ergative systems, however, the non-subject-forming or subjectless structure in English and other accusative languages cannot persist as a predicative syntagm unless it is dependent on a finite P head with which, as in other P-headed constructions in the language, subject-formation can operate in the usual way in accord with the CR-hierarchy.

The superordinate P predicate which surfaces as a 'passive' auxiliary (such as *be* in English) in periphrastic passive constructions or else fuses (via subjunction) with the lexical predicate and is realized by morphological 'modification' of the latter in synthetic passives thus serves the dual purpose of providing the non-finite predica-

---

[20] On the familiar distinction assumed here between lexically distinctive optional (participant) arguments and lexically non-distinctive adjuncts (where lexical distinctiveness pertains with respect to the predicates with which the two types of terms <u>overtly</u> appear) see e.g. the various contributions in Abraham 1978, and Allerton 1982, ANDERSON 1977, 1986a, BÖHM 1982, ENGEL 1977: §5.4.

[21] In view of the confusion in some work with respect to the relationship between ergative and passive structures, note that I am <u>not</u> claiming that ergative structures are in any way passive. Rather, what ergatives and passives initially share is the absence of subject-formation. Lack of space does not permit me to pursue the consequences of this view in the context of the ill-defined question as to 'how languages become ergative'. But it should be clear that I certainly do not agree with the view espoused in e.g. CHUNG 1978, DIK 1989: §11.6.2, and ESTIVAL & MYHILL 1988, and much other work according to which historically ergative systems typically if not exclusively arise through the reinterpretation (via a markedness shift) of passives from an earlier accusative system. Cf. in this context the ethnolinguistic speculations in e.g. PLANK 1979, which render this general hypothesis highly implausible, and cf. the history of e.g. ergatively structured periphrastic causatives in German (cf. BONDZIO 1959), which likewise provides no support for this view.

tion with a finite head and (in English) maintaining the subject-forming character of sentences in order for the construction not to fall foul of the well-formedness requirement in an accusative system whereby sentences have a derived principal: a subject.

3.2. Passives and the CR-hierarchy

3.2.1. In terms of the foregoing, the passive construction, then, may be characterized in a rather traditional vein by the following two features:

(74)   a.   absence of subject-formation in predications involving prototypically a(n) (possibly complex) ergative argument in a language-system which otherwise requires that sentences have subjects – but where subject-assignment would conflict with the requirements of presentational structure – and, subject to language-specific parametric variation, and

        b.   reconciliation of the denial of subjecthood to the ergative argument with the subject (derived principal) requirement by associating the non-subject-forming predicate as a complement with a predicate (with minimal lexical content) which (other things being equal) incorporates a non-ERG argument of the dependent predicate (if such is present) into its argument structure and permits subject-formation to apply in conformity with (32).

This characterisation of the passive insists that the passive construction is a feature of accusative, i.e. subject-forming languages (but see below §6 for a principled explanation for the seeming contradiction that ergative system may have passives). It rules out, for example, analyses of the system of diathesis in, say, Tagalog which treat non-ergative (or non-'actor' in the sense of SCHACHTER 1976) 'topic' constructions as passives (see e.g. DIK 1989: §11, HOEKSTRA 1986). In terms of the relational taxonomy provided by the subjecthood criterion in conjunction with the GR parameter, Tagalog is simply not subject-forming, so that the question as to whether sentences with non-ergative topics are passives just doesn't arise; in fact, in the present terms, they are patently not (cf. ANDERSON 1979a). More importantly, (74.a) limits the core instances of passives to predications containing (whatever else) an ergative argument, alone or in combination with another CR and thus not necessarily 'agentive' (on this restriction see ANDERSON 1972, 1977: §3.3.2, BÖHM 1982: §2.3.3.4, DIK 1989: §10, GIVÓN 1990: §14.2). The passive construction is thereby rendered unavailable to the class of predicates dubbed 'unaccusative' in Relational Grammar (cf. PERLMUTTER & POSTAL 1977) or 'ergative' in GB work (cf. CHOMSKY 1981: §§2.6, *passim* and elsewhere), unaccusatives being predicates such as non-actional intransitive verbs of e.g. 'existence', 'emergence', 'possession', etc. which, in the present terms, are not subcategorized for an ergative argument (but cf.

note [18]).

Other than associating the prototypical passive construction with predicates in an otherwise subject-forming system that (under government of an appropriate superordinate verb) permit (or require) the absence of subject-formation, (74.a) is deliberately non-committal as to, for instance, the categorial specification of the 'passive' predicate and specific morphological correlates thereof. Indeed, it seems to me to be illegitimate to characterize passives in terms of anything like 'passive morphology' of the verb (cf., too, ANDERSEN 1989, 1990) as in the GB account of passives (cf. CHOMSKY 1981: §2.7, JAEGGLI 1986), even if 'passive morphology' is interpreted in a purely abstract way as the inability of the verb to assign objective case. The defining properties of passives in GB terms, viz. 'absorption' of objective or 'structural' case and of the predicate's 'external Θ-role' (in the sense of WILLIAMS 1981), where absorption involves assignment to the passive morpheme -*en* (cf. JAEGGLI 1986, BAKER 1988: §6), as well as the putative 'non-thematicity' of the subject position, are epiphenomenal. They are contingent on the absence of subject-formation in the domain of the 'passive predicate': IF THERE IS NO SUBJECT, THERE CAN BE NO OBJECT EITHER (unless vacuously, as under the 'unaccusative'/'ergative' verb hypothesis, objecthood is equated with 'argument bearing the Θ-role of theme'). But the range of predicate types which permit subject-formation to be absent is clearly not constant in word class categorial terms: English permits this with -*en* participles, as does (mutatis mutandis) e.g. German; but unlike in English, subject-formation in German may also not apply with infinitives (as in e.g. causative and some modal constructions), whereas in e.g. Welsh (cf. AWBERY 1976) and other languages the word class that permits the absence of subject-formation and so appears in the passive construction is an uninflected predicate with nominal characteristics that is perhaps best characterized categorially as (P;N);N.

The second part of (74) is vague as to the initial CR of the argument to which 'passive' (i.e. non-subject) raising applies and merely refers to non-ergative terms as (potential) advancees, even though, in terms of § 2.4.3 above, absolutives have a privileged status. However, the promotional feature of the passive construction to which (74.b) refers is language-dependent. Languages may opt out from raising, as is attested by the well-documented existence of impersonal (syntactically 'subjectless') passives of both actional intransitive and transitive action predicates. (75) gives an example of an impersonal transitive passive (cf. AWBERY 1976: §§5.1.2-3 and COMRIE 1977: 54-57, who show conclusively that the ABS argument in (75) is not derivatively accorded subjecthood; for the RG side of the 'spontaneous demotion' debate cf. PERLMUTTER & POSTAL 1984b).

(75)   *Rhybuddiwyd*   *fi*   *gan*   *y*   *dyn.*
         'warning':3SG:PAST.ASP   1SG:ACC   'from' 'the' 'man'

Impersonal passives arise from the failure of the ABS raising host to have a raisee as-

sociated with it. In this event, EXPLETIVISATION of the host occurs. The notionally empty ABS regularly undergoes cyclic subject-formation and as derived [ERG,ABS] subject triggers default 3SG agreement on the verb. It surfaces as an expletive pronoun in languages wherein its cyclic subjecthood is 'confirmed' by post-cyclic subject-formation (cf. ANDERSON 1988a and below §3.3.2), or else is subjoined under the verb as in Welsh (or, more generally, in GB's 'PRO-drop' languages), where structures like (75) thus only show a morphosyntactic but not a syntactic subject.

With actional transitive predications in which subject-formation has failed to occur, the expletivisation or impersonal passive option is syntactically marked. But from the point of view of the presentational structure of the clause, it may represent the informationally unmarked choice in, for example, 'presentative' constructions (cf. KIRKWOOD 1973, KIRSNER 1979). Lack of raising in such instances is functionally motivated in order to avoid a topic-comment articulation where this would be inappropriate with respect to the intended information structure of the sentence. In impersonal passives of actional intransitives, on the other hand, expletivisation is both informationally and syntactically unmarked, at least in the absence of an eligible candidate for raising (but cf. note [23] below on a potential source for cross-linguistic variation in this regard).

Making argument promotion optional and viewing the non-subjecthood of the ergative argument in an actional transitive or intransitive predication as arising 'spontaneously' for e.g. discourse-pragmatic reasons and not even as a result of 'spontaneous demotion' – for there is no grammatical relation which the ergative term could be demoted from even spontaneously in the first place – the account I am developing here differs markedly from the Relational Grammar conception of canonical passives. Apart from insisting on the obligatory character of advancement (in the RG sense) and the 'dummy' machinery this entails with impersonals (cf. PERLMUTTER & POSTAL 1984b), the RG analysis of passive constructions specifically requires that on the relational stratum on which advancement to subject applies the advancee bear the grammatical relation of (direct) object. But this is fraught with problems in view of impersonal passives and passives like those in (76) and (77), wherein respectively, in RG terms, a direct object 'chômeur' and a locative 'non-term' has been advanced (cf. ANDERSON 1977, 1980, and elsewhere, BÖHM 1982, 1986a, BLAKE 1990: §2.7, HUDSON 1988, 1989 for some discussion).[22]

---

[22] The problem posed by (76) and (77) is equally pressing in GB, given that 'case-absorption' is held to apply to the 'internal' argument. Of course, it is possible to deal with prepositional passives like (77) in terms of an otherwise unmotivated 'restructuring' rule, whereby the complement of the preposition is accorded internal argument status by virtue of the preposition being 'incorporated' into the verb (cf. e.g. HORNSTEIN & WEINBERG 1981, and the discussion in ZWICKY 1989). This move, however, is non-explanatory for, as KILBY (1984: 78) rightly notes, it 'merely shifts the burden from the question of which verbs passivise to the

(76)   *The booklet was given him* (*by the local Nippon Gakki representative*).

(77)   *That disk has been written on/read from.*

3.2.2. In the present terms, the character of the CR of the passive advancee in languages whose passive is promotional can be made more precise, though, without claiming with RG that passive raising selects arguments bearing a specific CR, say absolutive (analogous to RG's insistance on direct object), by considering predication types other than bivalent actional transitives. In predications headed by agentive-directional predicates like give in (78.a),

(78)   a.   *They gave a free sample disk to everyone who wanted one.*

       b.   *A free sample disk was given to everyone who wanted one.*

       c.   **Everyone who wanted one was given a free sample disk to.*

advancement again affects the ABS argument, as in actional transitives. Raising of the directional LOC argument in preference over the ABS term is excluded (cf. (78.c)), unless the locative is also labelled as ABS (and ERG), whereby in an active it would outrank the simple ABS argument for object-assignment; cf. (79).

(79)   a.   *They gave everyone who wanted one a free sample disk.*

       b.   *Everyone who wanted one was given a free sample disk.*

In the absence of an eligible participant (complex or simple) ABS argument, passive/non-subject raising in English may affect an extra-predicational adjunct term such as the 'instrumental' absolutive in (80), or a locational argument, as in the 'pseudo' or prepositional passive in (77) above (cf. ANDERSON 1986a: §7 on the analysis of 'instrumental' arguments in English as extra-predicational absolutives).

(80)   *That sequencer has never been recorded with.*

In all of these examples selection of the passive raisee is in conformity with the CR-hierarchy. Raising out of the non-subject forming passive predication, that is, affects the argument bearing the residually highest CR in the absence of an eligible ergative term (cf. ANDERSON 1986a: 110, 1990: 355, in press: ch.4).[23] So, given

---

question of which verbs undergo the restructuring rule which allows them to passivise'.

[23] Accessibility to raising and subjecthood in passives of locational terms, whether arguments or extra-predicational adjuncts, is at least partially determined by the unavailability of impersonal passives, which, in turn, reflects the relative strength of the (syntactic) subject requirement in finite sentences. Given that in English the subject requirement must be met in P-headed (i.e. finite) sentences and English lacks a suitable formal 'dummy' to satisfy this requirement in the absence of any other eligible term, 'non-promotional' passives of (actional) intransitives are consequently ruled out:

(i)   **It has been danced.*

(31), reproduced here as (81), with the ERG CR projected out ('<<') and the local CRs (optionally) included,

(81)   ERG‹case› << ABS,case » ABS » ‹LOC/ABL›

raising out of the basic predication selects a complex ABS argument, if present, in default of that a simple ABS, and a locative or ablative argument otherwise, with availability for advancement of the latter being a language-specific option. Ungrammaticality results if raising does not obey the hierarchy in (81). Contrast in this regard (77) and (80) with (82) and (83), the latter two showing the offensive advancement of, respectively, an ablative and an extra-predicational 'instrumental' ab-

---

(ii)   *There has been danced.

Formal *it* in English requires the presence of a (non-subject/object)) absolutive P, i.e. <u>senten-tial</u> absolutive term, and *there* – anticipating the distinction drawn below between cyclic and post-cyclic subjects – requires the presence of a distinct post-cyclic subject (on this see ANDERSON 1986a, 1988a: §5, and, in somewhat different terms, HAIDER 1985a: §3.7, 1985b: §3). Neither condition is met in (i) and (ii). Looked at in these terms, prepositional passives like (80) carry the functional load of impersonal (post-cyclically subjectless) passives such as the German (iii) where the adjunct term has merely been topicalized to satisfy the verb-second constraint in independent clauses.

(iii)   *Mit diesem Sequencer ist niemals aufgenommen worden.*
            with' 'this':DAT 'sequencer'(DAT) 'be':PRES3SG 'never' 'record':PTII 'become':PTII

That is, (80) and such like enable the passivisation of actional intransitive predications by sat-isfying the subjecthood requirement via the assignment of subjecthood (via raising) to argu-ment types (circumstantial adjuncts and simple locationals) to which subjecthood is otherwise not available. Note, too, in this connection that certain arrays of CRs are more susceptible to yielding viable prepositional passives in English than others. Structures like (77) and (80) are most happy with extra-predicational 'instrumental' absolutive terms. With spatial locatives, as has frequently been observed, prepositional passives involve an interpretation – not present in the 'corresponding' active – in terms of which the referent of the passive subject term is seen as being affected by the action described by the predicate, and may be considered prag-matically felicitous to the extent that such an interpretation can be sustained (cf., among oth-ers, BOLINGER 1975, DAVISON 1980, HUDDLESTON 1984: §14.1, KILBY 1984: §4). Temporal locatives, which reject such an interpretation on pragmatic grounds, are accordingly unhappy as passive subjects; cf. (iv).

(iv)   *Noon is usually slept until (by Molly).*

What is important in the present connection is that the interpretation of the derived subject argument in sentences like (77) as an 'affected location' arises, predictably so in the present terms, from the locative argument also contracting the ABS relation in the host clause and be-ing labelled derivatively as [LOC,ABS], given CG's argument sharing conception of raising. For discussion of factors such as e.g. idiomaticity (degree of conventionality) and notional transitivity parameters (in the sense of HOPPER & THOMPSON 1980) which contribute to the acceptability of passives like (77) see also BRESNAN 1982a, RICE 1987, and ZIV & SHEINTUCH 1981.

solutive adjunct in preference over the eligible (participant) ABS argument:

(82)   *_That disk has been read data from._

(83)   *_That sequencer has been recorded a few hits with._

3.2.3. This neat picture, whereby access to subjecthood in passives follows the CR hierarchy (from which ergatives have been excluded), is complicated somewhat by 'ditransitive' agentive-directional predicates typified in English by _give_. Some varieties of English permit 'tertiary' passives (cf. BLAKE 1990: §2.7.2, following POSTAL 1986) such as (76) and (84),

(84)   _The booklet was sent everyone in the area._

which involve the otherwise illicit 'unorderly' raising of the simple absolutive argument of a ditransitive agentive-directional predicate (for an attempt to accommodate (84) within RG, cf. again BLAKE 1990: §2.7.2).

Unorderly raising out of non-subject-forming 'give' predications and the dialectal variation in this area may again be attributed to the array of CRs involved in the pertinent prediction types. Trivalent predicates like _give_ in English are associated with the argument structure shown in (85), where the [ABS,ERG] specification is optional and the italicised ABS designates the ABS argument supplied by the redundancy in (7) (for syntactic and notional motivation of the functional structure in (85) cf. ANDERSON 1973a, 1975a,b, 1977: §2.8, 1978a,b, 1984b, 1986a: §7, BÖHM 1982: §2.3.2, 1986a).

(85)   a.   P;N/[ERG,ABL] – [<ABS,ERG> LOC] – _ABS_

In actives, predicates with the functional structure of (85) accordingly take either an 'external', prepositionally marked locative argument, as in e.g. (78.a), or an 'internal', prepositionless locative, as in (79.a), where the LOC by virtue of being also labelled as [ABS,ERG] outranks the simple absolutive for object-assignment. Triadic predicates such as _deliver_, which only take an external locative, lack the [ABS,ERG] specification in their functional structure; conversely, those which, like e.g. _allow_, only have the internal locative variant, include the [ABS,ERG] feature obligatorily in their CR frame (cf. ANDERSON 1977: §2.8.7, BÖHM 1982: §2.3.2.2); cf. (85.b/c).

(85)   b.   P;N/[ERG,ABL] – ABS – LOC

         c.   P;N/[ERG,ABL] – [ABS,LOC,ERG] – ABS

LARSON (1988: 369) maintains that the positing of a non-derivational relationship between 'oblique' and 'double object forms' like (78.a) and (79.a) requires that 'verbs like _give_ are assigned two lexical entries with identical semantic content but distinct subcategorisation frames: one that specifies a direct object and PP complement, and a second that specifies two NP objects'. But this statement is patently

wrong, as (85) shows. It holds true only in the strawman's grammar of the sort assumed by LARSON (1988) in which an arbitrary and underarticulated inventory of theta roles and attribution of a unique array of CRs to verbs like *give* fails to account for the differences in e.g. empathy focus, saliency and meaning potential between the internal and external locative variants (cf. ANDERSON 1977: §§2.7.3, *passim*, BÖHM 1982: §2.3.2.4, GIVÓN 1984b, GREEN 1974, KIRKWOOD 1973, SMITH 1978: §5.4) and frustrates the formulation of the pertinent syntactic generalisations. The distinctive structural properties of sentences like (78) and (79), and, in particular, the structural positions or syntactic functions, unmarked relative sequence and case-marking of the post-head arguments, are entirely derivative of the lexical CR specifications given in (85). And so is the availability of 'tertiary' passives like (84).

In those varieties which allow passives like (84) based on predicates with the predicate-argument structure in (85), the complex [ABS,LOC,ERG] may – as a marked option – be passed over as a passive raisee on account of its being specified as ERG. Whereas in the 'conservative' variety, wherein (84) and such like are infelicitous, passive/non-subject advancement is strictly bound by the CR-hierarchy, the other variety has extended the unavailability of the hierarchically highest ergative argument for raising to include optionally a lower-ranking (complex) ergative argument. This can be seen clearly with predicates which take 'internal' locative arguments, but where the locative lacks the ergative component specification and thus (*inter alia*) does not show the prototypical animacy restriction of [LOC,ERG] 'recipient' arguments. This is true of 'holistic' agentive-directional predicates such as the notorious *load*, *smear*, etc. in English.[24] These verbs are associated rather with the predicate-argument structure shown in (86) (cf. ANDERSON 1971a: §11.44, 1975a,b, 1977: §§1.8.2, 2.8.9, 1984b, BÖHM 1982: §2.3.3.2, VESTERGAARD 1973). As predicted, with predicates of the type represented by (86), only the [LOC,ABS], but not the simple ABS (marked in actives by *with*) is available for passive raising; cf. (87).

(86)   P;N/[ERG,ABL] – [<ABS,> LOC] – ABS

---

[24] Note also in this connection that the 'exceptional' behaviour with respect to non-subject-raising of [ABS,LOC,ERG] 'indirect object' terms is replicated in English in the '*tough* movement' construction (cf. BERMAN 1973, POSTAL 1971: §II.3), as witnessed by the contrast between (i) and (ii)

(i)   *Fred is impossible* (*for anyone*) *to send an invitation.*

(ii)   *The sequencer is impossible* (*for anyone*) *to feed with MIDI data.*

Arguably, passive and '*tough*-movement' involve the same regularity, as suggested in ANDERSON 1977: §§3.2.2, 3.4.6, and confirmed recently in POSTAL 1990. In both cases raising/argument sharing applies to the argument that is residually hierarchically primary, given that ergatives are ineligible.

(87)   a.   *Someone fed the sequencer with MIDI data.*
       b.   *The sequencer was fed with MIDI data.*
       c.   **MIDI data was fed the sequencer* (*with*).

With *give* predicates it appears, then, that it is indeed the co-presence of the ERG specification with their [LOC,ABS] 'recipient' term which permits its being passed over as a passive raisee in those varieties in which passives like (84) are viable.

4. 'DATIVE PASSIVES' AND ARGUMENT SHARING

4.1. On 'dative passives'

4.1.1. The ambivalent status as passive raisees which I have attributed to
[ABS,LOC,ERG] 'recipient' terms of agentive-directional predicates in English is con-
firmed by their availability or otherwise for subject-assignment in the passive con-
struction in other languages. As is well known, in German, for instance, the
[LOC,ERG] 'recipient' argument of trivalent verbs like *geben* ('give'), which in ac-
tives is marked by the dative case inflection, fails to participate in the case alterna-
tion characteristic of the active-passive relationship in the language and is datively
marked in both actives and passives, as (88) and (89) show.[25]

---

[25] I am assuming that canonically the dative inflection in German marks non-grammaticalised
[LOC,ERG] or [ABL,ERG] arguments (cf. BÖHM 1982: §2.3.3). That is, the datively marked in-
ternal locative in (88) and such like, unlike in English, is not also labelled as ABS, as is con-
firmed by the fact that (in conformity with (37) above) it exhibits no signs whatsoever of di-
rect objecthood. Sentences like (i) and (ii) with a prepositionally and a datively marked LOC
argument, respectively

(i)   *Die Bushmills Destille liefert ihren Whiskey nur an Kenner.*
              ERG,ABL   ABS   LOC
         'the'(NOM) B. 'distillery'(NOM) 'supplies' 'its':ACC 'whiskey'(ACC) 'only' 'to' 'con-
         noisseurs'(ACC)

(ii)   *Die Bushmills Destille liefert nur Kennern ihren Whiskey*
              ERG,ABL   LOC,ERG   ABS
                     …'connoisseurs':DAT 'its':ACC 'whiskey'(ACC)

can therefore <u>not</u> be related, as Relational Grammar and the Universal Alignment Hypothesis
would have it, by 3-2 Advancement (cf. BÖHM 1982: §2.3.3.l, 1986a), which would relate
rather (ii) and (iii). In the latter the [LOC,ERG] argument is also specified as ABS and thus
available for object-assignment.

(iii)   *Die Bushmills Destille beliefert nur Kenner mit ihrem Whiskey.*
              ERG,ABL   LOC,ERG,ABS   ABS
                     …'connoisseurs'(ACC) 'with' 'its':DAT 'whiskey' (DAT)

For discussion of the notional and thematic properties which correlate with the absence *vs.*
presence of the ABS specification with the [LOC,ERG] term in (ii) and (iii) and the distinct
meaning potential of dative and accusative case marking which reflects this see e.g. BECKER
1971, KIRKWOOD 1973, SMITH 1988, WEISGERBER 1958, and ZUBIN 1975, 1977, 1980. For
some discussion in RG terms of putative 3-2 Advancement structures in German cf.
WILKINSON 1983, who, however, fails to recognize sentences like (iii) as an instance of such
(cf. BÖHM 1982, GIVÓN 1984a) and limits 3-2 Advancement to a small group of ditransitive
verbs including *lehren* ('teach') which take two accusatively marked 'objects' (on this class
of verbs and the problems they pose for a definition of 'indirect objects' in syntactic terms cf.
also PLANK 1987).

(88)   *Die Firma schickte jedem einen Waschzettel.*
          'the'(NOM) 'company'(NOM) 'send':PAST3SG 'everyone':DAT 'a':ACC
          'blurb'(ACC)

(89)   *Jedem wurde ein Waschzettel geschickt.*
          'everyone':DAT 'become':PAST3SG 'a'(NOM) 'blurb'(ACC) 'send':PTII

In GB work, immunity of 'dative' arguments to the case alternation in passives is
held to reflect a distinction between 'structural' and 'lexical' (or 'inherent') case:
the latter, which includes the dative case, is assigned lexically by the verb. On the
assumption that 'case-absorption' by the passive verb and consequent movement
into the Θ-vacuous subject position to escape the 'case filter' applies only to argu-
ments that receive structural (objective/accusative) case (cf., among others, DEN
BESTEN 1981a,b, 1985, HESTVIK 1986), datively marked arguments are thereby ex-
empt from movement in passives. However, as ZAENEN ET AL. (1985) note, this
'case-based' approach fails to account for the syntactic differences between German
'dative passives' like (89) and dative passives such as (90) from Icelandic (cf.
ZAENEN ET AL. 1985: 460).

(90)   *Konunginum voru gefnar ambáttir.*
          'king':DEF.DAT 'be':PAST3PL 'give':PTII:FEM3PL 'maidser-
          vants':NOM.FEM.PL
          'the king was given female slaves'

In (90), unlike in the German (89), the datively marked [LOC,ERG] argument be-
haves syntactically like a cyclic subject in being available for e.g. raising and 'con-
trolled deletion' (or its interpretative PRO binding analogue) in infinitival construc-
tions. It would also fail to explain why the 'recipient' argument of the German (88),
which is putatively resistant to nominative (subject) case in passives, given lexical
assignment of the dative case, does receive nominative case in passives involving
bekommen ('get'/'receive') rather than *werden* as a passive auxiliary:

(91)   *Jeder bekam einen Waschzettel geschickt.*
          'everyone'(NOM) 'get':PAST3SG 'a':ACC 'blurb'(ACC) 'send':PTII

Suppose, in keeping with the above remarks about dialectal variation with respect to
'tertiary' passives in English, that the inclusion of [LOC,ERG] arguments in the pas-
sive/non-subject raising hierarchy is subject to language-specific parameterisation.
Icelandic then, as a language-specific option, facultatively includes [LOC,ERG] ar-
guments in the raising hierarchy or, conversely, has absolutive terms optionally pre-
empt raising. It thus has passives like (90) as well as passives like (92), in which (as
in the English (84)), the ABS term has been raised and subjectivized, and accord-
ingly displays all of the cyclic subject properties which in (90) accrue to the pre-
verbal dative argument (cf. ZAENEN ET AL. 1985: §3.2, who also show that (90) and
(92) are not alternative topicalisation structures).

(92)   *Ambáttin var gefin konunginum.*
            'maidservant':DEF.NOM 'be':PAST3SG 'give':PTII:FEM3SG
            'king':DEF.DAT

(90), but not (92), shows lack of morphological encoding of subjecthood, a situation
that is reminiscent of and, as I shall suggest presently, explicable in the same terms
as the well-known discrepancy attested in many (superficial) ergative languages in
which the syntax, but not the case-marking morphology reflects the assignment of
subjecthood.

4.1.2. ANDERSON (1986a: §6, 1988a, in press:ch.4.2) argues persuasively on the ba-
sis of considerations flowing from the structural analogy hypothesis that – analo-
gously to certain rules in the phonology – a syntactic rule like subject-formation
may apply both cyclically as well as post-cyclically. Both cyclic and post-cyclic
subject-formation involve reference to the hierarchy in (31) in selecting the argu-
ment to which they apply, but otherwise display distinct properties, as is appropriate
with respect to the domain of their application. More specifically, cyclic subject-
formation is structure-building: it adds a structural property (subjecthood, conceived
of here as an additional ERG specification) to the argument to which it applies with-
out obliterating its case-relational identity on the basis of which selection for subjec-
tivisation operates in the first place. The CR-identity of cyclic subjects remains ac-
cessible to the cyclic syntax, in principle at least (cf. ANDERSON 1986a: §6, 1988a
and BÖHM 1982: §3.3, 1983 for empirical evidence). Post-cyclic subject-formation,
on the other hand, is structure-changing. It involves the substitution of an ERG
specification for the initial CR of the argument that undergoes it and shows full neu-
tralisation of initial CR contrasts.

The possibility of subject-formation applying both cyclically and post-cyclically
provides for further refinement of the GR-parameter and additional systemic varia-
tion in the relational typology of languages. As hinted in note [14], by (47) either
one or both of cyclic and postcyclic subject-formation may be lacking in a language
(sub)system. Syntactically and morphologically ergative languages such as Dyirbal
or Kalkatungu (cf. DIXON 1972, BLAKE 1979) show lack of both: their syntax and
(non-pronominal) case-marking morphology remain sensitive to the initially basic
principal relation, the absolute CR.[26] Morphologically ergative, but syntactically
accusative languages such as e.g. Basque (cf. S. ANDERSON 1976, BRETTSCHNEIDER
1979, WILBUR 1979) or some Polynesian languages (cf. CHUNG 1978), on the other
hand, have cyclic subject-formation, with their cyclic syntax thus being subject-

---

[26] More precisely, in languages like Dyirbal, where pronominal arguments inflect on an accu-
sative basis but show the ergative syntax of non-pronominal arguments, pronominal terms are
subject to post-cyclic subject-formation on account of the degree of empathisability of their
referents (cf. ANDERSON 1977: §3.5.8, 1988a, DIXON 1979).

oriented, but lack post-cyclic subject-formation and so show an ergative–absolutive pattern of relational encoding in e.g. their case-marking morphology.

Similarly, in various languages which have (cyclic and post-cyclic) subject-formation in canonical P;N-headed agentive transitive predications, so-called 'dative' sentences, i.e. predications wherein the CR-hierarchically topmost argument is labelled [LOC,ERG] or [ABL,ERG] and therefore not associated with an 'agentive' or 'volitional' interpretation, constitute a predication type in which commonly cyclic and/or post-cyclic subject-formation may not apply.[27]   The Icelandic (93) (PÉTURSSON 1981: 126, ZAENEN ET AL. 1985: 454), for instance,

(93)   *Mér/mig vantar peninga.*
              1SG:DAT/1SG:ACC 'lack':PRES3SG 'money':ACC

shows orderly cyclic subject-formation of the [LOC,ERG] or rather [ABL,ERG] (given the negative orientation of the predication) 'possessor' term and concomitant relegation of the initially primary absolutive term to object: the [ABL,ERG] argument participates in all of the syntactic regularities distinctive of cyclic subjects in the language, and the non-subject absolutive is marked for accusative case.   However, post-cyclically, as is suggested by the 'quirky' case-marking, the [ABL,ERG] argument is projected out of the subject-selection hierarchy. (93) is post-cyclically subjectless. In the German translation equivalent of the Icelandic (93), on the other hand, the [ABL,ERG] argument is both cyclically and post-cyclically projected out of the hierarchy. So, in the German (94),

(94)   *Mir fehlt Geld.*
              1SG:DAT 'lack':PRES3SG 'money'(NOM)

unlike in the Icelandic (93), the [ABL,ERG] argument exhibits none of the syntactic behavioural nor any of the morpho-syntactic coding properties otherwise associated with (cyclic and post-cyclic) subjects in German. Unmarked pre-verbal position, which might just be taken to be indicative of subjecthood, is contingent on the fact that the 'dative' argument, being labelled as [ABL,ERG], is topical on account of the high degree of emphathisability of its typically human referent. What (94) and such

---

[27] Of the vast literature on 'dative' sentences, and especially their historical development and the cross-linguistic divergences arising from the GR-parameter (47) cf., among others, ANDERSON 1971a: §7.2, 1973a,b, 1979a, 1984c, 1986b, 1988a, BÖHM 1982: §2.2.2.4, COLE ET AL. 1978, GIVÓN 1984a, KLAIMAN 1980, 1981, SEEFRANZ-MONTAG 1983, SRIDHAR 1979 as well as the contributions in VERMA & MOHANAN 1990. For discussion of the functional motivation underlying the failure of the [LOC/ABL,ERG] argument in such predications to subject-form, see also, apart from the references already cited, MCCAWLEY 1976, MORAVCSIK 1978, and more recently CROFT 1991: §5.5. Critical discussion of Relational Grammar's 'inversion' analysis of 'dative sentences' can be found in ANDERSON 1979a, 1980, 1984c, 1988a and BÖHM 1982.

like show is DEFAULT SUBJECT-FORMATION, i.e. the attribution of subjecthood by default to the ABS argument on account of the [LOC/ABL,ERG] being projected out of the hierarchy (cf. ANDERSON 1984c, 1988a, and BÖHM 1982, as well as §6 below on the functional motivation for default subject-formation in such predication types). The absolute term, which is primary before and in the absence of subject-formation, simply has its initial relational primacy confirmed by subject-formation, from which in German with specific non-actional 'experiential/affective/possessive' predicates the [LOC,ERG]/[ABL,ERG] 'experiencer/possessor' term is excluded.

What distinguishes the passives under (89) and (90) in these terms is this: in the Icelandic passive in (90), the [LOC,ERG] argument attracts cyclic subjecthood in the *vera* ('be') predication as a consequence of its undergoing advancement in accord with the CR hierarchy, but fails to have post-cyclic subjecthood conferred upon it. In the German (89), on the other hand, where, as in other 'dative sentences' in the language, subjecthood is both cyclically and post-cyclically lacking from the datively marked term, the [LOC,ERG], like other ergative terms, is projected out of the hierarchy and 'advancement' and subsequent subjectivization is again available to the absolutive argument by default. I take it that in German the failure of raising and subject-formation to apply to the [LOC,ERG] argument in passives involving 'give' verbs with the functional structure of (95)

(95)   P;N/[ERG,ABL] – [LOC <ERG>] – ABS

is 'conditioned' by the 'passive' auxiliary *werden* ('become'). This property it shares with the copula *sein* ('be'), as emerges from a somewhat more careful consideration of the form and function of the auxiliary in periphrastic passives and other construction types involving the second participle.

4.2. Auxiliaries and argument-sharing

4.2.1. Implicit in the foregoing has been the assumption that the auxiliary in the passive construction is introduced in response to the non-finiteness of the predication headed by the lexical predicate and the absence of subject-formation therein. That is, its presence serves as a means by which the lexically non-finite predication can be assimilated to the sentence construction in which a P element and a subject argument are essential. This might be interpreted to mean that the auxiliary is 'semantically transparent' (cf. T.R. ANDERSON 1968) in the sense – formally implemented in e.g. GB in terms of a 'thematically empty' or Θ-vacuous subject position – that it projects no argument structure of its own and is thus lexically exempt from even the minimal requirement embodied in the redundancy in (7) whereby (unless specified otherwise) each predicate takes a dependent ABS term. The raising/argument sharing account of promotional passives outlined in the preceding sections, however, has uncovered no support for such a position. On the contrary, the evidence from

prepositional passives such as (96)

(96)   *Molly's chair has been sat on.*

suggests that the passive advancee is derivatively associated with the ABS relation. As HUDDLESTON (1984: 441) observes, 'for the passive to be acceptable in such cases, the process must be one that affects in some significant way the referent of the subject'. Now, clearly, the notion of 'affected location/entity' carried by the subject term in (96) and such like is not induced by the lexical predicate in such examples nor, for that matter, by the application of some otherwise unmotivated restructuring rule, but derives rather from the functional structure of the passive auxiliary. The auxiliary confers the ABS relation on the locative advancee in (96) which, in turn, continues to depend as LOC on the lower predicate and is 'permitted' to have its distinctive non-ABS CR reflexed by 'preposition stranding'.

The assumption that advancement in promotional passives derivatively associates the ABS relation with the raisee and endows it with the specific notional property of '(designating the) entity affected by the action described by the dependent predication' has a number of distinct advantages over accounts involving 'movement' to a 'thematically empty' structural subject position. Apart from providing for the 'affected location' interpretation of the subject argument in prepositional passives like (96), it gives us a clue as to the immunity of 'dative' arguments to advancement and subjectivisation in German dative passives such as (89).

4.2.2. Like various other (Indo-European) languages, German employs either one of two auxiliary verbs, *sein* ('be') and *haben* ('have'), together with the participle II in the perfect paradigm. Roughly, the choice of *sein* and *haben* is sensitive to the transitivity and the aspectual (more precisely, aktionsart) character of the lexical predication. Transitives select *haben*, as does the subset of intransitives which are agentive, i.e. those intransitives such as e.g. *arbeiten* ('work') whose ABS argument is also labelled as ERG; non-agentive intransitives commonly select *sein*. However, some intransitives, including in particular (manner of) motion verbs (such as *schwimmen* 'swim', *reiten* 'ride', etc.) show some indeterminacy and may form the perfect with either *sein* or *haben*. Perfect auxiliary choice with these predicates correlates with aktionsart properties of the basic predication and depends on whether it describes a situation that is linguistically presented as an atelic (unbounded) process/activity or a telic (bounded) accomplishment (in the sense familiar from VENDLER 1967 and other work on aspect such as DECLERCK 1979, DOWTY 1979, JESSEN 1974, LYONS 1977: §15.6, VERKUYL 1972). An accomplishment predication presents a situation as leading to a change in the physical location or existential status of the referent of the absolutive argument, and typically induces this interpretation through the overt presence of a directional-locative complement or directional verb prefix. Thus, the unbounded/atelic (97) with the agentive-intransitive *tanzen*

('dance') and a locative adjunct phrase

(97)   *Molly hat auf der Bühne getanzt*.
          Molly(NOM) 'have':PRES3SG 'on' 'the':DAT 'stage'(DAT) 'dance':PTII

takes *haben*, whereas the telic (98) with a directional-locative complement

(98)   *Molly ist auf die Bühne getanzt*.
          Molly(NOM) 'be':PRES3SG 'on(to)' 'the'(ACC) 'stage'(ACC) 'dance':PTII

shows the presence of *sein*.[28]

In RG and GB work, perfect auxiliary selection in German and e.g. Dutch and Italian, where (grossly) similar facts obtain, is frequently cited in support of the 'unaccusative' or 'ergative verb' hypothesis (cf., for example, GREWENDORF 1989, HAIDER 1984a, 1985a,b, HOEKSTRA 1984, PERLMUTTER 1980, ROSEN 1984), under which the following correlation is claimed to hold (cf. HAIDER 1984a: 28):

(99)   *auxiliary selection in German*

          Presence of the designated argument requires *haben*; its absence requires *sein*.

(where for all practical purposes HAIDER's 1984a 'designated argument' is equivalent to 'external argument' in WILLIAMS 1981 and 'initial 1' in Relational Grammar)

However, (99) – apart from being descriptively inadequate as any descriptive grammar of German (or, *mutatis mutandis*, Italian for that matter) will confirm, in that it ignores the import of the aspectual character of the predication (cf. BÖHM 1982: §2.2.1.2, SHANNON 1987, VAN VALIN 1987, WUNDERLICH 1985) – in no way provides an explanation for why the 'unaccusativity'/'ergativity' *vs.* 'unergativity' of the predicate should correlate in this manner with auxiliary selection in the perfect. The reason for this lies in the complex interplay of the argument structure or array of CRs projected by the auxiliary, the argument structure and the aktionsart character of the lexical predication as well as lexical categorial word class properties of its head. As I am not primarily concerned here with uncovering all of the intricacies (including those which seem to be lexically idiosyncratic) of perfect auxiliary

---

[28] For a particularly illuminating discussion of the seemingly variable valency properties of manner-of-motion (as well as postural locative) verbs which enable them to head both telic as well as atelic predications see STEINITZ 1990, to appear a,b. The incorporation of a [LOC,ABL] 'manner' or 'instrumental/path' component in manner-of-motion verbs (cf. ANDERSON 1971b, 1977: §2.6.5, TALMY 1985, STEINITZ 1990) renders the predicate's locational ('source'/'goal') complement(s), though lexically distinctive, syntactically optional and permits the construal of such verbs as atelic activity predicates.

selection I shall focus on the first two of these interacting factors to the extent that they might shed some light on the behaviour of [LOC,ERG] arguments in German passives (but cf. MCCLURE 1990, VAN VALIN 1987, 1990 for further discussion of perfect auxiliary selection).

Non-auxiliary *haben*, in addition to a nominal ABS, takes a locative term which regularly becomes subject by virtue of being also labelled as ABS or ERG. Consideration of lexical naturalness (cf. ANDERSON 1973b, 1977) would suggest that, irrespective of its de-semanticisation as an auxiliary, this carries over to auxiliary *haben*. Whereas *sein*, apart from an appropriately specified non-finite predication, takes an ABS, *haben* accordingly takes a [LOC,ERG,ABS] which, like the ABS functor of the former is empty: it is not initially associated with a dependent nominal. Auxiliary *sein* and *haben*, that is, each project a 'quasi-predication' (cf. ANDERSON 1972, 1973a,b) in which (as in other raising/argument sharing constructions) a dependentless functor category is derivatively linked to a case-relationally specified argument of the dependent predication. What we find, then, is that – other things being equal – argument sharing in the German perfect is associated with a CR-likeness condition: canonically, a relationally primary ABS term in the dependent non-finite participial predication is associated with the ABS relation of the superordinate predicate (*sein*); a relationally primary dependent ergative is linked to the [LOC,ERG,ABS] of the governing predicate (*haben*). Ideally, and allowing for the de-semanticisation of some such notional characterisation as a result of grammaticalisation/auxiliarisation, in the HAVE perfect the ergative argument of the basic predication may be thought of as being derivatively characterised notionally as the 'possessor of an act' (SEILER 1973) in something like the original sense suggested by BENVENISTE's (1952, 1968) account of the historical development of HAVE perfect constructions (in Romance) from an earlier 'dative of interest' (i.e. non-subject [LOC,ERG]) in a construction with BE (cf. further ALLEN 1964, ANDERSON 1971a: §9.3, 1972, 1973a,b, LYONS 1968: §§8.4.4ff., ROSÉN 1980, VINCENT 1982).

4.2.3. Now, in terms of the relational typology outlined in §2.3 above, ergative arguments only become relationally primary and thus available for raising/argument sharing by subject-formation. Put differently, argument sharing in the HAVE perfect, as noted in passing in section 3.1.3 above, requires that the basic lexical predication be subject-forming. BE, in contrast, is simply indifferent as to whether the ABS argument of the dependent predication is also subject in that predication or not, in that the ABS term shared by the auxiliary and the lexical predicate is relationally primary anyway, whether as subject in an intransitive predication or as non-subject in a transitive in which subject-formation has failed to apply. This is precisely why in a language like German both predicative adjectives, the core instances of which take just an ABS argument, participles of non-actional intransitive verbs and non-subject-forming participles of transitive verbs are construed with *sein* or (where appropriate)

its dynamic congener *werden*.[29] With all three of them, the relationally primary argument available for argument sharing/raising is ABS.

Unlike in, for example, JAEGGLI's (1986) and BAKER's (1988) GB account of passives there is thus no sense in the present framework in distinguishing between a perfect and a passive participle, which mysteriously always share the same form, but of which, even more mysteriously, only the latter is a 'case-absorber'. The passive (ABS-oriented) *vs.* perfect (ERG-oriented) character of the participle is merely a notional reflex of a case-relational restriction imposed by BE and HAVE on the relationally primary argument involved in argument sharing/raising and met by the dependent lexical predication by the absence or otherwise of subject-formation. BE requires a relationally primary ABS term, HAVE an ergative which becomes a relational prime only if it has subjecthood (ERG) conferred upon it. This immediately explains why in both English and German *-en*/II participles, which lexically, and unless specifically required otherwise by the syntax, exempt their CR-hierarchically primary argument from subject-formation, pattern ergatively when used 'attributively' (cf. TODENHAGEN 1974, QUIRK ET AL. 1985: §§7.15, 17.29, 17.100-103, where somewhat misleadingly the ABS-orientation of attributive *-en* participles is designated as 'passive').[30]

---

[29] I hedge with respect to adjectives, given that with some such (e.g. English *careful* and similarly German *vorsichtig* 'careful') the CR-hierarchically highest argument is [ABS,ERG] rather than simply ABS.

[30] That is, in conformity with the non-subject forming character of the participle, the nominal, which (on the conservative analysis of noun phrase structure) is 'modified' attributively by the *-en* participle, is the ABS argument of the 'corresponding' intransitive or (mono)transitive verb; cf. the familiar examples in (i) and (ii) (and see further below §5.1).

(i)   a.   *the vanished treasure*

      b.   *risen costs*

(ii) a.   *the hidden treasure*

      b.   *raised costs*

For a detailed (contrastive English-German) analysis of such structures, which takes into account the interplay of the predicate's functional structure and its aspectual character, cf. TODENHAGEN (1974), who shows that, more precisely, 'attributivisation' of the participle displays an 'active' or 'ideal ergative' orientation. As illustrated by the German examples under (iii), the [ABS,ERG] argument of atelic agentive intransitives such as *arbeiten* ('work'), like the ergative argument of transitives, cannot be modified attributively by the second participle.

(iii) a.   *der geschmolzene* [ABS] *Schnee*   non-actional (telic) intransitive
           'the'(NOM) 'melt':PTII 'snow'(NOM)

      b.   **der gearbeitete* [ABS,ERG] *Mann*   actional (atelic) intransitive
           'the'(NOM) 'work':PTII 'man'(NOM)

      c.   *der* [LOC] *ans Ufer geschwommene* [ABS,ERG] *Mann*   actional (telic) intransitive

In terms of the formulation in (32) in §2.1.1, cyclic subject-formation involves the addition of an ERG specification to the lexical CR of the argument that undergoes it, and thereby enables the syntax to ignore CR distinctions and to refer uniformly to derived ERG terms irrespective of their initial CR. Given this, the ERG CR requirement imposed by the HAVE of the perfect construction can be met in either of two ways, viz. by invoking both the initial (lexical) ERG as well as the derived (subjective) ERG CR of the argument involved in argument sharing, or by invoking the derived ERG function only. German, apparently, shows the former, inasmuch as the *haben* perfect is (proto)typically – if we ignore bivalent predicates that are only remotely transitive in notional terms but whose appearance with *haben* is parasitic upon the very existence of the prototype – found with predicates whose functional structure includes an ergative argument. English, on the other hand, shows the latter. It has fully grammaticalised the ERG CR requirement associated with perfect HAVE to ERG arguments, i.e. to cyclic subjects irrespective of their lexical CR, and accordingly construes its perfect with *have* throughout, unlike German, where predications with a relationally primary ABS require *sein*. It is therefore unsurprising that actional intransitive (manner of) motion verbs in German may appear with either *sein* or *haben*: the dual specification of their relationally primary argument as [ABS,ERG] ('self moving agent') meets the CR-likeness condition of either auxiliary. The aktionsart distinction that correlates with the perfect auxiliary choice is (partially) contingent on this. The ABS-requirement of *sein* enables 'focusing' on the (telic) change of location denoted by the lexical predication by 'selecting' the ABS component of the compound [ABS,ERG] CR and presents the referent of the [ABS,ERG] term primarily as the moving entity (irrespective of its agentive involvement) in a telic event, whereas the ERG-requirement of *haben* primarily involves the ERG component feature of the [ABS,ERG] term and so focuses on the agentive involvement of its referent and presents the movement denoted by the basic predication as an (atelic) activity.[31]

Much the same language-specific grammaticalisation of the CR-likeness condition associated with HAVE obtains with respect to constructions involving BE. Whereas in English a sentence like, say, (100)

   'the'(NOM) 'to':'the' 'shore'(ACC) 'swim':PTII 'man'(NOM)

 d. **der* [ABS] *Frauen verführte* [ERG] *Mann*   transitive
   'the'(NOM) 'women' (ACC) 'seduce':PTII 'man'(NOM)

For discussion of (iii) and such like in the context of GB's 'ergative verb' hypothesis see e.g. GREWENDORF (1989: §2.3), HAIDER (1985a,b) and HOEKSTRA (1984).

[31] Seemingly irregular in this respect is the central member of the class of motion verbs in German *bewegen* ('move'), which always takes *haben* in the perfect. However, with notionally non-agentive subjects it is 'inherently' reflexive, suggesting that it is basically transitive; see below section 5 on middles/antitransitives.

(100)   *They are cold*.

with a predicative adjective, is ambiguous between an 'extensive' (ABS – 'at-tribuand') or 'intensive' ([LOC,ERG] – 'experiencer') interpretation of the subject term (cf. HALLIDAY 1967/68: 65), the corresponding German (101)

(101)   *Sie sind kalt.*
           3PL(NOM) 'be':PRES3PL 'cold'

only has the 'extensive' reading by virtue of only an ABS argument being available for raising/argument sharing with the ABS CR of the copula. The [LOC,ERG] argu-ment for which *kalt* on the alternative 'intensive' interpretation is subcategorised is unavailable for raising and subjectivisation in the copula predication. It is marked datively and the copula shows unmarked agreement for a 3rd person singular nomi-nal, the latter being a reflex of the empty ABS raising host which in those instances where raising fails (and no expletivisation occurs) is subjoined under its governor.

(102) a. *Ihnen ist kalt*.
           3PL:DAT 'be':PRES3SG 'cold'

       b. *Es ist ihnen kalt*.
           EXPL ('it') 'be':PRES3SG 3PL:DAT 'cold'

(102a.) is syntactically subjectless and merely shows fronting of the [LOC,ERG] term in order for the construction to meet the V/second constraint in finite independent sentences. The same is true of (103),

(103)   *Ihnen wird kalt*.
           3PL:DAT 'become':PRES3SG 'cold'

involving the non-stative inchoative *werden* rather than the stative copula *sein*, as well as, unsurprisingly, of passives (whether statal or dynamic) of verbs lacking an (overt) ABS argument. Thus, *helfen* ('help') and *danken* ('thank') with the predi-cate-argument structure in (104)

(104)   P;N/ [ERG,ABL] – [LOC,ERG] ↓ ABS

           (where '↓' is intended to signify that the ABS term is 'incorporated' into the predicate: HELP = GIVE HELP)

'preserve' the dative inflection of the [LOC,ERG] argument in the passive, which is, once again, syntactically subjectless, as (105.a) shows:

(105) a. *Den Leuten wurde geholfen*.
           'the':DAT.PL 'people': DAT.PL 'become':PAST3SG 'help':PTII

b. *Es wurde den Leuten geholfen*.
EXPL ('it') 'become':PAST3SG 'the':DAT.PL 'people':DAT.PL 'help':PTII

4.2.4. Drawing all of these observations together, it is clear that the inability of datively marked arguments in German to appear as derived subjects of *sein*/*werden* passive constructions is, if at all, only contingently related to the dative being 'assigned lexically', but has to do rather with a notionally motivated CR-likeness condition which BE (like, mutatis mutandis, HAVE) imposes on argument sharing. As I have suggested in 2.4.3 above, the privileged status of absolutive terms as passive raisees is a reflex of the non-subject-forming or ergative character of the lexical predication in the passive construction: absolutives are primary in the absence of subject-formation. In much the same way as in the perfect, where it shows grammaticalisation of the ERG subject requirement to apply to all derivatively ERG (i.e. subject) arguments irrespective of their initial CR, English, as it were, has gone the whole hog with the ABS requirement associated with auxiliary BE in passives. It has grammaticalised the privileged status of absolutives in non-subject-forming predications to 'RESIDUALLY HIGHEST ARGUMENT (IN THE ABSENCE OF AN ELIGIBLE ERG)'.[32] It is only by virtue of this characterisation, which in the prototypical passive construction applies to the absolutive argument of a non-subject-forming actional transitive predicate, that other and not necessarily absolutive argument types are available for raising/argument sharing in the passive construction in English provided that their selection complies with the CR hierarchy. German, on the other hand, has maintained the notional basis of the ABS condition on argument sharing in auxiliary *sein*/*werden* constructions and confines the availability for raising to arguments labelled as ABS, either alone, or in conjunction with another CR specification. Dependent non-ABS terms cannot be associated with the ABS host relation of *sein*/*werden*, whether in constructions with predicative adjectives or second participles. The grammar and morphosyntax of 'dative passives' in German, which provided the starting point for the preceding discussion, reflects just this.

Confirmation of the essentially notionally-based CR-likeness conditions I have associated with argument sharing in constructions involving auxiliary BE and HAVE comes from German passives such as (91), which involves *bekommen* ('get'/'receive') (or its synonyms *kriegen* and *erhalten*) rather than *sein*/*werden*. As

---

[32] I thus do not concur with HUDSON (1989: §15), who notes that 'the subject of a passive verb (in English, RB) may correspond to any of the following non-subjects:

(a)   the complement of a preposition within the first phrase after the verb;
(b)   the complement of an oblique;
(c) (i) the verb's first object, OR (in another dialect)
    (ii) any object of the verb'

and suggests that 'these relations are such as not to be reducible to one' (1989: 25).

a lexical verb, *bekommen* takes the array of arguments shown in the functional structure in (106),

(106)   P;N/[LOC,ERG] − ABS − ABL

and in actives shows subjectivisation of its [LOC,ERG] 'recipient' argument. Assume again that this carries through to its function as an auxiliary in the passive. The relative transparency in German of the CR-likeness condition on argument sharing would accordingly predict that the argument available for raising be [LOC,ERG]. This prediction is borne out. In fact, relative to other auxiliaries in the language, *bekommen* complies most stringently with the CR-likeness constraint in showing only weakly the de-semanticisation effect associated with auxiliarisation of otherwise lexical predicates. The prototypical *bekommen* passive construction involves [LOC,ERG] argument-taking trivalent verbs typified by *bringen* ('bring'), *schicken* ('send'), *schenken* ('give as a present'), etc. or bivalent agentive-directional verbs with an incorporated ABS argument such as *helfen* ('help'), *danken* ('thank') and *kündigen* ('give notice').[33] Non-directional transitives such as e.g. *reparieren* ('repair'/'fix') cannot form a *bekommen* passive, unless they are construed with an extra-predicational [LOC,ERG] 'benefactive' adjunct which is available for argument sharing (cf. BÖHM 1982: §2.3.3.3 for a localist analysis of 'benefactive'/'dative commodi' constructions). Contrast in this regard (107)-(109).

(107)   *Die Leute bekamen (von allen) geholfen.*
             'the'(NOM) 'people'(NOM) 'get':PAST3PL ('from' 'all':DAT) 'help':PTII

(108)   **Das Auto bekam (vom RAC) repariert.*
             'the'(NOM) 'car'(NOM) 'get':PAST3SG ('from':'the':DAT RAC(DAT))

---

[33] The central member of the pertinent class of triadic verbs, *geben* ('give'), is excluded from the *bekommen* passive on account of the construction being unacceptably redundant (cf. GREEN 1974: app.III), given that *bekommen* is the lexical converse of *geben*. For further discussion of the *bekommen* passive construction in German cf. CRITCHLEY 1983, DANEŠ 1976, EROMS 1978, KIRKWOOD 1973: part V, and, with a focus on the auxiliary verb status of *bekommen*, EBERT 1978, EROMS 1978, REIS 1976, 1986, WEGENER 1985; for an attempt in (modified) GB terms to deny *bekommen* + PART II constructions of the type considered here the status of passives, see HAIDER 1984b and the conclusive refutation in REIS 1986 and WEGENER 1985.

Observe also that the above analysis of the German *bekommen* passive entails rejection of the 'unaccusative' proposal entertained with respect to the English *get* passive or the Welsh personal *cael* ('receive'/'get') passive by HAEGEMAN 1985 and PERLMUTTER & POSTAL 1984b: §5.5. On the unaccusative account the recurrent appearance as passive 'auxiliaries' of non-agentive DIRECTIONAL predicates with the meaning of 'receive', 'get', 'suffer', or 'benefit' in a number of unrelated languages is completely fortuitous. Cf. ANDERSON 1972, 1977 and BÖHM 1982 for a localist explanation, and see below §6.3.

'repair':PTII

(109) a.   *Der RAC reparierte ihm das Auto*.
       'the'(NOM) RAC(NOM) 'repair':PAST3SG 'he':DAT 'the'(ACC) 'car'(ACC)

       b.   *Er bekam das Auto vom RAC repariert*.
       'he'(NOM) 'get':PAST3SG 'the'(ACC) 'car'(ACC) 'from':'the':DAT
       RAC(DAT) 'repair':PTII

De-semanticisation of the construction is witnessed by its use with trivalent priva-
tive verbs such as *wegnehmen* ('take away'), as in (110),

(110)   *Die Kinder bekamen ihr Spielzeug weggenommen*.
       'the'(NOM) 'children'(NOM) 'get':PAST3PL 'their'(ACC) 'toys'(ACC)
       'take-away':PTII

where the argument shared by *bekommen* and the dependent participle is labelled as
[ABL,ERG] rather than [LOC,ERG]. 'Bleaching' of the CR-likeness condition in such
instances involves ignoring the internal 'source' component feature of the ABL CR
(cf. (13) above) or, conversely, generalising the 'place' component feature of LOC.

5. ARGUMENT REDUCTION

5.1. A note on adjectival passives

5.1.1. The preceding sections have been concerned with establishing the viability of the case grammar hypothesis in (2) above, and have argued, in particular, that grammatical functions and other aspects of the syntax are derivative on the notionally defined CRs of the arguments for which predicates are lexically specified. Other current work, while according to CRs or Θ-roles a crucial role in the 'interfacing' of the lexicon and the syntax, commonly insists that the notional character of CRs/Θ-roles is ignored by lexical and/or syntactic rules. LEVIN & RAPPAPORT (1986: 657), for example, contend that 'operations on lexical representations may not have access to Θ-role labels but may only affect the process of Θ-role assignment. That is, these operations may distinguish among the arguments of a verb in terms of the way they are assigned their Θ-roles and not in terms of the Θ-roles they bear'.

LEVIN & RAPPAPORT (1986) are concerned, apparently, with adjectival passives of trivalent predicates and the well-formedness or otherwise of examples such as (111) and (112). As they note, these pose a problem for the accounts of adjectival passives in BRESNAN (1982a) and WILLIAMS (1981), where it had been argued that adjectival passive formation (APF) involves 'externalisation' of the 'theme' argument of the deverbal adjective.

(111) a.   *Molly stuffed feathers into the pillow*.

      b.   **The feathers remained stuffed*.

      c.   **the stuffed feathers*

(112) a.   *Molly stuffed the pillow with feathers*.

      b.   *The pillow remained stuffed*.

      c.   *the stuffed pillow*

The lexical functional structures for predicates posited by LEVIN & RAPPAPORT specify predicates for the CRs (or Θ-roles) of their arguments and record their status as obligatory or optional participants; but, unlike the functional structures argued for here, they also include supplementary annotations for the 'external' argument and for what they call, following MARANTZ (1984: §2.1.1.1), the 'direct argument'.

In MARANTZ (1984: §2.1.1.1), the distinction between 'direct' and 'indirect' arguments is based upon the putative independence of a predicate's ability to take arguments from its Θ-role assigning ability. The latter is held to be constrained by the 'One Role/Role Assigner Principle' (MARANTZ 1984: 22) which stipulates that 'in the unmarked case, a semantic role assigner may assign only one role', so that a verb may take, say, three arguments, but assign a Θ-role to only one of these, viz. to

the direct argument. Arguments other than the direct argument are assigned their Θ-role indirectly by an element other than the verb, such as e.g. a preposition.[34] LEVIN & RAPPAPORT (1986: 643) use the distinction between direct and indirect arguments to formulate the APF rule given in (113.a), whereby the Θ-role which the (active) verb assigns to its direct argument is assigned external to the phrase headed by the related adjectival passive participle.[35]

(113)   *Adjectival Passive Formation*

    a.   Externalise (direct argument)

    b.   {{P;(N:P)}-*en*}/ERG … $\Rightarrow$ {{(N:P);(P;(N:P))}-*en*}/…

In order for (113.a) to go through, LEVIN & RAPPAPORT (1986, 1988: §5) need to posit the lexical representation shown in (114) for a triadic 'locative alternation' verb like *stuff*, where the square brackets enclose the Θ-roles that are internal to the verb's maximal projection and the italicised Θ-role represents the direct argument that is externalised under APF.

(114)   A.   agent [material, location]

        stuff:

               B.   agent [(material), location]

Crucially in these terms *stuff* and other such verbs are lexically associated with two

---

[34] The distinction between direct and indirect arguments which MARANTZ (1984) establishes on the basis of the 'One Role/Role Assigner Principle' seems to confuse, to my mind at least, the notion of 'argument related to the predicate by a labelled constructional relation' (i.e. CR or Θ-role) and the exponence or manifestation of that labelled relation in terms of adpositions or other means such as inflexional marking or word order. As conceived of here, predicate-argument relations are predicate-functor phrase relations (recall §1.1.3):

P(;X) → { } [κ] → N(;X).

Whether the exponence of the functor head and its dependent nominal involves (i) distinct serialisation (MARANTZ' 'indirect arguments'), with the functor as an adposition, (ii) non-distinct serialisation and thus their cumulative expression as a case-marked nominal ('direct arguments'), with case instancing a functor that has been denied periphrastic expression, or (iii) involves both, with an adpositional functor and a (possibly 'degenerate') copy thereof realized simultaneously with the dependent nominal, is a (functionally irrelevant) matter of realization.

[35] LEVIN & RAPPAPORT (1986:§4.3) in fact argue that the externalisation rule in (113.a) is unnecessary, in that externalisation of an argument is a consequence of the rule in (113.b) (their (i) below), which converts a verbal passive participle to an adjective. However, this is immaterial to our concern which is to establish the redundancy of the notion 'direct argument'.

(i)   V[part] $\Rightarrow$ [V[part]]A

alternative patterns of Θ-role assignment, such that in pattern A., in which both internal arguments are obligatory, the 'material' Θ-role is assigned directly and thus available for externalisation by APF, while in pattern B., in which the 'material' argument is optional, the location Θ-role is assigned directly and externalisable by AFP. The ungrammaticality of (111b./c.) is thus explicable in the same terms as that of (111.d).

(111) d.   *Molly stuffed the feathers.

Neither of them meets the lexical valency conditions of *stuff*, which require that on the pattern A. both the material argument as well as the location argument be overtly expressed.

Observe, however, that the attribution to verbs like *stuff* of the dual functional structure in (114) and the lexically idiosyncratic encoding of direct argumenthood it entails rest on the ill-founded assumption that pairs like (111.a) and (112.a) involve an identical set of CRs. This needs to be – but never is – argued for. In fact, on the contrary, as already noted earlier in the brief discussion of 'indirect object' or 'dative-shift' verbs in section 3.2.3, a considerable body of work suggests that locative alternation verbs in English (and *mutatis mutandis* in other languages) are associated with the argument structure shown in (115) (where the distribution of LOC and ABL in (a) and (b) distinguishes ornative from privative verbs) (cf. ANDERSON 1975a,b, 1977, BHAT 1977, BÖHM 1982, JESSEN 1974: ch.7, VESTERGAARD 1973, FOLEY & VAN VALIN 1984: §§2.6, 3.3.1, though the latters' account invokes an unjustified and unnecessary distinction in a 'two-tier' CR system between 'macroroles' and other syn-semantic functions).

(115) a.   P;N/[ERG,ABL] – [<ABS,>LOC] – ABS

        b.   P;N/[ERG,LOC] – [<ABS,>ABL] – ABS

The optional ABS specification in (115), as noted earlier, determines the 'holistic' 'affected location' interpretation of the locative term and enables the LOC argument to appear internally, as in (112.a), and externally (i.e. prepositionally marked) otherwise, as in (111.a). That is, the notion of direct argument is immediately available from the array of CRs present in the predicate-argument structure in (115): the so-called direct argument which is involved in the APF rule and which, in terms of MARANTZ (1984), and LEVIN & RAPPAPORT (1986, 1988), specifically needs to be designated lexically as such, is, again, simply the argument that is residually highest on the CR-hierarchy from which the hierarchically topmost term, the ergative (and potential subject in actives) has been projected out: [ABS,case] if present, and ABS otherwise. It is this argument that is assigned subjecthood in adjectival passives with a predicative (N:P);(P;(N:P)) (derived adjective) head or is (pre/post) modified by the attributive adjective, as in (112.c) and (111.e).

(111) e.   *the feathers stuffed in the pillow*

The conclusion as to the irrelevancy of the notional character of CRs (or Θ-roles) in the expression of syntactic and/or lexical regularities which LEVIN & RAPPAPORT (1986) seek to establish on the basis of the evidence from adjectival passives thus doesn't go through.

5.1.2. There is, however, one aspect of LEVIN & RAPPAPORT's (1986) discussion of adjectival passives which seems to me worth pursuing in the present context, and that concerns their explanation of the ungrammaticality of constructions like (111.a/b). They attribute the ill-formedness of e.g. (111.b), in which an obligatory argument is not expressed, to its violating the Projection Principle (CHOMSKY 1981). The Projection Principle, which in essence formulates an insight which has informed valency grammar and related work since (at least) TESNIÈRE (1959) (cf. e.g. ALLERTON 1982: ch.1, ANDERSON 1975a, 1977: §2.8.3, DIK 1978, 1989: §4.2, LYONS 1977: §12.4, and the references cited there), requires that syntactic representations observe the lexical (sub)categorisation or valency properties of a predicate, and together with the Θ-criterion (cf. CHOMSKY 1981: 36, *passim*) this is usually interpreted to mean that each subcategorised Θ-role projects a distinct overt case-relationally specified argument (position) in the syntax. RIZZI (1986: §1.6) offers a slightly different interpretation of the Projection Principle in terms of which it ensures that syntactic structure reflects 'lexically unsaturated thematic structure'. RIZZI is concerned with 'null object' constructions such as (116),

(116)   *Molly ate*.

in which a subcategorised Θ-role is not projected in the syntax, but, it seems, is understood as part of the lexical meaning of the predicate. And he suggests as a (partial) characterisation of the notion 'optional argument' that in (116) and the like (part of) the predicate's valency is saturated in the lexicon by a lexical rule which assigns an 'arbitrary interpretation' to the Θ-role of theme and thereby prevents the projection of a corresponding argument position in the syntax.

The interest of RIZZI's (1986) discussion of 'null object' constructions in the present context derives from the fact that it is suggestive of a conception of valency saturation whereby 'lexical saturation' of the ABS CR correlates with another argument in the predication being co-specified as ABS. Consider again a locative alternation pair such as (117),

(117) a.   *Molly sprayed* [ABS] *Bushmills* [LOC] *on her plants*.

       b.   *Molly sprayed* [LOC,ABS] *her plants* [ABS] *with Bushmills*.

in which the LOC term in (b), but not in (a), is also ABS, and as such outranks the

simple ABS for object-assignment in actives, and for eligibility for argument sharing and subjecthood in passives. As noted by LEVIN & RAPPAPORT (1986) (and see, too, TODENHAGEN 1974) in their discussion of the 'Single Complement Generalisation', the simplex ABS term (their 'material' argument) in (117.b), unlike that in (117.a), is syntactically optional in the same way in which the ABS argument in (116) is:

(117) c.   *Molly sprayed her plants*.

With agentive-directional ornative verbs of the class which includes *spray* and *stuff* and whose lexical valency requires (apart from the ergative argument) an absolutive and a directional locative, it appears that a single, albeit multiply labelled [LOC,ABS] argument may apparently syntactically saturate the predicate's valency potential, according to the simple ABS ('material') argument the status of an optional participant. Pursuing this idea and abstracting away from locative alternation verbs, it seems worth exploring the hypothesis that the lexical polyadicity (cf. BRESNAN 1982b) of a predicate may in marked instances be satisfied in the syntax in seeming 'argument reduction' contexts by the association of a single term with a multiple CR. With this in mind, consider now the much-discussed problem of derived intransitivity.

5.2. Valency saturation and derived intransitivity: antitransitives and (extended) middles

5.2.1. I have so far been distinguishing (with the proviso made in note [4]) between monovalent intransitive and bivalent (actional) transitive predicates in terms of the absence or presence of an ERG specification in their functional structure (cf. FILLMORE 1968), as shown in (118) and (119) (which for clarity's sake, again, include the ABS specification supplied by the redundancy in (7)):

(118)   P;N/ABS

(119)   P;N/ABS – ERG

And I have distinguished furthermore between two classes of intransitives, viz. non-actional intransitive ('unaccusative'/'ergative' in the somewhat unfortunate terminology of RG and GB) verbs like *fall*, for which (118) is appropriate, and actional intransitives (RG's even more unfortunate 'unergatives') typified by e.g. *work*, in whose functional structure the ABS and ERG specification combine into a complex CR:

(120)   P;N/[ABS,ERG]

The valency structure attributed to actional transitives, however, is clearly deficient.

It fails to take account of the familiar distinction between causative (including existential-causative 'effective' or 'factitive') transitive predicates such as e.g. *change*, *dismantle*, *build*, etc. and 'ordinary' non-causative transitives such as *read* (cf. ANDERSON 1968, 1970a, 1971a: §§5, 11.3, *passim*, 1977, HALLIDAY 1967/68, 1985: §5, LYONS 1968: §8). Among other things, this distinction correlates with the availability in English of distinct 'identifying' forms (in the sense of HALLIDAY 1967/68): in predication questions with verbs of the former type, questioning of the predicate involves *happen* or the 'operative' *do* as a substitute predicate and marking of the non-grammaticalised ABS term with *to*, unlike with non-causatives, which reject *happen* and rather involve the 'dispositive' (HALLIDAY 1967/68) *do* whose ABS argument is marked by *with*.

(121) a.   *What happened to the Aiwa*?

      b.   *What did the kids do to the Aiwa*?

      c.   *The kids/they dismantled it*.

(122) a.   **What happened to the book*?

      b.   **What did Molly do to the book*?

      c.   *What did Molly do with the book*?

      d.   *She read it*.

More important for our present concern is the fact that these two classes of transitives are associated with a different range of intransitive congeners. While both classes of predicates may appear in derived intransitive 'middle' or 'activo-passive' constructions, transitives of the causative type typically display the familiar ergative relationship with an agnate intransitive, with the ABS argument being the relationally and selectionally relevant constant common to both the intransitive and the transitive member of the pair. Non-causative transitives, on the other hand, generally lack an ergatively related intransitive, but have rather 'absolute' 'pseudo-intransitive' uses (showing a 'null object' or 'unspecified object deletion') in which the sole argument of the intransitive corresponds selectionally to the ERG argument of the transitive. These various relationships are shown in (123)-(125).

(123) causative/ergative

      a.   [ERG] *Molly dissolved* [ABS] *the crystals* (*in Bushmills*).　　　transitive

      b.   [ABS] *The crystals dissolved* (*in Bushmills*).　　non-actional intransitive

      c.   [ABS] *Those crystals dissolve easily*.　　　　　　　　　middle

(124) a.   [ERG] *Molly galloped* [ABS,ERG] *the mare* (*round the barn*).　transitive

    b.   [ABS,ERG] *The mare galloped* (*round the barn*).   actional intransitive

    c.   [ABS,ERG] *That mare gallops fantastically*.   middle

(125)   (non-causative) transitive

    a.   [ERG] *Molly read* [ABS] *the instruction man*ual.   transitive

    b.   [ERG] *Molly read* (*all night*).   actional intransitive

    c.   [ABS] *That instruction manual reads well*.   middle

It is clear that, as they stand, the functional structures under (118)-(120) do not account for these various relationships. The following sections will show, though, that the problem posed by (123)-(125) is only apparent.

5.2.2. In the grammar of ANDERSON (1970a, 1971a: §11, 1977: §§2.1.2, *passim*, 1984a: §7.3) (and see, too, HALLIDAY 1967/68, LYONS 1968: ch.8) the ergative relationship displayed by (123.a/b) and (124.a/b), which is in principle available to any predicate with an ABS (whether alone or in combination with ERG) argument as the CR-hierarchically highest argument, is accommodated in terms of a composite lexical entry for the predicate involved: the transitive predicate is associated with a complex (subjunction) structure which includes the 'corresponding' intransitive as a subjoined dependent of a causative predicate. The transitive member of the pair, as it were, incorporates (via subjunction) the dependent intransitive (on incorporation in CG cf. ANDERSON 1971a: ch.11, 1971b, 1977: §§2.6.4, 2.8.10, *passim*, 1984a; cf. also GRUBER 1965, 1976, and the recent 're-invention' in BAKER 1988, and LEVIN & RAPOPORT 1988). Cf. (126) (where the optional ERG specification of the dependent component predicate allows for actional intransitives such as (124.b) and the like):

(126)   <P;N/ERG – <u>ABS</u> ↓> P;N/[ABS <,ERG >] – κ

      (where κ = {ABL,LOC} and may be empty, and <u>ABS</u> signifies that the ABS requirement of the causative component predicate is satisfied by the [ABS<,ERG>] term of the incorporated dependent P;N)

The governing P;N/ERG component predicate, which may be reflexed morphologically by a causative affix, or else, in non-subjoined structures, is realised as a causative verb, is optional with verbs like *dissolve*, where the same form is employed for both the transitive and the intransitive verb, and obligatory with causatives such as *dismantle*, which lack a phonologically identical intransitive congener.[36]

---

[36] Note that this is similar though not equivalent to the analysis of causatives in the Generative Semantics tradition. In particular, (126) is immune to the arguments adduced by some in

On this view of the relationship between ergatively related transitives and intransitives there is no question of non-agentive ('unaccusative'/'ergative') intransitive predications involving movement (or advancement) of the obligatory argument from a D-structural (or initial stratum) object position to S-structural (or final stratum) subject position. The putative 'deep' object properties displayed by the obligatory argument of non-agentive intransitives under the GB or RG analysis of such structures are but a mere reflex of its ABShood, which GB and RG encode 'diacritically' by attributing (initial) 'objecthood' to such arguments (cf. ANDERSON 1980, 1982, 1985a, 1986a, BÖHM 1982, 1983, 1986b). Given (126), then, for causatives, non-causative transitives such as *read*, on the other hand, are characterised simply by the basic transitive functional structure in (119): they lack the causative component predicate and accordingly have no ergatively related intransitives.

The notional properties that distinguish between ABS arguments in causative and non-causative predications and the grammatical reflexes thereof (such as the marking by *to* vs. *with* in interrogatives) can be related to this too and need not be attributed to a primitive CR distinction between 'affected'/'patient' *vs.* 'theme'/'neutral' (cf. the pertinent contributions in WILKINS 1988).[37]

But what now of 'middles', which are available to both causatives and basic transitives? Attributing to them either of the intransitive relational structures in (118) or (120) fails to distinguish middles from basic intransitives and sheds no light on their distinctive notional properties. Sentences like (123.c) are commonly associated with a gnomic interpretation and, as KILBY (1984: 47) observes, typically endow the (referent of the) ABS argument with the notion of 'making a major contribution to the course or outcome of the action exercised upon it' or 'taking on agent properties' and being 'responsible for the action of the verb' (VAN OOSTEN 1985: 88) (for a notional characterisation of middles in English to the same effect see also ANDERSON 1968, 1971a: §5.32, ARONSON 1977, HALLIDAY 1967/68, KÖNIG 1973: §8, LAKOFF 1977: §6.1, LYONS 1968: 366, VAN OOSTEN 1977, among others). And this interpretation does not fall out from the assignment of subjecthood to the ABS

---

the notorious KILL/CAUSE DIE debate (cf. among others FODOR 1970), in that the notional (and grammatical) properties that distinguish between lexical and periphrastic causatives are contingent on and explicable with reference to the availability of the lexical subjunction structure for the former. Cf. ANDERSON 1972: §VII, esp. 123, n. 9.

[37] The ABS complement of the causative verb is, as it were, simultaneously ABS with respect to both the incorporated intransitive as well as the causative component predicate, as is more obviously the case in periphrastic causatives such as the German (48) above. Note, too, that in the light of (126), the functional structures of agentive directionals like *give,* etc. also involve the subjunction of a process (and more specifically in these instances directional/-change-of-state) predicate under a causative, as argued for in ANDERSON (1971a, 1977, 1986a) and BÖHM (1982, 1986a).

argument as such (say, as a 'semantic back-effect' in the sense of DANEŠ 1968), nor does it follow, as far as I can make out, from anything like the rule of middle-formation in GB terms, whereby middles, like passives, involve 'externalisation of the direct Θ-role' (cf. Keyer & ROEPER 1984: §5.1, FAGAN 1988: §4).

5.2.3. What all of this and, in particular, the gradience of notional 'agent' properties suggested by the above descriptions is indicative of is an extension of the dependency notation employed in the characterisation of word classes to the CR partition or sub-gesture of the categorial structure which characterises the class of functors. Recall that in terms of the notional characterisation of word classes in section 1.1.2, the CR labels provided by the localist hypothesis serve to identify subcategories of the otherwise categorially unspecified class of functors. Suppose now that in the absence of any specification for the major 'contentive' class features (i.e. N and P) and, independently of this, given that secondary categories (as in the phonology) are so structurable anyway, it is the elements of the CR partition that are internally structured by the non-symmetrical relation of dependency. As before, a CR specification may thus be individually present or combine with another distinct CR specification, but if in combination the individual components may be of equal or unequal 'strength'. For a complex CR involving ABS and ERG this yields the systemic possibilities shown in (127):

(127) a.   ABS:ERG

       b.   ABS;ERG

       c.   ERG;ABS

I am proposing, then, that the structured complexes of ABS and ERG, as given in (127), together with the derivativeness or otherwise of the combination provide the basis for the distinction between basic intransitives and non-basic (antitransitives/middles and 'absolute') intransitives. Basic intransitives involve a governing occurrence of ABS, either of ABS alone or in combination with an equally governing instance of ERG, such that the presence of both ABS and ERG in the complex is not derivative of the availability of a functional structure which contains an uncombined occurrence of each of ABS and ERG. The two classes of basic intransitive predicates, non-agentive intransitives (like *dissolve*) and agentive intransitives (e.g. *work*), are associated with the lexical functional structure shown in (128.a), which combines (128) (b) and (c) and may appear as the intransitive component structure in the causative predicate frame in (126).

(128)   *basic intransitives*

    a.   P;N/ABS <:ERG>

    b.   P;N/ABS   non-agentive intransitive ('unaccusative'/'ergative')

    c.   P;N/ABS:ERG   agentive intransitive ('unergative')
                              (i.e. P;N/ABS,ERG in the absence of the 'parasites' in
                              (129))

Unlike (127.a), the asymmetrical combinations of ABS and ERG in (127.b) and (127.c) are derived. That is, the functional structures in (129), which I take to characterize respectively antitransitives/middles and derived 'absolute' active intransitive,

(129)   *derived intransitives*

    a.   P;N /ABS;ERG   antitransitives/anticausatives/middles

    b.   P;N /ERG;ABS   derived agentive intransitives

are parasitic upon the functional structure of transitive predicates (whether causative or not, cf. (123)-(125)), as formulated in the redundancy rule in (130):

(130)   P;N /ERG – ABS ⇒ (129)

5.2.4. Looked at in these terms, antitransitives/middles result from aligning the ERG CR feature of a transitive predicate with the ABS CR feature, giving a complex in which ERG depends on ABS.[38] Conversely, in absolute agentive intransitives the ABS CR feature aligns with the ERG to yield a composite CR in which ERG is dominant.

This immediately accounts for the differences in interpretation between middles and basic intransitives, and in particular for the weak 'quasi-agent' understanding of the ABS argument in middles like (125) without having to claim that they involve a fully-fledged agentive combination of ERG and ABS. The agentive interpretation of composite [ABS,ERG] terms requires a governing occurrence of ERG, as in basic and derived agentive intransitives. Antitransitives/middles, wherein ERG in the [ABS,ERG] complex is a dependent component, accordingly fail to be interpreted agentively and do not participate in syntactic regularities (imperative formation, etc.) available to agentive ergative arguments. Notice, too, that (129.a) provides a straightforward explanation of the fact that middles, unlike passives, resist the pres-

---

[38] Compare in this connection BARBER's (1975: 21) suggestion that 'it might even be possible to view the middle as <u>shifting</u> NP's, in the special case in which two NP's are identical (i.e., an NP gets moved up to <u>and merged with</u> the subject)'.

ence of (a non-subject) ergative argument. In passives, the subcategorised ERG CR may remain syntactically inert, along the lines suggested in section 3.1.3 (and recall RIZZI's 1986 characterisation of 'optional arguments'). In middles, on the other hand, the predicate's ERG feature, rather than being inert, is syntactically saturated once the CR is associated with a nominal in the syntax: it is the CR complex, and not its components, that projects an argument position in the syntax.[39]

Various languages, in response to the valency properties of the transitive predicate from which the corresponding intransitive is derived, seem to 'retain' a case-relationally vacuous position in antitransitives. When realised, this 'position' is typically (if not universally) manifested by a 'fake' (i.e. non-CR bearing) reflexive formative, as in the examples below from German, Russian and Italian.

(131) a. *Das Pferd reitet sich gut*.
           'the'(NOM) 'horse'(NOM) 'ride':PRES3SG REFL 'well'

       b. *Dver' otkrylas*.
           'door' (NOM) 'close':PAST:REFL

       c. *Il motore si è fermato*.
           'the'(NOM) 'engine'(NOM) REFL 'be':PRES3SG 'stop':PTII

Antitransitive-formation, that is, more generally involves the redundancy given in (132), where <N/REFL> is a language and/or construction-specific option (cf. e.g. FELLBAUM 1989, LAKOFF 1977, VAN OOSTEN 1985 on reflexive middles in English) which may either be projected into the syntax or else, as signalled by the subjunction or 'incorporation' option, appear as part of the verb's morphology (cf. DIK 1983, 1985).

(132)   *antitransitive/middle formation*

          P;N/ERG – ABS $\Rightarrow$ P;N/ABS;ERG – <($\downarrow$) N/REFL>

(132) would go some ways towards providing a unified generalisation for the distribution of reflexive formatives. Canonically, reflexives serve to signal referential identity of the ERG and ABS argument in an actional predication, where referential identity may hold predication-internally between an ERG and an ABS argument

---

[39] To explain the impossibility of a *by* erg ('agent') phrase in middles, KEYSER & ROEPER, on whose account 'the (middle, RB) rule is fully analogous to passive formation' (1984: 402), are forced to assume (following CHOMSKY 1981: 271f.) that 'English has an abstract *si* clitic that absorbs case and the agent theme (sic, RB), but [...] is inexpressible'. This has some merit, but I fail to see how it is to provide for the notional properties of middles in general (cf. LYONS 1968: §8.3.2, BARBER 1975). (129.a) offers at least a promise of a notional characterisation which accords with the traditional understanding of the 'middle voice'.

(clausal reflexivity) or argument-internally (phrasal reflexivity) by virtue of a single argument combining ABS and ERG. In the former case, the reflexive term is a 'proper' referential argument bearing the ABS CR; in the latter, the reflexive is a 'fake argument' that bears no CR: the dependency relation between N/REFL and its predicate is non-functional in the sense that the functor category is not secondarily specified for a CR (cf. ANDERSON 1971a: §4.5 on the notions of 'clause-internal' and 'phrase-internal' reflexivity and see further §5.3 below; cf. also the multiattachment analysis of reflexives in Relational Grammar argued for in e.g. AISSEN 1982, ROSEN 1984 and surveyed in BLAKE 1990: §3.1).[40]

(132) also seems to solve the residual problem registered in note [30] above with respect to non-agentive motion verbs and perfect auxiliary selection in German. A verb like *bewegen* ('move') in German selects *haben* in the perfect, irrespective of whether in terms of the CR(s) associated with its obligatory argument(s) the basic predication is agentive transitive, agentive intransitive or non-agentive intransitive. This just reflects the character of the predicate frame of *bewegen* and such like, which like that of the English *move* is causative, but which, unlike that of *move*, is not ergative: the verb may not be associated with only the intransitive subpart of the functional structure in (126). That is, whereas for *move* in English (126) is appropriate (cf. ANDERSON 1977: §3.3.6), with e.g. (the pretty 'hocus-pocus') (133) instancing only the (non-actional) intransitive substructure,

(133)   *The table just moved.*
                ABS

German *bewegen* has the functional structure shown in (134).

(134)   P;N/ERG – <u>ABS</u> ↓ P;N/ABS

---

[40] This does not, of course, commit us to the view that 'true' reflexives are necessarily transitive syntactically. Rather, a transitive structure with a reflexive ABS nominal represents one of the two syntactic patterns to express ERG – ABS coreference in an actional predication. The other pattern, which is predominant in e.g. various Australian languages (cf. e.g. DIXON 1977:§4.2 on Yidin^y, and more generally AISSEN 1982, DIXON 1980: §§12.1, 12.4, *passim,* DIK 1983, GIVÓN 1990: §14.7, NEDJALKOV 1980), involves detransitivization, with ERG and ABS combining into a single CR, albeit one in which (as in basic agentive intransitives) the CR components are mutually governing:

(i)   *agentive intransitive reflexive formation*

         P;N/ERG – ABS ⇒ P;N/ERG:ABS – <(↓)N/REFL>

The appearance of a reflexive marker thus remains semantically natural across otherwise distinct predication types; cf. further §5.3. Note, too, that designation of the reflexive element as N/REFL is not meant to suggest that it is (either synchronically or diachronically) necessarily nominal (cf., again, DIK 1983).

A sentence like (135) is a middle or anticausative (cf., too, CRANMER 1976, WUNDERLICH 1985). Its functional structure is lexically derived from the causative predicate-argument structure in (134) via (132), and it shows the presence of *haben* in the perfect in accordance with the generalisation (specific to German) that *haben* appears in the perfect of predications containing an ergative argument, regardless of whether ERG is associated with ABS (as in actional intransitives and antitransitives/middles) or not (as in transitives).

(135)   a.   *Der Tisch* [ABS;ERG] *bewegt sich*.
                  'the'(NOM) 'table'(NOM) 'move':PRE3SG REFL

        b.   *Der Tisch hat sich bewegt*.
                  'the'(NOM) 'table'(NOM) 'have':PRE3SG REFL 'move':PTII

The account of derived intransitives given so far fails to explain the difference in interpretation beween antitransitives like (130), (131) and (135), and the middle in (129). They share the weak 'fake-agent' interpretation of their ABS argument, but the anticausatives are event-specific, while (129), in contrast, like the (c) sentences in (123)-(125), has rather a 'de-actualized' or 'gnomic' interpretation; the latter describes a 'disposition' rather than an event (cf. WAGNER 1977b, following RYLE 1949). This distinction in interpretation seems to correlate with the absence *vs*. presence of an 'adverbial extension' or 'elaborator' (cf. ALLERTON 1982: 91) in the derived intransitive predication which (other things being equal) appears to be obligatory with antitransitives/middles derived from transitive verbs other than causative-inchoatives.[41]

---

[41] Cf. KAHREL (1985) for discussion of the full syntactic range of extensions. The (seeming) obligatory presence of an 'extension' with a subset of antitransitives relates to properties of the information structure of the anti-transitive construction and has to do with the communicative inappropriacy of the predicate (in the unmarked instance) bearing information focus, while the assertion made by the unelaborated or unextended predication is (relatively) 'uninformative' or 'informatively infelicitous' (in the sense of LYONS 1977: §2.1 and GIVÓN 1979: §3.2). With unextended middles (and other things being equal), the assertion lacks, as it were, the element of 'choice, or the possibility of selection between alternatives [which] is a necessary […] condition of meaningfulness' (LYONS 1977: 33). This is perhaps why middles derived from causative inchoative or change-of-state predicates, i.e. those predicates which encode 'journeys' between complementary states, occur relatively freely in unextended middles and, conversely, middles derived from non-causatives require 'qualification' – whether by e.g. a 'modal' adverbial or by negation – whereby the property which the predicative expression ascribes to the referent of the [ABS;ERG] argument is rendered communicatively significant.

On the 'meaning(fulness) implies choice' principle (LYONS 1977: §2.1) in relation to the valency properties of locative-postural and manner-of-motion verbs see the references cited in note [28].

5.2.5. In his Functional Grammar analysis of derived intransitivity, KAHREL (1985: §5) suggests that the 'de-actualized' interpretation of an 'extended middle' like (136)

(136)   *That shirt washes easily.*

is the outcome of a two-stage predicate-formation rule which takes as its input the predicate frame of a transitive action predicate and turns it into the predicate frame of a state predicate, as outlined for (136) in (137) (cf. DIK 1985: §2, KAHREL 1985: §§4-6).

(137) a.   [*wash*$_{VERB}$ (X$_1$)$_{AGENT}$ (X$_2$)$_{GOAL}$]$_{ACTION}$ (*easily*)$_{MANNER}$

         b.   [*wash*$_{VERB}$ (X$_1$)$_{PROCESSED}$ (*easily*)$_{MANNER}$]$_{PROCESS}$

         c.   [*wash*$_{VERB}$ (X$_1$)$_{ZERO}$ (*easily*)$_{MANNER}$]$_{STATE}$

(where AGENT and GOAL are FG's labels for the semantic functions of the arguments of a transitive action predicate, ACTION, PROCESS and STATE label the situation type designated by the predication, and PROCESSED and ZERO designate the semantic function FG assigns to the obligatory argument in PROCESS and STATE predications, respectively).

The stage shown in (b) of (137) 'absorbs' the MANNER satellite of (a) and changes the input ACTION predicate frame to that of a PROCESS predicate by removing the AGENT argument. The output stage (c) involves what KAHREL (following DIK 1985: 5) refers to as a 'semantic function shift', whereby the PROCESSED argument of (b) assumes the semantic function of ZERO, which FG attributes to the 'first argument' in STATE predications.

DIK (1985: §1) derives the 'semantic function shift' involved in the transition from (a) to (b)/(c) from a 'Principle of semantic adjustment'. With respect to derived intransitives, this principle embodies the claim that a derived monovalent construction tends to adjust its semantic properties to those of either of the two basic monovalent predication types, STATE and PROCESS. Now, while this is plausible enough with respect to the ACTION $\Rightarrow$ PROCESS transition, given the absence in the latter of an AGENT argument, it is simply not clear how this is to account for the PROCESS $\Rightarrow$ STATE shift. The interpretation of the derived intransitive as designating a process or a state is not a matter of arbitrary choice, but correlates with the absence or otherwise of an adverbial 'extension' and this (137) fails to make plain. What is more, the appeal to 'semantic function shift' may be no more than a reflection of FG's redundantly rich inventory of semantic functions or CRs. GOAL, PROCESSED and ZERO, as it were, do not label functionally distinct relations, but are distinct labels for one and the same relation type, viz. the ABS CR, whose predication-particular functional value is determined by its governing predicate and other argument types whose presence in a predication is required to satisfy the predicate's valency. That

is, GOAL is the label given to the ABS relation in a predication also containing an ERG argument, PROCESSED designates the ABS function in predications lacking an ERG but containing typically directional locative arguments, etc. (cf. MACKENZIE's 1980 critical evaluation of FG and CG in this regard, and see, too, on the inventory of semantic functions in FG the recent discussion in SIEWIERSKA 1991: §3.5). Rather than (136) and the like showing the effect of 'semantic function shift', it seems that the 'de-actualized' 'dispositional' interpretation of extended middles is determined compositionally by the tense properties of the finite verb and the functional relations the derived subject argument bears to both the predicate of the middle predication and the 'extension' predicate.

In the present terms, there is associated with extended middles like (136) the initial structure shown in (138).

(138)


```
                   LOC      ABS,LOC   ABS;ERG
                    |                   |
       P           P:N                  N         P;N
      ABS           :                   :          :
                    :                   :          :
                 easily            that shirt    wash
```

(138) introduces the adverbial P:N predicate (together with the middle predication) as a dependent of the ultimate P-head of the construction and assumes, more specifically, that the adverbial instances a locative (or, alternatively, [LOC,ABL]) ('path'/ 'manner') functor (phrase). The valency of the LOC functor is saturated item-internally by subjunction of its P:N dependent, unlike in e.g. *that shirt washes with ease*, where the adverbial extension is more transparently locational on account of the fact that the functor head and its dependent are serialized distinctly. The adjective, in turn, projects an empty argument position whose [LOC,ABS] CR specification induces the 'dispositional' interpretation and modal connotations of the construction

(on the latter cf. ANDERSON 1971a: §5.32 and HALLIDAY 1967/68: 47, and the references to earlier work).[42] The 'subsequent' development of (138) involves argument sharing, which associates the [ABS;ERG] term of the middle with the [ABS,LOC] introduced by the P:N predicate, and subjunction of the P;N predicate under P, which (together with serialization of the subject term) eventuates in the derived structure shown in (139).

---

[42] As (138) shows,the middle P;N predication is also dependent on the P:N predicate. This P:N → P;N dependency relation has a lexical analogue in the categorial structure of the deverbal modal adjective in the sentence type exemplified by (i), which is frequently cited as being 'related' to middles.

(i)   *That shirt is washable.*

In the *V-able* adjective in (i), the pertinent dependency relation holds item-internally: in the categorial structure of the derived adjective, the P:N specification, which is realized in morphological structure by the *-able* suffix, but otherwise introduces no lexical material, governs the P;N specification of the lexical root.

In unextended middles such as (ii), which share the modal interpretation with (136) (cf. KAHREL 1985),

(ii)   *That sofa converts into a bed.*

the [LOC,ABS] position involved in argument sharing is provided by an empty P;N, which has the middle predicate subjoined under it.

The German construction typified by (iii) (see e.g. HÖHLE 1978, FAGAN to appear, WAGNER 1977a,b)

(iii)   *Dieses Hemd läßt sich* (*von allen*) (*leicht*) *waschen*.
         'this'(NOM) 'shirt' (NOM) 'cause':PRES3SG REFL ('by' 'everyone') ('easy') 'wash':INF

shows the combination of middle and ergative syntax. The dependent *waschen* predication is a plain ordinary transitive lacking subject-formation (as witnessed by the optional *von*-marked ergative phrase). What is a middle in (iii) is the causative *lassen;* its [ABS;ERG] hosts the ABS nominal of the embedded transitive predicate via argument sharing.

(139)

```
                           •
                          ╱│╲
                         ╱ │  •
                        ╱  │  │
                       ╱   │  •
                      ╱   ╱ ╲ ⋮
                     •   ╱   ⋮
                     │  ╱    ⋮
                     •  •    ⋮
                     ⋮  ⋮    ⋮
                     ⋮  ⋮    ⋮
                     ⋮  ⋮    ⋮
                  ABS,LOC  P   ⋮
                  ABS;ERG  ABS  LOC
                     │    │    │
                     N   P;N  P:N
                     ⋮    ⋮    ⋮
                     ⋮    ⋮    ⋮
                 that shirt washes easily
```

In derived structure, the [ABS;ERG] argument of the middle predication also bears the [LOC,ABS] relation of a state predicate. Extended middles, that is, are 'syntactic blends' (perhaps in the sense of BOLINGER 1961). Their characteristic (gnomic) understanding of 'dispositional' properties or qualities of the referent of the [ABS;ERG] argument enabling or contributing to the process denoted by the lexical verb, is determined compositionally by a merger or blend of a derived intransitive process predication and an adjective-headed property-denoting predication. The relationally primary argument is associated with both the [LOC,ABS] ('possessor of a quality') CR of a 'modal' adjectival predicate and the [ABS;ERG] ('fake agent') CR of the process predicate which incorporates an appropriately specified finite P.

5.3. Valency saturation and derived intransitivity: actional/agentive intransitives

5.3.1. Just as antitransitives/middles show realignment of a subcategorized ERG feature with the ABS CR, so absolute derived actional intransitives in terms of (129) involve realignment of the predicate's subcategorized ABS feature with ERG: the relationally primary argument of derivatively intransitive verbs like read, paint, perform, etc. is [ERG;ABS]. It is this which underlies the felicity of both (141) with a basic agentive transitive and (142) with a derived actional intransitive said in response to a question like (140).

(140)   *What did Molly do <u>with herself</u> last night*?

(141)   *She worked* (*all night*).

(142)   *She read* (*all night*).

Although some may perhaps find any notion that the subject argument in (142) and such like bears a multiple [ERG;ABS] CR even more repugnant than the corresponding analysis of middles, given that such an analysis seems to be exactly what is precluded by the Projection Principle (cf. e.g. the discussion in RADFORD 1988: §7.14 of absolute intransitives, and see below), the proposal that the ERG CR in (142) and the like enters into a complex-internal relation with a dependent 'weak' ABS CR specification is not without external motivation.

Consider, for instance, the grammar of 'resultative co-predications' or 'extensive attributives' in English (cf. HALLIDAY 1967/8: §3). This construction is exemplified by (143) and (144):

(143)   *Molly froze the whiskey solid*.

(144)   *Fred melted the wax into a liquid*.

(143)/(144) are argument-sharing constructions (cf. NICHOLS 1978, MATTHEWS 1981: ch.8) in which a single nominal is simultaneously both the ABS ('patient') argument of the actional verb and the ABS ('locandum') term of a secondary locational predication that surfaces as the adjective in (143) and as the locative phrase in (144). I am assuming that despite its syntactic omissibility the resultative term in such sentences is an obligatory complement of the 'main' or 'primary' predicate, which projects the functional structure shown in (145).

(145)   P;N <↓P;N↓P;N>/ERG – ABS <LOC/N;>

    (where N; = P:N, i.e. an adjective as in (143), or N;P as in (144))

The <↓P;N …> part of (145) abbreviates a subjunction path which includes – apart from the predicate overtly expressed in (143) and (144) – a causative and a directional component predicate, both of which are overtly realized in the 'representationally significant paraphrase' (GRUBER 1976: 272-274) of (143) given in (146).[43]

(146)   *Molly's freezing the whiskey made it go solid*.

The resultative phrase in (143) and the like is obligatory, as it were, by virtue of the primary lexical verb in its extended meaning in such constructions 'incorporating' a directional (change of location/state) component predicate with respect to which the resultative functions as a directional locative ('goal') complement.

---

[43] On the internal complexity of the primary verb in resultative constructions along the lines assumed here see, among others, ANDERSON 1972: §VII, GREEN 1970, 1973, GUERSSEL ET AL. 1985, JESSEN 1974: ch.7, LEVIN & RAPOPORT 1988, PLANK 1985, TALMY 1975, 1985.

Apart from involving the ABS argument of a transitive predicate in argument shar-
ing, as in (143) and (144), the resultative may also share its ABS argument with that
of an intransitive 'primary' verb, as in e.g. (147) and (148).

(147)   *The whiskey froze solid*.

(148)   *Molly blushed red*.

In other words, argument sharing in resultative constructions displays the familiar
ergative pattern: the ABS relation of the resultative is linked to the ABS term of an in-
transitive or a transitive predicate which is derivatively assigned subject or object-
hood in a GR-forming language in conformity with the CR-hierarchy. This 'erga-
tive orientation' of resultatives is a corollary of the functional structure of the pri-
mary predicate and, in particular, of the verb's incorporating a directional compo-
nent predicate. The entity designated by the ABS term of what appears superficially
as the main predicate in (143)/(144) and similarly in (147)/(148) cannot but be iden-
tical with the entity to which the ending-point location designated by the resulative
complement is attributed. Pace SIMPSON's (1983: 144) claim to the contrary, there
is a 'semantic reason' for the 'ergative orientation' of the construction and the im-
possibility of the resultative being predicated of the ergative argument (or subject
for SIMPSON) of a transitive: (143), for instance, cannot be interpreted to mean that
the referent of the ergative argument (i.e. Molly) became solid as a result of her
freezing the water of life. Stated in crude notional terms, an argument (ERG) that
designates the instigator but not the 'undergoer' (ABS) of a change of location
(/state/condition), cannot – as a result of its referent not having 'moved' – have a
goal location co-predicated of it in a (superficially) simple sentence.

As SIMPSON (1983: 144ff.) notes, the subset of intransitives dubbed 'unergative' in
RG may also take a resultative complement, but unlike the non-actional 'unaccusa-
tives' in (147) and (148), they require the presence of what she refers to as a 'fake
reflexive', as in (149):

(149)   *Molly danced herself tired/into a trance*.

Ignoring for a moment the question as to whether the reflexive in (149) is indeed a
'fake reflexive' in the sense of the term employed in 5.2 above, it is clear that the
presence of the resultative complement as such with agentive intransitives is possi-
ble in the first place only by virtue of their obligatory argument being labelled
[ERG:ABS]. For the notional reason suggested above, predicating a (goal) loca-
tion/state/condition of an entity requires that there be a 'moving entity', so that ex-
tensive attribution cannot by the very nature of the beast involve an argument that is
not labelled as ABS. By the same token then, the primary argument of an absolute
derived agentive intransitive verb must be ABS as well, as indeed it is on the re-
alignment analysis argued for here, given the viability of e.g. (150)-(152).

(150)   *Fred read himself half-blind*.

(151)   *Molly ate herself sick*.
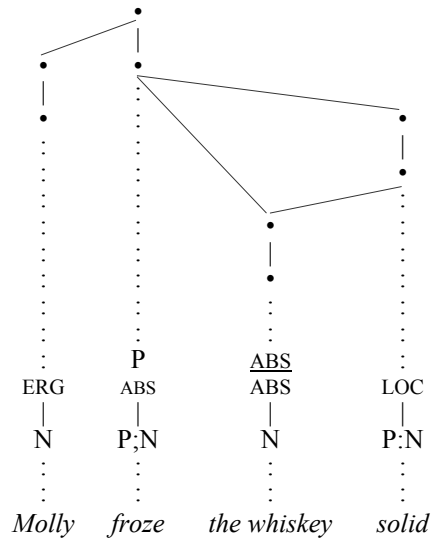
(152)   *They drank themselves into the grave*.

The complex [ERG:ABS] terms of basic agentive intransitives and [ERG;ABS] arguments of derived agentive intransitives pattern like simplex absolutives in enabling the presence of a resultative complement, but remain distinct from simple absolutives, as witnessed by the presence of the reflexive in (149)-(152).

The appearance of the reflexive is an immediate consequence of the primary argument in these intransitives being labelled as ERG as well as ABS. The resultative complement co-predicates a location of an ABS via argument sharing, never of an ERG. There is then a conflict in agentive intransitive resultative constructions in that the potential ABS host for argument sharing is illicitly also ERG, and this is resolved by the independent saturation of the CRs of the primary and the secondary predicate. With agentive intransitive predicates the resultative construction simply does not and cannot involve argument sharing. SIMPSON's (1983) putative 'fake' reflexive in (149)-(152) is the ABS argument of the 'secondary' locational predicate that is coreferential with the [ERG,ABS] term of the primary predicate. But the reflexive ABS bears no functional relation to the intransitive main predicate, unlike the ABS term in e.g. (148), which does via argument sharing, and where accordingly no reflexive appears (but cf. below). The reflexive in (149) etc., like the non-reflexive absolutives in (153) and (154), is a 'fake argument' only relative to the primary predicate in not being related to it by a functional relation, i.e. a CR.
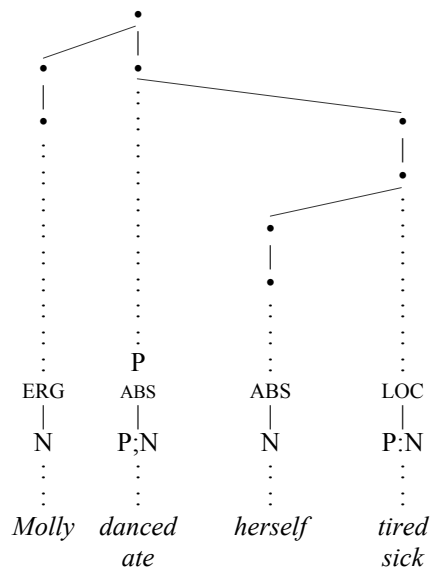
(153)   *Molly drank him under the table*.

(154)   *She ate the fridge empty*.

(143)/(144) (and *mutatis mutandis* (147)/(148)) are appropriately represented by the dependency graph given in (155); the agentive intransitive constructions involve rather the dependency relations shown in the graph in (156) (where [ERG,ABS] is [ERG:ABS] for *dance* and [ERG;ABS] for *eat*).

(155)

	P	<u>ABS</u>	
ERG	ABS	ABS	LOC
N	P;N	N	P:N
Molly	*froze*	*the whiskey*	*solid*

(156)

	P		
ERG	ABS	ABS	LOC
N	P;N	N	P:N
Molly	*danced*	*herself*	*tired*
	ate		*sick*

5.3.2. Although the reflexive in e.g. (150) is not a 'fake' reflexive in the sense of 5.2.4, there is nevertheless an interpretation in which derived agentive intransitives, like antitransitives/middles, may be said to involve a proper non-referential fake re- flexive, viz. as a mark of their derived status (vis-à-vis the corresponding basic tran-

sitive predicate) and, more significantly, as a signal of the weak phrasal reflexivity of their [ERG;ABS] argument, as in the Russian and Swedish examples under (157) and (158):

(157)   *Sobaka kusaet-sja.*
          'dog'(NOM) 'bite':PRES3SG-REFL

(158)   *Hund-en bit-s.*
          'dog'-DEF(NOM) 'bite':PRES-REFL
          'the dog bites'

That is, analogously to the antitransitive-formation rule in (132) above, we can think of agentive detransitivisation likewise 'retaining' (again language and/or construction specifically) a non-functional position that may be realized on the expression plane by a non-referential reflexive formative:

(159)   *detransitivisation/derived agentive intransitive formation*

          P;N/ERG – ABS $\Rightarrow$ P;N/ERG;ABS – <($\downarrow$) N/REFL>

In this way, as already hinted above, we arrive at a semantically natural characterisation of the prototypical environments in which a reflexive may appear: viz. predications with coreferential ERG and ABS terms, such that the coreference relation obtains either predication-internally between two arguments or, as in derived intransitive constructions (including unsurprisingly reciprocals and those involving conjoined Ns), argument-internally, with ERG and ABS combining into a multiple [ERG,ABS] CR. The precise character of the complex-internal dependency relation (i.e. mutual *vs.* unilateral government), in turn, distinguishes between 'true' reflexive and 'fake' reflexive detransitive constructions: the former involve an [ERG:ABS] argument, the latter an [ABS;ERG] or [ERG;ABS]. This seems to me to be rather more revealing than the attempts to explain the presence of a reflexive formative in derived intransitive constructions as a mark of argument reduction per se (cf. DIK 1983, 1985, COMRIE 1985a). COMRIE (1985a: 328) (following BABBY 1975), for instance, suggests that in Russian the reflexive marker -*sja/-s'* 'indicates that the direct object of the basic verb to which it is attached is absent' (cf. also BABBY & BRECHT 1975: §§4 and 9, HORN 1977). But this is a spurious generalisation in terms of which the presence of a coreference signal, a reflexive (rather than some other imaginable formative that might signal 'object removal') is quite adventitious.

As with other notionally motivated and semantically transparent regularities, the presence of a reflexive formative in derived intransitives may be subject to grammaticalisation and so become semantically opaque on account of the syntax providing a relational argument specification in response to which the reflexive is introduced. This is what underlies the so-called 'reflexive passives' in languages like Russian and Swedish, exemplified by the sentences in (160) and (161), respectively (cf. ANDERSEN 1989, BABBY 1975, GIVÓN 1990: §14.7, HAIG 1982, HAIMAN 1976,

KEENAN 1985: §§2.1.1, 3.2, NEDJALKOV 1980, SIEWIERSKA 1984, 1988 for perti-
nent discussion).

(160)   *Doma strojat-sja rabočimi.*
             'houses'(NOM) 'build':PRES3PL-REFL 'workers':INST

(161)   *Boken skrev-s.*
             'book':DEF(NOM) 'write':PAST-REFL

However, in the present terms, rather than (160) and such like constituting passive
constructions (that would conform to the characterisation of passives as involving
argument sharing), they represent instances of marked default subject-formation in
actional transitive clauses. The appearance, that is, of the reflexive clitic in such in-
stances is 'triggered' by the lack of subject-formation with respect to the ERG argu-
ment of an actional transitive predicate and default subject-formation applying to the
ABS argument. The ABS term thereby comes to be labelled as [ABS,ERG], and it is in
response to this, i.e. the presence in an actional predication of an ABS argument that
is also derivatively specified for ERG, albeit, in this case, the grammaticalized ERG
introduced by subject-formation, that the reflexive clitic appears.[44] This grammati-
calized use of reflexive morphology in what are commonly called 'reflexive pas-
sives' presupposes and may be considered a de-semanticized extension of the em-
ployment of a reflexive formative in predications involving an argument with a de-

---

[44] This also reveals a certain amount of (at least terminological) indeterminacy with respect to
the active-passive dichotomy which appears to be rather unhelpful to the extent that it fails to
distinguish between marked instances in an accusative system of ABS <u>default</u> subject-
formation in actional transitive predications, which yields a formally active construction, and
unmarked <u>orderly</u> ABS subject-formation via argument sharing in (non-actional) intransitives.
The resulting obfuscation of the distinction between active *vs*. passive form and/or function is
amply demonstrated by the discussion in e.g. ANDERSEN (1989, 1990) and SIEWIERSKA (1984,
1988) of conflicting analyses of 'reflexive passives'. Observe, too, in this connection that
e.g. Russian in addition to constructions like (160), wherein the abs term of a transitive action
predicate is assigned both cyclic and post-cyclic subjecthood by default, also has cyclically
subjectless impersonal constructions like (i) and (ii) (cf. BABBY & BRECHT 1975:§7, MEL'ČUK
1979, SIEWIERSKA 1988:§5), showing lack of subject-formation with respect to non-
prototypical (i.e. non-animate denoting) ERG arguments and failure of even the ABS term, as
potential default subject, to have subjecthood assigned to it.

(i)   *Polja*   *pobilo*   *gradam.*
       'field':PL.NEUT.ACC   'crush':PAST3SGNEUT   'hail':INST

(ii)   *Dambu*   *rasbilo*   *vodoj.*
       'dam':SG.FEM.ACC   'break':PAST3SGNEUT   'water':INST

Notice that, in keeping with the suggested source of the 'reflexive' marker in (160) and the
like as signalling the presence of a derived [ABS,ERG] argument, the predicate in (i) is not
morphologically marked by *-sja*.

rived [ERG,ABS] specification. With ANDERSEN (1989), I am thus taking it that there is nothing inherently 'passive' about the reflexive morphology in e.g. (160) (cf., too, KEENAN 1985: §2.1.1). What a sentence like the Russian (160) may be said to share with the (perfective) argument sharing (periphrastic) passive in (162) (KEENAN 1985: 254) below is the absence of subject-formation with respect to the ERG argument. (160) reconciles this with the subjecthood requirement by (cyclic and post-cyclic) default subject-formation of the ABS term, unlike (162), wherein the ABS argument is available for 'orderly' subject-formation by virtue of being hosted via argument sharing by the ABS of a syntactically intransitive predicate.

(162)   *Doma byli postrojeny rabočimi.*
          'houses'(NOM) 'be':PAST3PL 'build':PART:3PL 'workers':INST

5.3.3. The limiting case of the reflexive generalisation I have just established is instanced by impersonal intransitive reflexive constructions, of which the German (163) is an example.

(163)   *Es tanzt sich gut hier*.
          EXPL('it') 'dance':PRES3SG REFL 'good' 'here'

Such impersonal reflexives, universally it seems, show the rather tight restriction of being available only to agentive intransitive predicates, a fact which has led some to lump them together with impersonal passives under the passive heading and analyse a sentence like (163) as a 'reflexive impersonal passive' (cf. PERLMUTTER & POSTAL 1984b: §4). This is unfair to the construction typified by (163) (as well as perhaps to those who have argued at painstaking length against it's being analysed as a passive, cf. WAGNER 1977a,b). The trouble with a passive analysis is that (163) shows none of the formal features that are otherwise characteristic of passives in German (and mutatis mutandis in other languages). In fact, it looks suspiciously like (the extended variety of) a middle I discussed in 5.2 above. And not only does it look like a middle, it also interprets like one. A sentence like (163) displays all the grammatical and notional properties of extended middles: the adverbial extension is obligatory to it and it invariably has the modal connotations as well as the dispositional interpretation characteristic of extended middles. Impersonal passives have none of these properties. An analysis which imputes to (163) and such like the relational properties of an impersonal passive fails to explain this, and plays havoc with the not unreasonable assumption embodied in the CG hypothesis in (2) above that the relationship between syntactic form and function is not completely arbitrary (cf. also GIVÓN 1990).

A hint as to the grammar of sentences like (163) is provided by the fact that (163) involves a basic non-derived actional intransitive predicate. (164) shows that the predicate may also be an actional intransitive derived by (159).

(164)   *Hier liest/raucht es sich ungestört.*
           'here' 'read'/'smoke':PRES3SG EXPL('it') REFL 'undisturbed'

The set of intransitive predicates to which the impersonal intransitive reflexive construction is available can thus be described in terms of their taking an argument with a composite CR specification in which ERG governs ABS. The extended middle construction, as I argued in 5.2, on the other hand, is formed with intransitives whose core argument is derivatively [ABS;ERG] by (132), i.e. labelled by a complex CR in which ERG depends on ABS. Given this, it will be clear that the impersonal intransitive reflexive construction exemplified by (163) and (164) is the syntactic projection of the output of the derivational relationship described by (165).

(165)   (*impersonal*) *intransitive reflexive middle formation*

        a.   P;N/ERG:ABS ⎤
                           ⎥ ⟹ P;N/ABS;ERG/↓N/REFL
        b.   P;N/ERG;ABS ⎦

(165) reverses the dependency relation holding between the components of an initially ERG-dominated [ERG,ABS] complex and yields a derived ABS-dominated [ABS;ERG] combination. Readers familiar with work in Dependency Phonology (ANDERSON & DURAND 1989, ANDERSON & EWEN 1980, 1987, DURAND 1990: ch.8, LASS 1984: ch.11) will recognize it as the syntactic analogue of dependency reversal in phonological segments which is involved, if I understand it correctly, in vowel-shift and strength-shift phenomena.

CR-internal dependency reversal enables the initially actional intransitive predicate to appear in (and receive the same interpretation as) the extended middle construction in the way outlined in 5.2 and explains why non-actional intransitive predicates (RG's unaccusatives), which only take a simple ABS argument, are excluded from the construction: they have nothing to undergo (165). The N/REFL in (165), which is obligatorily subjoined to its governing [ABS;ERG] functor, represents the only option available to an [ABS;ERG] taking intransitive derived from an actional intransitive. The entire raison d'être of the intransitive impersonal reflexive construction is to provide an intransitive argument structure without any referential content. In other words, the reflexive in (163)/(164) is a referentially empty expletive element (REFL-EX) filling an [ABS;ERG] position. Empty Ns are drawn universally from a small set comprising items realized in e.g. English by *it* and *there*. Their distribution is severely constrained by the form-function correlation embodied in the CG hypothesis in (2), in that each empty N is distributionally tied to a specific CR: IT fills an empty ABS, THERE an empty [LOC<,ABS>], and REFL-EX an empty [ERG,ABS]. Moreover, (as far as I can make out) it appears to be a simple distributional fact that expletive REFL, by virtue of being an anaphor and so intrinsically requiring an antecedent, cannot undergo subject-formation, given that in a subject-forming system

subjecthood is necessarily preempted by REFL's antecedent. In this respect, the [ERG,ABS] reflexive expletive differs markedly from the [ERG<,ABS>] pronoun with arbitrary reference realized in French as *on* or as *man* in German or forms in other languages (e.g. Italian) which may actually be homophonous with REFL-EX. What all of this means for the syntax of (163) and (164) is this: the [ABS;ERG] position provided by the output of (165) is occupied by an empty expletive reflexive, which, however, cannot subject-form. Given the structure of (extended) middles sketched out in the dependency graphs in (138) and (139), the locative position is then saturated independently (hier in (163)/(164)). The ABS position of the finite P is filled by the ABS expletive (*es*), to which subject-formation applies and which, qua antecedent of REFL-EX, must be overtly realized syntactically in German. The expletive ABS in 'impersonal middles', unlike the expletive in German impersonal passives (cf., for example, (105) in §4.2.3), thus appears even in those environments in which it can otherwise only be reflexed morphosyntactically in the agreement morphology of the verb.

5.3.4. One language, in which the reflexive option of the agentive intransitive formation rule in (159) is overtly manifested, is Dyirbal, where N/REFL is 'incorporated' (via subjunction) into the verb and realized as part of the verbal morphology. Given the ergative character of the language and complete irrelevance (and indeed, in CG terms, principled unavailability) of any notion of direct objecthood to the syntax of Dyirbal, this is perfectly in line with (159), which states detransitivisation in terms of CRs, as indeed predicted by the CG hypothesis in (2). Discussing reflexive constructions in the language, DIXON (1972: §4.8) notes that apart from marking the predicate in 'true' reflexive sentences, which are (derivatively) intransitive with an [ERG:ABS] argument, the reflexive verbal affix -*riy* 'appears just to derive an intransitive from a transitive stem', as in (166), with a derived [ERG;ABS] argument.

(166)   *bayi* [*yaṟa*] *ḍaŋgaymariɲu*
           NM(ABS):I ['man'(ABS)] 'eat':REFL (= -*riy*):NONFUT
           'he eats'

DIXON (1972: 90) comments of (166), 'since people do not eat themselves, the unmarked interpretation of [166] would be that it is a false reflexive, referring to the eating of a regular meal'.

(166) also shows that the 'agent' argument in the derived intransitive in Dyirbal is marked for absolutive rather than for ergative case (cf. also the discussion of detransitivized predicates in e.g. Chukchee by COMRIE 1979, NEDJALKOV 1979, and KOZINSKY, NEDJALKOV & POLINSKAJA 1988). This too may be interpreted as evidence in support of the claim that the primary argument of derived agentive intransitives is specified for both ERG and ABS. The ergative system derives its central features from the (paradigmatic) identification in (both) morphological and (/or) syntactic terms of the argument that is lexically and thus syntactically basic in initial

structure, the ABS CR. It is therefore unsurprising that in an ergative language the primary term of a derived agentive intransitive is preferably marked for absolute case, as in (166). But it is equally unsurprising to find an ABS-centred language with no great claims to being 'ideal ergative'/'active' or showing 'split S-marking' in the sense of DIXON (1979) which may encode the core argument of a derived actional intransitive either by ergative or by absolutive case-marking. This appears to be the case in Kalkatungu, as shown by the examples under (167) (in which the verb is marked by *-yi* which also serves as an 'antipassive' marker in the future tense and in subordinate clauses; cf. BLAKE 1979: §§3.1.,4.3, 1982: §2.4, and see also e.g. JOB 1985: 167-8 on ergatively marked [ERG;ABS] arguments of derived actional intransitives in Lezgian).

(167) a. *tuku it^{y}ayi.*
           'dog'(ABS) 'bite':INTRS:NONFUT
           'the dog bites'

       b. *tuku-yu it^{y}ayi.*
           'dog'-ERG 'bite':INTRS:NONFUT
           'the dog bit (him/her/it)'

All that the contrast between the ABS marking in (166) and (167.a) *vs.* the ergative marking in (167.b) reveals is that in a non-subject-forming system the morphological encoding of composite [ERG,ABS] arguments, regardless of whether they are basic or derived, can in principle go either way. The co-presence of ABS with the ERG of an actional intransitive is non-distinctive, a fact which is more or less consistently reflected in active systems in the semantically transparent alignment (in terms of their coding properties) of intransitive [ERG,ABS] terms with the ERG of transitives (cf. DELANCEY 1981, MERLAN 1985 and the recent survey in MITHUN 1991, as well as the references cited there).[45]

---

[45] The prevailing non-CG view of relational typology, which posits A (AGENT), O (OBJECT) and S (SUBJECT) as the relational primes in transitive and intransitive predications (cf. Comrie 1978, 1981, DIXON 1979, ANDREWS 1985, among others), obscures the semantic-functional basis for the patterns of paradigmatic identification of [ERG,ABS] terms with either ABS or ERG and casts no light on the dual patterning that is typical of the core arguments of actional intransitives, for irrespective of whether their ERGhood is overtly marked in the case-marking morphology or not, the syntax will reflect it (in e.g. 'imperative-formation'). To account for active ('split/fluid S-marking') systems, DIXON (1979:108) is led to suggest that 'S can, as a later step, be subclassified into agentive S_a and non-agentive S_o'. But, in much the same way as RG's 'unaccusative/unergative hypothesis', subclassifying S into agentives and non-agentives still fails to explain why S_a (~ [ERG,ABS]) arguments typically share properties with both A (~ ERG) and O (~ ABS) arguments. For fuller discussion of active typology and related matters in case grammar terms see ANDERSON 1971a: §4.6, 1977: §§3.4, 3.5.9, 1979a, 1980, BÖHM 1982: §2.2, FILLMORE 1968: §4, as well as DELANCEY 1981, etc., TSUNODA 1981.

The dual CR-assignment in derived agentive intransitives is also confirmed by the marking of such arguments in the non-subject-forming or (ideal) ergative type of relational structuring in English nominal predications. As noted in 2.3.2, the encoding of the argument of the nominal predicate is transparent in the sense that *of* uniformly marks absolutives and *by* marks ergatives. The core argument of agentive-intransitive nominalisations, which is simultaneously ERG and ABS, may accordingly take either *of* or *by*, as in (168):

(168)   *the retreat of/by Molly*

As witnessed by (169), the same is true of absolute derived intransitives (cf. ANDERSON 1977: §§3.4.4, 3.5.10, 1987b: 607, BÖHM 1982: §2.2.1), which again is quite inexplicable if the 'agent' argument of a detransitivized predicate like *perform* was just labelled as ERG.

(169)   a.   *The orchestra performed last night.*

        b.   *the performance of/by the orchestra last night*

For the very same reason, a nominalisation like (170.a),

(170)   a.   *the performance of the ballet*

        b.   *the performance of the ballet by the theatre company*

        c.   *the performance by the ballet*

        d.   *the performance of that dance by the ballet*

where the denotational properties of the immediate post-head argument don't force an unambiguous interpretation, is ambiguous between the simple ABS reading of the *of* phrase present in the transitive (170.b) or the 'agent' interpretation of the *by* phrase in (170.c) and (170.d), which again suggests that the ERG term of a derived agentive intransitive predicate is co-specified for the ABS CR.[46]

---

[46] Much of what has been suggested in §5.3 extends naturally to transitive action predicates which are derivatively (agentive) intransitive by virtue of incorporating their ABS argument (cf. ANDERSON 1977: 232, 256, *passim*, DIK 1983, GIVÓN 1984a: §4.2.5.3.2, 1990: §14.6.3, HOPPER & THOMPSON 1980: §2.12, BÖHM in preparation; and see further on 'noun incorporation' BAKER 1988: ch.3, MITHUN 1984, ROSEN 1989 and the references there) as well as (with some qualification) to predicates with cognate absolutive arguments ('cognate objects') (cf. FILLMORE 1968: §6.3, BARON 1971, LEHRER 1970). The latter frequently somewhat schizoidly display (morpho)syntactic properties of both transitive and intransitive predications (cf. AUSTIN 1981, 1982, TCHEKOFF 1985 on some Australian languages). I take this to be suggestive of a 'de-strengthening' or 'downgrading' of the ABShood of their ABS argument in terms of a [ø;ABS] functor category (the converse of ABS provided by the exhaustive interpretation thereof as [ABS;ø]).

5.4. Argument reduction and CR preservation

With the support for the realignment analysis of derived intransitivity gathered in the foregoing, one may one wonder how the present approach can be reconciled with the formal conditions in various other frameworks which require that the mapping of CRs and syntactic arguments be injective. GB's Projection Principle, the 'Biuniqueness of Function-Argument Assignments' condition in Lexical-Functional Grammar (cf. BRESNAN 1982b: 163) or the 'Completeness Constraint' of FOLEY & VAN VALIN's (1984: §4.6) Role and Reference Grammar explicitly rule out CR-argument mappings that assign different semantic functions to the same argument of a predicate. However, it is not clear to me on what grounds this should be banned in principle. RADFORD (1988: 390), for instance, citing the example in (171),

(171)   *Deranged people can kill.*

suggests that it 'cannot receive the interpretation [172] below:

(172)   **Deranged people can kill.*
                 [AGENT]
                 [THEME]

on which [*deranged people*] is both AGENT and THEME of *kill*', and he goes on to point out that 'the meaning we are trying to convey in [172] can only be properly expressed by a structure in which *kill* has two different coreferential NPs as its arguments, each of which is assigned a distinct theta-role, as in [173]':

(173)   *Deranged people can kill themselves*.

This is unobjectionable as it stands and I certainly wouldn't want to quibble with it. However, as a potential objection to what has been argued for here with respect to derived intransitives any argument along these lines against the realignment analysis would simply miss the point. The Θ-role assignment in (172) is the equivalent of a composite [ERG:ABS] CR in which ERG and ABS are mutually governing, and as such appropriate, as we have seen, for basic agentive intransitives (as well as for 'true' agentive intransitive reflexives, recall note [40]), but not for either of the two types of derived intransitives discussed above, middles/anticausatives and 'absolute' agentive intransitives. The crucial point that is missed by the complex CR-assignment in (172) is the asymmetry of the relationship between the individual CR components in derived complex CRs. It is by virtue of the component CRs being related complex-internally by the dependency relation that the notional properties of the dependent element are attenuated and the putative reflexive interpretation of (172) fails. The ERG-governed ABS in derived agentive intransitives is not a proper 'patient', nor is the ABS-governed ERG in middles a genuine 'agent', though in both cases there are residual notional and grammatical properties that each of a governed ABS and ERG, respectively share with their uncombined non-governed counterparts.

The picture that emerges from this is clearly analogous to that embodied in the pre-dicativity hierarchy in (8) in section 1.1.2 with respect to word classes: for com-plexes involving ERG and ABS as components, the attribution of an articulated inter-nal structure to composite CRs defines the hierarchy of ERGhood or conversely of ABShood given in (174).

(174)   *'agentivity' hierarchy*

    ERG » ERG;ABS » ERG:ABS » ABS;ERG » ABS

I shall refrain here from elaborating on (174) by e.g. incorporating the two local re-lations, ABL and LOC, in it. But it is worth noting that (174), apart from providing the basis for a principled account of the various derived intransitive constructions I discussed in §§5.2 and 5.3, is rather promising with respect to an account of scalar agentivity phenomena noted, for instance, in GIVÓN (1984a) and DELANCEY (1984a,b, 1985a,b) as well as – given an appropriate extension involving other CR combinations – of seemingly unrelated but similarly gradient facts such as e.g. the determination of control in anaphoric null subject constructions or (perhaps) the grammar of 'prepositional objects' in English. 'Squishy' relationships involving CRs warrant neither the appeal to the unconstrained multitude of more or less 'agent' or 'patient'-like distinct primitive CRs invoked in non-localist work nor re-linquishing CR discreteness (as hinted in e.g. COMRIE 1985b, and recently argued for with respect to 'thematic roles' in DOWTY 1991, whose discussion of the CG tradition is limited, unfortunately, to the work of FILLMORE 1968, 1971, etc.).

As the potential counterargument against the multiple CR assignments fails with re-spect to the asymmetrical CR combinations posited here for derived intransitives, we arrive at a characterisation of lexical processes which manipulate the lexical functional structure of a predicate that is in fact more restrictive than the analyses of variable polyadicity in various other approaches. In particular, I think the constraint tentatively formulated as the Principle of lexical CR preservation in (175) can be maintained:

(175)   *Principle of lexical CR preservation*

    Within the confines of a word class α, a derivational process that changes the syntactic valency of a predicate P (P ∈ α) preserves the lexically distinctive array of CRs for which P is subcategorized.

The qualification of (175) with respect to word class maintaining processes is in-tended to reflect the fact (if it is one) that, in general, CR-inheritance (cf. ANDERSON 1984a, MACKENZIE 1985, RANDALL 1988) is constrained by the basic valency prop-erties of the word classes participating in a given derivational relationship. Proto-typically, Ns may be said to be avalent, P:Ns monovalent, and P(;N)s bi/trivalent on account of the notional properties of the central members of the respective classes (cf. the recent discussion in CROFT 1991). 'Derived' classes (such as e.g.

(N;P);(P;N) – derived nominals) combine the valency properties of the basic elements involved in such a way that the preponderant component element, if the prototypical valency of its class is lower than that of the dependent component, renders the CRs introduced by the 'base' syntactically optional or indeed unavailable to the derivative.

(175) ensures the preservation of the distinctive lexical properties of a predicate – its array of CRs that serves to distinguish it from other semantic predicate types – by class-maintaining derivational rules: the lexical identity of a predicate must not be destroyed. This condition dictates what I have called the realignment analysis of derived intransitivity and rules out, for instance, lexical CR-deletion or suppression rules such as (176)/(177), which represent the potential case grammar analogues of the intransitivisation and middle-formation rules proposed in LFG (cf. BRESNAN 1982b: §3.4), Functional Grammar (recall (137) above) or the framework of WILLIAMS (1980, 1981).

(176)   P;N/ERG – ABS $\Rightarrow$ * P;N/ERG – $\varnothing$

(177)   P;N/ERG – ABS $\Rightarrow$ * P;N/ABS – $\varnothing$

These rules destroy the defining lexical properties of any lexical item that is subjected to them. As such (and in the absence of artificial devices like 'lexical traces'), they leave unanswered (to me at least) the simple question as to how and why – given their reduced syntactic valency – lexically detransitivized predications are computed as involving the same CR-structure as their transitive congeners, and fail to explain any of the notional and grammatical regularities which the realignment approach in compliance with (175) appears to capture in a reasonably natural way.

6. ACCUSATIVITY/PASSIVE – ERGATIVITY/ANTIPASSIVE

6.1. ABS-formation

6.1.1. I wish to conclude by addressing an issue which arises from the analysis of derivatively intransitive predications such as (166) in Dyirbal. The observant reader with more than a cursory knowledge of DIXON's (1972) grammar of the language will probably have noted that I rather nonchalantly glossed over the fact that (166) is actually a 'shortened' version of an intransitively marked reflexive construction (cf. DIXON 1972: §§4.8.1, 5.4.2), an 'antipassive' construction as current terminology (following SILVERSTEIN 1976) would have it. Examples of this much-discussed construction are given in (178) (DIXON 1972: 91); (178.a) involves the reflexive marker *-riy*, (178.b) the 'antipassive' marker *-ŋay*. The two constructions are syntactically equivalent in being intransitive and permitting the datively encoded argument to be absent, but differ slightly in meaning ('potential' *vs*. 'actual' action).

(178) a. *bayi yaṛa ḍabandu wagaymariɲu*
NM(ABS):I 'man'(ABS) 'eel':DAT 'spear':REFL(= *-riy*):NONFUT
'the man is spearing eels'

   b. *bayi yaṛa ḍabandu waganaɲu.*
NM(ABS):I 'man'(ABS) 'eel':DAT 'spear':AP(= *-ŋay*):NONFUT

Although – seeing that this is already overly long and contains far too many footnotes – I am again unable to explore this area with the care it would require, I would nevertheless like to note that the relationship between fake reflexivity and 'antipassivization' in (166) and other instances is strongly indicative of a somewhat tighter conception of the relational primacy of ABS terms in an ergative system than has been assumed in earlier CG work.

As I hope to have made clear throughout, the CG view of ergativity rests upon the uncontroversial notion that the syntactically privileged status of absolutive terms reflects a semantically natural grouping of the single relation type that is obligatory with any predicate and is uniformly characterized under the localist interpretation of CR distictions in (13) as being neither a 'source' nor a 'place' relation (cf. ANDERSON 1968, 1971a, 1977, 1979a, b, 1980, BECHERT 1979, FILLMORE 1968, KIBRIK 1979, LYONS 1968). But as I already noted in passing in the preceding section, relative to an 'ideal ergative' or active system, the paradigmatic identification of [ABS,ERG] terms with simple absolutives represents a certain degree of neutralisation with respect to the transparency of argument encoding. Partially because of this and the noted fake reflexivity effect of 'antipassivization', consider therefore the possibility that an ergative system, like (*mutatis mutandis*) accusative and 'topicive' systems, also involves the introduction into its cyclic syntax of a derived principal relation: ABS. Let us conceive of this as involving the application of a cycle-final structure-building rule of ABS-formation, as shown in (179):

(179)   *ABS-formation*

             case $\Rightarrow$ [ABS,case]

(179) adds an ABS specification to the initial CR of the argument in a predication that is ranked highest on the ABS-formation hierarchy in (180), which is, obviously enough, the inverse of the CR-hierarchy for subject-formation in (31): it has the ergative CR join rather than head the queue for access to derived principal-formation.

(180)   *CR-hierarchy for ABS-formation*

             ABS,case » ABS » ERG<,case>

By (179) the simple ABS argument in a non-actional intransitive and an actional transitive predication, the [ABS,ERG] term of an actional intransitive, and the [ABS,LOC,ERG] 'recipient' argument of a 'ditransitive' agentive-directional 'give' verb, etc. are derivatively [**ABS**,(ABS<,case>)] (cf. BÖHM 1986a for evidence derived from the behaviour of [ABS,LOC,ERG] 'recipient' arguments of 'give' verbs in Kalkatungu for the hierarchisation of absolutives in (180)). ABS-formation, that is, cyclically confirms the lexical and initial syntatic relational primacy or principalhood of the highest-ranking ABS CR, but enables the uniform referability by a single derived relation of otherwise partially distinct absolutive terms for the purpose of syntactic rules and morphosyntactic coding strategies, yielding a simplification of the grammar in this regard. Analoguously with the derived ERG (i.e. subject) based case-assignment rules in (35) and (46) for an accusative system, nominal case-assignment in the ergative system may be thought of as invoking the derived ABS relation, as shown in (181).

(181)   'absolutive' case-assignment

             [ABS,case] $\rightarrow$ N;X $\Rightarrow$ [ABS,case] $\downarrow$ N;X$_{absolutive}$

6.2. Orderly vs. default subject and *ABS*-formation in 'dative' predications

6.2.1. An interesting possibility now emerges if – just like derived principal-formation (i.e. subject-formation) in accusative systems – for e.g. discourse-pragmatic reasons and/or in order to adapt particular initial non-ABS argument types into the requirements of the ABS-centred cyclic syntax, ABS terms are projected out of the hierarchy. This leaves the ERG in (180) as a last resort for ABS-formation. In this event, the situation in an ergative system is inversely parallel to the scenarios I have been arguing for in accusative systems.

In an accusative system, lack of derived principal formation yields the two systemic possibilities I discussed in sections 3 and 4, respectively: (i) integration of the non-subject-forming predication into the accusative cyclic syntax by passive or (ii) default/last resort subject-formation. As shown in §§3 and 4, these two options are

distributed over two at least partially distinct functional domains. Passivization pro-totypically associates the ABS term of an actional transitive predicate with the ABS CR of a superordinate intransitive argument sharing/raising predicate, enabling the ABS term to undergo subject-formation in an intransitive structure in accord with the hierarchy in (31). Passive has a transitivity effect, in the sense that the passive ABS subject is the only obligatory argument of an intransitive predicate. Default subject-formation attributes subjecthood to the ABS argument in particular predications also containing a subtype of ergative actant. With a notable degree of cross-linguistic uniformity, the default subject-formation option is preferably associated with 'affec-tive' or 'experiential' predicates. It applies in non-actional 'dative' predications, i.e. predications which, in localist terms, contain a [LOC,ERG] or [ABL,ERG] ('experi-encer'/'cognizer'/'possessor') argument, and it has no transitivity effect: the predi-cation in which default subject-formation applies remains syntactically bivalent. It is for this reason, i.e. the distinctness with respect to their preferred functional do-main, rather than for the mechanics of some blind 'law' such as Relational Gram-mar's 1-Advancement Exclusiveness Law, that (other things being equal) the puta-tive 'inversion' clauses of RG fame are not susceptible to passivization: default sub-ject-formation (=RG's Inversion structures) and passivization (RG's 2-1 Advance-ment) are necessarily mutually exclusive.[47] The [LOC/ABL,ERG] argument as non-subject in 'dative' predications is typically encoded by dative or locative case inflec-tion, again with remarkable cross-linguistic constancy, which ensures recoverability of the semantic [LOC,ERG] function of the nominal so marked. Rather than being lumped together as derived ERGs with simple actional ergative or 'agent' terms via orderly subject-formation, default subject-formation allows non-agentive [LOC,ERG] terms to maintain their relational distinctness (but cf. ANDERSON 1984c, 1986b, 1988a for discussion of the functional pressure on the [LOC,ERG] argument in 'da-

---

[47] The same point could have been made with respect to non-agentive intransitives ('unaccu-satives'), which typically (with the exception of the marginal instances registered in [19]) – like 'datives' in which default subject-formation has occurred – are not available for passivi-zation. The simple reason for their unavailablity for passivization is a functional one: deny-ing a non-actional ABS argument subjecthood only to promote it to subject via passivization is functionless. What isn't, however, is its being denied (post-cyclic) subjecthood by the (post-cyclic) 'introduction' of a dummy default ABS, as in the German (i) (cf. BRECKENRIDGE 1975 on the post-cyclicity of 'es-insertion' in such sentences):

(i)   *Es kamen drei Männer.*
        IT 'come':PAST3PL 'three'(NOM) 'men'(NOM)

What unifies (default ABS subject) 'dative' and non-actional intransitive predications in this regard is the absence of an agentive ERG. This is a brute fact that doesn't cease to be one or becomes less of one by attributing – as in RG – initial direct objecthood to ABS arguments, having them obligatorily undergo ('unaccusative') advancement to subject and invoking a 'law' (1-AEX) (which precludes multiple clause-internal advancements to subject) to rule out passives of 'unaccusatives' (cf. ANDERSON 1980, BÖHM 1982).

tive' predications to subject-form and the resulting historical 'instability' of 'dative' constructions).[48] The ABS actant in 'dative' predications qua default subject is coded nominatively in an accusative system. Frequently, an orderly subject-forming 'dative' predication may co-exist with a default subject-forming construction for reasons relating to the presentative or information structure of the clause (cf. KIRKWOOD 1973, HEIDOLPH 1977, BÖHM 1982), as in the German examples under (182) and (183).

(182)   *Sie hat zwei Fahrräder.*
         3SG/FEM(NOM) 'have':PRES3SG 'two'(ACC) 'bike':PL.ACC
         'she has two bikes'

(183)   *Die zwei Fahrräder der gehören ihr.*
         'the'(NOM) 'two'(NOM) 'bike':PL(NOM) 'belong':PRES3PL 3SG/FEM:DAT
         'the two bikes belong to her'

This much is familiar. But consider now the analogous situation in an ergative system. Turning to the 'dative' sentence scenario first and ignoring added complications arising from e.g. (ongoing) historical change, we first of all find the quite unremarkable situation that 'dative' sentences regularly show orderly derived principal formation with respect to their ABS argument. This yields the well-known 'affective' or 'dative' constructions in the Kartvelian languages (cf. BECHERT 1971, BOEDER 1969, KLIMOV 1969, HARRIS 1984 among numerous others), the languages of South Asia such as Hindi, Kannada, Maithili (cf. KLAIMAN 1980, 1981, Sridhar 1979 and the recent survey in VERMA & MOHANAN 1990) or Tibeto-Burman languages like Lhasa Tibetan (cf. DELANCEY 1984a,b, 1985a,b, 1990) or Newari (cf. KÖLVER 1976). With respect to 'dative' sentences, the accusative and the ergative system merely differ in that the marked default/last resort option for derived principal-formation exemplified for an accusative system by the German (183) corresponds to the unmarked derived principal-formation choice of the ABS argument in an ergative system, as the Georgian (184) illustrates (HARRIS 1984: 127).

(184)   *gelas uqvars nino.*
         Gela:DAT DAT3SG:'love':ABS3SG:TNS.ASP.MOOD Nino(ABS)
         'Gela loves Nino'

6.2.2. Rather more remarkable is the option in an ergative system of default principal formation. To facilitate the discussion, I have outlined the regular *vs.* default principal-formation options in 'dative' predications for both accusative and ergative

---

[48] DIXON's (1979: 103) suggestion that the distinction drawn in FILLMORE (1968) between an 'Agent(ive)' and a 'Dative' CR is without any syntactic consequence thus doesn't go through and also fails to recognize the crucial role played by non-actional 'dative' predications in the diachronic development from ergative to accusative systems.

systems in (185) and (186) below.

(185) ACCUSATIVE SYSTEM

regular vs. default principal/subject-formation in 'dative' predications

a. P;N/ABS   LOC,ERG   basic predication
       ⇓   ⇓
         ABS   **ERG**,LOC,ERG   regular subject-formation
       accusative   *nominative*   coding pattern

b. P;N/ABS   LOC,ERG   basic predication
       ⇓   ⇓
       ERG,ABS   LOC,ERG   default subject-formation
       nominative   *dative/locative/*   coding pattern
                         accusative

(186) ERGATIVE SYSTEM

regular vs. default principal/ABS-formation in 'dative' predications

a. P;N/ABS   LOC,ERG   basic predication
       ⇓   ⇓
       ABS,ABS   LOC,ERG   regular absolutive-formation
       absolutive   *dative/locative*   coding pattern

b. P;N/ABS   LOC,ERG   basic predication
       ⇓   ⇓
         ABS   **ABS**,LOC,ERG   default absolutive-formation
       locative/dative/   *nominative*   coding pattern
       accusative

(183) and (184) furnish examples of the marked *vs*. unmarked pattern depicted in (185.b) and (186.a). The inverse situation of unmarked regular principal-formation is illustrated for an accusative language by the German (182). The marked option of default principal-formation in an ergative system is instanced, I would like to suggest, on a fairly large scale basis in various morphologically (and partially syntactically) ergative Polynesian and North Caucasian languages (cf. CHUNG 1978 and NICHOLS 1984, respectively), as well as marginally, with respect to a small number of predicates, in some Australian languages, including Kalkatungu (cf. BLAKE's 1979: §3.5.4, 1982: 89/90 discussion of *jakapi* 'understand' and *ŋkuma* 'look for',

and see also AUSTIN 1981).

CHUNG (1978: §§2.1, 4.2) discusses case-marking in Polynesian, which operates on an ergative basis in the Tongic and Samoic-Outlier languages. She notes (1978: 47) that transitive verbs may be classified into 'canonical transitives' and what she calls 'middle' verbs. The former pattern ergatively with intransitive predicates in the case-marking of their arguments. With the latter verbs, 'the subjects [i.e. ERG,case arguments, RB] (…) are unmarked (like intransitive subjects [ABS, RB]) and their direct objects [ABS, RB] are preceded by one of the oblique prepositions *i* 'at' or *ki* 'to'' (CHUNG 1978: 49). Compare the Tongan (187) (CHUNG 1978: 54,150).

(187) a.   *Na'e 'alu 'a Mele.*   intransitive
            PAST   'go' ABS Mary

      b.   *Na'e taa'i e' Mele 'a Sione.*   transitive
            PAST   'hit' ERG Mary ABS John

      c.   *'Oku manako ia   'i he ta'ahiné*   'middle'
            PROG   'like'   3SG(ABS) 'at' 'the' 'girl'
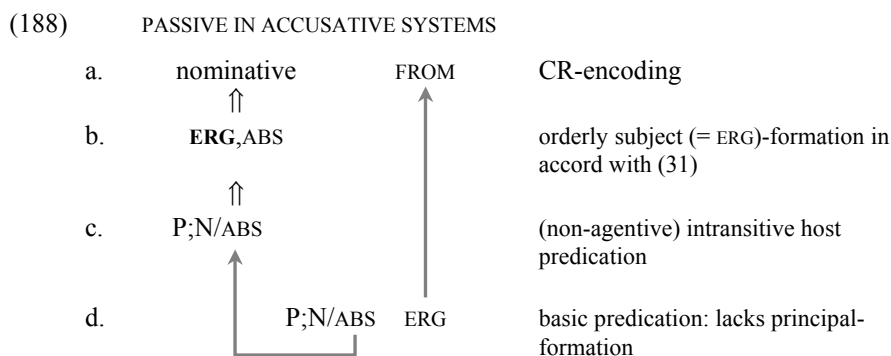   'he likes the girl'

CHUNG's notional characterization of the predicate class whose arguments appear with 'middle' marking reveals that the 'middle' encoding of CRs is exactly what is predicted for default principal-formation in an ergative system by (186.b). She characterizes 'middle' verbs as follows: '(…) among middle verbs are perception verbs ('see', 'listen to'), verbs of emotion and other psychological states ('love', 'want', 'understand'), verbs normally selecting animate direct objects (…) and verbs such as 'follow', 'wait for', and 'visit'' (emphasis mine, RB) (1978: 47). That is, the pertinent set of predicates includes as its central members those items which consistently appear cross-linguistically in 'dative' sentences.[49] CHUNG (1978: §4.2) considers the possibility of the argument marking with these verbs being due to the application of 'antipassivization' prior to case-marking. For her (as for many others), antipassivization is a detransitivization rule which derives a syntactically intransitive verb that takes a subject and an oblique directional complement as arguments. And she is led to reject an antipassive analysis on the ground that 'middles' are consistently transitive with respect to a number of syntactic rules. This is, of course, just what is predicted by the account embodied in (186), if these intransitively marked but syntactically transitive 'middle' clauses are 'dative' predications –

---

[49] The class of 'two-place intransitive' predicates which in the otherwise ergative Chechen and Ingush 'take a nominative subject and an oblique object' (NICHOLS 1984:§6) is virtually identical with CHUNG's (1978) Tongan 'middle verbs' and includes (among others) *qietan* 'understand', *qi'an* 'realize'/'perceive', *qieran* 'fear', *tiešan* 'believe', *howsan* 'look at/look after'/'wait for'.

as indeed they are in terms of the CRs of their arguments – in which default ABS principal-formation (not 'antipassive') has occurred (for fuller discussion cf. BÖHM in preparation, where I also consider and reject a potential Relational Grammar analysis in terms of '2-3 Retreat'). Let me now turn to the passive-antipassive link.

6.3. *ABS-formation via an actional intransitive predication: antipassive*

6.3.1. Passivization serves to integrate actional predications showing lack of derived principal/subject-formation into the syntax of an accusative system by associating the ABS term – the last resort option – with the ABS host of a raising predicate that takes the non-subject-forming predication as its complement. The initial ABS term is thereby permitted to subject-form in conformity with the subjectivization hierarchy. This is sketched out in (188), where (d) is the basic actional transitive predication which lacks derived-principal formation; (c) introduces the intransitive argument sharing predicate whose empty ABS serves as the host for the ABS of (d) via argument sharing. (b) shows the effect of orderly subject-formation with respect to the ABS term of (c), and (a) gives the derived argument encoding pattern: unmarked nominative (subject) inflection for the [**ERG**,ABS] of (b). FROM in (a) designates the encoding of the initial ERG ('agent') argument of the basic predication in (d) and represents adpositional markers with ablative ('directional source') semantics or inflectional case-forms like ablative, genitive, instrumental, to which I shall briefly turn below.

(188)   PASSIVE IN ACCUSATIVE SYSTEMS

a.	nominative	FROM	CR-encoding
	⇑	↑	
b.	**ERG**,ABS		orderly subject (= ERG)-formation in accord with (31)
	⇑		
c.	P;N/ABS		(non-agentive) intransitive host predication
d.	P;N/ABS ERG		basic predication: lacks principal-formation

Not represented in (188) is the grammaticalisation of the privileged status for raising of the initial ABS term in languages like English (recall the discussion in section 3.4) or the situation with respect to agentive-directional predications and the principled cross-linguistic variation in the eligibility of their [<ABS,>LOC,ERG] 'recipient' argument for argument sharing/raising. All of this is readily accommodated by (188).

From the various descriptions of antipassives of basic actional transitive (rather than non-actional 'dative') predications in various ergative languages (cf. BLAKE 1977, 1979, CRAIG 1977, DIXON 1972, 1976, 1980 and the pertinent contributions in PLANK 1979 and SHIBATANI 1988) the following quite familiar grammatical and notional properties emerge as defining something of an antipassive prototype (cf. GIVÓN 1990, TSUNODA 1985, 1988). The antipassive of a syntactically actional transitive predication is syntactically intransitive (as demonstrated conclusively for e.g. Dyirbal by DIXON 1972); the ergative argument of the corresponding basic transitive is the obligatory argument of the intransitive antipassive construction and is inflectionally unmarked. The otherwise unmarked ABS argument of the transitive appears in the antipassive with an adpositional marker with directional locative ('goal') semantics or else is inflectionally marked by locative/allative/dative or instrumental case inflection. It is, moreover, syntactically dispensable in the antipassive, unlike in the basic transitive where (ceteris paribus) rather the ergative argument is syntactically optional. Relative to the predicate of the corresponding actional transitive construction, the predicate of the antipassive is morphologically complex and with more than chance frequency may include a formative that may also signal 'fake reflexivity' in the language in question. Notionally, the antipassive describes an unbounded activity rather than an action that directly impinges on or affects the referent of the obliquely marked complement (where such is present), and it is commonly associated with a habitual or continuative interpretation. In short, in terms of the parametric definition of notional transitivity in HOPPER & THOMPSON (1980), the antipassive construction, which is syntactically intransitive, is also low in (notional or semantic) transitivity.

All of these structural and notional properties of antipassives have been noted and labelled time and time again, but have never (to my mind) been explained – unless one is prepared to take e.g. the putative 'demotion' of a direct object (in a language system that simply does not have direct objects to begin with) to chômeur status or, alternatively, the 'retreat' of a direct object to indirect object and/or directional as an explanation of the host of interrelated grammatical and notional facts outlined above (cf. POSTAL 1977, DAVIES 1984, and BLAKE's 1990: §2.5 cautious presentation RG analyses of antipassives and DIXON's 1979: §6.3 critical remarks).[50] Similarly, given a system of relational typology like that espoused in COMRIE (1978, 1981), DIXON (1979, 1980) or ANDREWS (1985), what does it mean to say that 'the antipassive transformation involves deep A [AGENT, RB] becoming surface S' (DIXON

---

[50] An analysis of antipassives in RG as involving '2-3 retreat' raises a host of questions, given that 'retreat' of an initial direct object term is not licensed by 'advancement' of any other term and would thus have to be 'spontaneous'. In the absence of any constraints on e.g. the target relation to which a term can 'retreat', this considerably broadens the class of permissible relational networks – surely an undesirable state-of-affairs by RG's very own reasoning.

1979: 122) (where S is a 'basic function', i.e. a primitive relation type distinct from A and O, defined as 'the only obligatory NP in an intransitive clause')? How does an A term 'become' a surface S and have the notional properties of what in DIXON's terms would actually be an S_a argument, if S can only 'as a later step be subclassified into agentive S_a and non-agentive S_o' (DIXON 1979: 108)?

At least some of this becomes a little clearer if antipassivisation is viewed as a strategy to integrate the ergative argument of an actional transitive predication into a syntax with ABS-formation via argument sharing/raising.

In an ergative system, the last resort option for derived principal-formation in the event of the otherwise eligible ABS term of a transitive predication (for discourse-pragmatic and/or syntactic reasons) being projected out of the hierarchy in (180) is ERG. In order to integrate the ergative term of an action predication into the ABS-oriented syntax of the overall ergative system, it must be associated with an ABS CR in an intransitive predication and undergo orderly ABS-formation. This is easily provided for if the transitive predication is embedded under an intransitive predicate which projects an empty ABS with which the lower ERG can be associated by argument sharing. However, I have been arguing that argument sharing is sensitive to the CRs of the arguments involved and obeys a CR-likeness constraint. The CR-likeness constraint would obviously be violated by an intransitive non-actional ABS hosting an ERG. What though if the host of argument sharing/raising was [ABS,ERG], if the host predication was agentive intransitive? A few things would fall into place. By virtue of argument sharing/raising involving the ERG term of an actional transitive predication with an intransitive [ABS,ERG] or more precisely [ERG;ABS] position, the ERG can undergo orderly ABS-formation as well as comply with the CR-likeness constraint on argument sharing. This accounts for the prototypical syntactic properties of antipassives, such as their syntactic intransitivity as well as perhaps the frequent appearance of a reflexive marker in the verbal morphology of the antipassive predicate, which typically has the basic lexical predicate subjoined under it rather than being realized seperately as an antipassive 'auxiliary'. And just as the structural properties of the antipassive construction emerge somewhat clearer, so do its notional features, its low semantic transitivity and its interpretation as describing an unbounded activity in which the 'agent' may habitually/potentially engage, etc.. They follow directly from the antipassive being an actional intransitive construction derived through argument sharing, such that the initial ERG argument of a transitive action predicate is derivatively the [ERG,ABS] core argument of an agentive intransitive predicate with respect to which the initial ABS term of the basic transitive is syntactically peripheral; cf. (189).

(189)   ANTIPASSIVE IN ERGATIVE SYSTEMS

    a.   absolutive   TO   CR-encoding
                 ⇑

    b.   **ABS**,(ERG,ABS)   orderly ABS-formation in accord with
                           (180)
                 ⇑

    c.   P;N/ERG,ABS   agentive intransitive host predication

    d.   P;N/ ABS ERG   basic transitive predication:
                             lacks principal (= ABS)-formation
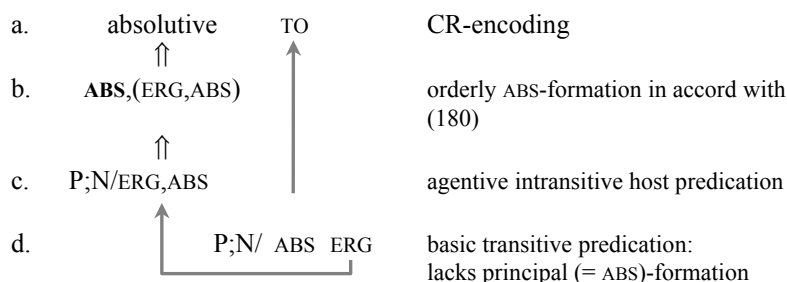
One point I should perhaps finally clarify with respect to (188) and (189) concerns the marking of the argument that is 'left behind' in the basic predication by syntactic detransitivisation. The association of ERG and ABS with FROM and TO in (188) and (189), respectively, is intended to reflect the basic directional movement metaphor which underlies the localist conceptualisation of transitivity (cf. ANDERSON 1971a: §11.2, 1973a,b, 1977, LYONS 1968, 1977: §§12.5, 15.7, *passim* and the references there) and is explicitly recognized by (13) above. In terms of the articulation of the localist hypothesis embodied in (13), the ablative and the ergative CR are distinguished from the other members of the set of CRs by the feature 'source', labelling respectively the relation of the argument that denotes (prototypically) the source or starting-point of a spatial trajectory or the energy source in an actional event, the 'source of the action', as it were. The locative CR, being characterized in (13) as a 'place' relation, comprises both a positional (non-directional) locative and a directional locative or allative variant, with the pertinent interpretation of LOC being dependent on the absence or presence with the predicate that introduces LOC of a subcategorized ABL: only if the predicate is subcategorized for both an ABL and a LOC term is the locative CR associated with an allative or goal interpretation. The same holds, *mutatis mutandis*, for the absolutive CR. In the prototypical actional transitive predication with both an ERG and an ABS term, the argument labelled as ABS introduces an 'actional goal'.

It is this localist conceptualisation of functional relations that is reflected in the ablative/genitive/instrumental and allative/locative/dative/instrumental marking of the non-grammaticalised term in the basic predication within an overall intransitive structure. Accepting this basic localist metaphor, (188) and (189) can be extended by a language-specific option such that the ERG and ABS term of the basic transitive predication are associated with respectively ABL and LOC in an intransitive directional predication: the host of the (anti)passsive raisee is ABS (for passives) and [ABS:ERG] (for antipassives) and co-labelled respectively for LOC and ABL, as shown in (190) (cf. ANDERSON 1972, 1973a,b, 1977 on (190.i) and BÖHM 1982, 1986a on

(190.ii) and further notional and grammatical properties of (anti)passives that may be derived from them):

(190) *localist interpretation of* (i) *passive and* (ii) *antipassive*

(i) a. nominative   FROM   (ii)   absolutive   TO
           ⇑   ⇑   ⇑   ⇑
     b. **ERG**,(LOC,ABS)   ABL   **ABS**,(ABL,ABS,ERG) LOC
           ⇑   ⇑   ⇑   ⇑
     c. P;N/LOC,ABS   ABL   P;N/ABL,ABS,ERG   LOC
           ↑   ↑   ↑   ↑
     d.   P;N/ABS   ERG   P;N/ABS   ERG

One area which (190.ii) might shed some light on concerns the notional properties of antipassives in Dyirbal (cf. DIXON 1972: §§4.4.2, 5.4.7), wherein the basic ABS argument may be marked by the dative or the instrumental/ergative inflection; cf. (191) (DIXON 1972: 65/66).

(191) a. *bayi yaṛa bagul bargangu ḏurganaɲu.*
           NM(ABS):I 'man'(ABS) NM:DAT:I 'wallaby': DAT 'spear':ŋay: NONFUT

       b. *bayi yaṛa bangul bargandu ḏurganaɲu.*
           NM(ABS):I 'man'(ABS) NM:ERG/INST:I 'wallaby':ERG/INST
           'spear':ŋay:NONFUT
           'man is spearing wallaby'

BÖHM (1982: 191-195) suggests that in the latter (with instrumental marking of the initial ABS argument), the ABS term of the transitive predication comes to be associated with a LOC (as shown in (190.ii)), but the LOC is also labelled by the ABL of (190.ii.c). The complex [LOC,ABL] CR otherwise introduces prolative ('path') phrases, which in many languages provide the template for 'instrumentals': in terms of the movement metaphor of transitivity, 'instrumentals' may be viewed as designating the 'path through which the action travels' (LYONS 1977: 499, and cf. ANDERSON 1971a: §11, 1977, MACKENZIE 1977). In these terms, the marking by instrumental inflection of the LOC (initial ABS) argument in the antipassive in (191.b) is semantically natural and notionally plausible: the instrumentally marked ABS introduces the argument whose referent is 'instrumental' in the coming about of the activity, the 'goal of the action' (LOC) that is also 'the indirect cause or reason for the action' (ABL).

(189) in a sense includes (188), in that the actional intransitive [ABS,ERG] host permits another raising possibility such that (rather than the ERG by default) the ABS

term – which is still relationally basic in the absence of ABS-formation – is associated with the intransitive [ABS,ERG]. This would yield an ergative system with both antipassive and passive, a situation that may be instanced by some Mayan languages (cf. CRAIG 1977). But that is a story which would need another time (and perhaps another writer) to tell.

EPILOGUE

In the *Allgemeine Encyclopädie der Wissenschaften und der Künste* (Ersch and Gruber 1840), one of the 19th century's leading localists, JOHANN ADAM HARTUNG writes, 'like other grammatical relationships, the character of the *genera verbi* can be seen most clearly, if they are reduced by analogy to directional relationships in space. We then find that actives involve whither, passives involve whence; that is why actives demand the accusative to express the goal or object of the action, while passives require the genitive, the ablative or prepositional substitutes to denote the source of the action' (my translation from the German, RB).

If nothing else, I hope to have shown the fruitfulness of this localist analogy in a grammar embodying a claim as to the basicness of notionally defined functional relations to the syntactic structures projected from the lexical valency structure of predicates. I would therefore not be surprised to see it re-invented tomorrow under some fanciful guise – just like case relations (= Θ-roles), dependency (= X-bar 'theory'), non-actional/actional intransitives (= unaccusatives/unergatives), predicate decomposition and subjunction (= lexical-conceptual structure and incorporation), valency saturation (= Projection Principle), etc. – by the same members of the community who, as part of the ritual, today never fail to insist that the notional character of functional relations is irrelevant to the syntactic structure of language (too numerous references to list). I derive some pleasure from the knowledge that none of this ever disturbed HARTUNG – he knew.

ABBREVIATIONS

CG	(localist) Case Grammar
FG	Functional Grammar
GB	Government and Binding
LFG	Lexical-Functional Grammar
RG	Relational Grammar
CR	case relation
ABL	ablative
ABS	absolutive
ERG	ergative
LOC	locative
ABS	absolutive case
ACC	accusative case
AP	antipassive
ASP	aspect
DAT	dative case
DEF	definite
ERG	ergative case
EXPL	expletive
FEM	feminine
INF	infinitive
INTRANS	intransitive
NM	(deictic) noun marker/classifier
NOM	nominative case
NONFUT	non-future (realis)
P(AR)TII	second participle
PL	plural
PRES	present
PROG	progressive
REFL	reflexive
SG	singular
TNS	tense
I, II, III	noun class
1, 2, 3	1st, … person

REFERENCES

ABRAHAM, WERNER, ed.
1978.   *Valence, semantic case and grammatical relations.* Amsterdam: Benjamins.

AISSEN, JUDITH
1982.   Valence and coreference. Hopper, P.J. and Thompson, S.A., eds. 1982. 7-35.

ALLEN, W.S.
1964.   Transitivity and possession. *Language* 40, 337-343.

ALLERTON, DAVID J.
1982.   *Valency and the English verb.* London: Academic Press.

AMRITAVALLI, R.
1980.   Expressing cross-categorial selectional correspondences: an alternative to the X' syntax approach. *Linguistic Analysis* 6, 305-343.

ANDERSEN, PAUL KENT
1989.   *Passive morphology: a figment of the linguist's imagination?* Unpublished. Bielefeld: University of Bielefeld.
1990.   Typological approaches to the passive. Review of Shibatani, M., ed. 1988. Passive and voice. Amsterdam. Benjamins. *JL* 26, 189-202

ANDERSON, JOHN M.
1968.   Ergative and nominative in English. *JL* 4, 1-32.
1969.   Adjectives, datives and ergativisation. *Foundations of Language* 5, 301-323.
1970a. The case for cause: a preliminary enquiry. *JL* 6, 99-104.
1970b. Just for the record. *General Linguistics* 10, 12-17.
1971a. *The grammar of case: towards a localistic theory.* Cambridge: CUP.
1971b. A proposal concerning the lexicalisation of complex structures. *Studia Linguistica* 25, 1-8.
1972.   Remarks on the hierarchy of quasi-predications. *Revue Roumaine de Linguistique* 17, 23-44, 121-140, 193-202, 319-335.
1973a. Maximi Planudes in memoriam. Kiefer, F. and Ruwet, N., eds. 1973. *Generative grammar in Europe.* 20-47. Dordrecht: Reidel.
1973b. *An essay concerning aspect.* The Hague: Mouton.
1973c. Some speculations concerning meetings, matrimony, family resemblances and related matters. *York Papers in Linguistics* 3, 7-29.
1975a. La grammaire casuelle. Anderson, J.M. and Dubois-Charlier, F., eds. 1975. *La grammaire des cas.* (Langages 38). 18-64. Paris: Didier-Larousse.
1975b. A non-argument for deep structure. *York Papers in Linguistics* 5, 87-96.
1975c. *Noun phrases as adjectives: serialization in seven parts.* Trier: LAUT.
1976.   *On serialization in English syntax.* (Ludwigsburg Studies in Language and Linguistics 1). Ludwigsburg: R.O.U. Strauch.
1977.   *On case grammar. Prolegomena to a theory of grammatical relations.* London: Croom Helm.

1978a. On choosing where to have your relations. Gregersen, K., ed. 1978. *Papers from the 4th Scandinavian conference of linguistics.* 359-65. Odense: Odense University Press.

1978b. On the derivative status of grammatical relations. Abraham, W., ed. 1978. 661-694.

1979a. *On being without a subject.* Bloomington, Ind.: IULC.

1979b. Subjecthood. *Hungarian Studies in English* 12, 121-138.

1979c. Syntax and the single mother. *JL* 15, 267-287.

1979d. Serialisation, dependency and the syntax of possessives in Moru. *Studia Linguistica* 33.1, 1-25.

1980. Anti-unaccusative, or: relational grammar is case grammar. *Revue Roumaine de Linguistique* 25, 193-225.

1982. *Case grammar: the motion picture.* Trier: LAUT.

1984a. *Case grammar and the lexicon.* (Occasional Papers in Linguistics and Language Learning 10). Coleraine: University of Ulster.

1984b. Objecthood. Plank, F., ed. 1984. 29-54.

1984c. The natural history of dative sentences. Blake, N.F. and Jones, C., eds. 1984. *English historical linguistics: studies in development.* 241-78. Sheffield: The Centre for English Cultural Tradition and Language.

1985a. The case grammar hypothesis. *T.a. informations* 26.2, 47-55.

1985b. Structural analogy and dependency phonology. *Acta Linguistica Hafniensia* 19, 5-44.

1985c. The case system of Old English: a case for non-modularity. *Studia Linguistica* 39, 1-22.

1986a. Structural analogy and case grammar. *Lingua* 70.2/3, 79-129.

1986b. A note on Old English impersonals. *JL* 22.1, 167-177.

1987a. Case grammar and the localist hypothesis. Dirven, R. and Radden, G., eds. 1987. *Concepts of case.* 103-21. Tübingen: Narr.

1987b. Invariance and linguistic variation: a case grammar characterisation. Melenk, H. et al., eds. 1987. *11. Fremdsprachendidaktiker-Kongreß.* 604-610. Tübingen: Narr.

1988a. The type of Old English impersonals. ANDERSON, J.M. and Macleod, N., eds. 1988. *Edinburgh Studies in English Language.* 1-32. Edinburgh: John Donald.

1988b. *The localist basis for syntactic categories.* Duisburg: LAUD.

1989a. *Grammaticalisation and the English modals.* Duisburg: LAUD.

1989b. Reflections on notional grammar, with some remarks on its relevance to issues in analysis of English and its history. Arnold, D. et al., eds. 1989. *Essays on grammatical theory and universal grammar.* 13-36. Oxford: Clarendon Press.

1990. On the status of auxiliaries in notional grammar. *JL* 26.2, 341-362.

1991. Notional grammar and the redundancy of syntax. *Studies in Language* 15.2, 301-333.

in press. *Structural analogy in language.* Berlin and New York: Mouton-de Gruyter.

ms a. *Notional grammar and the category squish.* Edinburgh: University of Edinburgh.

ms b. *Localism in syntax.* Edinburgh: University of Edinburgh.

in preparation. *A notional theory of syntactic categories.*

ANDERSON, JOHN M. & DURAND, JACQUES, eds.

1987. *Explorations in dependency phonology.* Dordrecht: Foris.

ANDERSON, JOHN M. & EWEN, COLIN

1987. *Principles of dependency phonology.* Cambridge: CUP.

ANDERSON, JOHN M. & JONES, CHARLES

1974. Three theses concerning phonological representations. *JL* 10, 1-26.

ANDERSON, STEPHEN R.

1976. On the notion of subject in ergative languages. Li, Ch.N., ed. 1976. *Subject and topic.* 1-24. New York: Academic Press.

ANDERSON, TOMMY R.

1968. On the transparency of *begin:* some uses of semantic theory. *Foundations of Language* 4, 462-285.

ANDREWS, AVERY

1985. The major functions of the noun phrase. Shopen, T., ed. 1985. I, 62-154.

ARONSON, HOWARD L.

1977. English as an active language. *Lingua* 41, 201-216.

AUSTIN, PETER

1981. *A grammar of Diyari, South Australia.* Cambridge: CUP.

1982. Transitivity and cognate objects in Australian languages. Hopper, P. J. and Thompson, S.A., eds. 1982. 37-47.

AWBERY, G.M.

1976. *The syntax of Welsh. A transformational study of the passive.* Cambridge: CUP.

BABBY, LEONARD

1975. A transformational analysis of *-sja* verbs in Russian. *Lingua* 35, 297-332.

BABBY, LEONARD & BRECHT, RICHARD D.

1975. The syntax of voice in Russian. *Language* 51, 342-367.

BAKER, MARK C.

1988. *Incorporation. A theory of grammatical function changing.* Chicago: Chicago UP.

BARBER, E.W.J.

1975. Voice – beyond the passive. *BLS* 1, 16-24.

BARON, NAOMI S.

1971. On defining 'cognate object'. *Glossa* 5, 71-98.

BARTSCH, RENATE et al.

1977. *Einführung in die Syntax.* Kronberg: Scriptor.

BECHERT, JOHANNES

1971. Zu den Teilen des einfachen Satzes im Awarischen. *Zeitschrift für vergleichende Sprachforschung auf dem Gebiete der Indogermanischen Sprachen* 85, 134-177.

1979. Ergativity and the constitution of grammatical relations. Plank, F., ed. 1979. 45-59.

BECKER, DONALD A.

1971. Case grammar and German *be. Glossa* 5, 125-145.

BENVENISTE, ÉMILE

1952. La construction passive du parfait transitif. *BSL* 48, 52-62.

1960. 'Être' et 'avoir' dans leurs fonctions linguistique. *BSL* 55, 113-134.

1968. Mutations of linguistic categories. Lehmann, W.P. and Malkiel, Y., eds. 1968. *Directions for historical linguistics.* 83-94. Austin and London: University of Texas Press.

BERMAN, RUTH A.

1973. A constraint on *tough*-movement. *CLS* 9, 34-43.

BESTEN, HANS DEN

1981a. Government, syntaktische Struktur und Kasus. Kohrt, M. and Lenerz, J., eds. 1981. *Akten des 15. Linguistischen Kolloquiums.* Vol. 1. 97-107. Tübingen: Niemeyer.

1981b. A case filter for passives. Belliti, A., Brandi, L. and Rizzi, L., eds.,1981. *Theory of markedness in generative grammar.* 65-122. Pisa: Scuola Normale Superiore di Pisa.

1985. The ergative hypothesis and free word order in Dutch and German. Toman, J., ed. 1985. 23-64.

BHAT, D.N.S.

1977. Multiple case roles. *Lingua* 42, 365-377.

BLAKE, BARRY

1977. *Case marking in Australian languages.* Canberra: AIAS.

1979. *A Kalkatungu grammar.* (Pacific Linguistics Series B - No. 57). Canberra: ANU.

1982. The absolutive: its scope in English and Kalkatungu. Hopper, P.J. and Thompson, S.A., eds. 1982. 71-94.

1990. *Relational grammar.* London: Croom Helm.

Böhm, Roger

1981. On causing without a subject. *Lingua* 53, 1-31.

1982. *Topics in localist case grammar* (*with especial reference to English and German*). DPhil thesis. Coleraine: University of Ulster.

1983. Semi-subjects: evidence for split principals. *Acta Linguistica Hafniensia* 18, 117-153.

1986a. Indirect object advancement: from relational grammar to case grammar (via Kalkatungu). *Australian Journal of Linguistics* 6.1, 73-105.

1986b. *Unakkusative: Bemerkungen zur Typologie intransitiver Strukturen.* Paper given at the Linguistics Colloquium, University of Hamburg, June 1986 and the 17th Annual GAL Meeting, University of Hamburg. (Abstract in Kühlwein, W. and Spillner, B. eds., 1988. *Sprache und Individuum.* 105-106. Tübingen: Narr).

1987. *Sekundäre Subjektivierungen im Englischen revisited.* Paper given at 18th Annual GAL Meeting, University of Heidelberg. (Abstract in Spillner, B., ed. 1988. *Angewandte Linguistik und Computer.* 138-139. Tübingen: Narr).

1991. *Lexikalische Kategorien/Wortklassen: von binären Merkmalsbündeln zur Endstation Dependenzkomplex.* Paper given at the 2nd North-German Linguistics Colloquium, Bederkesa, March 1991.

in preparation. *Incorporation and valency: tales from a 1001 theories.*

Bolinger, Dwight

1961. Syntactic blends and other matters. *Language* 37, 366-381.

1975. On the passive in English. Makkai, A. and Becker-Makkai, V., eds. 1975. *The first LACUS forum.* 57-80. Columbia: Hornbeam Press.

Boeder, Winfried

1969. Über die Versionen des georgischen Verbs. *Folia Linguistica* 2, 82-152.

Bondzio, Wilhelm

1959. Die Herausbildung der präpositionalen Konstruktion beim Verbum 'lassen'. *Wissenschaftliche Zeitschrift der Humboldt-Universität zu Berlin. Ges.-Sprachw. R.* IX.3, 205-219.

Bowers, John S.

1981. *The theory of grammatical relations.* Ithaca and London: Cornell University Press.

Breckenridge, Janet

1975. The post-cyclicity of *es*-insertion in German. *CLS* 11, 81-91.

Bresnan, Joan

1982a. The passive in lexical theory. Bresnan, J., ed. 1982. 3-86.

1982b. Polyadicity. Bresnan, J., ed. 1982. 149-172.

BRESNAN, JOAN, ed.

1982. *The mental representation of grammatical relations.* Cambridge, Mass.: MIT Press.

BRESNAN, JOAN & KANERVA, JONNI N.

1989. Locative inversion in Chichewa: a case study of factorization in grammar. *Linguistic Inquiry* 20, 1-50.

BRETTSCHNEIDER, GUNTHER

1979. Typological characteristics of Basque. Plank, F., ed. 1979. 371-384.

CHAFE, WALLACE

1970. *Meaning and the structure of language.* Chicago. Chicago UP.

CHOMSKY, NOAM

1981. *Lectures on government and binding.* Dordrecht: Foris.

1982. *Some concepts and consequences of the theory of government and binding.* Cambridge, Mass.: MIT Press.

1986. *Knowledge of language. Its nature, origin and use.* New York: Praeger.

CHUNG, SANDRA

1978. *Case marking and grammatical relations in Polynesian.* Austin: University of Texas Press.

CLARK, EVE V. & CARPENTER, KAREN L.

1989. The notion of source in language acquisition. *Language* 65.1, 1-30.

COLE, PETER W. et al.

1978. On the acquisition of subjecthood. *Studies in the Linguistic Sciences* 8, 42-71.

COMRIE, BERNARD

1977. In defense of spontaneous demotion: the impersonal passive. Cole, P. and Sadock, J.M., eds. 1977. *Grammatical relations.* (Syntax and Semantics 8). 47-58. New York: Academic Press.

1978. Ergativity. Lehmann, W.P., ed. 1978. *Syntactic typology: studies in the phenomenology of language.* 329-394. Austin: University of Texas Press.

1979. Degrees of ergativity: some Chukchee evidence. Plank, F., ed. 1979. 219-240.

1981. *Language universals and linguistic typology.* Oxford: Blackwell.

1985a. Causative verb formation and other verb-deriving morphology. Shopen, T., ed. 1985. III, 309-348.

1985b. Reflections on subject and object control. *Journal of Semantics* 4, 47-65.

1988. Passive and voice. Shibatani, M., ed. 1988. 9-23.

CRAIG, COLETTE G.

1977. *The structure of Jacaltec.* Austin: University of Texas Press.

CRANMER, DAVID J.

1976. *Derived intransitivity: a contrastive analysis of certain reflexive verbs in German, Russian and English.* Tübingen: Niemeyer.

CRITCHLEY, DAVID H.
1983. Application of a case framework to grammaticalisation in German. *Studia Linguistica* 37.2, 135-145.

CROFT, WILLIAM
1984. Semantic and pragmatic correlates to syntactic categories. *CLS/Parasession* 20*,* 53-70.
1991. *Syntactic categories and grammatical relations.* Chicago: Chicago UP.

DANEŠ, FRANTISEK
1968. Some thoughts on the semantic structure of the sentence. *Lingua* 21, 55-69.
1976. Semantische Struktur des Verbs und das indirekte Passiv im Tschechischen und Deutschen. Lötsch, R. and Ruzička, R., eds. 1976. *Satzstruktur und Genera verbi.* (Studia Grammatica XIII). 113-124. Berlin: Akademie Verlag.

DAVIES, WILLIAM D.
1984. Antipassive: Choctaw evidence for a universal characterization. Perlmutter, D.M. and Rosen, C., eds. 1984. 331-376.

DAVISON, ALICE
1980. Peculiar passives. *Language* 56, 42-66.

DECLERCK, RENAAT
1979. Aspect and the bounded/unbounded (telic/atelic) distinction. *Linguistics* 17, 761-794.

DELANCEY, SCOTT
1981. An interpretation of split ergativity and related patterns. *Language* 57, 626-657.
1984a. Transitivity and ergative case in Lhasa Tibetan. *BLS* 10, 131-140.
1984b. Notes on agentivity and causation. *Studies in Language* 8.2, 181-213.
1985a. Agentivity in syntax. *CLS/Parasession* 21, 1-12.
1985b. On active typology and the nature of agentivity. Plank, F., ed. 1985. *Relational typology.* 47-60. Berlin and New York: Mouton.
1990. Ergativity and the cognitive model of event structure in Lhasa Tibetan. *Cognitive Linguistics* 1, 289-321.

DIK, SIMON C.
1978. *Functional grammar.* Amsterdam: North-Holland.
1983. On the status of verbal reflexives. *Communication and Cognition* 16.1/2, 39-63.
1985. Formal and semantic adjustment of derived constructions. Bolkestein, A.M., de Groot, C. and Mackenzie, J.L., eds. 1985. *Predicates and terms in functional grammar.* 1-28. Dordrecht: Foris.

1989. *The theory of functional grammar. Part I: the structure of the clause.* Dordrecht: Foris.

DIXON, ROBERT M.W.

1972. *The Dyirbal language of North Queensland.* Cambridge: CUP.

1976. *A grammar of Yidiɲ.* Cambridge: CUP.

1979. Ergativity. *Language* 55, 59-138.

1980. *The languages of Australia.* Cambridge: CUP.

1984. The semantic basis of syntactic properties. *BLS* 10, 583-595.

DOWTY, DAVID R.

1979. *Word meaning and Montague grammar.* Dordrecht: Reidel.

1991. Thematic proto-roles and argument selection. *Language* 67, 547-619.

DROSSARD, WERNER

1984. *Das Tagalog als Repräsentant des aktivischen Sprachbaus.* Tübingen: Narr.

DURAND, JACQUES

1990. *Generative and non-linear phonology.* London: Longman.

EBERT, ROBERT P.

1978. *Historische Syntax des Deutschen.* Stuttgart: Metzler.

EMONDS, JOSEPH E.

1985. *A unified theory of syntactic categories.* Dordrecht: Foris.

ENGEL, ULLRICH

1977. *Syntax der deutschen Gegenwartssprache.* Berlin: E. Schmidt.

EROMS, HANS-WERNER

1978. Zur Konversion der Dativphrasen. *Sprachwissenschaft* 3, 357-405.

ESTIVAL, D. & MYHILL, JOHN

1988. Formal and functional aspects of the development from passive to ergative systems. Shibatani, M., ed. 1988. 441-492.

FAGAN, SARAH M.B.

1988. The English middle. *Linguistic Inquiry* 19, 181-203.

to appear. *The syntax of middle constructions.* Cambridge: CUP.

FELLBAUM, CHRISTIANE

1985. Adverbs in agentless actives and passives. *CLS/Parasession* 21, 21-31.

FILLMORE, CHARLES J.

1968. The case for case. Bach, E. and Harms, R.T., eds. 1968. *Universals in linguistic theory.* 1-88. New York: Holt, Rinehart & Winston.

1971. Some problems for case grammar. *Monograph Series on Languages and Linguistics* 24, 35-56.

FODOR, JERRY A.

1970. Three reasons for not deriving 'kill' from 'cause to die'. *Linguistic Inquiry* 1, 429-438.

FOLEY, WILLIAM A. & VAN VALIN, ROBERT D.

1984. *Functional syntax and universal grammar.* Cambridge: CUP.

1985. Information packaging in the clause. Shopen, T., ed. 1985. I, 282-364.

FRASER, BRUCE

1970. Some remarks on the action nominalization in English. Jacobs, R.A. and Rosenbaum, P.S., eds. 1970. *Readings in English transformational grammar.* 83-98. Waltham, Mass.: Ginn.

GIVÓN, TALMY

1979. *On understanding grammar.* New York: Academic Press.

1984a. *Syntax: a functional-typological introduction.* Vol. 1. Amsterdam: Benjamins.

1984b. Direct object and dative shifting: semantic and pragmatic case. Plank, F., ed. 1984. *Objects.* London: Academic Press.

1990. *Syntax: a functional-typological introduction.* Vol. 2. Amsterdam: Benjamins.

GREEN, GEORGIA M.

1970. How abstract is surface structure? *CLS* 8, 83-97.

1973. A syntactic syncretism in English and French. Kachru, B.B. et al., eds. 1973. *Issues in linguistics: papers in honour of H. & R. Kahane.* 257-278. Urbana, Ill.: University of Illinois Press.

1974. *Semantics and syntactic regularity.* Bloomington and London: Indiana University Press.

GRIMES, JOSEPH E.

1975. *The thread of discourse.* The Hague: Mouton.

GREWENDORF, GÜNTHER

1989. *Ergativity in German.* Dordrecht: Foris.

GRUBER, JEFFREY S.

1965. *Studies in lexical relations.* Ph.D. thesis. Cambridge, Mass.: MIT. (reproduced 1970, Bloomington, Ind.: IULC).

1967. *Look* and *see. Language* 43, 937-947.

1976. *Lexical structures in syntax and semantics.* Amsterdam: North Holland.

GUERSSEL, M. et al.

1985. A cross-linguistic study of transitivity alternations. *CLS/Parasession* 21, 48-63.

HAEGEMAN, LILIANE

1985. The *get* passive and Burzio's generalization. *Lingua* 66, 53-77.

HAIDER, HUBERT

1984a. Was zu haben ist und was zu sein hat. Bemerkungen zum Infinitiv. *Papiere zur Linguistik* 30, 23-36.

1984b. Mona Lisa lächelt stumm. Über das sogenannte deutsche 'Rezipientenpassiv'. *Linguistische Berichte* 89, 32-42.

1985a. The case of German. Toman, J., ed. 1985. 65-102.

1985b. A unified account of case and Θ-marking: the case of German. *Papiere zur Linguistik* 32, 3-36.

HAIG, HELEN A.

1982. Passivization in Modern Western Armenian. Hopper, P.J. and Thompson, S.A., eds. 1982. 161-176.

HAIMAN, JOHN

1976. Agentless sentences. *Foundations of Language* 14, 19-53.

HALL, BARBARA

1965. *Subject and object in Modern English.* Ph.D. thesis. Cambridge, Mass.: MIT. (Reproduced 1976, Trier: LAUT).

HALLIDAY, MICHAEL A.K.

1967/68. Notes on transitivity and theme. *JL* 3, 37-81, 199-244; *JL* 4, 179-215.

1985. *An introduction to functional grammar.* London: Arnold.

HARRIS, ALICE C.

1981. *Georgian syntax. A study in relational grammar.* Cambridge: CUP.

HARTUNG, JOHANN ADAM

1840. Passivum. Ersch, J.S. and Gruber, J.G., eds. 1840. *Allgemeine Encyclopädie der Wissenschaften und Künste.* Vol.III, Bd. 13. Leipzig: Brockhaus.

HASEGAWA, K.

1968. The passive construction in English. *Language* 44, 230-243.

HAWKINS, JOHN A.

1986. *A comparative typology of English and German.* London: Croom Helm.

HEIDOLPH, KARL ERICH

1977. Syntaktische Funktionen und semantische Rollen. *Untersuchungen zur deutschen Grammatik I.* (Linguistische Studien A35). 54-84. Berlin: ZISW.

HESTVIK, A.

1986. Case theory and Norwegian impersonal constructions: subject-object alternations in active and passive verbs. *Journal of Nordic Linguistics* 9.2, 181-198.

HJELMSLEV, LOUIS

1935/37. La catégorie des cas. *Acta Jutlandica* VII, 1-184; IX, 1-78. (reprinted 1972. München: Fink).

HÖHLE, TILMANN N.

1978. *Lexikalistische Syntax: die Aktiv-Passiv-Relation und andere Infinitkonstruktionen im Deutschen.* Tübingen: Niemeyer.

HOEKSTRA, ERIC

1986. On the structural subject position in Tagalog. *Lingua* 70, 41-56.

HOEKSTRA, TEUN

1984. *Transitivity. Grammatical relations in government-binding theory.* Dordrecht: Foris.

HOPPER, PAUL J. & THOMPSON, SANDRA A.

1980. Transitivity in grammar and discourse. *Language* 56, 251-299.

1984. The discourse basis for lexical categories in universal grammar. *Language* 60, 703-752.

HOPPER, PAUL J. & THOMPSON, SANDRA A., eds.

1982. *Studies in transitivity.* (Syntax and Semantics 15). New York: Academic Press.

HORN, GEORGE M.

1977. An analysis of certain reflexive verbs and implications for the organization of the lexicon. *Studia Anglica Posnaniensia* IX, 17-42.

HORNSTEIN, NORBERT & WEINBERG, A.

1981. Case theory and preposition stranding. *Linguistic Inquiry* 12, 55-91.

HORROCKS, GEOFFREY

1987. *Generative grammar.* London: Longman.

HUDDLESTON, RODNEY

1970. Some remarks on case grammar. *Linguistic Inquiry* 1, 501-511.

1975. Some theoretical issues in the description of the English verb. *Lingua* 40, 331-383.

1984. *Introduction to the grammar of English.* Cambridge: CUP.

HUDSON, RICHARD A.

1984. *Word grammar.* Oxford: Blackwell.

1987. Zwicky on heads. *JL* 23.1, 109-132.

1988. *English passives.* Duisburg: LAUD.

1989. English passives, grammatical relations and default inheritance. *Lingua* 79, 17-48.

IGEKAMI, YOSHIHIKO

1969. *The semasiological structure of the English verbs of motion.* Tokyo: Sanseido.

1976. Syntactic structure and the underlying semantic patterns – a localist hypothesis. *Linguistics* 170, 31-44.

1987. 'Source' *vs.* 'goal': a case of linguistic dissymmetry. Dirven, R. and Radden, G., eds. 1987. *Concepts of case.* 122-146. Tübingen: Narr.

JACKENDOFF, RAY S.

1972. *Semantic interpretation in generative grammar.* Cambridge, Mass.: MIT Press.

1976. Toward an explanatory semantic representation. *Linguistic Inquiry* 7, 89-150.

1983. *Semantics and cognition.* Cambridge, Mass.: MIT Press.

1987. The status of thematic relations in linguistic theory. *Linguistic Inquiry* 18.3, 369-411.

JAEGGLI, OSVALDO A.

1986. Passive. *Linguistic Inquiry* 17.4, 587-622.

JESSEN, MARILYN

1974. *A semantic study of spatial and temporal expressions in English.* Ph.D. thesis. Edinburgh: University of Edinburgh.

JOB, MICHAEL

1985. Ergativity in Lezgian. Plank, F., ed. 1985. *Relational typology*. 159-173. Berlin and New York: Mouton.

KAHREL, PETER

1985. *Some aspects of derived intransitivity.* (Working Papers in Functional Grammar 4). Amsterdam: University of Amsterdam.

KEENAN, EDWARD L.

1985. Passive in the world's languages. Shopen, T., ed. 1985. I, 243-281.

KEYSER, SAMUEL J. & ROEPER, THOMAS

1984. On the middle and ergative constructions in English. *Linguistic Inquiry* 15, 381-416.

KIBRIK, A.E.

1979. Canonical ergativity and Daghestan languages. Plank, F., ed. 1979. 61-77.

KILBY, DAVID

1984. *Descriptive syntax and the English verb.* London: Croom Helm.

KIRKWOOD, HENRY W.

1970. On the thematic function and syntactic meanings of the grammatical subject in English. *Linguistische Berichte* 9, 34-46.

1973. *Theme and rheme in English and German.* Ph.D. thesis. Edinburgh: University of Edinburgh.

1978. Options and constraints in the surface ordering of noun phrases in English and German. *Journal of Pragmatics* 2, 225-245.

KIRSNER, ROBERT S.

1979. *The problem of presentative sentences in Modern Dutch.* Amsterdam: North-Holland.

KLAIMAN, M.H.

1980. Bengali dative subjects. *Lingua* 51, 275-295.

1981. Towards a universal semantics of indirect subject constructions. *BLS* 7, 123-135.

KLIMOV, G.A.

1969. *Die kaukasischen Sprachen.* Hamburg: Buske.

KÖLVER, ULRIKE
1976. *Satztypen und Verbsubkategorisierung der Newari.* München: Fink.

KÖNIG, EKKEHARD
1973. *Englische Syntax 2. Struktur des einfachen Satzes.* Frankfurt: Athenäum.

KOZINSKY, I.S., NEDJALKOV, V.P. & POLINSKAJA, M.S.
1988. Antipassive in Chukchee: oblique object, object incorporation, zero object. Shibatani, M., ed. 1988. 651-706.

LAKOFF, GEORGE
1977. Linguistic gestalts. *CLS* 13, 236-386.

LAKOFF, ROBIN
1971. Passive resistance. *CLS* 7, 149-162.

LANGACKER, RONALD W.
1986. An introduction to cognitive grammar. *Cognitive Science* 10, 1-40.
1987. *Foundations of cognitive grammar.* Stanford: Stanford University Press.

LANGACKER, RONALD W. & MUNRO, PAMELA M.
1975. Passives and their meaning. *Language* 51, 789-830.

LARSON, RICHARD
1988. On the double object construction. *Linguistic Inquiry* 19, 335-391.

LASNIK, HOWARD L.
1988. Subjects and the Θ-criterion. *Natural Language and Linguistic Theory* 6.1, 1-18.

LASS, ROGER.
1984. *Phonology.* Cambridge: CUP.

LEE, DAVID A.
1974. Noun phrase raising in French and English. *Lingua* 34, 219-227.

LEHRER, ADRIENNE
1970. Verbs and deletable objects. *Lingua* 25, 227-253.

LEVIN, BETH & RAPPAPORT, MALKA
1986. The formation of adjectival passives. *Linguistic Inquiry* 17.4, 623-661.

LEVIN, BETH & RAPOPORT, TOVA R.
1988. Lexical subordination. *CLS* 24, 275-289.

LYONS, JOHN
1966. Towards a 'notional' theory of the 'parts of speech'. *JL* 2, 209-236.
1968. *Introduction to theoretical linguistics.* Cambridge: CUP.
1977. *Semantics.* 2 vols. Cambridge: CUP.
1989. Semantic ascent: a neglected aspect of syntactic typology. Arnold, D. et al., eds. 1989. *Essays on grammatical theory and universal grammar.* 153-186. Oxford: Clarendon Press.

MACKENZIE, J. LACHLAN

1977. The marking of agents and instruments in Contemporary German. *Edinburgh Working Papers in Linguistics* 10, 116-128.

1980. Functions and cases. Hoekstra, T., van der Hulst, H. and Moortgart, M., eds. *Perspectives on functional grammar.* 299-318. Dordrecht: Foris.

1982. Nominal predicates in a functional grammar of English: a first statement. Fry, A.J., Mackenzie, J.L., Todd, R., eds. 1982. *Free University Studies in English 2. A collection of essays and working papers.* 113-138. Amsterdam: Free University.

1985. Nominalization and valency reduction. Bolkestein, A.M., de Groot, C. and Mackenzie, J.L., eds. 1985. *Predicates and terms in functional grammar.* 29-47. Dordrecht: Foris.

MARANTZ, ALEC P.

1984. *On the nature of grammatical relations.* Cambridge, Mass.: MIT Press.

MATTHEWS, PETER

1981. *Syntax.* Cambridge: CUP.

MCCAWLEY, NORIKO A.

1976. From OE/ME 'impersonal' to 'personal' constructions: what is a 'subjectless' S? *CLS/Parasession* 12, 192-204.

MCCLURE, WILLIAM

1990. A lexical semantic explanation for unaccusative mismatches. Dziwirek, K., Farrell, P. and Mejias-Bikandi, E. eds., 1990. *Grammatical relations. A cross-theoretical perspective.* 305-318. Stanford: CSLI.

MCGINN, R., ed.

1988. *Studies in Austronesian linguistics.* (Ohio University Monographs in International Studies. South Asia Series, No. 76). Athens, Ohio: Ohio UP.

MEL'ČUK, IGOR A.

1979. Syntactic or lexical zero in natural language. *BLS* 5, 224-260.

MERLAN, FRANCESCA

1985. Split intransitivity: functional oppositions in intransitive inflection. Nichols, J. and Woodbury, A.C., eds. 1985. *Grammar inside and outside the clause.* 324-362. Cambridge: CUP.

MILLER, JIM E.

1985. *Semantics and syntax.* Cambridge: CUP.

MITHUN, MARIANNE

1984. The evolution of noun incorporation. *Language* 60, 847-895.

1991. Active/agentive case marking and its motivations. *Language* 67, 510-546.

MORAVCSIK, EDITH A.

1978. On the distribution of ergative and accusative patterns. *Lingua* 45, 233-279.

MULDER, JAN & HERVEY, SANDOR

1980. *The strategy of linguistics. Papers on the theory and methodology of axiomatic functionalism.* Edinburgh: Scottish University Press.

NEDJALKOV, VLADIMIR P.
1979. Degrees of ergativity in Chukchee. Plank, F., ed. 1979. 241-262.
1980. Reflexive constructions: a functional typology. Brettschneider, G. and Lehmann, C., eds. 1980. *Wege zur Universalienforschung. Sprachwissenschaftliche Beiträge zum 60. Gebürtstag von Hansjakob Seiler.* 222-228. Tübingen: Narr.

NERBONNE, JOHN A.
1982. Some passives not characterized by universal rules: subjectless impersonals. *Ohio State University Working Papers in Linguistics* 26, 59-92.

NICHOLS, JOHANNA
1978. Secondary predicates. *BLS* 4, 114-127.
1984. Direct and oblique objects in Chechen-Ingush and Russian. Plank, F., ed. 1984. 183-209.

NISHIMURA, YOSHIHIKO
1989. *Agentivity in cognitive grammar.* Duisburg: LAUD.

PERLMUTTER, DAVID M.
1978. Impersonal passives and the unaccusative hypothesis. *BLS* 4, 157-189.
1980. Relational grammar. Moravcsik, E.A. and Wirth, J.R., eds. 1980. *Current approaches to syntax.* (Syntax and Semantics 13). 195-225. New York: Academic Press.
1984. The inadequacy of some monostratal theories of passive. Perlmutter, D.M. and Rosen, C., eds. 1984. 3-37.

PERLMUTTER, DAVID M., ed.
1983. *Studies in relational grammar 1.* Chicago: Chigaco University Press.

PERLMUTTER, DAVID M. & POSTAL, PAUL M.
1977. Toward a universal characterization of passivization. *BLS* 3, 394-417. (also in: Perlmutter, D.M., ed. 1983. 3-30).
1984a. The 1-advancement exclusiveness law. Perlmutter, D.M. and Rosen, C., eds. 1984. 81-125.
1984b. Impersonal passives and some relational laws. Perlmutter, D.M. and Rosen, C., eds. 1984. 126-170.

PERLMUTTER, DAVID M. & ROSEN, CAROL, eds.
1984. *Studies in relational grammar 2.* Chicago: Chicago University Press.

PÉTURSSON, MAGNUS
1981. *Lehrbuch der Isländischen Sprache.* Hamburg: Buske.

PLANK, FRANS

1979a. Ergativity, syntactic typology and universal grammar: some past and present viewpoints. Plank, F., ed. 1979b. 3-36.

1985. Prädikativ und Koprädikativ. *Zeitschrift für Germanistische Linguistik* 13, 154-185.

1987. Direkte indirekte Objekte, oder: Was uns lehren lehrt. *Leuvense Bijdragen* 76.1, 37-61.

PLANK, FRANS, ed.

1979b. *Ergativity. Towards a theory of grammatical relations.* New York: Academic Press.

1984. *Objects. Towards a theory of grammatical relations.* New York: Academic Press.

POSTAL, PAUL M.

1971. *Cross-over phenomena.* New York: Holt, Rinehart & Winston.

1974. *On raising.* Cambridge, Mass.: MIT Press.

1977. Antipassive in French. *Lingvisticae Investigationes* 1, 333-374.

1982. Some arc pair grammar descriptions. Jacobson, P. and Pullum, G.K., eds. 1982. *The nature of syntactic representation.* 341-426. Dordrecht: Reidel.

1986. *Studies of passive clauses.* Albany: State University of New York Press.

1990. Some unexpected English restrictions. Dziwirek, K., Farrell, P. and Mejias-Bikandi, E. eds., 1990. *Grammatical relations. A cross-theoretical perspective.* 365-385. Stanford: CSLI.

POSTAL, PAUL M. & PULLUM, GEOFFREY K.

1988. Expletive noun phrases in subcategorized positions. *Linguistic Inquiry* 19.4, 635-670.

PULLUM, GEOFFREY K. & WILSON, DEIDRE

1977. Autonomous syntax and the analysis of auxiliaries. *Language* 53, 741-788.

QUIRK, RANDOLPH et al.

1985. *A comprehensive grammar of the English language.* London: Longman.

RADFORD, ANDREW

1988. *Transformational grammar.* Cambridge: CUP.

RANDALL, JANET H.

1988. Inheritance. Wilkins, W., ed. 1988. 129-146.

RAPPAPORT, MALKA

1983. On the nature of derived nominals. Levin, L., Rappaport, M. and Zaenen, A., eds. 1983. *Papers in lexical-functional grammar.* 113-142. Bloomington: IULC.

RAPPAPORT, MALKA & LEVIN, BETH

1988. What to do with Θ-roles. Wilkins, W., ed. 1988. 7-36.

REIS, MARGA

1976. Zum grammatischen Status von Hilfsverben. *Beiträge zur Geschichte der Deutschen Sprache und Literatur* (Tübingen) 98, 64-82.

1985. Mona Lisa kriegt zuviel – vom sogenannten Rezipientenpassiv' im Deutschen. *Linguistische Berichte* 96, 140-155.

RICE, SALLY

1987. Towards a transitive prototype: evidence from some atypical passives in English. *BLS* 13, 422-434.

RIZZI, LUIGI

1986. Null objects in Italian and the theory of *pro. Linguistic Inquiry* 17, 501-557.

ROBINSON, JANE

1970. Dependency structures and transformational rules. *Language* 46, 259-285.

ROEPER, THOMAS

1987. Implicit arguments and the head-complement relation. *Linguistic Inquiry* 18, 267-310.

ROHDENBURG, GÜNTHER

1971. Zum persönlichen Subjekt im Englischen. Versuch einer Widerlegung und Relativierung einer traditionellen Vorstellung. *Kongreßbericht der 2. Jahrestagung der Gesellschaft für Angewandte Linguistik.* 139-145. Heidelberg: Groos.

1974. *Sekundäre Subjektivierungen im Englischen und Deutschen. Vergleichende Untersuchungen zur Verb- und Adjektivsyntax.* (PAKS-Arbeitsbericht Nr. 8). Bielefeld: CVK.

ROSEN, CAROL

1984. The interface between semantic roles and initial grammatical relations. Perlmutter, D.M. and Rosen, C., eds. 1984. 38-77.

ROSEN, SARAH

1989. Two types of noun incorporation: a lexical analysis. *Language* 65, 264-317.

ROSÉN, H.B.

1980. Weiteres über die Entstehung der periphrastischen 'Perfekt'formen im Lateinischen. Zum Begriff 'Zustand des Akt(resultats)besitzes'. Brettschneider, G. and Lehmann, C., eds. 1980. *Wege zur Universalienforschung. Sprachwissenschaftliche Beiträge zum 60. Geburtstag von Hansjakob Seiler.* 311-316. Tübingen: Narr.

ROSS, JOHN ROBERT

1969. Auxiliaries as main verbs. Todd, W., ed. 1969. *Studies in philosophical linguistics I.* 77-102. Evanston, IL.: Great Expectations Press.

1973. Nouniness. Fujirama, O., ed. 1973. *Three dimensions of linguistic theory.* 137-257. Tokyo: TEC Company.

RYLE, G.
1949. *The concept of mind.* London: Hutchinson.

SCHACHTER, PAUL
1976. The subject in Philippine languages: topic, actor, actor-topic or none of the above. Li, Ch.N., ed. 1976. *Subject and topic.* 491-518. New York: Academic Press.
1985. Parts-of-speech systems. Shopen T., ed. 1985. I, 3-61.

SEEFRANZ-MONTAG, ARIANE V.
1983. *Syntaktische Funktionen und Wortstellungsveränderung. Die Entwicklung 'subjektloser' Konstruktionen in einigen Sprachen.* München: Fink.

SEILER, HANS JAKOB
1973. On the semanto-syntactic configuration 'possessor of an act'. Kachru, B.B. et al., eds. 1973. *Issues in linguistics: papers in honour of H.& R. Kahane.* 836-853. Urbana, Ill.: University of Illinois Press.

SHANNON, THOMAS
1987. On some recent claims of Relational Grammar. *BLS* 13, 247-262.

SHIBATANI, MASAYOSHI, ed.
1988. *Passive and voice.* Amsterdam: Benjamins.

SHOPEN, TIMOTHY, ed.
1985. *Language typology and syntactic description.* Vols. I-III. Cambridge: CUP.

SIEWIERSKA, ANNA
1984. *The passive. A comparative linguistic analysis.* London: Croom Helm.
1988. The passive in Slavic. Shibatani, M., ed. 1988. 243-290.
1991. *Functional grammar.* London: Routledge.

SILVERSTEIN, MICHAEL
1976. Hierarchy of features and ergativity. Dixon, R.M.W., ed. 1976. *Grammatical categories in Australian languages.* 112-171. New Jersey: Humanities Press.

SIMPSON, JANE
1983. Resultatives. Levin, L., Rappaport, M. and Zaenen, A., eds. 1983. *Papers in lexical-functional grammar.* 143-157. Bloomington: IULC

SMITH, DONALD L.
1978. Mirror images in Japanese and English. *Language* 54, 78-122.

SMITH, MICHAEL B.
1985. Event chains, grammatical relations, and the semantics of case in German. *CLS* 21, 388-407.

STAROSTA, STANLEY
1978. The one/sent solution. Abraham, W., ed. 1978. 459-576.
1982. Case relations, perspective and patient centrality. *Hawaii University Working Papers in Linguistics* 14, 1-33.

STEINITZ, RENATE

1990. Prädikation, Modifikation und Adverbiale. Steube, A., ed. 1990. *Syntaktische Repräsentationen mit leeren Kategorien oder Proformen und ihre semantischen Interpretationen.* (Linguistische Studien A.206). 117-132. Berlin: ZISW.

to appear a. Mehrdeutigkeit in der Grammatik: *auf* und *an* - eine Fallstudie. *Studia Grammatica.* Berlin: Akademie Verlag.

to appear b. 'Modern': Argumentstruktur, 'traditionell': Valenz - Versuch eines Brückenschlags. *Linguistische Berichte.*

STOCKWELL, ROBERT P., SCHACHTER, PAUL & HALL PARTEE, BARBARA

1973. *The major syntactic structures of English.* New York: Holt, Rinehart & Winston.

TALMY, LEONARD

1975. Semantics and syntax of motion. Kimball, J.P., ed. 1975. *Syntax and semantics 4.* 181-238. New York: Academic Press.

1985. Lexicalization patterns: semantic structure in lexical forms. Shopen, T., ed. 1985. III, 57-149.

TCHEKOFF, CLAUDE

1985. Aspect, transitivity, 'antipassives' and some Australian languages. Plank, F., ed. 1985. *Relational typology.* 359-390. Berlin and New York: Mouton.

TESNIERE, LUCIEN

1959. *Eléments de syntaxe structurale.* Paris: Klincksieck.

THRANE, TORBEN

1980. *Referential-semantic analysis: aspects of a theory of linguistic reference.* Cambridge: CUP.

TODENHAGEN, CHRISTIAN

1974. *Vergleichende Untersuchungen zu englischen und deutschen Partizipia II-Attributen.* Frankfurt/M.: P. Lang.

TOMAN, J., ed.

1985. *Studies in German Grammar.* Dordrecht: Foris.

TRAVIS, LISA & WILLIAMS, EDWIN

1983. Externalization of arguments in Malayo-Polynesian languages. *The Linguistic Review* 2, 57-77.

TSUNODA, T.

1981. Split case-marking patterns in verb-types and tense/aspect/mood. *Linguistics 19,* 389-438.

1985. Remarks on transitivity. *JL* 21, 385-396.

1988. Antipassives in Warrungu and other Australian languages. Shibatani, M., ed. 1988. 595-650.

VAN OOSTEN, JANET
1977. Subjects and agenthood in English. *CLS* 13, 459-471.
1985. *The nature of subjects, topics and agents: a cognitive explanation.* Bloomington: IULC.

VAN VALIN, ROBERT D.
1987. The unaccusative hypothesis *vs.* semantic approaches to verb classification. *NELS* 17.2, 641-661.
1990. Semantic parameters of split intransitivity. *Language* 66, 221-260.

VATER, HEINZ
1975. Toward a generative dependency grammar. *Lingua* 36, 121-145.

VENDLER, ZENO
1967. *Linguistics and philosophy.* Ithaca, N.Y.: Cornell University Press.

VERKUYL, HENK J.
1972. *On the compositional nature of aspect.* Dordrecht: Reidel.

VERMA, MANINDRA K. & MOHANAN, K.P., eds.
1990. *Experiencer subjects in South Asian languages.* Stanford: CSLI.

VESTERGAARD, TORBEN
1973. A note on objective, instrumental, and affected in English. *Studia Linguistica* 27, 85-89.

VINCENT, NIGEL
1982. The development of the auxiliaries *habere* and *esse* in Romance. Vincent, N. and Harris, M., eds. 1982. *Topics in the Romance verb.* London: Croom Helm.

WAGNER, FRITZ
1977a. Reflexivkonstruktionen und Genera Verbi. *Sprachwissenschaft* 2, 302-338.
1977b. *Untersuchungen zu Reflexivkonstruktionen im Deutschen.* Frankfurt/M.: Peter Lang.

WEGENER, HEIDE
1985. 'Er bekommt widersprochen' – Argumente für die Existenz eines Dativpassivs im Deutschen. *Linguistische Berichte* 99, 127-139.

WEISGERBER, LEO
1958. Der Mensch im Akkusativ. *Wirkendes Wort* 8, 193-205.

WHITNEY, DWIGHT W.
1882. General considerations on the Indo-European case-system. *Transactions of the American Philological Association,* Vol. XIII, 88-100.

WILBUR, TERRENCE H.
1979. *Prolegomena to a grammar of Basque.* Amsterdam: Benjamins.

WILKINS, WENDY, ed.
1988. *Thematic relations.* (Syntax and Semantics 21). New York: Academic Press.

WILKINSON, E.
1983. Indirect object advancement in German. *BLS* 9, 281-291.

WILLIAMS, EDWIN
1980. Predication. *Linguistic Inquiry* 11, 203-238.
1981. Argument structure and morphology. *The Linguistic Review* 1, 81-114.
1987. English as ergative language: the theta structure of derived nouns. *CLS* 23, 366-375.

WUNDERLICH, DIETER
1985. Über die Argumente des Verbs. *Linguistische Berichte* 97, 183-227.

ZAENEN, ANNIE, MALING, JOAN & THRAINSSON, HARALD
1985. Case and grammatical functions: the Icelandic passive. *Natural Language and Linguistic Theory* 3, 441-84.

ZIV, YAEL & SHEINTUCH, GLORIA
1981. Passives of obliques over direct objects. *Lingua* 54, 1-17.

ZUBIN, DAVID A.
1975. On the distributional properties of surface morphology and their consequences for semantic analysis. *Columbia University Working Papers in Linguistics* 2, 189-218.
1977. The semantic basis of case alternation in German. Fasold, R.W. and Shuy, R.W., eds. 1977. *Studies in Language Variation.* 88-99. Georgetown: Georgetown UP.
1980. Meaning vs. government. *Columbia University Working Papers in Linguistics* 5, 20-33.

ZWICKY, ARNOLD M.
1987. Slashes in the passive. *Linguistics* 25.4, 639-670.