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Modern grammars of case: preliminaries to a personal history

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Preamble

By my title I've described the area that I want to look at here as 'modern grammars of case'. Much of the discussion will be concerned with the concept of 'case grammar' that began to be developed in the late 60s of the last century. I've chosen the label 'grammars of case' here, rather than, say, 'case grammar', to signal that it is misleading to see the tradition that came to be called 'case grammar' in isolation from other developments in the study of case with which this tradition interacted. And the boundaries between different traditions are fluid.

Certainly, I think one can establish something distinctive about the core of the 'case grammar' tradition that has evolved over the last 40 years; and this is one of the main aims of what I want to do here. But this can be established most transparently against the background of other work of the same period – and, to some extent more importantly, before. Here I follow the recommendation of Lyons (1965: 7):

Nothing is more helpful in acquiring an understanding of the principles of modern linguistics than some knowledge of the history of the subject.

Unfortunately, such recommendations are now not often respected. I make no apology for doing so. As is usual as concerns any scholarly enterprise, the recent ideas about 'case' that I'm going to examine are often not entirely novel; and it is important to understand why in some instances we find a continuation and development of earlier work and in others more drastic revision and rejection. Only thus can we achieve a non-parochial perspective in the evaluation of the adequacy and originality of present-day opinions.

I am focusing, however, on 'modern grammars of case', theories primarily of the twentieth century. But work of the preceding decades, which embodied traditions going back some centuries, has a role to play in the development and evaluation of modern theorising. This is recognised, at least symbolically, in the title of one of the earliest publications in 'case grammar' – Charles Fillmore's 'Toward a modern theory of case', of 1965/1969. In modern work, much of the acknowledgment of the contribution of earlier work is, as in this title, implicit only, though Fillmore (1968) does offer a brief critique of the practice of some previous grammars of case. But, as anticipated, I shall try to make this debt a bit more overt as we proceed – and, indeed, from the very beginning. Of course, even this is limited in our present enterprise by the space proportionately available for such 'contextualisation' – as well as, more notably, by the limits of my own knowledge.

1. The classical tradition

As is familiar, the category of case occupied a central position in grammars of the classical tradition that dominated linguistic theorising in Europe before the twentieth century. The study and example of Latin were the centre of much of this tradition for many centuries. But many of the elements of the tradition were drawn from the Greeks, particularly the stoics. And the later tradition of philosophical grammars liberated itself to some extent from the example of Latin and Latin grammars. Even among the usually less enterprising pedagogical grammars of the European vernaculars that flourished from the Renaissance onwards, some attempt was made to adapt the framework to these vernaculars. I shall refer to all of these grammatical enterprises as the 'classical tradition', while recognising that this term includes a wide variety of different approaches and purposes, ranging from pedagogical and rhetorical grammars to philosophical.

Within the core of this tradition case was conceived of as a morphological category, the members of the category being expressed in the form taken by nouns and related categories. But a precise and transparent characterisation of the category and its function does not emerge in antiquity or in subsequent work in the less philosophical strands in the tradition – except perhaps negatively: not gender, not number Rather, we have retention of the classical recognition of a distinction between two kinds of cases: the casus rectus, the nominative, which marks the subject of the finite verb, and the oblique cases, which at least in some uses signal a semantic relation to the verb, illustrated in (1):

(1) Missī lēgātī Athēnās sunt
 sent envoys+nom Athens+acc are ('Envoys were sent to Athens')

(Gildersleeve & Lodge 1968: 214). Here the accusative marks the spatial goal of the movement signalled by the verb. The nature of this alleged distinction between the casus rectus and the others, and variants of it, underlie much of the debate within modern grammars of case.

Not so much debated of late has been the problematical status of the vocative. As observed by the ancients, the vocative seems to belong paradigmatically with the cases, but functionally has little in common with them. Perhaps, however, we can see in the classical tradition a generalisation that covers at least the rest of the cases: if subjecthood and 'spatial goal-hood' are both relational notions, we can say that case marks a relation of some sort between the noun and some other element.

1.1. The syntax of case and adposition

Despite some uncertainties concerning the category, in the central classical tradition case occupied a crucial place in the syntax. It's not just that case was seen as a defining property of word class. So, for Varro, for instance, the word classes of Latin were defined as in (2) (adapted from Robins 1951: 54):

(2)	inflected for Case		
	+	÷	
with Tense forms	÷	nouns	conjunctions etc
	+	participles	verbs

Here, 'nouns' include 'adjectives' as a subclass; and 'conjunctions etc.' is clearly the ragbag of categories lacking case and tense.

But, in addition to case having this role in defining word classes, reference to distinctions in case was seen as fundamental in formulating the syntax of a language.

Gildersleeve's Latin grammar, revised by Gonzalez Lodge, i.e. what we know familiarly as Gildersleeve & Lodge (1968), comes late in this tradition. But still its description of the syntax of the cases occupies a large part of the segment of the grammar devoted to 'qualification of predicate', as well as their being invoked elsewhere in the syntax of the 'simple sentence', as in the discussion of the subject. 69 out of the 94 pages of the aforesaid segment alone deal entirely with case syntax. Tense, on the other hand, although it also figures in (2), occupies only 9 pages of the syntax, compared with 14 devoted to mood, which is not for Varro a word-class-defining category. Case is central to the description of the syntax. A classical grammar is a 'grammar of case' to this extent.

As is typical in descriptive grammars of the classical tradition, prepositions in Gildersleeve & Lodge belong to the 'rag-bag' of the upper-right box of (2). Most of their syntax is, however, discussed as ancillary to the syntax of the cases. So, Gildersleeve & Lodge observe that the use of the accusative in (1) is limited to 'Names of Towns and small Islands', whereas 'Countries and large islands being looked upon as areas, and not as points, require prepositions' (1968: 213-4), as in (3):

- (3) In Graeciam pervēnit
 in Greece+acc s/he+arrived ('S/he arrived in Greece')

The tradition recognises that a semantic relation 'goal' is involved in both (1) and (3), as well as invoking the notional basis for the distinction in usage between (1) and (3): whether the goal is conceived of as an area or not. And the joint role in (3) of the preposition and the case inflexion in signalling the semantic relation is also acknowledged. There is a perception that the descriptions of case and preposition are linked.

According to Hjelmslev (1935: 24, 40-3) it is, however, only in the nineteenth century that the equivalence of adposition and case in signalling relations of some sort is given full recognition (in the work of Bernhardt 1805 in particular). This is slightly misleading: the case/preposition relationship was already familiar to the tradition of humanist grammars (such as that of Linacre 1533 – see Padley 1976) and subsequent philosophical grammars. It is dwelt on at some length in the Port-Royal grammar (Lancelot & Arnauld 1660: ch.VI), as well as in Lancelot's *Nouvelle méthode latine* (1644). The grammar essentially suggests that nouns inflected for case are abbreviated prepositional phrases. It notes too that the relations expressed by case can also be signalled by word order.

The analysis of prepositions is not pursued further, however, either by Bernhardt or Lancelot & Arnauld. And neither in the seventeenth nor in later centuries is there confrontation of the problem posed by (3), namely, the articulating of the combined role of adposition and inflexion in a single phrase in expressing the semantic relation. Are the adposition and the case the same kind of entity, despite their different morphosyntax? How is their co-occurrence regulated? I shall be suggesting that even modern grammars of case have failed to adequately address these questions.

This is already pointed out, however, by Kuryłowicz (1949). He comments:

L'analyse incorrecte des tours prépositionnels nous semble avoir été un des obstacles les plus sérieux à une analyse adéquate de la catégorie des cas. Dans les essais récents consacrés aux cas (L. Hjelmslev [(1935/37)], R. Jakobson [(1936)], A.W. de Groot [(1939)]) les tours prépositionnels sont soit passés sous silence soit traités d'une manière autre que les formes casuelles «synthétiques». En établissant la *valeur générale* d'un cas M. Jakobson découpe les tours

prépositionnels en *préposition + forme casuelle ...*, en détruisant ainsi l'unité morphologique formée par la préposition et la désinence qui en dépend.

(1949: 20). I shall return to Kuryłowicz's proposals subsequently, when I take up this problem, which, it seems to me, remained unresolved through the twentieth century – as I have just implied.

By the nineteenth century there is acknowledged recognition of the adposition/case relationship; but this relationship is not well articulated. And the case/adposition equivalence is again recognised in the conjunction of the titles of two early papers of Fillmore's, 'Toward a modern theory of case' (1965/1969), already alluded to, and 'A proposal concerning English prepositions' (1966). But the relationship, involving possible co-occurrence, in generally fails to be explicitly formulated.

1.2. Grammatical vs. local cases

What apparently does belong specifically to the nineteenth century is the firm establishment of a distinction between grammatical and notional or 'local' cases, not just between nominative and the oblique cases. The suggestion that other cases as well as the nominative should be defined syntactically we can associate particularly with the name of Theodor Rumpel (1845, 1866). For him the nominative is the case of the subject of the verb, the accusative that of the 'direct object', the dative that of the 'indirect object', and the genitive marks subjects or 'objects' of nouns. The cases are defined by grammatical relations allegedly borne by the nouns. It is clear, however, that not all cases can be so defined. There are also notional or 'local' cases, which reflect relations that are more obviously semantic.

This distinction between 'grammatical' and 'local' is most fully developed in the first place by Holzweissig (1877), based on work of Ahrens, though their system excludes the nominative, the *casus rectus*, as well as the vocative: in this system the grammatical, or 'logical', cases in the early Indo-European languages are the accusative, dative and genitive, as shown in (4):

- (4) a. *grammatical cases*: accusative, dative, genitive
- b. *local cases*: ablative, locative, instrumental

However, the boundary between the two types of case does not seem to be strict: there are doubtful cases (in both senses). All of this can be illustrated from Finnish.

Finnish has at least the set of cases listed in (5):

- (5) a. nominative, genitive, accusative
- b. essive, partitive, translative
- c. inessive, elative, illative – adessive, ablative, allative

Traditionally, (5.a) are the 'grammatical' cases, and (5.c) the 'local': the first three in (5.c) are 'interior' cases, the latter are 'exterior' or non-interior. I shall come back to (5.b).

So the accusative, for instance, can be interpreted as representing the 'direct object', and the illative and allative spatial goal ('interior' or not):

- (6) a. Liisa sai rahan
 Liisa got money+acc ('Liisa got the money')

- b. Marja pani kirjan laatikkoon
Marja put book+acc box+ill ('Marja put the book into the box')
- c. Jussi meni asemalle
Jussi went station+all ('Jussi went to the station')

(examples from Rigler 1992: 93-5). Though the illative and allative have other uses than those illustrated in (6), none of them can easily be interpreted as grammatical. Not all cases can be grammatical, then.

This mixed-relational view of case – some grammatical, some local, notional – is basically what twentieth-century grammarians inherited. As I've observed, the division is not strict, abrupt; some cases do not fall easily just into one category. The cases in (b) in (5) that I haven't mentioned so far illustrate this. The essive, for instance, marks predicatives, traditionally seen as a grammatical function, as in (7.b); but it does so only if the denotata of the predicates are contingent, temporary, thus introducing notional considerations into its syntax. Otherwise the nominative is used, as in (7.a):

- (7) a. Kivi on kova
stone is hard+nom
- b. Marja oli sairaana
Marja was ill+ess
- c. Tyttö oli kotona
girl was home+ess ('The girl was at home')
- d. Jussi lähti maanantaina
Jussi left Monday+ess ('Jussi left on Monday')

And as well as (7.b), illustrating the predicative use of the essive, we also find 'local' essives such as (7.c) and (d) (Rigler 1992: 94, 108).

Moreover, the partitive, which has the 'local' use in (8.b), also alternates with the accusative as a marker of 'direct object', where it signals partial involvement of the object, as in (8.a), which should be compared with the example with accusative in (6.a):

- (8) a. Jussi sai rahaa
Jussi got money+part ('Jussi got (some) money')
- b. Jussi tuli kotoa
Jussi came home+part ('Jussi came from home')

(Rigler 1992: 94). Comparison of (6.a) and (8.a) shows that even the 'grammatical' cases of (5.a) are not purely so: accusative marks only a semantic subset of objects. Similarly, the predicative nominative in (7.a) is associated only with a non-contingent interpretation. The contingent status of the predicative noun in (9.b) is again signalled by the presence of the essive inflection, rather than the nominative with the same noun in (a):

- (9) a. Pekka on opettaja
Pekka is teacher+nom

- b. Pekka on opettayana
Pekka is teacher+ess

(Rigler 1992: 108). Rigler comments: '<(9.a)> implies that Pekka is a teacher by profession, and <(9.b)> that he is working as a teacher at the moment'.

And this duality of function of a 'grammatical' case is (if anything) even clearer in the case of the Latin accusative. We have indeed already witnessed the 'local' use of (1). The same case can also be interpreted as marking the 'direct object' in (10):

- (10) Rōmulus urbem Rōmam condidit
Romulus city+acc Rome+acc founded
(‘Romulus founded the city of Rome’)

All cases other than the nominative can have 'not-purely-grammatical' uses, analogous to the use of the accusative in (1).

Work within the 'case grammar' framework of the twentieth century as well as studies independent of this, indeed supports the elimination of grammatical relations such as 'object', 'direct object' and 'indirect object', and so of the description of cases such as the accusative and dative as 'grammatical'. This is why I have placed locutions involving 'object' within quotation markers. The nominative emerges as distinctively 'grammatical' (though with notional restrictions on even its predicative use).

This, it can be argued, is what ultimately underlies the exclusion of nominative from Holzweissig's system in (4) and from other nineteenth-century treatments. And the nominative continues to be treated distinctively in much of the central classical tradition. It survives as well in the 'vernacular' pedagogical grammars that burgeoned in the Modern period, in the form of anecdotes like the following:

The word **case** is from the Latin *casus*, and means a falling. The old grammarians regarded the nominative as the *upright case*, and all the others as *falling* from that. Hence the use of the words *decline* and *declension*. (Of course the nominative cannot be a real case, because it is *upright* and not *falling*.)

(Meiklejohn 1892: 19, n.(i)). There are at this point further developments in the classical tradition to be taken into account.

1.3. Primary and secondary functions

I want to note further refinements of the systems of Rumpel (1845, 1866) and Holzweissig (1877), associated with de Groot (1939) and Kuryłowicz (1949), before trying to sum up what emerges as 'common ground' from the classical tradition. The latter maintain a distinction between 'grammatical' or 'syntactic' cases and 'concrete'. But among the 'concrete' uses of cases de Groot recognises a hierarchy of 'centrality' in their relation to the verb. And Kuryłowicz makes a distinction between 'primary' and 'secondary' functions of a case (a distinction pursued more recently by Fischer & van der Leek 1987, for instance): a case whose 'primary' function is 'syntactic' is a 'syntactic' case, such as the Latin accusative, whose 'primary' function for Kuryłowicz is to mark the 'régime direct'; a case whose primary function is 'concrete' is a 'concrete' case, such as the Latin ablative.

A 'secondary' function is one associated with verbal government: the 'concrete' use of the accusative is 'secondary' because it is determined by a particular (notional or

lexical/idiosyncratic) subclass of verbs, ‘verbs of movement’, as in (1) vs. (10); in (10) the accusative signals the ‘régime direct’. The ablative, however, is ‘primarily’ ‘concrete’ in use, with ‘secondary’ uses again associated with particular subclasses of verb. This is illustrated in (11), with a governed use of the ablative in (a), marking ‘cause’ with verbs of emotion, and a use that is not governed, (b), a time ‘adverbial’, or adjunct:

- (11) a. *Ōdērunt peccāre bonī virtūtis amōre*
 they-hate to-sin the-good of-virtue love+*abl*
 (‘The good hate to sin from (their) love of virtue’)
- b. *Quā nocte nātus Alexander est, eādem Diānae*
 which+*abl* night+*abl* born Alexander is that-same+*abl* of-Diana
- Ephesiae templum dēflagrāvit*
 of-Ephesus temple burnt-down
 (‘On the same night on which Alexander was born, the temple of
 Diana of Ephesus burned to the ground’)
- c. *Nēmīnī meus adventus labōrī aut sūmptūī fuit*
 no-one+*dat* my arrival burden+*dat* or expense+*dat* was
 (‘To no-one was my arrival a burden or an expense’)

(Gildersleeve & Lodge 1968: §§408, 393, 356).

However, the ‘syntactic’/‘concrete’ distinction still seems not to be clearcut. And there are problems in the invocation of ‘government’. For instance, Kuryłowicz (1949), contrary to the Rumpelian tradition, embodied in (4), groups the dative with the ‘concrete’ cases. Kuryłowicz appears to regard its ‘primary’ uses as those which are illustrated in (11.c): namely, in Gildersleeve & Lodge’s terms, ‘the Dative of the Object for which (to what end), and often at the same time a Dative of the Personal Object For Whom, or To Whom’. But Gildersleeve & Lodge regard these as verb-governed. And though Kuryłowicz regards its use as marking the ‘régime indirect’ as ‘secondary’, he comments (1949: 38):

Quant au datif la tradition grammaticale le groupe avec les cas à fonction syntaxique (nom. acc. gen.) en tant que *cas du régime indirect*. Le terme *régime indirect* est justifié là où le groupe (verbe + régime direct) régit un cas oblique. Or c’est normalement le datif de la personne à laquelle l’action s’adresse (*donner à, dire à* etc.). Bien que dans ces constructions le datif soit régi, il est moins central, c.-à-d. plus adverbial, que l’accusatif, étant restreint aux substantifs désignant une personne.

It is unclear why, in Kuryłowicz’s own terms, the marking of ‘régime indirect’ is not a ‘primary’ use. True, it is governed by the construction ‘(verbe + régime direct)’, but this does not in itself involve specification of a semantic subclass of verbs, any more than government by simply verb does, in the case of the ‘régime direct’.

Finally – and this applies to the whole tradition that recognises grammatical cases other than the nominative: despite their prevalence, and as I have indicated, the notions ‘régime direct’ and ‘régime indirect’, ‘direct’ and ‘indirect object’, are not transparent, and have indeed been adopted with contradictory references (see e.g. the

contributions to Plank 1984, as well as S.R. Anderson 1988); and their identification in various languages has been much disputed.

1.4. Conclusion: what is a grammar of case?

At this point, against this exceedingly brief sketch of a historical background, we can perhaps give a rough characterisation of what I shall call a level 1 grammar of case. I suggest something along the lines of:

Grammar of case level 1

A grammar of case gives an account of the syntax of the relations that in some languages are expressed by case inflexions.

This leaves the identity of the relations vague; but they presumably include both grammatical relations and semantic relations. Grammatical relations are notionally empty, as is usually assumed of the subject relation signalled by the nominative; semantic relations have notional content, as do the 'local' cases of Finnish. However, the division is controversial, as we have seen.

This formulation of what constitutes a grammar of case requires that such a grammar should be able to express a certain kind of generalisation; and it seems to me to represent a reasonable requirement. It is, in some respects, so bland that it could apply to any grammar written within the classical tradition.

However, what the tradition gradually came to add to its concern for these relations was the explicit recognition that the syntax of these relations involves adpositions as well as cases. So that by the nineteenth century there seemed to be some agreement within the tradition that the formulation just given could be amplified to give explicit reference to adpositions, at least:

Grammar of case level 2

A grammar of case gives an account of the syntax of the relations that are typically expressed by case inflexions or adpositions.

The 'equivalence' of case and adposition was something that had been recognised for some time in philosophical grammars. And in other ways their thinking outstripped the main tradition.

Consider Chomsky's description of the Port-Royal *Grammar's* concern with 'the problem of how the significant semantic connections among the elements of speech are expressed' (1966: 44-5):

Chapter VI of the Port-Royal *Grammar* considers the expression of these relations in case systems, as in the classical languages, or by internal modification, as in the construct state in Hebrew, or by particles, as in the vernacular languages, or simply by fixed word order, as in the case of the subject-verb and verb-object relations in French. ... Notice that what is assumed is the existence of a uniform set of relations into which words can enter, in any language, these corresponding to the exigencies of thought. The philosophical grammarians do not do not try to show that all languages literally have case systems, that they use inflectional devices to express these relations. On the contrary, they repeatedly stress that a case system is only one device for expressing these relations.

As we have noted, the *Grammar* recognises that expression of the relations involves a range of different exponencies, including position; that is, that we can elaborate on grammar of case of level two at the very least as follows:

Grammar of case level 2'

A grammar of case gives an account of the syntax of the relations that are typically expressed by case inflexions or adpositions or position.

But also there is a recognition, not uncommon in the philosophical tradition, that these relations underlying the variety of expression are, to repeat the words of Chomsky, 'the significant semantic connections among the elements of speech'. This is to anticipate in part a core proposition of later 'case grammar'.

None of the grammars in the classical tradition provide an adequate articulation of a grammar of case, however. The role of prepositions, for instance, remains sketchy. But something like a grammar of case of level 2 is often explicitly recognised as a desideratum within the classical tradition that continued into the twentieth century (in which we can include Hjelmslev 1935/37 and the others mentioned by Kuryłowicz 1949).

Both the formulations just given are based on the assumption that these relations, whether grammatical or semantic, have a syntax. And this offends against any assumption that syntax is autonomous, specifically that it makes no reference to semantic properties, in particular. And this offence came to be pilloried within the 'autonomist' tradition that has already established itself in the United States for some time. We must confront now the coming of the 'autonomists'.

2. The autonomists and other critics of the tradition

In some twentieth-century work, perhaps ultimately the most influential of it, there was a reaction against the classical tradition, and specifically its notionalism, more specifically still the inclusion of reference to semantic relations in the syntax, even alongside 'grammatical'. Syntax was seen as autonomous. This began with the 'new grammar', which from the 40's, particularly in the United States, began to challenge the school grammars of English of the time. If the classical tradition failed to articulate the case-preposition relationship, then the 'new grammarians' abandoned any attempt to do so. It was not part of syntax. What linked prepositions and case was their expression of (particularly semantic) relations, which did not impinge on syntax.

2.1. The 'new grammarians'

As is familiar, the critiques by the 'new grammarians' of aspects of the tradition certainly had some force. The vernacular grammars that came forth in the seventeenth and subsequent centuries, and particularly the school grammar tradition of the nineteenth and twentieth centuries, made only marginal innovations to cope with differences between the vernaculars and Latin. Moreover, the classical tradition was applied with little understanding or consistency; so that, for instance, in establishing word classes there was inconsistency in whether notional properties or morphological or functional or distributional properties were to be appealed to. Thus, the same grammar might define a noun as 'the name of a person, place or thing' and an adjective as 'a word that modifies a noun or pronoun'. And, as is familiar, the definitions themselves, particularly the notional ones, cannot be applied unambiguously. A twentieth-century pedagogical grammar (Pink & Thomas 1934: 8-9) offers:

A Noun is a *name* of a person or thing. ... **A verb** is a word which says something about the person or thing denoted by the subject of the sentence.

where the latter definition is identical to the just-previously-given definition of the 'predicate', and the 'subject is defined as 'the word or group of words about which something is said'. The learner is almost totally dependent his own experience and on the examples given for any enlightenment. See further, on the English pedagogical tradition, e.g. Michael (1987), Leitner (1991).

Such points are made rather forcibly in the flagship of the 'new grammar', Fries (1952: ch.V), and in other works such as Nida (1960: ch.II). And Gleason (1965: part one) provides a compact survey of these various more recent developments in grammatical thinking.

However, in their reaction, and in line with the assumptions of the American structuralists of the middle decades of the twentieth century, the 'new grammarians' set themselves unrealistic goals, illustrated by the following quotation from Fries (1952: p.8):

It is my hope ... that the linguistic specialist will not ... impatiently discard the book with a hasty skimming, assuming that it is a popularization of well-known materials, and miss my effort not only to challenge anew the conventional use of 'meaning' as the basic tool of analysis in the area of linguistic study in which it has its strongest hold – sentence structure and syntax – but also to illustrate the use of procedures that assume that all the signals of structure are formal matters that can be described in physical terms.

It is difficult to see what could be the physical correlates of structural ambiguity, for instance (despite attempts to provide it with phonological indicators – e.g. by Hill 1958).

Moreover, the failure of Nida's (1960) 'immediate constituency' notation to provide, for example, a means of distinguishing between complement and adjunct – they are both for him 'modifiers' – allows him to ignore the conclusion that the distinction, though syntactically relevant, can be drawn only in semantic terms. This is acknowledged later by e.g. Jackendoff (1977: 264):

complements [= 'modifiers'(an unfortunate terminological mismatch) – *JMA*]
can in fact be divided up on essentially semantic grounds, corroborated in part by syntactic evidence.

Complements satisfy the semantic valency of a predicator, though given ellipsis, either anaphoric or indefinite, a complement in many cases need not be present, as in (1a):

- (1) a. Have you eaten (the oysters)?
- b. I ate (the oysters) (this morning)

The second post-verbal phrase in (1b) is an adjunct; it is not prescribed by the valency of the verb. In terms of the crude distributional indicators deployed by the 'new grammarians', such adjuncts share the distribution of complements.

Such attitudes of the 'new grammarians' are relevant to our present theme. In Fries (1952), for instance, 'case' is not mentioned, and prepositions figure only as 'group F'

among the parts of speech, on the basis of an ‘indicator’ that involves the ability to occur in the frame in (2):

(2) A 1 F A 1 2 F A 1
 The concerts *at* the school are *at* the top

 A 1 F A 1 2 3 F A 1
 The dress *at* the end is dirty *at* the bottom

The numerals represent classes of ‘lexical’ words established in the same way; the capital letters are groups of ‘function words’. This is, of course, quite non-explanatory (which seemed to be a virtue for the ‘new grammarians’ – see again Nida 1960: ch.II; also Joos 1958). It is not clear how such grammars could capture the generalisation required of a grammar of case of level 1 or 2.

2.2. Jespersen vs. Hjelmslev on case

It is easy, and not just for the ‘new grammarians’, to find faults with the practice of traditional grammarians who wanted to attribute to Present-day English nouns various cases. The only obvious candidate as a morphologically-marked case is the genitive; and it is rather marginal as a morphological element, given its well-known capacity to attach to the end of phrases, as in (3):

(3) the girl I met’s handbag

But this is only partially fair to the intentions behind these proposals, which were designed to acknowledge that not just prepositions but also word order can signal the relations otherwise marked by cases.

We can associate such developments of the tradition with recognition of the refinement of a grammar of case of level 2 that I formulated as characterising level 2’:

Grammar of case level 2’

A grammar of case gives an account of the syntax of the relations that are typically expressed by case inflexions or adpositions or position.

This other possibility was already recognised in the Port-Royal grammar, as we observed. But the intention of acknowledging the role of position in signalling relations is not generally consistently pursued.

However, it is such an intention that motivates Hjelmslev’s suggestion concerning English (1935: 118-9):

Ainsi dans la série *the boy sent his mother a letter* il y a trois cas distincts reconnaissables par l’ordre des éléments: un subjectif (*the boy*), un translatif (*the letter*) et un datif (*his mother*). Remarquons en passant que les distinctions constatées ne sont de rigueur que dans l’usage neutre (style normal prosaïque); en d’autres usages les syncrétismes admis par le système sont déjà réalisables. Mais là où il y a distinction dans l’expression, le cas subjectif est marqué par sa place devant le verbe; le translatif et le datif sont marqués par leur place après le verbe, et ils sont distingués mutuellement par leur ordre respectif.

The qualification ‘style normal prosaïque’ is important. And there are obviously other questions to be raised concerning such an approach to case. And they were.

Jespersen, for instance, in the course of his criticism of similar suggestions (1924: ch.XIII), lists the sentences in (4a) alongside an alleged dative-accusative sentence such as (4b):

- (4) a. I asked the boy a few questions
I heard the boy his lessons
I took the boy long walks
I painted the wall a different colour
I called the boy bad names
I called the boy a scoundrel
- b. Peter gives Paul’s son a book

And he comments (1924: 174) on the suggestion that the post-verbal sequence in (4b) contains a dative plus an accusative:

If we are to speak of separate datives and accusatives in English, I for one do not know where in this list the dative goes out and the accusative comes in, and I find no guidance in those grammars that speak of these two cases.

However, there are syntactic differences between alleged ‘dative-accusative’ sentences and those in (4a). Jespersen cites, and dismisses, phenomena to do with passivisation. But the range of alternative systematically related structures, including passives, in which (4b) can occur is, nevertheless, unique. And it is a pity that Jespersen devotes so much of his attention to the scarcely taxing demolition of the easy target of Sonnenschein (1921), the product of his favourite ‘bad guy’ rather providing a principled critique.

Moreover, if we interpret the relations involved here as semantic, as does Hjelmslev, in the case of the post-verbal elements (at least), then their identification is ensured by the semantic valency of the verb. This, I shall suggest, is the crucial insight of ‘case grammar’. But, again, this is to anticipate too much. All that I have tried to establish here is, in the first place, the development of a set of grammars, the ‘new grammars’, that are apparently not grammars of case, even at level 1. Secondly, I have tried to show that criticism by the ‘new grammarians’ and others are not always well-founded when they concern what is our concern here.

2.3. Early transformational-generative grammar

Early transformational-generative grammar was in many respects transparently the offspring of the ‘new grammarians’ – despite its overt embracing of very different philosophical attitudes. Such grammars of this period, in particular, are clearly not grammars of case. In this respect there is a seam-free transition from Roberts’ pedagogical ‘new grammar’ of 1956 to his pedagogical transformational grammars of 1962 and 1964: the only major innovation is the introduction of transformations. And this is little changed in Chomsky (1965).

The framework advanced in Chomsky (1965) is difficult to reconcile with the enthusiasm for the treatment of case systems by the Port-Royal grammarians and others that is expressed in the quotation cited in the conclusion to the preceding section, which I repeat, but now with the preceding sentence (1966: 44-5):

The identity of deep structure underlying a variety of surface forms in different languages is frequently stressed, throughout this period, in connection with the problem of how the significant semantic connections among the elements of speech are expressed. Chapter VI of the Port-Royal *Grammar* considers the expression of these relations in case systems, as in the classical languages, or by internal modification, as in the construct state in Hebrew, or by particles, as in the vernacular languages, or simply by fixed word order, as in the case of the subject-verb and verb-object relations in French. ... Notice that what is assumed is the existence of a uniform set of relations into which words can enter, in any language, these corresponding to the exigencies of thought. The philosophical grammarians do not do not try to show that all languages literally have case systems, that they use inflectional devices to express these relations. On the contrary, they repeatedly stress that a case system is only one device for expressing these relations.

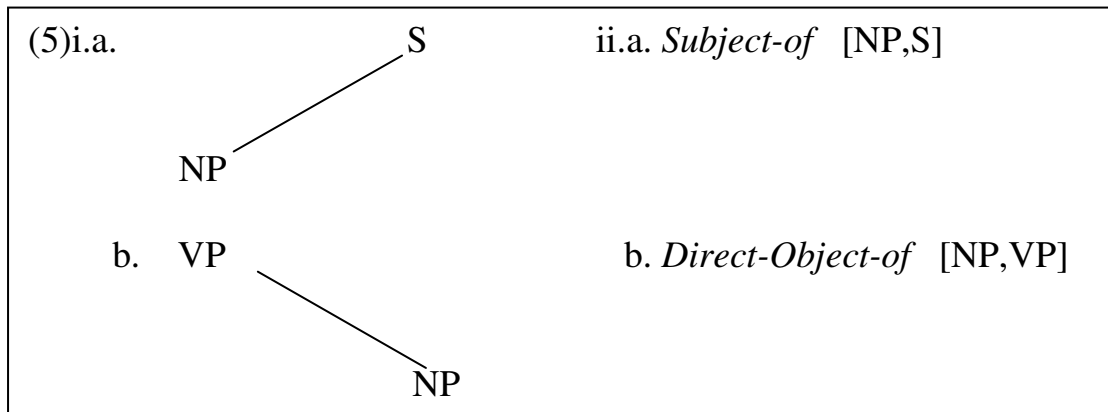
One transparent interpretation of this passage is as a blueprint for a grammar of case level 2'. But what Chomsky describes goes beyond even that in describing what is expressed in these various ways as being 'the significant semantic connections among the elements of speech'. This renders bizarre Chomsky's identification, at the beginning of the passage just cited, of these 'semantic connexions' with his proposed (autonomously) syntactic 'deep structure' of Chomsky (1965).

Chomsky (1965) provides not even a grammar of level 2'. This work contains no direct account whatsoever of the semantic relations expressed by prepositions or case. This is perhaps unsurprising in the latter instance, of course, given the paucity of case inflexions in English and their not-obviously-semantic character. And there is indeed only one indexed mention of 'case' in Chomsky (1965), which contains a formulation (reminiscent of Hjelmslev's 'style normal prosaïque') in which 'case' is determined by word order:

Case is usually determined by the position of the noun in surface structure rather than in deep structure, although the surface structures given by stylistic inversions do not affect Case.

(Chomsky 1965: ch.2, note 35). This is not a very precise, or generalisable, suggestion. But it must be conceded that case inflection is certainly not prominent in English.

However, in this work, even the grammatical relations are excluded from the syntax as such, despite the positing of two sets of these, one associated with 'deep structure', the other with 'surface structure'. Grammatical relations like subject are defined on categorial configurations, so that, as is again familiar, the 'deep subject' and 'deep object' of a sentence is the noun phrase that in 'deep structure' appears in the respective configurations in (5.i):



Linearity is not relevant to the definition of these relations at ‘deep structure’, so the definitions reduce to (5.ii). Chomsky concedes that ‘somewhat different definitions are needed for the surface notions’ (1965: 221). This immediately raises the question of whether the same relations are indeed involved in that case. And other questions have arisen.

The relations defined in (5) play no role in the syntax. Indeed, it is unclear what role they might have anywhere. Katz (1972: 109-11) suggests that they have a semantic role. But any semantic generalisations can refer directly to the defining configurations rather than having to invoke the relations (Anderson 1977: 17). The only apparent motivation for their inclusion in the grammar is the desire to show that the grammar presented in Chomsky (1965) can accommodate all the kinds of information provided by ‘traditional’ grammars that Chomsky declares as ‘without question, substantially correct’ and ‘essential to any account of how language is used or acquired’ (1965: 64). But his suggestion concerning the status of ‘grammatical relations’ embodied in (16) reverses the traditional conception of the relationship between the relations and the structural properties that signal their presence, wherein they are not reducible to being defined by the means of expressing them.

Despite the relations allowed for by Chomsky apparently being superfluous in his framework, problems with such definitions have been much discussed. Issues include: the invocation of two sets of relations, ‘deep’ and ‘surface’, which, as noted above, involve different kinds of definitions (Chomsky 1965: ch.2, note 32); the questions raised by ‘double-object’ constructions; the intractability of ‘non-configurational’ languages and other indications that subjecthood may have a more independent role; the possible non-universality of these relations; and so on. But most relevant to our present concerns is perhaps the observation that the grammar of Chomsky (1965) is inconsistent in its treatment of relations.

Included in the ‘illustrative fragment of the base component’ given in Chomsky (1965: ch.3, §3) are the rules in (6):

- (6) a. Predicate-phrase \rightarrow Aux[^]VP (Place) (Time)
- b. VP \rightarrow V (NP) (Prep-phrase) (Prep-phrase) (Manner)
- c. Prep-phrase \rightarrow Direction, Duration, Place, Frequency, etc.

The rules provided in the ‘illustrative fragment’ do not offer an expansion of the ‘Place’ and ‘Time’ categories of (6a); but presumably one possibility is (7):

- (7) Place, Time \rightarrow Prep-phrase

By combination of (6) and (7), Place, at least, both immediately dominates and is immediately dominated by Prep-phrase, as seen in (8):

- (8) a. Place (by (6a) + (7))
 |
 Prep-phrase
- b. Prep-phrase (by (6b) + (6c))
 |
 Place

This is one kind of inconsistency, one that is damaging enough. But it is clear that yet another inconsistency underlies this.

For the alternative expansions in (6c) all involve relations, in this case semantic relations (Fillmore 1965/1969). Within the syntax categorial recognition is given, paradoxically, to semantic but not syntactic relations – though it is not acknowledged in Chomsky (1965) that this is what is involved. The primary motivations for including these categories are apparently semantic; they are given no syntactic motivation. One problem here is that the semantic distinctions among Place and the rest are signalled by prepositions and the lexical items in the noun phrases that complement them, even though, according to (6c), the preposition is in this case outside the Place phrase itself. The semantic properties of Place are carried by elements outside the Place phrase. This suggests that this is not the way to characterise semantic relations grammatically – by the back door, as it were. And this failure is a consequence of an attempted autonomist attitude: the assumption that syntax does not invoke semantics.

Moreover, the semantic properties associated with Place, Direction etc. do have syntactic consequences. Thus, it is a commonplace that in German adverbs of Time and Manner normally precede those of Place:

- (9)a. Er geht jetzt nach Hause
 he goes now to home ('He is going home now')
- b. Er fährt mit dem Zug nach Hause
 he travels with the train to home ('He goes home by train')

One can exclude such phenomena by fiat from 'syntax'; but this is a rather transparent device to avoid disconfirmation of the autonomy hypothesis at the expense of the traditional understanding of the domain of syntax.

Of course, here are reasons for thinking that Place and Time, for instance, are composites that have in common their relational structure: relationally, they are instances of location in different dimensions, as is discussed later. It's the substance of the dimension rather than the relation in which they differ. But the relations themselves also have a syntax, as well as these composites, as is argued in 'case grammar'.

Let me give a preliminary illustration. It is not implausible to distinguish between a semantic relation Source and a semantic relation Path, presumably sub-types of Chomsky's Directional. These are respectively illustrated in (10a) and (b) – where we're not concerned with whether the post-verbal phrases are complements or adjuncts:

- (10) a. *Fred came from Birmingham ((and) out of the Midlands/North)
 b. Fred came through the valley (via Stirling)(and across the plain)
 c. People came from Birmingham and from Leicester

(10a/b) also show that only the Path can be duplicated with or without coordination. Of course, the Source can be coordinated without difficulty if this is compatible with the subject, as in (10c); but an uncoordinated version is not available. All of this ties syntactic possibilities to semantic relations, as assumed in a grammar of case.

From what I have described here one gets the impression of a grammar of case struggling to escape from the bonds of Chomsky (1965). It was a time to return to grammars of case, to explore the aspirations of the philosophical grammarians. What I've said so far is intended to illustrate something of the extent to which what happened at this point was a return.

3. Early 'case grammar'

A return to a concern with grammars of case was attempted in a variety of work in the late 60's and 70's that came to be referred to as 'case grammar'. What further distinguishes 'case grammar' from the main tradition of grammars of case, however, is the adoption of a more restrictive view of the relationship between semantic and grammatical relations than is embodied in a grammar of case of level 2. A level 2 grammar doesn't specify any relationship between the different kinds of relation. Such a development is first evident in Fillmore (1965/1969, 1966, 1968a), but it is also manifested, independently, in a range of other contemporary work, including Anderson (1968, 1969, 1971b) and Brekle (1970). I shall concentrate to begin with on Fillmore's work, which for many people, particularly in the US, came to be identified with 'case grammar'.

What comes to be envisaged at this point is what I shall refer to as a grammar of case of level 3:

Grammar of case level 3

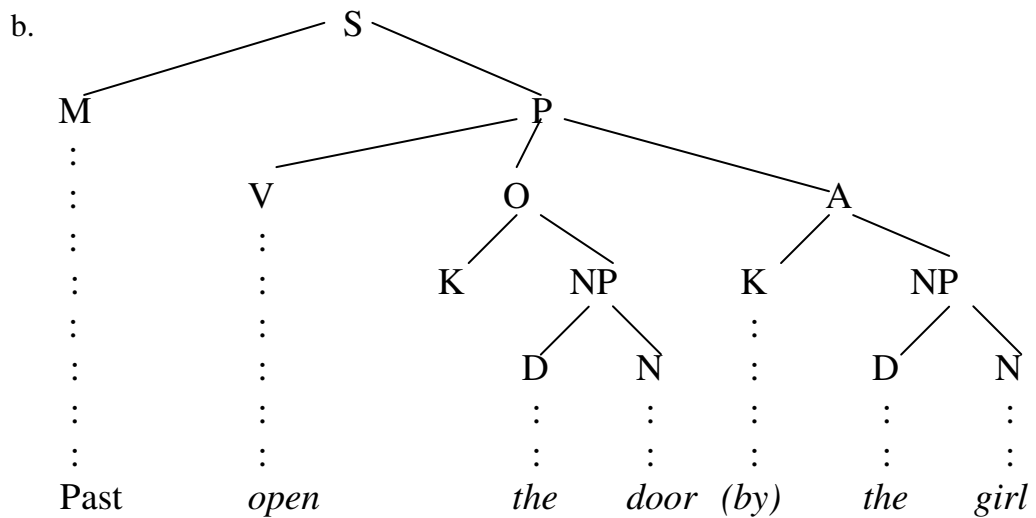
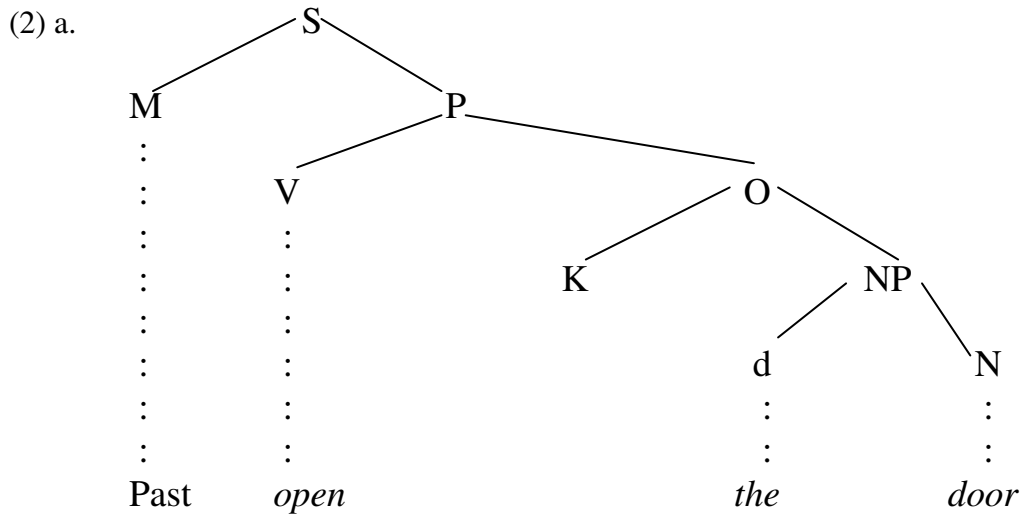
- a) A grammar of case gives an account of the syntax of the relations that are typically expressed by case inflexions or adpositions or position.
 b) Among these relations semantic relations have primacy.

This characterisation adds to that for grammar of case level 2' (= (a) here) the stipulation (b) that semantic relations have primacy over grammatical. 'Primacy' can be articulated in various ways, of course, depending on other properties of the grammar; this is part of one unfinished task of early 'case grammar'. However, assertion of 'primacy' of the semantic distinguishes 'case grammar' from most other grammars of case. But it is in this respect more clearly than 'core' transformational-generative grammar the 'spiritual heir' of the tradition of philosophical grammars to which the work of the Port-Royal group belongs.

3.1. The Fillmorean initiative

Against the background of transformational-generative grammar, Fillmore (1965, 1966, 1968a) suggested a transformational relationship between semantic relations and grammatical. Gone are the 'deep' grammatical relations of Chomsky (1965): instead, the identification of 'surface' grammatical relations is based on structures derived from 'underlying' structures which crucially contain nodes corresponding to different semantic relations. Thus, Fillmore suggests 'underlying' structures like the respective representations given in (2) for the sentences of (1):

- (1) a. The door opened
 b. The girl opened the door



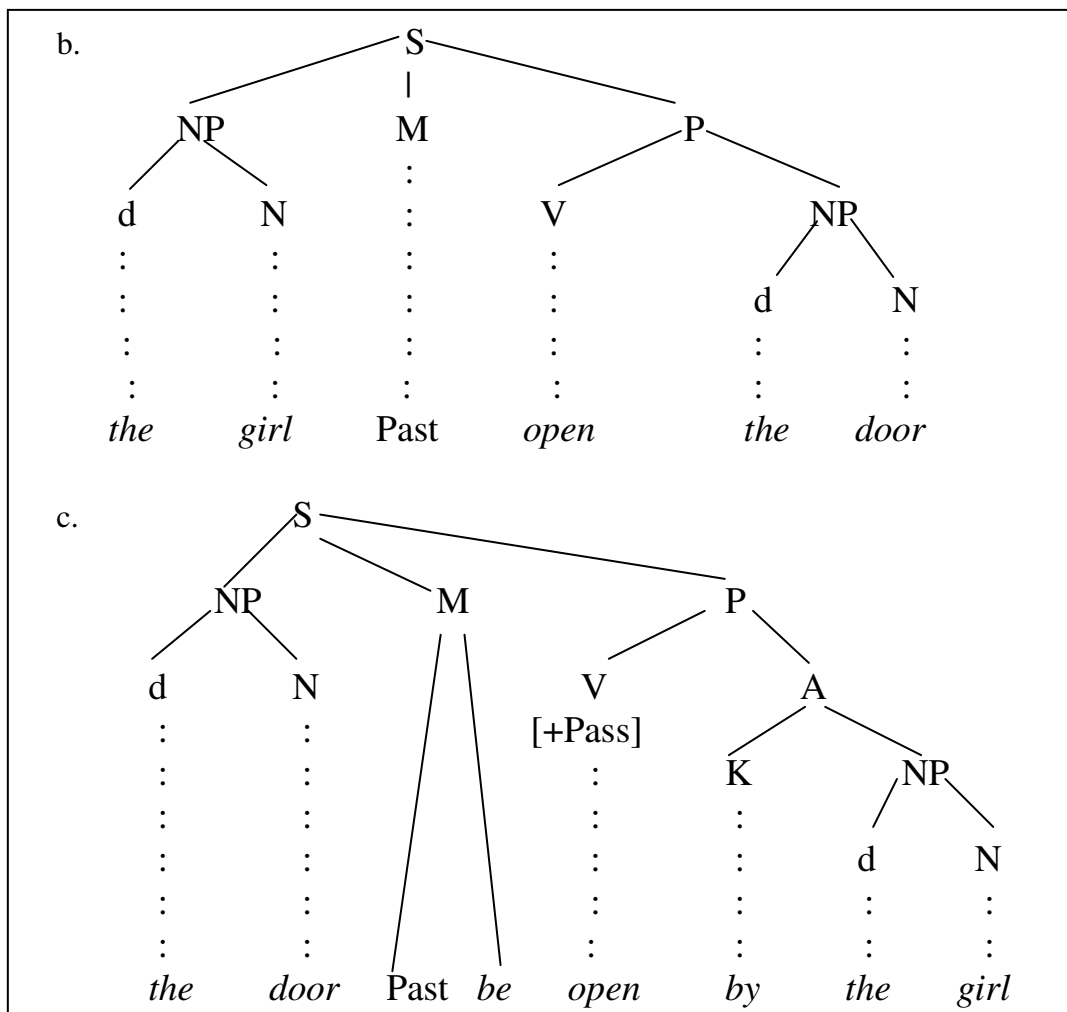
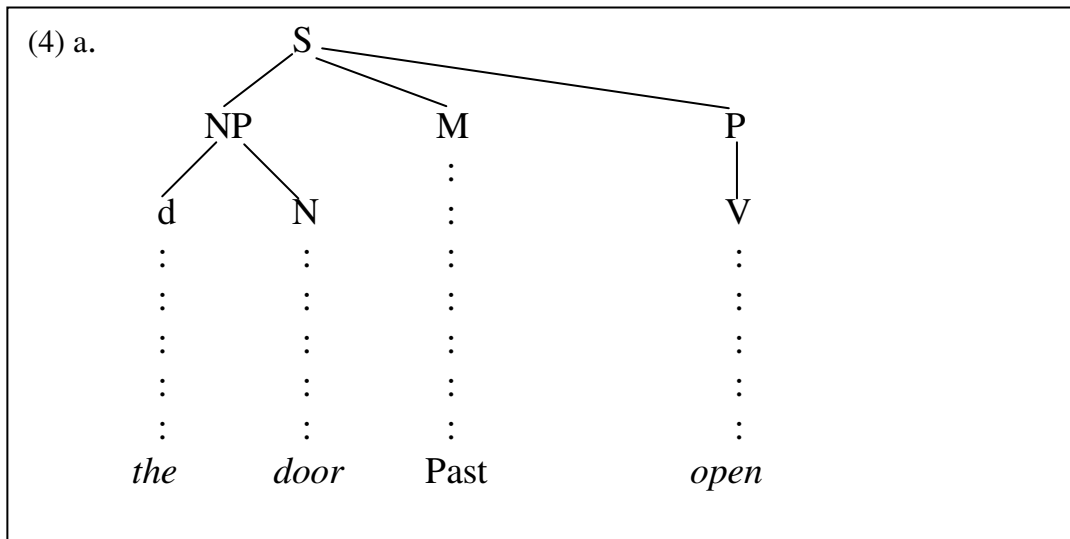
(cf. Fillmore 1968a: §3.1). The S consists of a M(odality) constituent and a P(roposition); the former is realised by various sentential modalities, including tense, and the latter contains the verb and its arguments. O and A are semantic relations, what Fillmore calls ‘case relations’, or simply ‘cases’. I shall return in due course to the identification of the semantic relations O(bjective) and A(gentive). K is a ‘kasus’, a non-phrasal category that in English is usually realised by a preposition; a preposition is a kind of ‘case form’.

Part of the restrictions on what arguments a verb can take is specified in terms of the set of semantic relations it can co-occur with in a proposition, its ‘case frame’. In this instance we say that the frame for *Open* is at least as in (3):

- (3) *Open* O (A)

(I'm not concerned at this point with whether (3) is exhaustive or not.) The content of the 'case' node percolates down into its K and NP constituents.

The elements in both (2) and (3) are not ordered in sequence. It is only after the configurations associated with grammatical relations are created that order is determined, as in (4):



Normally, A is preferred to O as subject. The ‘passive’ in (4c), however, involves a ‘marked’ selection of subject triggered by the presence of [+Pass] on the verb, and signalled as ‘marked’ by the presence of the *Be* and participle.

There are problems with this analysis of passives. In the first place, it involves attributing to transformations the power, allowed to early transformational grammars, to introduce lexical material, here *Be*. This is undesirable on theoretical and (in this case) empirical grounds. It greatly enhances the already undesirable power of transformations; and it undermines any claim that it is only at ‘deep structure’, or rather its replacement in ‘case grammar’, that there is access to the repository of lexical material, the lexicon. Later developments of the ‘case grammar’ analysis of passives offer interpretations compatible with more restrictive syntactic assumptions.

Secondly, it is *Be* that determines the morphological form of the other verbal; normally such rection goes from an element to its complement, as with the preposition and pronoun in (5), where the complement is underlined:

(5) She went towards him

It’s not clear in Fillmore’s account that the non-finite can be described as the complement of passive *Be*, particularly when the latter is part of a complex M, as in (4c).

Finally here, the representation in (4c) does not express the adjunct status of the *by*-phrase, which as such is optional; the sentence is complete without it. In many languages such a phrase is preferably or indeed obligatorily absent.

However, these are problems shared by the standard transformational analyses of the time. They are problem shared by any analysis that doesn’t recognise that the passive contains two verbals, with the non-finite verb form subordinate to the ‘auxiliary’, and by an analysis that fails to recognise that the valency of the passive participle is different from that of the other verb forms. Resolution of the problems doesn’t introduce a problem for the hierarchy. For instance, if the non-finite does not take an A complement (the *by*-phrase being an adjunct), there is nothing to outrank the O in this case. And in this way the claims embodied by ‘case grammar’ concerning the syntactic role of ‘cases’ and the absence of such a role for ‘deep structure’ remain intact.

3.2. Linearity

I should say something about the absence of linear precedence relations from (23). Anderson (1971b) also assumes no initial ordering; underlying structure involves ‘wild trees’ (Staal 1967), as envisaged by Curry (1961) and Šaumjan & Soboleva (1963); and ordering is derived on the basis of other information, and imposed more superficially. And this view is defended in Anderson (1977: §1.11), particularly against objections raised by Chomsky (1965: 124-6) and Bach (1975). Bach argues for a universal base which attributes the same order to the elements of all languages, but fails to make a convincing case on either empirical grounds or grounds of restrictiveness: he argues that this hypothesis ‘rules out more possible states of affairs within its domain of application’ (1975: §1), which is simply not the case. Such a hypothesis continues to be raised, but not in any way that disturbs the conclusion of Koutsoudas and Sanders (1974: 20):

The most restrictive and empirically most well-supported hypothesis about constituent ordering is in fact that which asserts that all underlying representations are wholly free of ordering specifications, that such

specifications are assigned by rules to the superficial groupings of superficial constituents, and that all ordering relations are derivationally invariant.

(cf. Sanders 1970, 1972).

Linear order in underlying structure is necessary only if it is assumed that all subsequent derivation essentially involves manipulation of linearity, transformations that mediate between different orders. It is this assumption that underlies Chomsky's (1971) rejection of transformations involving 'vacuous movement', transformations that affect only constituency. Such a rule is the 'raising' operation postulated to derive the object of *believe* in (6) from the subject of *be*:

(6) I believe him to be dishonest

The order of elements is unchanged under 'raising'; only the bracketing is altered. This violates the ban on 'non-vacuous movement'. On the assumption of invariance, however, such a ban on 'vacuous movements' is meaningless: all structure changes are 'vacuous', they involve only at most re-attachments.

Derivational invariance is not quite fully adopted, however, in Anderson (1977), which envisages 'post-cyclic' assignment of precedence. But perhaps the major shift in the variant of 'case grammar' that evolved from that work (e.g. Anderson 1997) was the adoption of not just derivational invariance in linear position but also of configurational invariance: as well as no movements, there are no reattachments. But again I am anticipating. Let us return to (2) and (4).

The derivation eventuating in (4) involves crucially re-attachment: the subject is extracted from the Proposition to attach to S. Linearity is contingent upon this. A (linear) development of a derivation of this kind was to re-surface later as the 'VP-internal subject hypothesis' (e.g. Kitagawa 1986, Speas 1986, Rosen 1990).

3.3. 'Cases' and the subject-selection hierarchy

(4a) and (b) differ in their subject-selection because the A argument is preferred as a subject over the O: there is a hierarchy of semantic relations with respect to selection as subject. (7) gives the relevant sub-part, where A outranks O:

(7) *Subject selection hierarchy:* A > O

Passive sentences represent, as noted, a 'marked' option where the abnormal elevation of the lower-ranking O is signalled by the presence of *Be* and the verb morphology. In (4) subject and object are created by pruning of the case nodes O and A and the associated Ks; and 'surface' subject and 'object' can be defined in this circumstance as in (2.5). The configurations associated with grammatical relations result from rule-governed neutralisation of semantic relations. The A that doesn't undergo subject-formation in (4c) is not pruned, and the K is realised as *by*.

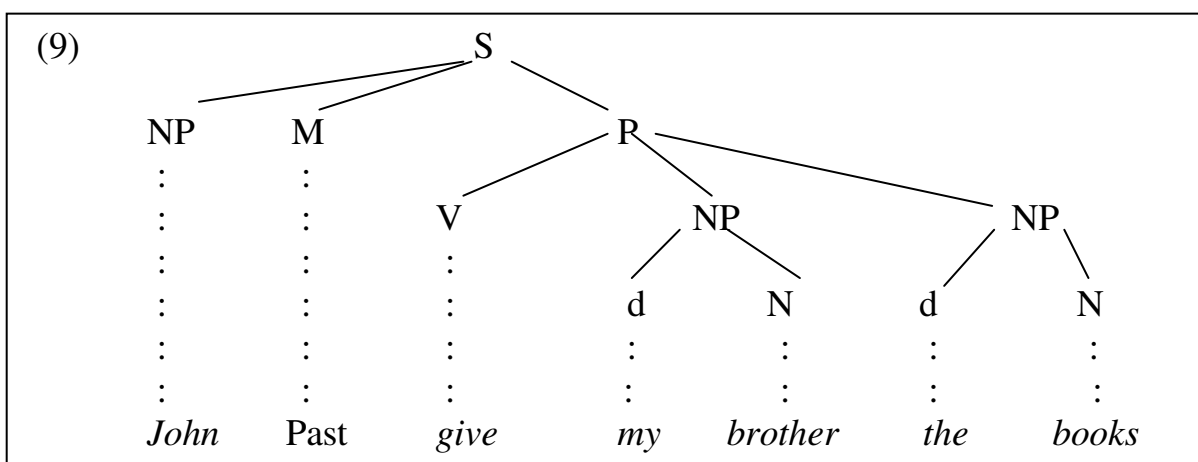
The sentences in (8) all share the Semantic relations O, A and D(ative):

- (8) a. John gave the books to my brother
- b. John gave my brother the books
- c. The books were given to my brother
- d. My brother was given the books

(8a-b) show that A outranks both D and O with respect to subject-selection, as indicated in an extended version of (7):

(7)' *Subject selection hierarchy:* A > D/O

D and O are alternative objects, however, as revealed by (27.a) vs. (b). These object-selections correspond to different passives, (27.c) and (d) respectively. It is not clear at this point, however, why, if (27.c) and (d) are equivalent, there is apparently no overt K for the O in (27.b), which seems to have been 'passed over' as object. But if it too has been pruned, then we can define various ('surface') grammatical relations in terms of configuration and sequence, as envisaged for 'surface' relations by Chomsky (1965: ch.2, n.32):



By (9) *my brother* and *the books* are both 'objects', but we can distinguish, for instance, an 'indirect object' from a 'direct' in terms of sequence.

The crucial innovation here with respect to conventional transformational grammar is obviously the introduction into the syntax of semantic relations, in the shape of Fillmore's 'cases'. Fillmore (1968a: 24-5) offers the definitions in (10) for the three 'cases' we have been looking at so far:

- (10) *Agentive* (A), the case of the typically animate perceived instigator of the action identified by the verb.
Dative (D), the case of the animate being affected by the state or action identified by the verb.
Objective (O), the semantically most neutral case, the case of anything representable as a noun whose role in the action or state identified by the verb is identified by the semantic interpretation of the verb itself; conceivably the concept should be limited to things which are affected by the action or state identified by the verb.

These and the definitions of the other 'cases', and indeed the set of 'cases', have been the subject of much debate, including by Fillmore himself (see e.g. 1968b, 1969, 1971). It is fair to point out, however, that though the invocation of semantic relations in the syntax makes their identification in a grammar of case particularly important, the same questions arise concerning any appeal to semantic or 'thematic' relations, with or without reference to the syntax.

3.4. Conclusion and prospect

I list here the complex of questions surrounding the identification of the ‘cases’ as one of several basic issues raised by Fillmore’s proposals that have been the subject of debate, and some of which I now want to address. The listing in (11) is intended to provide us with a framework for organising what is to immediately follow, as well as to flag up issues I shall not be able to pursue here:

- (11) *Some issues raised by Fillmore’s proposals:*
- i) the representation of case relations and forms
 - ii) the rejection of ‘deep structure’
 - iii) the identification of case and of individual case relations

Different proposed resolutions of these issues have been offered – including again by Fillmore himself; or they have (often) been ignored. And proposed answers to the questions raised by (11), and particularly by (iii), have been the basis for some of the major criticisms of the ‘case grammar’ enterprise. I am going to look at the components of (11) in order, coming last to what is now still perhaps the most contentious area, represented by (11.iii).

4. The representation of case relations and forms

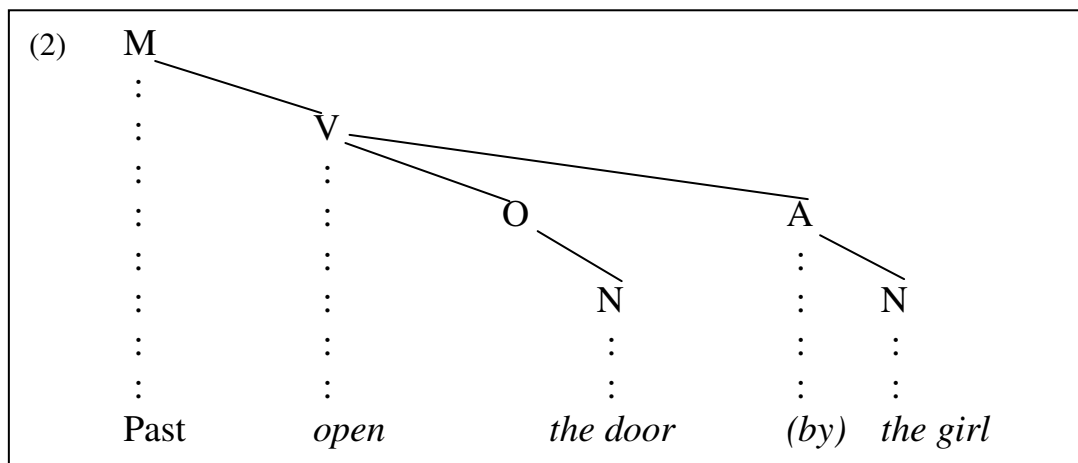
Fillmore himself was uncertain about the proper representation of ‘case’ (1968a: 87); and many workers using his framework have simply ignored the question. This meant that much of what might be expected of a grammar of case was neglected. The crucial relationship between adposition and case inflection is not clarified – and in particular what I shall call the ‘Kuryłowicz question’, on the basis of the first quotation from his work given earlier – in §1.1: how does one articulate the relationship between adposition and case inflection when they co-occur, as in (1)?

- (1) a. Ad flūmen+acc iīt puella
to river she-went girl
- b. In Graeciam pervēnit
in Greece+acc s/he arrived

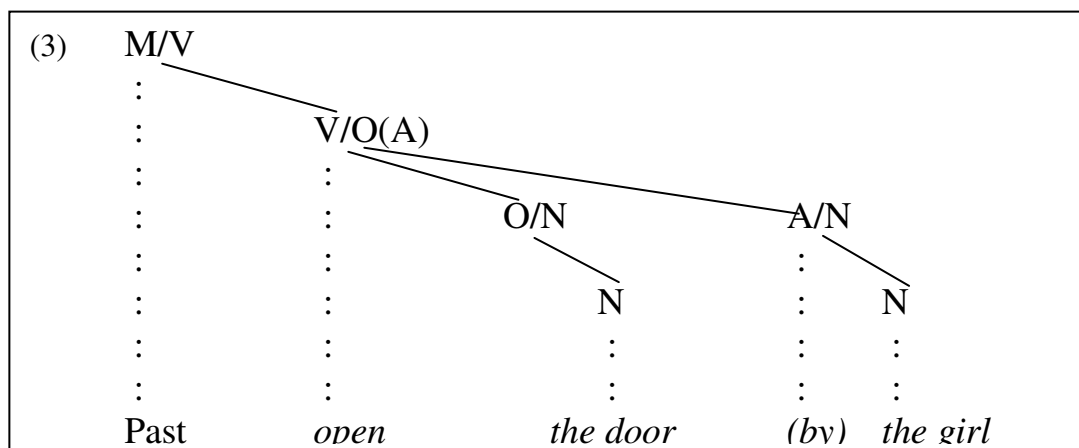
In each instance, the adposition and case inflection collectively express a non-interior vs. an interior goal respectively. If the adposition and inflection are instances of the same category, we need some account of how the division of labour between the two instances is articulated, as well as an explication of the co-occurrence restrictions. This can emerge only from a more explicitly formulated notation, which emerged only gradually in the development of ‘case grammar’.

4.1. Dependency

Robinson (1970b) and Anderson (1971a) argue for characterisations of semantic relations in terms of dependency relationships. In terms of the framework of the latter (though retaining Fillmorean labels), we should reinterpret (3.4b) as in (2), where phrase labels have been replaced by that for their characteristic element, which governs the other elements in the phrase – M for Sentence, V for Proposition, K for ‘case’, N for NP:



This ignores the internal structure of the noun phrases. Each node bears a non-phrasal category label, and each category is subcategorised for its dependents. We can represent the subcategorisations as in (3):



According to the notation of Anderson (1997), the subcategorisation is indicated to the right of the 'slash'. The subcategorisation of the verb must be included in its lexical entry; but the other subcategorisations can be supplied by lexical redundancy. V is the necessary dependent of M, and N is the unmarked dependent of the semantic relations.

We should note too that these particular dependency relations are predictable from the pattern of subcategorisation: each element takes as dependent(s) the elements required by its own subcategorisation. These dependents are complements; other dependents, not subcategorised for, are adjuncts. A head is a non-phrasal element which may be accompanied by (possibly phrasal) complements and/or by optional modifiers/adjuncts. There is no need for other, contingent criteria for headhood and the controversy these arouse (Hudson 1980a,b, 1987; Dahl 1980; Zwicky 1985; Corbett, Fraser & McGlashan 1993). But that, again, and more seriously, is to anticipate later developments.

Both Anderson and Robinson argue that dependency-based representations (essentially along the lines of Tesnière 1959 and Hays 1964) are in general preferable, other things being equal, to constituency-based (see particularly Robinson 1970a). Dependency representations more severely constrain the notion 'possible construction': each construction is headed, and this doesn't have to be a separate constraint on the

representations, as it would be in constituency-based grammars, as in X-bar syntax. But Anderson and Robinson suggest that the motivations for a dependency treatment of ‘case’ are particularly cogent.

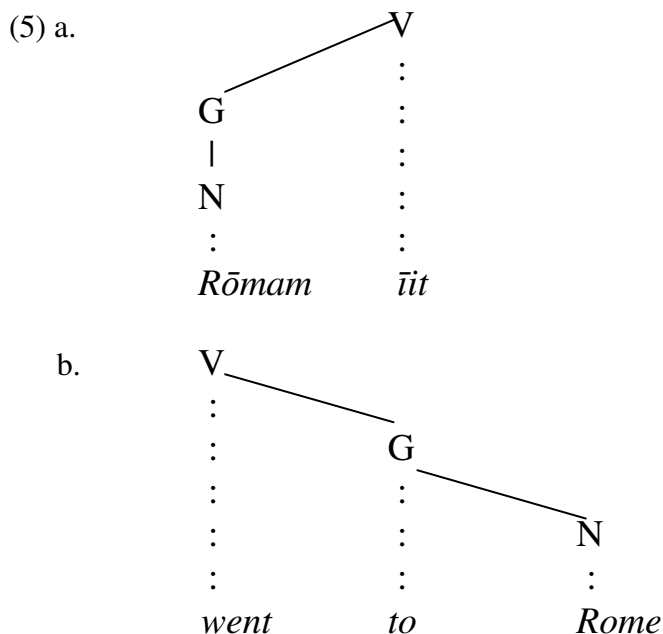
Notice, for instance, that (2/3) avoid the needless duplication of ‘case’ and *kasus* that necessitates a percolating mechanism whereby its constituents inherit the properties of the ‘cases’. This is inappropriate anyway as far as the noun phrase is concerned: though the ‘agency’ of the ‘case’ itself may set up expectations concerning nouns functioning as A’s (such as ‘typically animate’, and if so, ‘typically volitional’), ‘agency’ is not a property of nouns. And ‘agentive’ nouns like *baker* don’t necessarily function as A’s. But ‘agency’ can more plausibly be attributed to a preposition like *by*. ‘Agency’ percolates only to the non-phrasal constituent in (3.4b); this is the head of the construction in terms of (2/3) – where percolation is unnecessary, because ‘case’ and *kasus* are identified.

4.2. The categorial identity of case and preposition

Another motivation for the adoption of dependency representations came from the proposals made at about the same time in Anderson (1971c). These provide dependency representations with the capacity to allow for adposition and case inflection as instances of the same category. What is suggested there is that we should distinguish between dependency relations that are accompanied by potential linear difference between head and dependent and those that are not. Thus, the non-subjective arguments in (4) show the same ‘case’ – let’s call it G(oal) for the moment – despite difference in expression:

- (4) a. Marcus Rōmam īit
 Marcus Rome+acc went
- b. Mark went to Rome

They differ in that in the Latin example of (4a) (and of (1.1)) the semantic relation occupies the same syntactic position as its dependent, as shown in the partial representation in (5a), which ignores the role of M and of subcategorisations:



In (5b) the N is adjoined to the G, as the latter is to the V: its realisation is linearly distinct. In (5a) the N is subjoined to G; they coincide in linear precedence. The marking of the N as Goal-governed is carried out by the inflectional morphology, which attaches a suffix to the N stem. This provides for the expression of the equivalence of adposition and case inflection.

The possibilities introduced by the availability of adjunction vs. subjunction do not yet provide in themselves an answer to Kuryłowicz's question: what representations are appropriate in (1), with preposition combined with case inflection? Recall:

- (1) a. Ad flūmen+acc iīt puella
 to river she-went girl
- b. In Graeciam pervēnit
 in Greece+acc s/he arrived

As indicated, such a question has remained unanswered through most of the history of 'case grammar'.

The realisation of semantic relations as both independent word and as morphological affix (or whatever) is one indication that they belong to a functional class – what was later to be called a 'functional category'. This is argued at some length in Anderson (1997). And such a (functional) status for adpositions has recently been acknowledged within non-'case-grammar' developments of the transformational tradition (Baker 2003: App.1), despite the persistent view of them in this tradition as constituting a lexical category on a par with verbs, nouns and adjectives, as embodied in the $[\pm V, \pm N]$ notation of Chomsky (1970). Is this a sign that this (central transformational) tradition may eventually develop into a grammar of case? There are other indications of this, as we shall find as we pursue our history.

4.3. 'Case' and position

At this point, let's note that by extension (and in accord with the spirit of Anderson 1971c), Anderson (1977: e.g. §2.8.2) argues that a representation such as (5a) is appropriate even when there is no morphological reflection of the 'case' node, but rather the relation is signalled positionally, as in (3.1a):

- (3.1) a. The door opened

The relation 'subject' borne by *the door* may be a neutralised one, but it is clear that cross-linguistically ('surface') subjecthood cannot be reduced to a particular position or a particular configuration. All the possible permutations of S, V, and O are found in the languages of the world; and there are 'non-configurational' languages (Hale 1983). Positional or configurational properties may in particular languages be manifestations of the presence of subjecthood; this would render subjecthood incommensurate in different languages, if it is identified with these manifesting properties. These contingent properties cannot be considered definitional properties of subjecthood even within a single language. Contrary to Chomsky's (1965) claims, 'relational' nodes are not redundant.

Thus, the case phrase in *the door* in (2/3) does not lose its case node. Rather, the phrase in subject position has the N subjoined to the semantic relation:

(6)	O
	N
	:
	:
	<i>the door</i>

As is typically the case for subjects, the morphology of English does not support distinctions among the semantic relations of the nouns in subject position: the semantic relations of subjects are morphosyntactically neutralised. And in English even subjecthood itself is for the most part given no morphological expression.

There are other motivations for denying a subsequent derivation involving ‘pruning’ to (2/3), (6) etc. It is undesirable anyway, other things being equal, to incorporate the powerful operation of deletion in accounts of syntax. This brings us on to another important issue, not included in (3.11), to do with constraining the grammar, and indeed with the appropriateness of postulating transformational derivations. In the main this issue arose at a later date than the main strand of our history has reached; certainly, the issues listed in (3.11) became more apparent at a very early stage. So derivationality is an area that belongs to later chapter of our ‘history’ than will be dealt with here.

4.4. Conclusion

As concerns the representation of ‘case’, topic (i) of (3.11), I’ve outlined what seems to me to have been the most fruitful approach to this. This involves the treatment of semantic relations as labels on nodes in dependency trees. Semantic relations belong to a functional category whose role is to satisfy the valency of lexical categories. As a functional category, the ‘case’ category can be given independent expression, as an adposition, or morphological expression, as an inflection, or it may be signalled positionally. This is provided for by the dependency notation, without recourse to deletion. Subject, at least, is a neutralised relation, which can likewise be signalled in various ways.

5. ‘Case grammar’ and the demise of ‘deep structure’

The suggestions made in §§3&4 go some way towards the development of a grammar that conforms to the formulation of a grammar of case of level 3. Recall:

Grammar of case level 3

- a) A grammar of case gives an account of the syntax of the relations that are typically expressed by case inflexions or adpositions or position.
- b) Among these relations semantic relations have primacy.

But many questions remain; some of the more important are embodied in (iii) of (3.11). Let us look first, though, at the consequences of (ii) in (3.11):

(3.11) ii) the rejection of ‘deep structure’

That is, let us look at the consequences of the banishment of ‘deep’ grammatical relations implied by the relegation of grammatical relations to a role derivative of the semantic relations, a role as ‘surface’ relations only, and at the kind of counter-arguments advanced.

Perhaps the best-known defence of ‘deep’ grammatical relations – or, rather, of the presence in ‘deep’ structure of the configurations in terms of which they can be defined, as in (2.5) – is S.R. Anderson (1971). The argument presented there leads Fillmore (1977) to a reconsideration of the structure of the grammar that essentially reinstates ‘deep’ structure and minimises the syntactic role of the semantic relations. Let us now look at this argument.

5.1. The place of *holisticness*

Fillmore (1968a) had noted pairs like those in (1) and (2):

- (1) a. John smeared paint on the wall
- b. John smeared the wall with paint

- (2) a. John planted peas and corn in his garden
- b. John planted his garden with peas and corn

And he registers a difference in meaning between the members of the pairs that he describes as a distinction in ‘focussing’ (n.49); this correlates with choice of ‘object’.

But ‘focussing’ is a rather inadequate label for the semantic distinction involved, which has come to be described in terms of a ‘partitive’ vs. a ‘holistic’ interpretation of (in these examples) the *the wall* and *his garden* phrases. In the (b) examples of (1/2) the relative dimensions of (the denotatum of) the ‘object’ are presented as being essentially exhausted by the action of the verb; the ‘object’ is interpreted holistically. This is not the case with the corresponding phrase in the (a) examples.

Further, the holistic interpretation is associated with a phrase with a locational interpretation that, in a grammar of the type described in Chomsky (1965), occupies specifically the ‘deep object’ position (without necessarily being ‘surface object’). S.R. Anderson (1971) is concerned to provide evidence for this, and thus for the combined semantic and syntactic relevance of ‘deep objects’. Consider (3)-(5):

- (3) a. John jammed pencils into the jar
- b. John jammed the jar with pencils

- (4) a. A pencil would be easy for John to jam into the jar
- b. A pencil is certain to be jammed into the jar by John

- (5) a. It’s the jar that John is certain to jam with pencils
- b. It’s pencils that John is certain to jam the jar with

(3) exhibits the familiar partitive/holistic distinction ((a) vs. (b)). *The jar* in (4) also is partitive and that in (5) holistic. But, unlike in (3b), in neither instance in (5) is this NP in ‘surface object’ position. Anderson comments concerning the place of the partitive/holistic distinction: ‘the structural level in question must precede the application of more or less well-known transformations’ (1971: 390). What the holistic sentences of (2b) and (5) share is occupation by *the jar* of ‘deep object’ position. We have a semantic distinction whose formulation must apparently make reference to ‘deep object’.

Further, ‘deep structure’ is the level at which verbs are subcategorised for their arguments. And verbs are subcategorised for taking both these constructions or only one or the other, as shown in (6):

- (6) a. John spread/throw/*covered paint on the canvas
 b. John spread/*throw/covered the canvas with paint

Whereas *spread* takes both constructions, *throw* takes only the partitive, and *cover* only the holistic. This seems to be difficult to reconcile with the ‘case grammar’ position that verbs are subcategorised for ‘cases’, not for the configurations of the ‘deep structure’ of Chomsky (1965).

But we must note, in the first place, that this distinction is not restricted to alleged ‘deep object’ position:

- (7) a. Bees are swarming in the garden
 b. The garden is swarming with bees
- (8) a. Sewage flooded into the tank
 b. The tank flooded with sewage

The garden and *the tank* are holistic in (7/8b), where, in terms of Chomsky (1965), they would occupy ‘deep subject’ position, but they are not holistic in (7/8.a), where they do not occupy this position. And this difference again remains under the application of transformations that destroy the positional affiliations of the two phrases, as in (9):

- (9) a. It’s the garden that bees are swarming in
 b. It’s the garden that is swarming with bees

Any generalisation concerning this semantic distinction must also invoke ‘deep subject’ (see e.g. Chomsky 1972: §6.8.3; S.R. Anderson 1977: 369-70, 1988: 292-5).

Now, this might not seem to offer much comfort for the ‘case grammar’ hypothesis concerning the merely superficial status of grammatical relations: we now have two ‘deep’ grammatical relations apparently involved. But this duplication is itself suggestive. There is, recall, a ‘case’ that characteristically occurs as ‘surface subject’ and ‘object’; and it is ‘object’ in the presence of an A, as in (3.1.b) vs. (a), as represented in (3.2):

- (3.1) a. The door opened
 b. The girl opened the door

J.M. Anderson (1975, 1977: §1.8) suggests that the holistic argument in these various examples is, whatever else, an O; it is this that they crucially have in common, whether or not they go through a stage of being ‘objects’. In (1/2b) the O occupies derived ‘object’ position in the presence of an A, which outranks it for purposes of subject selection, unless other positional stipulations intervene and the O fails to be an ‘object’, as in (5); if not outranked O becomes a ‘subject’, as in (7/8b) – again unless other constructional requirements intervene, as in (9b). There is no reason to suppose that the locational Os in (5) and (9b) have gone through the stage of being ‘object’ or subject. The semantic generalisation invokes O. This allows a simpler formulation than via appeal to (two) ‘deep’ grammatical relations.

And this suggestion is consistent with what we can attribute to O elsewhere. Unless this is over-ridden by the context, an O argument is normally interpreted as

participating as a whole in the event labelled by the predicator. Contrast (10a) and (b) involving the place noun *room*:

- (10) a. Bill searched in the room
- b. Bill searched the room

The progressive in (11a) over-rides our normal expectation that the action exhausts (the relevant dimensions of) a place noun that is an O:

- (11) a. Bill was searching the room
- b. John was smearing the wall with paint

The same is true in the holistic (11b); since the O in the latter also, as locational, introduces a place, the exhaustiveness is associated with the relevant dimension of the entity denoted by the argument. Other dimensions may be relevant with nouns which do not typically denote concrete places. In (12b) what the progressive over-rides is our expectation that the book was read as a whole:

- (12) a. Bill read the book
- b. Bill was reading the book

Our normal expectation is associated with (12a), which is not progressive; and the progressive postpones the fulfilment of our expectation.

The suggestion that *the wall* in (1b) and *the garden* in (7b), to take a couple of the examples discussed, are Os raises a number of questions, to be sure. If these are Os, what are the following arguments, for instance? J.M. Anderson (1977: §1.8) regards them as also O; in partitives they may occupy ‘object’ position. This offends against one of the principles Fillmore deploys in constraining the combination of ‘cases’ – the requirement that only one (possibly coordinate) token of each case is permitted per proposition (1968a: 22). But O is arguably exceptional in this regard. There is no reason to regard the arguments in simple equative sentences as other than two Os:

- (13) a. The guy over there is my lover
- b. My lover is the guy over there

Differences in subject-selection here reflect discourse concerns rather than semantic relation. But what then is the difference between (13) and (7b), if they all contain two Os? And how do we describe the use of *with* in the latter, and the non-reversibility of the arguments therein?

There was an attempt at this point in the development of ‘case grammar’ to answer these last questions at least. Note that (44.b) also retains its locational interpretation: it is the dimensions of a space that are exhausted under the ‘holistic’ interpretation. Given this, Anderson (1977: §1.8) suggests that *the garden* in (7b) is both O and L(ocative). The members of the pair in (7) differ as in (14):

- (14) a. O,L (*the garden*) O (*with bees*)
- b. O (*bees*) L (*in the garden*)

The *with* marks an O that is outranked for subject-selection by a complex O.

Elsewhere in English *with* marks ‘instruments’ or ‘comitatives’, as respectively in (15):

- (15) a. John smeared paint on the wall with a rag
b. John smeared paint on the wall with a friend

((15b) involves a ‘comitative’, on a charitable interpretation of John’s actions, at least.) That the *with*-phrase in (1b) is neither of these, is suggested by (16):

- (16) a. John smeared the wall with paint with a rag
b. John smeared the wall with paint with a friend

In each of these, the two co-occurring *with*-phrases show a clear difference in meaning and syntax.

To allow for the syntax of (7/8b), we apparently need to extend the subject-selection hierarchy, as it affects O and A, as in (17), where ‘O,’ is a combination of O and some other relation:

- (17) A > O, > O

Similarly, the non-locational O in (1/2b) is outranked as ‘object’.

Of course, the invocation of arguments which bear more than one relation, of roles that are relationally non-unary, violates another of Fillmore’s constraints (1968a: 24): that each NP is associated with only one case label. But again there are motivations for relaxing this, for allowing the role of an argument to be represented by a conjunction of relations. I’ll come back to this when we turn to our next topic, the identification of the cases.

Other questions raised by these suggestions awaited the development of explicit accounts of the lexical relationship between the verbs in these ‘partitive’/‘holistic pairs’. But it is at least clear, I think, that S.R. Anderson’s (1971) defence of ‘deep structure’ is inconclusive, at most. However, the official announcement of the demise of ‘deep structure’ was not to come for a number of years, with the introduction of the ‘minimalist program’.

5.2. The after-life of ‘deep structure’ and the delusion of ‘unaccusativity’

As a sort of apologia for ‘deep structure’, Chomsky (1995: 187) contends concerning a grammar that postulates a ‘deep structure’ and a ‘surface structure’, that ‘the empirical justification for this approach ... is substantial’. He says concerning ‘D(eep)-structure’, specifically:

‘D-structure is the *internal* interface between the lexicon and the computational system, ... Certain principles of U<niversal> G<rammar> are ... held to apply to D-structure, specifically, the Projection Principle and the θ -Criterion.

But the ‘ θ -Criterion’ regulates the relationship between semantic relations and arguments; and, rightly or wrongly, it embodies Fillmore’s constraints. ‘Case grammar’ argues that it is not surprising that the interface with the lexicon should be associated with the same level as semantic relations are available at; this is basic to the ‘case grammar’ proposal. There is no need to associate this conjunction of lexical access and the presence of semantic relations

with an arbitrary ‘internal’ level, however. The principles mentioned do not select ‘deep structure’, but a level containing semantic relations.

Lexical entries are sensitive to semantic relations not grammatical relations, or the configurations that allegedly define them. No verbs are subcategorised as to whether they take a subject or not. Nor are such grammatical-relations-based notions as ‘transitive’ relevant to subcategorisation. Thus, the partial lexical entry in (3.3) is appropriate for verbs like *Open*:

(3.3) *Open* O (A)

It obscures the relationship between the two uses of the verb, on the other hand, to describe it as simply optionally ‘transitive’, as expressed in (18):

(18) *Open* (___ NP)

This might just possibly be appropriate for a verb such as the *Eat* of (19), with constant subject and optional object, but it is not the most transparent mechanism for expressing the availability of ellipsis of non-specific indefinites:

(19) Have you eaten (the fish)?

But what is constant with *Open* is the element that appears as the ‘transitive’ ‘object’ and the ‘intransitive’ subject; the constant is the presence of an O, whatever its grammatical relation. Reference is again to semantic relations not grammatical.

There are, of course, devices available for avoiding the conclusion given at the end of the preceding section. One can, for instance, adopt the ‘unaccusative hypothesis’, originating with Perlmutter (1978). He points to two classes of ‘intransitives’, which are distinguished in Dutch, for instance, by their capacity or incapacity to show (‘impersonal’) passivisation. Compare (20) with (21):

(20) a. De jongelei dansen hier vaak
(‘The young people dance here often’)

b. Er wordt hier door de jongelei vaak gedanst
it is here by the young-people often danced

(21) a. De kinderen verdwijnen uit dit weeshuis
(‘The children disappear from this orphanage’)

b. *Uit dit weeshuis wordt (er) door vele kinderen verdwenen
from this orphanage is (it) by many children disappeared

On Perlmutter’s analysis, the subject in (21a) is an ‘underlying object’ (‘initial object’, in his terms), and as such unavailable for ‘displacement’ from subject position by passive: (21b) is unacceptable. The ‘underlying subject’ of (20a), on the other hand, is, like ‘transitive underlying subjects’, a potential victim of ‘displacement’ by passivisation in Dutch, as witnessed by (20b) vs. (21b).

But there is a patent difference in the semantic relations they take between the ‘intransitive’ verbs of (20) and those of (21): the former take an A, the latter a simple O.

Passive fails if what is normally the ‘surface subject’ is (simply) an O. And this applies in the case of ‘transitives’ also: passive applies to As and Ds, in particular, but not to Os. It is unnecessary to postulate an arbitrary difference in ‘deep structure’ as well as the semantically motivated distinction in semantic relations. The generalisation is that O cannot be a ‘passive *by*-phrase’ – however that is to be formulated.

Perlmutter’s analysis requires us to posit a process subjectifying the ‘underlying object’ of certain verbs. Grounds of economy, apart from anything else, argue against this: we already have a mapping of O onto subject in accordance with the subject-selection hierarchy of (17). Such a process as Perlmutter appeals to would also be crucially unlike passive; passive involves a marked subject selection, and is morphologically signalled as such. Appearance of the O of (21) in subject position is not marked, nor signalled as such; it is normal, in accordance with the hierarchy.

Subsequent attempts to provide support for the ‘unaccusative hypothesis’ have invoked a range of phenomena from ‘perfect-auxiliary’ selection in various Germanic and Romance languages (e.g. Haider 1984) to the *smear-paint* alternations of (1) etc. (Levin & Rappaport 1986; for references on ‘unaccusativity’ see Anderson 1997: §§3.1.3, 3.3, 3.6). Anderson (1997: 179), following particularly Böhm (1993), argues that the former involve more centrally distinctions to do with Aktionsart, and do not correlate neatly with other phenomena associated with ‘unaccusativity’; and the latter are compatible with a ‘case grammar’ interpretation, as we have seen. Böhm (1993: §4.2.2) illustrates the importance of Aktionsart for ‘perfect-auxiliary’ selection with the pair of ‘perfects’ in (22) containing the same German verb:

- (22) a. Molly hat auf der Bühne getanzt
Molly has on the+*dat* stage+*dat* danced
- b. Molly ist auf die Bühne getanzt
Molly is on(to) the+*acc* stage+*acc* danced

(22a) represents a ‘process’, it is ‘atelic’; (22b), on the other hand, is an ‘accomplishment’, and ‘telic’ (see too Steinitz 1990). This doesn’t relate in a simple way to other putative ‘unaccusative’ phenomena.

‘Unaccusativity’ doesn’t seem to be a unitary phenomenon. And in no circumstance does it require reference to ‘deep (or initial) objects’. Predicators are subcategorised in terms of the semantic relations of their complements, not in terms of ‘transitivity’ etc. And other phenomena support the proposed irrelevance of ‘deep structure’ configurations to the lexicon.

5.3. Lexical evidence for ‘case grammar’

If the lexicon were accessed at ‘deep structure’, one would expect lexical relationships to reflect this. For instance, we might attempt to describe the relationship between the base verbs in (23a) and the derived adjectives in (23b) as involving crucially the ‘deep object’ relation in the case of the verb:

- (23) a. The alternative can be achieved/believed
b. The alternative is achievable/believable

This is the traditional view adopted by e.g. Wasow (1977: §3.2), on the basis of such examples and of his ‘criterion 3’ (p.331) for lexical rules:

Lexical rules ... involve only NPs bearing grammatical relations to items in question.

(p.331). So he formulates the relationship illustrated in (23) as:

... the lexical rule relating verbs to the corresponding *-able* adjectives identifies the subject of the latter with the direct object of the former ...

(p.336). But, as observed in Anderson (1984a: §3.2), the same relationship also involves adjectives and ‘intransitive’ verbs, as illustrated in (24) and (25):

- (24) a. The solution can work
b. The solution is workable

- (25) a. The rubber can perish
b. The rubber is perishable

And there are other *-able* adjectives that could correspond to either a ‘transitive’ or an ‘intransitive’, as shown by comparison of (26) and (27):

- (26) a. The meeting day can be changed/varied
b. The meeting day is changeable/variable

- (27) a. The weather can change/vary
b. The weather is changeable/variable

We have a familiar pattern: the argument of *-able* adjectives ‘corresponds to’ the ‘object’ of the ‘transitive’ and the ‘subject’ of an ‘intransitive’. This is the distribution of O, the ‘semantically most neutral case’ (Fillmore 1968) – in (26-27) introducing in this instance the entity that can change or be changed. The generalisation invokes not grammatical relations but the O argument of the verb and the O argument of the adjective. Their distribution as ‘subject’ and ‘object’ of the verbal forms follows from this.

Again, we can, instead, invoke the ‘unaccusative hypothesis’ here (see e.g. Horn 1980). But again it is superfluous to do so. There are no motivations for attributing ‘objecthood’ to the subjects in (24), (25) and (27). The behaviour of these items follows from their independently motivated semantic relations. I am ignoring here other, minor patterns displayed by some *-able* adjectives (Marchand 1969: §4.2.1; Anderson 1984a: §3.2); but these do not affect the argument.

Apparently more problematical for the ‘case grammar’ assumption that grammatical relations are not available to the lexicon are *-er* nouns in English such as those in (28):

- (28) a. writer, murderer
b. walker, jogger

We have to distinguish these from nouns showing a number of other patterns in *-er*, such as the ‘place-of-origin’ nouns of (29):

(29) Berliner, Londoner

What seems to characterise the pattern in (28), however, is noun-formation apparently based on the subject of a verb, whether ‘transitive’, as in (28a), or ‘intransitive’ as in (28b). This is how the relationship is characterised by McCawley (1968), Moravcsik (1978) and Aronoff (1980: §3.1), for example.

However, not all subjects are available for this formation. In (28) we have agentive subjects; and this seems to be the earliest pattern. In (30) we have subjects conforming to the pattern which are in some sense ‘instruments’ – or ‘secondary’, non-prototypical agents:

(30) cooker, container

In (31) the formation is extended to ‘datives’ – or in Fillmore’s (1971) revised terminology, ‘experiencers’:

(31) believer, experiencer

But we don’t find comparable *-er* formations based on O. The examples in (32) are isolated and belong to a distinct pattern involving ‘aspectual’ properties:

(32) goner, faller

A ‘goner’ is someone who has just died (or is about to have), and a ‘faller’ is a horse that has fallen in the course of a horse-race. Objectives are not susceptible to the *-er* formation shown in (28), (30) and (31).

It is thus not very accurate or informative to interpret the formation exemplified by these latter as ‘subject-based’; it is available to verbs which take arguments in a particular subset of semantic relations. By virtue of these relations (crucially A and D), the arguments contracting them normally occupy subject position in the verbal construction, given the subject-selection hierarchy, combined as in (17)′:

(17)′ A > D/O, > O

The D of *believe* and *experiencer* outranks the O that they also take. Subjecthood in sentence structure is contingent on the semantic relations present. And, as we have seen, not all potential subjects are eligible.

This account interprets the forms in (30) as non-prototypical As. Otherwise the hierarchy would have to be further extended (to include putative ‘instrumentals’) – though I shall argue later that there are no ‘instrumental’ subjects. Or we might interpret these formations as neither subject-based or A-based, but the product of a distinct process, involving the property of ‘being used’. In either case, it remains misleading to couch these relationships in terms of reference to subject.

5.4. Raising and the derivative status of grammatical relations

Grammatical relations do not seem to be relevant to the lexicon, then. To formulate lexical relationships in terms of grammatical relations is to intrude into the lexicon derived notions which are not directly accessible to it. In a derivational syntax, however, the ‘case grammar’ claim concerning the relationship between semantic and grammatical relations is

less interesting to the extent that subject formation is derivationally early; this limits the syntactic role of the semantic relations and enhances that of the grammatical relations. A ‘case grammar’ that envisages initial or derivationally early subject selection is minimally different from a non-‘case grammar’ which embodies UTAH, the ‘uniform theta-assignment hypothesis’ (Baker 1988: 46):

Uniformity of theta assignment hypothesis

Identical thematic relationships between items are represented by identical structural relationships between those items at deep structure.

(Compare its predecessor in ‘relational grammar’, Perlmutter & Postal’s 1984 ‘universal alignment hypothesis’.) The position advocated in Fillmore (1977), in response to S.R. Anderson (1971), comes close to this. J.M. Anderson (1975, 1977: §1.8) argued that this was an unnecessary compromise – as emerges from what I have described in the preceding. As far as the *smear-paint* phenomena are concerned, the syntax and the lexicon refer to semantic relations and not to ‘deep grammatical relations’. There is, moreover, evidence that in a derivational grammar semantic relations remain accessible, and that subject-formation is not early.

The syntactic relevance of the semantic relations has already been illustrated by discussion of the Dutch ‘impersonal’ passive phenomena of (54). But let us look rather more explicitly at the relative syntactic roles of semantic relations and grammatical relations.

In the derivational grammars that developed from the 60’s onward a major part of the derivation of structure was assigned to a body of rules that applied cyclically. If one maintains this kind of framework, it is possible to show that subject formation is not pre-cyclic. Say subject-formation neutralises (the morphosyntactic expression of) semantic relations; there are cyclic rules that refer to these semantic relations. Thus, at earliest subject formation is cycle-final (or simply cyclic, if the cyclic rules are not extrinsically ordered). We can illustrate this via a consideration of what came to be called the rule of ‘raising’.

We are concerned with the controversial history of the sentence types illustrated by (33):

- (33) a. Sheila/she seems to be a fraud
b. I believe Sheila/her to be a fraud

There is a familiar range of evidence showing that the *Sheila/she/her* element belongs semantically and syntactically in both cases with the subordinate (infinitival) clause. But syntactically it is linked also to the main clause containing the finite verb: most obviously, the position of this element and the varying morphology of the pronoun seem to reflect its syntactic status in that clause rather than the other. Postal (1974: chs.1-3) charts the early development of transformational analyses of these constructions, and the motivations offered (and he adds arguments of his own subsequently in the volume). In the analysis he defends, both of these sentence-types were considered to involve raising of the *Sheila* element from the lower into the upper clause, into subject position in one case, into ‘object’ position in the other.

In the relational grammar tradition (e.g. Perlmutter & Postal 1983) it is proposed, pursuing this kind of analysis, that in (33a) the subject of the lower clause is raised out of that clause to become the subject of the upper; whereas the subject of the lower clause is

raised to be the 'object' of the upper. Further, these raised elements take over the grammatical relation borne initially by the clause out of which they are raised: the lower clause in (33a) is initially subject of the main clause, and the element raised out of it becomes subject and displaces it; the lower clause in (33b) is initially an 'object', and the element raised out of it displaces its original clause as 'object'. The raisings conform to the 'relational succession law' (variously named elsewhere), which requires raised elements to take over the grammatical relation of the construction out of which they are raised.

But, once more, appeal to such an arbitrary syntactic 'law' is unnecessary. We can achieve a simple generalisation with reference to semantic relations. Appeal to subject and 'object' in the main clause obscures this generalisation, and we require recourse to the 'law'. The raised element assumes an O relation, the 'semantically most neutral' relation, in the main clause. In (33a) it becomes subject, there is no other candidate; but in (33b) it becomes 'object', being outranked as subject by the 'dative'/'experiencer'. The distribution follows from the semantic relation. Some detailed alternative formulations are given in Anderson (1977: §2.8.2), (1986) and (1992: §3.5). Anderson (1992: §3.5) envisages the raisees as taking over the O relation of their original clauses. They are derived O's, which are not subcategorised-for.

That it is the subject of the subordinate clause that undergoes raising is consistent with subjecthood being assigned at the end of each cycle. Subjecthood is then available in subordinate clauses, clauses to which the cycle of rules has applied, but not in the clause that is cyclic at that point.

There is no motivation for regarding the two subordinate clauses in (33) as having initially two different grammatical relations – or indeed for regarding them as bearing any grammatical relation at all. The latter problem still arises if appeal is made to the 'unaccusative hypothesis'. In terms of it, both of the subordinate clauses are initial 'objects', and raising confers their objecthood on the raisees, which displace them. Again, this is superfluous. And it again envisages a clause, the main one, which initially has an object but no subject, contrary to the traditional assumption that objecthood is defined in relation to subjecthood.

The main tradition within transformational grammar abandoned for some time any attempt to capture the generalisation underlying the obvious similarities between (33a) and (b). A raising analysis of such as (33b) was rejected. No empirical motivation has been offered for this. Rather, there has been offered a series of (sometimes ephemeral) theory-internal motivations. These include, at various times, the fact that a raising derivation for (33b) would involve 'vacuous movement' (Chomsky 1972), and assumptions concerning 'θ-marking' and movement (Chomsky 1981: 99-130). A basic problem is that a raising analysis of (33b) would involve the recognition of a class of verbs that do not 'θ-mark' their objects, as well as verbs, like *Seem*, that do not 'θ-mark' their subjects. Adoption of an 'unaccusative' analysis of (33a) would obviously swell the former set, thus rendering the assumption that absence of 'θ-marking' is limited to subjects yet more fragile. But the distribution of the raised arguments in (33) is highly reminiscent of 'unaccusativity'. This is unsurprising, given that both raisees are (derived) O. It is embarrassing, however, for supporters of 'unaccusativity' who reject the 'raising' analysis of (33b): the two positions are incompatible.

A clear conclusion emerges from consideration of the relationship between relations of different sorts and the lexicon and the syntax: the lexicon makes no reference to grammatical relations, and the latter are derivative of semantic relations, which, unlike them, are basic to the syntax. There is thus no basis for Chomsky's (1995: 187) assertion that 'there is empirical justification' for an approach that includes the claim that access to

the lexicon and to semantic relations selects a level identical with ‘deep structure’, at which can be defined ‘deep grammatical relations’.

Chomsky points indeed to various problems that the postulation of ‘deep structure’ incurs (1995: 188). But the superfluity and capacity for obscurity of such a level were already evident two decades before this. However, two decades earlier transformational grammar was unwilling to countenance semantic relations as part of syntax. The position concerning the autonomy of syntax adopted by the ‘new grammarians’ lingered on in the transformational tradition.

5.5. Excursus on the tortuous history of ‘thematic relations’

Semantic relations begin in the 70’s to enter into accounts of transformational syntax. But the relations involved are not the ‘cases’ of e.g. Fillmore (1968) but the confusingly named ‘thematic relations’ of Gruber (1965/1976), which were introduced in order to articulate lexical structure, and have a role in stating ‘selectional restrictions’. Jackendoff (1972: 33-4) assigns the ‘thematic relations’ a basically lexical role. He does also argue for their relevance to the formulation of some restrictions on syntactic phenomena, including passivisation; there are ‘thematic constraints’ on various syntactic phenomena. The ‘constraints’ proposed by Jackendoff are problematical (Anderson 1977: §1.4.3), however; and the syntactic role of ‘thematic relations’ seems to be at most peripheral at that point in the development of transformational grammar.

This is confirmed by the lack of attention given to them in textbooks produced on the basis of work of the 70’s. Radford (1981), for instance, devotes only one tentative paragraph to them (pp.140-1), where he mentions for them only a lexical role. The evolution of the well-known Radfordian textbooks, indeed, provides a measure of the status of ‘thematic relations’ in the work of the years preceding their respective publications. Thus, by the time of Radford (1988), Jackendoff’s arguments for ‘thematic constraints’ are (belatedly) presented, as well as some of Gruber’s and Fillmore’s observations concerning semantic relations and ‘selectional restrictions’ (§7.10); and presence of semantic relations is argued to contribute to the elimination of ‘selectional restrictions’ from the lexicon. Semantic relations are not part of ‘syntactic constituency structure’, but there are principles ‘correlating’ the two (§7.11). And, indeed, there is anticipation that subcategorisation for constituency may be predictable from the array of semantic relations taken by an item (p.384; cf. Chomsky 1986: 86). We are approaching acknowledgment of UTAH. There is a final anticipation (p.392) that ‘in Volume Two, we shall see that thematic constraints such as the THETA CRITERION and the PROJECTION PRINCIPLE have a fundamental role to play in the description of the Syntax of a variety of constructions’.

Such envisaged roles for semantic relations are difficult to reconcile with the ‘autonomous syntax principle’ espoused earlier in the same volume (Radford 1988: 31):

Autonomous syntax principle

No syntactic rule can make reference to pragmatic, phonological, or semantic information.

(see Chomsky 1977: 42). It is perhaps not coincidental that in Radford (1997) the ‘autonomous syntax principle’ has disappeared from the index. One might perhaps be able to construe ‘thematic constraints’ as extra-syntactic filters. But the ‘constraints’ do not control ‘surface’ representations as such; rather, they determine the applicability of rules like passive.

In the absence of the promised ‘Volume Two’ to Radford (1988), Radford (1997) provides us with an idea of the role of the ‘theta criterion’ (and thus of semantic relations) in various syntactic restrictions (e.g. ‘raising’ vs. ‘control’ – pp. 339-41; ‘passive’ – p.347). The ‘projection principle’, however, has also disappeared as such between the two volumes. But the essential function of semantic roles in the ‘merging’ of arguments with a ‘lexical category’ is described (Radford 1997: §8.4). There is, on the other hand, no role for ‘deep structure’ in the syntax, and mention of ‘grammatical relations’, ‘deep’ or ‘surface’, is entirely absent from the index, despite the alleged importance of subjects. We have lost ‘deep structure’, and semantic roles have been assimilated into the syntax, as Fillmore and others had advocated. Chomsky (1988: 104) envisages that ‘in languages that lack actual case endings, prepositions are generally used to indicate case’ (which comes close to the assumptions of a grammar of case of level 2). We still don’t have here a unified ‘grammar of case’, however. – But, rather than our pursuing that, it is time to return to the development of ‘case grammar’ itself.

5.6. Conclusion: where we have reached

In pursuit of an understanding of part of the prolonged debate about ‘deep structure’, I have led us into other histories than that of ‘case grammar’. We have seen that various other developments within the main transformational-generative tradition served to undermine the traditional view of ‘deep structure’.

A significant step in this is adoption of the idea that ‘deep structure’ is the level at which the ‘ θ -criterion’ applies (Chomsky 1981: §§2.2, 2.5). The ‘ θ -criterion’ regulates the relationship between NPs and semantic relations, the so-called ‘ θ -roles’. ‘Deep structure’ thus comes to conform to this basic concept of ‘case grammar’. However, in the approach advocated in Chomsky (1981), another level has been introduced, ‘logical form’, which is associated with a component of the grammar that interprets ‘surface structure’ (§§2.2, 2.6). ‘Logical form’, while intended ‘to capture what the language faculty determines about the meaning of an expression’ (Chomsky 1995: 21), remains part of ‘“narrow syntax”’ (p. 34). With respect to ‘logical form’, however, ‘the fundamental notion is that of θ -role’ (p. 101). ‘ θ -roles’ – i.e. semantic relations – are basic to both levels.

Finally, ‘deep structure’ (as well as ‘surface structure’) is abandoned as part of the ‘minimalist program’ (Chomsky 1995: ch.3, §3.3). ‘ θ -roles’, or ‘thematic relations’, remain, however, a crucial property of the head-complement relation (Chomsky 1995: ch.3, §3.2). And we are left with a level, ‘logical form’, at which ‘the fundamental relation is that of θ -role’. The treatment of the semantic relations thus played a significant role in the demise of ‘deep structure’. They belong to the syntactically relevant category whose cross-linguistic identification is most obviously semantically based. The destructive consequences of recognition of their syntactic role for autonomy and ‘deep structure’ was clear from the outset, and the results were embodied in early ‘case grammar’. And the incorporation of semantic relations into the syntax portends the recognition of the semantic basis for other syntactic categories (as advocated in Anderson 1997).

In §3 I described ‘case grammar’ as a grammar of case of level 3:

Grammar of case level 3

- a) A grammar of case gives an account of the syntax of the relations that are typically expressed by case inflexions or adpositions or position.
- b) Among these relations semantic relations have primacy.

On the basis of what we have looked at we can be a little more specific about the form of such a grammar, as spelled out, still rather informally, as follows:

Fundamental concepts of case grammar:

- a) *the constructional relevance of semantic relations:*
there is a level of syntactic structure that is constructed on the basis of (among other things) the semantic relations contained in the lexical entries of predicators
- b) *the irrelevance of 'deep structure'*
this level replaces (and displaces) 'deep structure' as the interface with the lexicon and as basic to syntactic structure

What mainly differentiates the early 'case grammar' view summarised thus and the view put forward in the 'minimalist program' seems to be simply this: in early 'case grammar' the structural level determined by the semantic relations and other lexical properties is rather immediately constructed; in the 'minimalist program' the association between these lexical properties and 'logical form' is a complex one, involving a range of structural operations, including crucially 'mergers' and 'movements' (different kinds of 'merger'). Developments in 'case grammar' since the 80s have lessened this discrepancy in some ways; but the relationship between lexicon and erection of structure remains much less complex than in the 'minimalist program', where developments have tended to increase the discrepancy. This is partly because much of what is conceived of as 'syntactic' in the minimalist program involves lexical relationships in a 'case grammar'. Most of the phenomena associated with conflation and 'light verbs' (as in Hale & Keyser 2002), for instance, whose development in 'minimalist' work is part of a retreat from 'lexicalism' to syntactic derivationality, do not involve syntax in the 'case grammar' framework. Moreover, in a 'case grammar' the level defined by the interpretation of the information provided by the lexicon is unlinearised; if this is insisted on throughout the syntax, as has come to be the case, there can be no 'movements'.

Comparative histories are instructive, in themselves and in the light they throw on what are compared; but, as signalled above, it is time to return to our programme concerned with issues raised by early 'case grammar' proposals. Recall (3.11):

- (3.11) *Some issues raised by Fillmore's proposals:*
- i) the representation of case relations and forms
 - ii) the rejection of 'deep structure'
 - iii) the identification of case and of individual case relations

We have reached issue (iii), which for a number of years attracted more attention than any of the others.

6. The identity of semantic relations

I think we can distinguish three main approaches that have been taken to identification of case and cases. Two of these recognise that, despite the assumption that 'cases' have a coherent semantic content, their identification and authentication depends on distribution; and the last involves the recognition that an explanation of these distributions depends on an understanding of the notional content of case. One approach, then, is atomistic, concerned with syntactic evidence for individual proposed putative 'cases'; I have listed this as (a) in (1):

- (1) *The identification of case(s)*
 a) distribution of individual semantic relations
 b) contrast and complementarity
 c) the content of case

The second kind of approach (b) appeals to the distribution of ‘cases’ with respect to the items which are subcategorised for them; with respect to their role in ‘case frames’. The final approach (c) attempts to define what characterises the category of ‘case’ substantively. All of these have a contribution to make to our understanding; they are complementary. Let me here first exemplify (a) in (1), before moving on to (b). (c), and the implications of an attempt to resolve it, will occupy the final chapter.

6.1. Syntactic criteria

Certain syntactic constructions depend on the presence of a particular semantic relation. These constructions are rather specialised; but this is not surprising given their restriction to particular circumstances, crucially the presence of a specific semantic relation. One such instance is exemplified in (2):

- | | | |
|--------|---------------------------|---|
| (2) a. | Bill was cleaning the car | } when I left, and later he was still at it |
| b. | Bill was working | |
| c. | ?*Bill was sleeping | |
| d. | *Bill was feeling good | |
| e. | *Bill was breathing | |

The *be at it* pro-form for the progressive is normally available only under an agentive interpretation, such as is associated with the (respectively) ‘transitive’ and ‘intransitive’ sentences in (2a-b). The O of (2e) and even the D of (2d) are not acceptable, even though they involve a human. (2c) exhibits acceptability only under an abnormal, ‘active’ interpretation of the subject of *be sleeping* – e.g. if Bill was determined to have a sleep.

Such particularistic distributional evidence complements the more global syntactic evidence that we have looked at in relation to the Objective ‘case’, involving ‘raising’ and (particularly ‘impersonal’) passives. All of these phenomena are centrally, and relatively uncontroversially so, ‘syntactic’.

Other distributional correlates of the semantic relations involve ‘selectional restrictions’. A number of these are discussed by Gruber and Fillmore, for instance. Thus, an adverb like (*very*) *skilfully* is normally associated with an A, as illustrated by (3), where the subjects in (a) and (b) are again As:

- | | | |
|--------|-----------------------|------------------|
| (3) a. | Bill performed (that) | } very skilfully |
| b. | Bill laboured | |
| c. | ?*Bill learnt (that) | |
| d. | *Bill knew that | |
| e. | *Bill expired | |

(3c) may be interpreted actively, say on the reading ‘Bill got to know about that skilfully’; but often the subject is not interpreted as an A. (3d-e) again involve human non-agents.

It might be objected – and, indeed, it has been – that (3) exhibits a purely semantic restriction and therefore does not relate to the syntax of semantic relations. But

this is to miss the point somewhat. These and other ‘selectional restrictions’ have to be associated with a relationship between particular syntactic categories; they express an inter-categorical relationship, a restriction between the members of two categories. Let me illustrate this, firstly, with phenomena that can be interpreted as not necessarily involving ‘case relations’, before taking up their relevance to the establishment of the latter.

Thus, as a rough approximation, the adjective *long* is normally predicated of nouns representing concrete entities which are oriented but not usually vertically oriented, as in (4a) vs. (b-c), or representing an event that takes place through time, as in (4d):

- | | | |
|--------|-------------|----------------|
| (4) a. | The table | } is very long |
| b. | *The woman | |
| c. | *The sphere | |
| d. | The play | |
| e. | *The skill | |

The noun in (4e) (as opposed to the *ars* that is traditionally contrasted with the *vita*) doesn’t normally meet either of these criteria. The important point is that the ‘selectional restriction’ holds between two syntactic categories.

Consider again what is illustrated by (3) in the light of this. The ‘selectional restriction’ holds between a manner adverb and what? The adverb is associated semantically with an agent. But agency is not a property of the entities represented by nouns; to be an agent it is not enough to be human or animate, which are properties of some of the entities represented by nouns. So the ‘selectional restriction’ doesn’t hold between adverb and noun. One possibility is to relate the ‘selectional restriction’ to the relationship between the adverb and the verb: the adverb requires agentive verbs. But this doesn’t account for the fact that *very skilfully* is attributed not to the verb as such but to the manner of participation of one specific argument in the event denoted by the verb: agency – as opposed to agentive or actional – is not a property of the verb itself, either. The ‘selectional restriction’ holds between the adverb and semantic relations, the relations between verb and noun.

This suggests that semantic relations belong to a category that, like other categories, enters into ‘selectional restrictions’. The category may be not be overtly expressed as such, as in (3) or (5a):

- (5) a. That was performed very skilfully
 b. That was performed very skilfully by the orchestra

But it may be given overt expression, as in (5b). In this way, ‘selectional restrictions’ illuminate the syntax of the sentences concerned, in particular their categorial structure. And they show that this category, of semantic relations, has semantically systematic members, which correlate with those established by more centrally syntactic evidence. I do not pursue (a) in (1) further. But we shall come back to further ‘selectional’ evidence.

6.2. Principles of ‘complementarity’ and ‘contrast’

Fillmore’s (1968a) formulation of what came to be called elsewhere the ‘theta-criterion’ underlies the principles invoked under (b) in (1):

Fillmore’s proto-theta-criterion

Only one (possibly coordinate) token of each case is permitted per proposition (p.22).

Each NP is associated with only one case label, such that in any proposition there is a one-to-one matching of C<ase> R<elation>s and NPs (p.24).

This can be the basis for the application of proposed principles of contrastivity vs. complementarity.

I note as an aside that, given the coincidence between the formulation of Fillmore and the ‘ θ -criterion’, the choice within the transformational tradition of Gruber’s (1965/1976) terminology (of ‘thematic relations’) over Fillmore’s ‘cases’ becomes discrepant. Jackendoff (1972: §2.3) is at pains, in these early days, to point out that one (the?) advantage of Gruber’s system is that in it ‘noun phrases can function in more than one thematic role within the same sentence’ (p.34). Gruber’s system allows violation of the ‘ θ -criterion’.

In support of Gruber’s position, Jackendoff argues that though the subjects in (6) share the role of ‘Theme’ (roughly, O), the sentence in (b) is ambiguous in a way that (a) is not:

- (6) a. The rock rolled down the hill
- b. Max rolled down the hill

Max in (6b) may or may not be also be ‘Agent’. On one interpretation it combines the roles of ‘Theme’ and ‘Agent’. On both interpretations *Max*, as ‘Theme’, is the entity undergoing the movement, but on only one of them *Max*, as an ‘Agent’, instigates the movement as well.

I subscribe to the Gruberian position (see e.g. Anderson 1971b); specifically, of current relevance, I do not accept the second part of the criterion under discussion here. But Chomsky, in adopting the ‘ θ -criterion’ (1981: 39, n.14) as a whole, explicitly rejects Gruber’s approach in favour of the Fillmorean one, apparently. However, he comments mysteriously on Jackendoff’s interpretation of the agentive interpretation of (6b): ‘I will assume that such cases should be dealt with by modification of θ -role assignment rather than by modification of the θ -criterion, though it is not obvious that this decision is the right one’.

On the basis of his proto-theta-criterion, Fillmore (1971: §3(c)) suggests, for instance, that if the subject of a certain class of predicators shows systematic ambiguity apparently in semantic relation, a contrast in semantic relation can be posited. So, whereas the subject in (7a) shares a putative semantic relation with that in (7b), we can associate with it a further alternative that is not shared:

- (7) a. This jacket is warm Place/Instr
- b. This room is warm Place
- c. I am warm Place/Dat

The interpretation in common between the subjects in (7a) and (b) is of ‘warmth-possessor’, or ‘location-of-warmth’; the subjects are Places for Fillmore. The distinctive interpretation of (7a) is of ‘warmth-giver’. Fillmore labels the latter Instr(umental). We might note that we can associate a further interpretative distinction for *warm* with (7c) vs. (a/b), involving whether the ‘warmth possessed’ is a physical or mental attribute: whereas (7a) is either Place or Instr, (7b) is either Place or Dat – or, as re-interpreted in this paper of

1971, Experiencer. We have provisional distinctions in semantic relation. Subject position involves neutralisation of these.

The proliferation of these distinctions elsewhere is intended to be checked by considerations of complementarity (Fillmore 1970: §3(d)), circumstances where possible distinctions in semantic relation can rather be ascribed to other elements in the structures, as in (8a):

- (8) a. The ball rolled from the door to the window
- b. The house changed from a mansion into a ruin

Here, semantic relations are in common, consistent with the case-marking; the difference between ‘change-of-place’ and ‘change-of-class’ relates to a concrete vs. abstract interpretation of the predicator (cf. Anderson 1970). There is no neutralisation of semantic relations.

Application of this notion of complementarity also undermines, however, aspects of what Fillmore has to say about the subject of *warm*. He suggests that the subject of (9) shows a semantic relation distinct from those in (7), which he labels Time:

- (9) Summer is warm Time

But complementarity requires that we attribute the temporal interpretation to the noun. It represents a different kind of ‘possessor-of-warmth’, a different dimension for Place of location of the ‘warmth’. Differences in the interpretation of what location is involved in the two instances are complementary, and determined by the content of the noun.

Indeed, to pursue this further, any alleged distinction between Place itself and O in the subject position of *warm* seems to fall foul of complementarity. The distinction between (7b) and, say, (10), if it instantiates an O, is that the noun in (7b) is more typically construed as a location, as a place noun:

- (10) This stone is warm O?

Moreover, with the ‘warmth-giving’ interpretation of (7a), may it be that some entities are more easily seen as implying the giving out of warmth, without this being embodied in the semantic relations imposed by *warm* rather than *warming*? The contrasts in subject position of *warm* may reduce to O vs. Dat/Experiencer (one meaning of (7c)).

Other aspects of contrastivity are explored in Anderson (1977: §§1.7, 2.6). He suggests that adoption of something like the first part of Fillmore’s ‘proto-theta-criterion’ means that if a predicator is subcategorised for more than one ‘case’ phrase, these phrases must realise different ‘cases’ (unless they are both O); they contrast lexically. If two putative ‘cases’ do not contrast in this way – i.e. they never co-occur in ‘case frames’ – they are not in contrastive distribution. Only co-occurrence in the same ‘case frame’ ensures what we might call lexical contrastivity.

Thus, trivially, the two arguments in (11) are distinct in semantic relation, whereas the subjects in (7b) and (9), labelled Place vs. Time by Fillmore, do not involve a contrastive distinction in semantic relation:

- (11) The girl opened the door

Putative Place and Time co-occur in a sentence only if one of them is a circumstantial, an adjunct, not part of the ‘case frame’ or proposition, as in (12):

- (12) a. Summer was warm in Sweden
- b. Sweden is warm in Summer

Here we have one contrastive semantic relation in each sentence, a participant – in both instances Place, or rather (I have suggested) O. The circumstantials are marked as Place, as in the propositional Places of (13):

- (13) a. Bill is in London
- b. The concert is on Tuesday

Constraints on circumstantials involve other considerations, however – as raised e.g. in Fillmore’s re-consideration of Place and Time (1971: §8). But we can conclude that, on the basis of lexical contrastivity, too, the relations borne by the subjects in (7b) and (9) are semantically the same: Place for Fillmore, but probably just (given complementarity) O. There is no case for a ‘case’ ‘Time’, on any grounds.

Discussions of contrast and complementarity also underline the importance of semantic substance in evaluating distributional evidence, just as reference to phonetic substance is essential in the phonology. (Hence the suggested complementary/contrastive analogy with the phonology, introduced as such by Fillmore 1971.) We need to be able to locate the category to which a particular notion belongs; whether e.g. the Time/Space distinction is relational or nominal in its expression. The primary identification of ‘cases’ is by their contrastive substance. General applicability of this recognition is what underlies ‘notional grammar’ (e.g. Anderson 1997). – But that, once again, is to anticipate later developments.

Insufficient attention to complementarity and lexical contrastivity has led to an inappropriate proliferation of ‘cases’. Recognition of a further instance of this resolves many of the problems that have been attributed to one of Fillmore’s proposed ‘cases’, ‘Instr’ (see e.g. Dougherty 1970, Huddleston 1970, Chomsky 1972: §6.8.3). Despite its proposed status as a propositional ‘case’, there are no predicators that contain both A and Instr in their ‘case frames’, no propositions containing both; A and Instr do not contrast lexically.

Thus, in the first place, the final phrase in (14) is a circumstantial, absent in (11):

- (14) The girl opened the door (with the/a key)

Certainly, this is a circumstantial that requires the presence of an A in the proposition. But this, however it is to be expressed, is not unusual: cf. ‘circumstantials of purpose’ – e.g. with *in order to* – which also require a propositional A.

The putative ‘Instr’ in subject position in (15), on the other hand, does not co-occur with a propositional A; they are mutually exclusive:

- (15) The key opened the door

Propositional ‘Instr’ and A share the semantic characterisation ‘source of the action’. We differentiate between the two in that the human referent of the noun in (14) can display volition, intention in her action – though not necessarily. But this doesn’t motivate the

positing of a distinction in semantic relation here. We can recognise that the A in (14) is prototypical, in that it allows or even encourages these interpretational possibilities (volition etc.), as well as allowing modification by instrumental and ‘purposive’ circumstantials. These are all associated with the humanness of the denotatum. But the subjects in (14) and (15) are in both instances presented as sources of the action, with semantic relation A – even if we understand that the A in (15) (in particular) is not the ‘ultimate source’ in the ‘real world’, but most likely should be interpreted as an ‘intermediary’.

Projecting the ‘instrumental’, non-agentive status of the *with*-phrase in (14) on to the subject of (15) ignores the fact that the same situation in the world can be conceptualised and represented in different ways. So that the optional phrase in (16a) is a non-propositional A, that in (b) is a (non-propositional) ‘instrument’:

- (16) a. The door was opened (by the key)
- b. The door was opened (with the key)
- c. The door was opened (with the key) (by the girl)

(16c) has a succession of (non-propositional) ‘instrument’ and A. Whatever the appropriate analysis of such instrumentals might be, they are circumstantial only.

I note in passing that by describing the *by*-phrase in (80.a) as non-propositional I am again anticipating later developments in the analysis of passives. Some of the history of these is recorded in Anderson (1977: §3.3, 1997: §3.5). In terms of later developments we can characterise ‘passive *by*-phrases’ as circumstantial As that are coreferential with a proposition A that has been incorporated into the verb (signalled by the morphology), whereas ‘*with*-instrumentals’ are circumstantial As that are not in this relation to the verb structure.

The subject of (15) represents a type of non-prototypical A, as does the subject of (17a):

- (17) a. The wind opened the door
- b. The door was opened by the wind

There is no motivation for introducing a further semantic relation, ‘Force’, in this latter instance either (Huddleston 1970), or for its assimilation to instrumentals (Fillmore 1971: §5(b)). The ‘displaced’ ‘Force’ in (17b) is marked with *by*, as a (non-propositional) agent.

6.3. Conclusion

We have looked at the kind of criteria that can be invoked in support of the positing of individual ‘cases’, and at various principles of contrastivity and complementarity. Implementation of neither apparatus discussed here has always been agreed on.

On the basis of such arguments and others, Cook (1977, 1979) envisages five propositional ‘cases’, which he presents as in (18):

- (18) (Experiencer)
- (Agent) (Benefactive) Object
- (Locative)

The brackets indicate optional presence in a proposition; Cooke assumes that the Object/O is obligatory (cf. Gruber 1965/1976; Anderson 1971: 37; Taylor 1972; Starosta 1988:

§4.2.1.4); we shall return to this. But the three ‘cases’ presented vertically in (18) are regarded as mutually exclusive. This offends against lexical contrastiveness, however, if correct; ‘cases’ are not complementary. And it does not seem to be correct. Consider, for example, (19):

(19) Jeff derived considerable pleasure from the expedition

Here we seem to have, from right to left, a propositional Locative, an Objective and a Benefactive or Experiencer. The situation is a little more complex, then, though there is something to Cook’s suggestion: these ‘cases’ are related in some way. This brings us on to (c) in (1):

- (1) *The identification of case(s)*
a) distribution of individual semantic relations
b) contrast and complementarity
c) the content of case

This will emerge in one particular attempt to address (c) that I’ll come to in a moment.

The combination of principles of (1b) is distributionally based, though they also rely on semantic substance, semantic similarity. If appropriate, the combination should, when applied, lead to the establishment of a set of semantic relations, so that these also correlate with individual syntactic criteria. But in itself this provides no account of why the set is the size it is, why it comprises the semantic relations it does. And it still leaves some scope for the ex tempore proliferation of ‘cases’.

Hjelmslev points out the unsatisfactory character of the lack of a theory of case (1935: 4):

Délimiter exactement une catégorie est impossible sans une idée précise sur les faits de signification. Il ne suffit pas d’avoir des idées sur les significations de chacune des formes entrant dans la catégorie. Il faut pouvoir indiquer la signification de la catégorie prise dans son ensemble.

The mainstream of modern linguistics inherited no unified account of case. As we have seen, the dominant view was that there were two kinds of cases, the grammatical and the local or notional, as displayed in (1.4), which presents Holzweissig’s interpretation of the early Indo-European languages:

- (1.4) a. *grammatical cases*: accusative, dative, genitive
b. *local cases*: ablative, locative, instrumental

And observe again that for Holzweissig nominative and vocative stand outside both of these divisions.

Hjelmslev himself re-introduced the localist tradition (1935/37), which had been side-lined by the end of the nineteenth century. And he interpreted the localist theory of case in a very strong form, so that the content of case was articulated in terms of spatial dimensions: all the cases are ‘local’. Anderson (1971b) argued that this offered the most promising theory of case, though his articulation of localism differs from Hjelmslev’s. Some of the differences are contingent, depending on the derivationalist orientation of Anderson (1971b) and (1977). Others are more fundamental – as we shall see.

I now turn to one of those aspects of the syntax of 'case' that remained underdetermined by the original 'case grammar' programme. But the character of this programme at least suggested that these aspects are such as might prove problematical for the programme, or that insight into their analysis might be yielded by rather obvious extensions of it. I have grouped these underdetermined aspects together as 'consequences of case grammar', consequences only one of which will be pursued in the section that follows, and indeed concludes this work.

I shall now list in the form of a set of questions these consequences of the 'case grammar' programme whose pursuit is at least encouraged or even demanded by the concepts that we've looked at:

(20) *Consequences of case grammar:*

- α) the question of content
- β) the question of category
- γ) the question of consistency
- δ) the question of derivationality

Question α corresponds to issue (iii) of those that I suggested arose directly out of Fillmore proposals. We have looked at the other issues:

(3.11) *Some issues raised by Fillmore's proposals:*

- i) the representation of case relations and forms
- ii) the rejection of 'deep structure'
- iii) the identification of case and of individual case relations

We have already seen that the third one introduces far-reaching questions which, together with the others in (20), have pre-occupied more recent developments in 'case grammar'.

The questions in (20) are interrelated; I shall look at them briefly in an order that exploits this, i.e. the order in which I have just given them. I am going to gloss each question, and indicate some of the developments it provoked, before looking in §7 at the first of them in more detail.

Failure to provide an agreed systematic answer to question α has underlain much of the adverse criticism of 'case grammar' (cf. e.g. Chapin 1972). This has stemmed from the impression that the grammarian is left free to drop or introduce or re-introduce individual 'cases' as contingency demands. Almost every paper produced in the tradition offers a different set of 'case relations'; and papers with titles like 'Can "area" be taken out of the waste-basket?' (Radden 1978) are scarcely encouraging. 'Case grammar' needs to establish a principled limitation on the set of semantic relations. Of course, as I have observed, this is true of any theory that invokes semantic relations, or 'thematic relations', or whatever. But the centrality of these to 'case grammar' (and now to 'minimalism') raises the question rather urgently. And question α thus demands our attention immediately.

Consider now question β. As I've described, a number of researchers adopted the idea that semantic relations are represented by labelled nodes in a dependency tree. But that leaves unspecified their categorial status: if A, O etc. are 'cases' or semantic relations, what kind of category is 'case' itself? How is it related to other categories, and how are the representations of individual 'cases' related?

Say, as a result of the work I describe here we have found a basis for a delimitation of the content of 'case'. We have established, then, if we have been successful,

the set of possible distinctions carriable by the category of 'case'. We have, in other words, described the secondary categories of the primary category of 'case'. These secondary categories are related to 'case' as 'aspect' is to verbs. But what kind of category is 'case'? How is it like or unlike verb? And how is this to be represented? The early 'case grammar' programme is not very clear about this either. Anderson (1997) argues that 'case' is a functional category: this underlies its manifestation as separate word, adposition, or inflection, and relates to much else besides. This is the import of question β . And it leads on to question γ , which I'll also now try to make a little more explicit.

The question of categoriality is the most obvious next question to α that arises from what we've been looking at. But it too can be seen to invite the further question of what the substance(s) of categories in general might be, and how consistent these substance(s) are. 'Case' is patently a 'notional', or 'ontologically-based', category. 'Case grammar', if generalised, leads us to a concept of grammar in which all the categories are notionally based, verbs and nouns as well as semantic relations. This again is argued in Anderson (1997), and indeed gives the book its title.

The question therefore is this: is whatever category semantic relations belong to unique, so far as its obviously semantic basis is concerned? Traditionally in the transformational tradition, for instance, syntactic categories are not characterised semantically. This is already called into question by the introduction of 'thematic roles'. But generalising the assumption that syntactic categories are semantically based leads, as I've just suggested, to re-introduction of 'notional' or 'ontologically-based' grammar. A 'case grammar' embedded in such a general framework is consistent in this respect. Renewal of interest in 'notional grammar' in the second half of the twentieth century took place independently of 'case grammar' (see Lyons 1966). But one strand in the re-development of 'notional grammar' has taken its startingpoint from the 'notional' character of the 'cases' of 'case grammar'.

Another concept of 'case grammar', one which I noted earlier only in passing, raises the issue of derivationality, question δ . Initial structures in 'case grammars' are unordered, the trees are 'wild trees', they are linearised in the course of derivation. The strongest assumption here would be the adoption of the requirement that linear order is invariant (Sanders 1970, 1972): it is immutable once assigned. Something approaching this assumption can be seen as underlying Anderson's (1977) suggestion that linearisation is 'post-cyclic', occurring after application of the 'cyclic transformations'. Thus, in this account, the subject-formation rule corresponding to Fillmore's derivation of (7) and (8) is cyclic, so neither changes nor assigns linear position; unlike Fillmore's rule it simply re-attaches the selected 'case phrase' rather than also positioning it.

The question that arises here is this: can the assumption of linear invariance be extended to attachment? Do syntactic structures also show invariance of attachment? A positive answer to this depends on exploitation of some other more local 'concepts' generally adopted in 'case grammar', particularly the special status of O. Briefly, O is assumed by many to be obligatory in any predication, even if not part of the 'case frame' of the predicator. This valency-free or empty O is the target for multiple attachments which allow 'argument-sharing' between different predicators (Anderson 1991, Böhm 1993). These 'multiple-attachments' obviate the need for 're-attachments' as well as for change in linearity – thus any need for transformations. Such a non-mutative framework is developed once more in Anderson (1997).

Of these questions, only the first one is pursued within the confines of the present work. It is that we turn to now.

7. ‘Localist case grammar’

Individual ‘cases’ have occupied a lot of attention from ‘case grammarians’ and critics. There have been notable attempts to identify the semantic and syntactic characteristics of particular ‘cases’. But such research can make little progress without some idea of the system of ‘cases’ as a whole, and of what it takes semantically to be a ‘case’. As we have seen, Fillmore put forward various ‘principles’ of ‘complementarity’ and ‘contrastivity’ applicable to the differentiation of different ‘cases’. But again these do not as such provide much more insight into ‘case’ and ‘cases’.

And, as we have also seen, these ‘principles’ did not resolve ongoing controversies on the status of, say, the putative ‘case relation’ ‘Instrumental’: see e.g. Fillmore (1968a, 1977), Chafe (1970: §§12-4-6), Dougherty (1970), Huddleston (1970), Fletcher (1971), Chomsky (1972), Nilsen (1973), Vestergaard (1973), Anderson (1977: §§1.6-7); more recently, see e.g. Schlesinger (1995), Anderson (1998: §1). I suggested in the previous section, though, that more progress might have been made in this and other areas if the criteria of contrast and complementarity has been more consistently applied. However that may be, this still leaves the central question of the content of ‘case’ to be answered.

The pre-transformational tradition was well aware of the need for a theory of semantic relations and the category to which they belong, as expressed in the quotation from Hjelmslev (1935: 4) with which the previous section terminated. And Hjelmslev himself espoused the localist theory, which now demands our attention.

7.1. Hjelmslev and localism

Hjelmslev gave the localist theory its most radical interpretation: not only the ‘local cases’ of the standard theory of case at the time, such as ablative, but also the so-called ‘grammatical cases’, like dative, accusative and genitive, and even nominative, had a ‘local’ content. They were structured by a dimension of directionality, with respect to which they could be positively or negatively oriented or neutral between these two poles.

We can, rather crudely, illustrate something of the system for traditionally ‘local’ cases with the set from Finnish in (1), which can be interpreted as showing respectively neutral orientation, positive and negative:

(1)	0	+	-
	<i>talolla</i>	<i>talolle</i>	<i>talolta</i>
	adessive	allative	ablative

This instantiates the basic semantic dimension for case systems, one of ‘direction’.

This presentation oversimplifies Hjelmslev’s proposals considerably. He also allows for a distinction between an ‘intensive case’ which is semantically marked in the particular language, and an ‘extensive’, which is diffuse in meaning. He says (1935: 114) of an ‘intensive’ case (the genitive in English):

c’est lui seul qui comporte une signification restreinte et bien définie.

And the identity of the ‘intensive’ is something that differs from language to language. And an opposition may be ‘complex’, i.e. may combine the zones in (1), in various ways: it may be ‘contraire’ or ‘contradictoire’ or ‘participative’. I won’t pursue this here.

Hjelmslev recognises, however, that the semantic space occupied by case systems is more extensive than is allowed for simply by the single dimension of ‘direction’. The dimension of (1) may be accompanied by a second dimension, of ‘cohérence’, as is included in (2):

(2)		0	+	-	
	incohérent	<i>talolla</i>	<i>tallole</i>	<i>talolta</i>	ad/ab-
	cohérent	<i>talossa</i>	<i>talon</i>	<i>talosta</i>	in-/ex
		-essive	ad-/in- -lative	ab-/ex-	

The interior cases are ‘cohérent’, the others ‘incohérent’, a distinction which Hjelmslev paraphrases as: ‘une différence dans le degré d’intimité avec lequel les deux objets envisagés par le rapport casuel sont liés ensemble’ (1935: 36). The second dimension presupposes the first.

Presence of the second dimension allows in turn for the potential presence of a third, which involves what Hjelmslev labels ‘subjectivité’ vs. ‘objectivité’. He offers the French prepositional expressions in (3):

- (3) a. subjective: *devant/derrière*
 b. objective: *au-dessus/au-dessous*

These are all, in a sense, ‘subjective’ compared with the distinctions associated with the other dimensions, in involving either deictic reference (3a) or canonical orientation (3b). But Hjelmslev seems to associate ‘subjectivité’ with deictic reference only.

There are clearly other potential dimensions which would fall within each group. Many of them, at least, are allowed by deployment of the third, ‘neutral’ term of the dimension of ‘cohérence’ (p.130), since (2) involves only the positive and negative poles, or by ‘complexity’ (where a case is associated with the two poles combined, p.132). But within the interior group we need to be able to allow for the distinction between the ‘interior of a container or area’ or the ‘interior of a line or surface’. In English, the former is marked by *in*, the latter by *on*, as illustrated in (4):

- (4) a. It’s in the house/square
 b. It’s on the way/table

Hjelmslev differentiates ‘inhérence’ and ‘adhérence’ (1935: 129-30) in such instances.

The establishment of the structure of dimensionalities is of interest in itself. However, I don’t pursue this, as none of these dimensions except for the first directly involve the kind of participation in the situation of the complements of the case or adposition. They introduce dimensionalities that are built upon the basic dimension of directionality. They are not central to our present concerns. And they are operative only with those cases or adpositions that have an obviously concrete-spatial interpretation. But, crucially for the localist, even those ‘cases’ that have, whatever else, no obvious concrete interpretation are characterised and distinguished with respect to the dimension of direction.

Hjelmslev goes out on a limb in including the nominative as directly reflecting directionality. The main problem is that the nominative is the case that is recognised on the basis of its representing the subject, whatever else. And the subject seems to display a variety of semantic ‘orientations’ with respect to its predicator, as illustrated by the familiar set of examples in (5), all with the same name of a human as subject:

- (5) a. Bill read the book
- b. Bill fell to the ground
- c. Bill flew to China
- d. Bill lay on the floor
- e. Bill lived in China
- f. Bill slipped
- g. Bill was clever/a peasant
- h. Bill knew the answer
- i. Bill acquired a new shirt/outlook
- j. Bill suffered from asthma/delusions

In (5a) we have an A, in (b) an O, whereas (c), as usually interpreted, seems to combine the two – as I’ll come back to. (d) is an O again, presumably, but here introducing the argument that refers to the located entity rather than the moved entity, as in (b-c). (e) seems to combine located entity, O, and A, as typically interpreted. In (f), *Bill* is presumably again an O, but without attribution of goal or location; and in (g) a quality or class is attributed. In (h) the subject is apparently neither A or O, on both semantic and syntactic grounds that are familiar; nor is that in (i) or (j).

Hjelmslev takes a more ‘abstract’ view of directionality in relation to the nominative and other traditionally ‘grammatical cases’. Consider his remarks (1935: 53) on the nominatives in the Russian clause in (6), presented here in his transcription and with his segmentation:

- (6) *róz-a* *krasív-a*
 rose-nom *beautiful-nom*
 (‘The rose is beautiful’)

Ici le nominatif de *róz-a* implique un éloignement syntagmatique (le fait de régir), et le nominatif de *krasív-a* implique un rapprochement syntagmatique (le fait d’être régi).

Now, we must be careful, as Hjelmslev warns us, not to identify directionality and space in general with just its concrete manifestations. Otherwise, for instance, we prevent the

application of the localist idea to tense and aspect and other domains which do not denote part of physical space, but where localism has proved insightful (see e.g. Miller 1972, 1985, Anderson 1973, Jackendoff 1976, Lyons 1977: §15.7). But the metaphor of the directionality of rection seems to take us into quite a different domain from these others. It may be appropriate to that domain; but simply collapsing ‘rection’ with these other manifestations of directionality and taking it to define the nominative obscures the neutralisation of semantic relations that we find in (5).

7.2. The localist interpretation of ‘experiencers’

Even if, following e.g. Fillmore (1968a) and Anderson (1968a, 1971b, 1977), we recognise that subjecthood involves something distinctive from the semantic relations themselves, a neutralisation, it is still not clear how we are to apply the localist hypothesis to the full range of subjects in (6). O, which I’ve associated with the subjects in (b-g) in (5), seems to be unproblematic, in a negative kind of way: it introduces an argument which does not denote a location or a goal or a source, which is at most located or undergoes movement. We can characterise it as lacking the locational property, as it seems to lack everything else: its relation to the predicator is a kind of default determined by that predicator. Even less problematical for a localist interpretation, obviously, are the locations and goals which occur as complements of the verbs in (b-e) of (5). And the subjects in (i), at least, (j) perhaps, might also be argued to involve goal, possibly ‘abstract’ – though here something else seems to be involved over and above location of the goal. And I’ll return to this. Let’s look first, however, at what might look to be the most intractable, the subjects in (a,c,e) and (h). This subsection is largely based on the much fuller discussions in Anderson (1971b, 1977).

I associated, fairly uncontroversially, the subject of (5a) with A. In (c) and (e) it is combined with O: the action is exerted on the agent itself. This latter suggestion presupposes a framework in which relations can combine to label the role of an argument. I have been assuming that this is well-motivated; see further below. What I want to suggest here is that a rather traditional directional interpretation of A immediately suggests itself, its interpretation as the ‘source of the action’. It is differentiated from spatial sources, such as is marked by *from* in (7), as being not also a place:

(7) Bill flew from Singapore to China

The ‘source of the action’ cannot be ‘located’, or instantiated, in any other domain than that of ‘action’. Thus A is a specialisation of the locational source, which lacks the latter’s capacity to be both concrete and abstract, associated with its status as a place.

Anderson (1977: 115) proposes that the set of semantic relations reduces to four localist ones that can be decomposed as in (8):

(8)	Case relations	abs	erg	loc	abl
	Composition			<i>place</i>	<i>place</i>
			<i>source</i>		<i>source</i>

‘Erg(ative)’ is roughly A, and ‘Abs(olutive)’ roughly O. I’ll use these terms in what follows to highlight that the former in particular diverges quite a bit from the general understanding of A, in so far as there is one. ‘Loc(ative)’ and ‘Abl(ative)’ are reasonably transparent. Loc is interpreted as a Goal in the presence of Abl, as in (7), even if this presence is only potential, implied by the semantics of the verb, as in (5.b-c), and need not be overt.

On the basis of (8) we can assign the semantic relations in (9) to the arguments in the sentences of (5):

(9) a.	Bill read the book	erg + abs
b.	Bill fell to the ground	abs + loc(goal)
c.	Bill flew to China	abs,erg + loc(goal)
d.	Bill lay on the floor	abs + loc
e.	Bill lived in China	abs,erg + loc
f.	Bill slipped	abs
g.	Bill was clever/a peasant	abs
h.	Bill knew the answer	? + (?)abs
i.	Bill acquired a new shirt/outlook	? + (?)abs
j.	Bill suffered from asthma/delusions	? + (?)source

The last three obviously remain problematic, despite a possible goal interpretation of the subjects of (i,j).

All three seem to fit Fillmore’s (1968a) definition of the D(ative), whose formulation was given in (3.10), but which is not obviously localist:

(3.10) *Dative* (D), the case of the animate being affected by the state or action identified by the verb.

Fillmore later (1969, 1971) dispersed what he had regarded as instances of D(ative) into O and G(oal) and a new ‘case’ E(xperiencer):

(10) *Experiencer* (E), the entity which receives or accepts or experiences or undergoes the effect of an action (earlier called by me ‘Dative’).

This removes, for instance, something of the vagueness and over-reliance on animacy of (3.10), but the replacement ‘case’ apparently isn’t any more amenable to a localist interpretation. The modification as a whole does at least recognise the locative basis of some of the former Ds. What it fails to recognise is that the residue of Ds that are re-interpreted as Es are also locative (Anderson 1971b: chs.7 & 9).

The sentence in (5/9h), for instance, enters into just the semantic implications you’d expect if its subject were locative. Consider firstly the patently locative-directional pair in (11):

- (11) a. Bill is in China
 b. Bill has arrived in China

Here the truth of (11a) is reasonably to be deduced from the truth of (11b) (provided (11b) is not interpreted as habitual); the Location and the Goal predications relate the same entity and place. We find a similar relationship between (a) and (b) in (12), where in the latter we have also an overt Source:

- (12) a. Bill knows (about) that
 b. Bill has learnt (about) that from Sam

And the Goal of (12b), implied by the presence of the Source, is the subject, and it is identical to the subject of (12a), which we can plausibly interpret as a Location, the location – or one location – of (some item of) knowledge. (12) differs from (11) in that both the Location and the Goal are subjects rather than complements. Otherwise, the crucial case relations Location and Goal are analogously present in both instances, (11) and (12). Es seem to be locations, whatever else.

Cook (1977, 1979) suggests indeed, as we have seen, that the putative ‘cases’ E, B(enefactive) and L(ocative) are mutually exclusive. This calls into question their distinctiveness as ‘cases’, however: their occurrence is being claimed to be context-conditioned. And the suggestion that they are mutually exclusive does not seem to be quite correct (§6.3, and cf. Anderson 1971b: §2.6.3). At this point I’ll concentrate on the E relation rather than B, given that the localist interpretation of B, exemplified by the first ‘object’ in (13):

- (13) Bill bought Bella the book

is rather more obvious.

Consider here again sentence (12b). Here we seem to have, from right to left, a Source Locative, an Objective and an Experiencer, all part of the valency of the verb. We can observe again that the situation is a little more complex than Cook suggests. L and E can co-occur if one is a Source, the other a Goal. This is what characterises Sources and Goals in general, as in (14a):

- (14) a. Bill flew from Singapore to China
 b. Bill flew from Singapore
 c. Bill flew to China (= 15/19c)

With directional verbs, Source and Goal imply each other, even if one of them is not overtly expressed, as in (14b-c). It thus appears to be more accurate to say that E shares the joint distribution of L and G, in particular.

But we cannot simply identify E with L and G. The experiencers of (12) are differentiated from other Ls and Gs both syntactically and lexically – and sometimes inflectionally, in the shape of a distinct ‘dative’ inflection. Other Ls and Gs are not usually preferred in subject-selection over Os/absolutives, as shown in (9b-e) and (9j). There are languages with subjects which appear to involve concrete locatives. But these are restricted in various ways.

The acquisition of locative-subject verbs with the sense of ‘contain’ and ‘include’ seems to be a late development or a loan even in those languages which have them, and to be parasitic upon an earlier agentive meaning. In English, for example, the verbs *Contain* and *Include* are both late-ish loans. And active sentences with such L subjects, unlike actives with E subjects, do not have a canonical passive. Compare (15) and (16):

- (15) a. That was known (about) by Sam
 b. That was learnt (about) by Sam

- (16) a. They were contained in that box
 b. That box contained them

We find the ‘normal’ passive with such items only when they have a non-subject A, as in (17), where the verb has an agentive interpretation:

- (17) They were contained by two armoured divisions

Know may also have a distinctive passive marker for the E, *to*, but in general Es in passives share their marker with As. Syntactically, Es pattern more with As than with other Ls. Es and As also share semantic restrictions, as illustrated in (18):

- | | | |
|---------|--|---------------------|
| (18) a. | Bill secretly read the book | erg + abs |
| b. | *Bill secretly fell to the ground | abs + loc(goal) |
| c. | Bill secretly flew to China | abs,erg + loc(goal) |
| d. | *Bill secretly lay on the floor | abs + loc |
| e. | Bill secretly lived in China | abs,erg + loc |
| f. | *Bill secretly slipped | abs |
| g. | *Bill was secretly clever/a peasant | abs |
| h. | Bill secretly knew the answer | E + abs |
| i. | Bill secretly acquired a new shirt/outlook | E + abs |
| j. | Bill secretly suffered from asthma/delusions | E + abl |

In order for (9b), (d), (f) and (g) to be viable, the subjects must be given an agentive interpretation. I have temporarily filled in the missing subject relations in (18h-j) as E. The capacity to be modified by *secretly* is shared by sentences with erg and sentences with E, whether simple Locative E, as in (18h), or a Goal E (18i-j). It is clearly not enough for the subject to be animate or even human. Even verbs that necessarily (unless used figuratively) take an animate abs (or at least one that is a life-form) don’t accept *secretly*, unless given an agentive interpretation:

- (19) *Bill secretly died

Die is a change-of-state verb not an E verb.

This suggests that, as well as being Ls, Es share some property with As. Anderson (1977: §2.6.3) proposes, indeed, that E is a complex role, involving two semantic relations, loc combined with erg. Such a distribution for erg is one reason for the change of label from A: erg is not always agentive. How then is it to be characterised?

We can think of the A as the source of the existence of the action denoted by the verb: without an A there is no action. Similarly the experiencer is the source of the existence of the experience denoted by the verb: without an E there is no experience. What these have in common – they are the ‘existential source’ of the scene depicted by the verb – is denoted by erg. That we are in the experiential rather than the actional domain is signalled by the combination of loc with erg; in the absence of loc, the verb denotes not a non-actional internal situation but an action.

Such an analysis again violates Fillmore requirement that each argument bears only one case relation. This was subsequently embodied as the first part of the ‘theta criterion’:

- (20) *θ-criterion*
 Each argument bears one and only one *θ*-role, and each *θ*-role is assigned to one and only one argument

(Chomsky 1981: 36). Chomsky regards this as ‘a reasonable criterion of adequacy for L[ogical] F[orm]’. But there is much evidence that it is inappropriate, particularly in the context of an otherwise more restricted theory of semantic relations. See Anderson 1977: 160) for reference to earlier work. We’ll come back to another piece of evidence in a moment.

Thus, we can define E as in (21):

- (21) *Experiencer* = erg,loc

What might have appeared to be the most intransigent semantic relation can be given an appropriate localist interpretation. In terms of this analysis of E suggested by Anderson (1977) we can substitute for the valency specifications in (18h-j) those in (22):

- | | | |
|---------|--|---------------------|
| (22) a. | Bill secretly knew the answer | erg,loc + abs |
| b. | Bill secretly acquired a new shirt/outlook | erg,loc(goal) + abs |
| c. | Bill secretly suffered from asthma/delusions | erg,loc(goal) + abl |

The latter two involve a goal locative, even though in (20b) the abl is in this instance not overtly expressed.

7.3. ‘Syntactic/logical’ case forms and ‘localism’

Let’s turn now to consider how the so-called ‘syntactic’ or ‘logical’ ‘case forms’ relate to such a localist view of semantic relations. How extensive is neutralisation of the expression of the semantic relations? We are not concerned with sporadic lexical neutralisations, such as the not infrequent neutralisation of spatial goal and simple location, as in the French:

- (23) Il va/est à Toulouse
 he goes/is to/at Toulouse

This leaves a residue of the semantic content in common, loc but not source. Subjects/nominatives do not seem to share such common content, and apparently involve a much more general neutralisation.

Such markers of the semantic relations as nominative may display extensive grammaticalisation and fail to express directly differences in semantic relation. The nominative typically neutralises the semantic relations associated with the nominals that bear the inflection. It represents a neutralised relation traditionally referred to as ‘subject’. Further, selection of subject involves a hierarchy of semantic relations. Subject has a derivative status, in relation to the semantic relations; it is not an independent notion. Moreover, it may also mark predicative nominals, a further grammaticalisation.

In some languages, however, the predicative nominative alternates with a specifically predicative inflection:

- (24) a. Pekka on opettaya
 Pekka+nominative is teacher+nominative

- b. Pekka on opettayana
Pekka+nominative is teacher+essive

As we have already observed, the essive in the Finnish sentence in (24b) expresses ‘contingency’, a temporary situation; if the teacher is a permanent professional then the nominative in (24a) is preferred. Its occurrence is semantically conditioned. The marking of subjects by nominative is the more pervasive and consistent neutralisation.

In many languages the adnominal genitive, though often retaining locational uses elsewhere, also neutralises the semantic relations contracted by adnominal nominals, particularly deverbal and deadjectival nominalisations. Consider the nominals in (25), where I’ve indicated proposed typical semantic relations:

- | | | |
|---------|--|-------------------|
| (25) a. | Bill’s rescue (of the cat) | erg (abs) |
| b. | Bill’s death | abs |
| c. | Bill’s flight (from the scene) | abs,erg (abl) |
| d. | Bill’s rescue (by his wife) | abs (erg) |
| e. | last night’s rescue (of the cat/by his wife) | adjunct (abs/erg) |

I have not indicated the semantic relations of unexpressed arguments. (25e), with adjunct subject, reveals that in English neutralisation is even more extensive with the genitive than with the nominative (in so far as English has the latter) – at any rate, than with the subject.

(25e) confirms too that it is inappropriate to regard (25d) as a passive: genitive selection is simply less constrained. (25d) also lacks any marking as passive. And we cannot take the presence of *by* as supporting a passive analysis, since we find the same *by* in the genitive-less phrase in (26b), and not in (26a):

- | | | |
|---------|---------------------------------------|---------------|
| (26) a. | (the) death of Bill | abs |
| b. | (the) flight by Bill (from the scene) | abs,erg (abl) |
| c. | (the) flight of Bill (from the scene) | abs,erg (abl) |

The *by* simply marks an unneutralised erg, and is not the product of passive. The *of* possibility illustrated by (24c) reflects the dual relation held by that argument: it is both abs and erg, representing another complex role. This combination, already incorporated into (18), has been argued for on various grounds (cf. e.g. Huddleston 1970, Anderson 1977: §2.1).

We have, then, extensive neutralisation with genitives in English, different from what we find with typical nominatives. But the neutralisations are largely undone if the argument concerned occurs in post-nominal position, as in (25a) vs. (d), and (26). And there are semantic restrictions on genitive formation, as shown by (27a), with no genitive corresponding to the loc adjunct in (b):

- | | |
|---------|--|
| (27) a. | *London’s rescue of Bill by his wife |
| b. | Bill was rescued by his wife in London |
| c. | The dog (they love (above everything))’s death |

I do not pursue these here, however. The English adnominal genitive nevertheless involves a less constrained neutralisation of semantic relations than subjects. It marks a pre-nominal adnominal nominal-determiner of the verb that may also be an argument. But, as we have

already noted, it is scarcely any more a prototypical inflection, in that it suffixes or cliticises to whatever item comes at the end of the noun phrase, as illustrated by (27c).

Dative is sometimes considered to be a ‘grammatical’ inflection, the marker of a ‘grammatical relation’, ‘indirect object’ (cf. Rumpel 1845, 1866, Holzweissig 1877, opponents of nineteenth-century localist theories). But typically it represents a specialised locative, directional or not, though its presence may be lexicalised for complements of specific verbs, as with the genitive complements of verbs. It is, moreover, very difficult to provide much support for a universal grammatical relation ‘indirect object’ (see e.g. Anderson 1978, Böhm 1986). And its configurational definition is not obvious (cf. e.g. Larson 1988, 1990, Jackendoff 1990).

Accusative is even more deeply entrenched in the main grammatical tradition as marking the grammatical relation ‘(direct) object’. But, as well as there being difficulties in giving an independent characterisation of ‘(direct) object’ (e.g. Anderson 1984b, S.R. Anderson 1988), it can be argued that ‘accusative’ typically marks a semantic relation, though not every manifestation of it. In all of the abs phrases in (28) in which the absolutive is not subject (i.e. in (28a,h-i)), it can be substituted for by the oblique pronoun *them* rather than the subject pronoun *they*. I suggest, as a first approximation, that this represents the basic distribution of accusative in many languages which distinguish one:

- (28) *Accusative marking*
 Accusatives signal an abs that has been denied subjecthood

This formulation is not quite accurate, in that the post-verbal complement in (29), which seems to be an abs, is represented by the subject pronouns in formal English, as in (29a):

- (29) a. It was they
 b. It was them

(29b) is informal. Other languages reject one or the other possibility, or both.

As we’ve noted, Anderson (1997: §2.1.6) suggests that both arguments in equatives such as (29) are abs (which is thus a relation that can involve violation of the second part of the θ -criterion). The arguments in such sentences can, therefore, given the appropriate context and choice of lexical items, be ‘interchanged’:

- (30) a. That boy is the one I love
 b. The one I love is that boy

They don’t outrank each other, grammatically, i.e. in the subject selection hierarchy, but the choice of subject is pragmatically determined. This syntactic equivalence is reflected by the choice of nominative for both arguments in (29a).

The equivalent of (29a) is the unmarked possibility in inflectional systems. (29b) represents an extension to equatives of the basic pattern represented by the sentences in (31), where I’ve replaced nominal ‘objects’ in (18) with the equivalent pronouns:

- | | | |
|---------|---|---------------------|
| (31) a. | Bill secretly read her (say, Anaïs Nin) | erg + abs |
| b. | *Bill secretly fell to the ground | abs + loc(goal) |
| c. | Bill secretly flew to China | abs,erg + loc(goal) |
| d. | *Bill secretly lay on the floor | abs + loc |
| e. | Bill secretly lived in China | abs,erg + loc |

- f. *Bill secretly slipped abs
- g. *Bill was secretly clever/a peasant abs
- h. Bill secretly knew her erg,loc + abs
- i. Bill secretly acquired her erg,loc + abs
- j. Bill secretly suffered from asthma/delusions erg,loc + abl

Here accusative marks an abs that has been denied subjecthood by an erg (compare e.g. Böhm 1993: §2.1.2), if we interpret E as erg,loc, as suggested in the preceding subsection.

We can appropriately restrict our account of accusative marking in terms of what, I suggest, is a more perspicuous articulation of the relationships in (8), one which eliminates the two-level representation suggested there. In terms of (8) the basic components place and source are only indirectly relevant to the grammar. Say we recognise more directly that erg is simply source, and that the locational relations are simple, or complex, with the complex ones being either goal or source, as represented in (32), which replaces (8), repeated for ease of comparison:

(32) abs source loc loc{source} loc{goal}

(8)	Case relations	abs	erg	loc	abl
	Composition			<i>place</i>	<i>place</i>
			<i>source</i>		<i>source</i>

Abs in (32) simply lacks both source and loc. The source and goal associated with loc in (32) are second-degree features; they pre-suppose loc. The erg of (8) is interpreted in (32) as a first degree source – i.e. not subordinated to loc. In this way, (32) need not be interpreted as allowing simple violations of the θ -criterion, in so far as the two ‘sources’ are at different levels. Loc, as before, is simple except in the presence of another loc, marked source. With a directional verb it is thus marked goal.

We can characterise this status for locational goals as in (33a):

(33) *Goal specification*

- a. V/loc{source} V/loc{source}
 | |
 loc ⇒ loc{goal}

- b. V/source V/source
 | |
 abs ⇒ abs{goal}

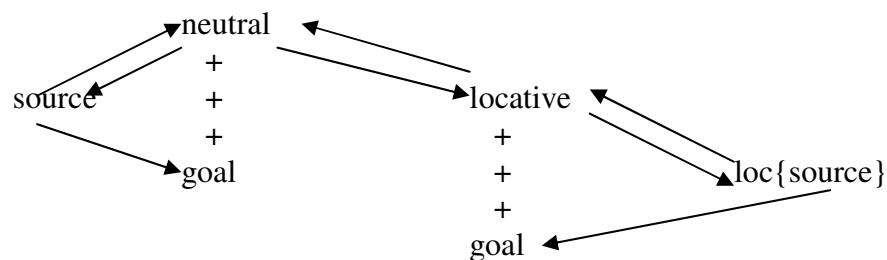
- c. V/<loc>{source}> V/<loc>{source}>
 | |
 <loc> ⇒ <loc>{goal}

(33a) says that locative is a goal if it is a dependent of a verb subcategorised for source. Now, we can allow for accusative marking if an analogous redundancy applies to abs, as in (33b). That is, abs, as a dependent of a verb subcategorised for a (non-loc) source – i.e. erg – is a goal. We can collapse (33a) and (b) as in (33c), where the angles < > enclose linked optional elements: either everything within the angles is present or it is absent. All present gives (30a); all absent gives (33b), on the assumption that a source cannot be added to a source.

If we re-label ‘absolute’ as ‘neutral’, and we re-diagram (33) as in (33)', then it is rather clear that what is involved here is a double articulation of Hjelmslev’s (1935) ‘first dimension’ of ‘direction’, involving ‘source-neutral-goal’ – recall (1):

(1)	0	+	-
	<i>talolla</i>	<i>tallole</i>	<i>talolta</i>
	adessive	allative	ablative

(33)' Goal specification



Here the double (‘two-way’) arrows indicate the capacity to be co-arguments; the single, (‘uni-directional’) ones indicate, at the head, a case feature whose presence determines the addition (‘+++’) of a feature to a co-argumental feature. In what remains of this work I shall use the terminology of (33)', with neutral for abs.

The central role of the accusative in many languages is to mark non-locational goals, the goals of the action or experience. This is ‘narrow neutral goal accusative marking’:

(34) *Narrow neutral goal accusative*
 Accusatives signal a neutral {goal}

In some languages the accusative marks the loc as well as the non-loc goal, at least in some instances, as we have already noted. Consider here the Latin of (35):

- (35) a. Immodica ira gignit īnsāniam
 excessive anger it-causes madness+acc
- b. Innumerābilēs numquam domum revertērunt
 innumerable never home+acc they-returned

In (35a) the accusative marks the goal of the (causative) action; in (35b) it indicates the spatial goal, as it does regularly with names of cities and small islands and with a few other lexical items like that in (35). Even with a preposition like *in* it is the accusative that signals goal. Compare the goal in (36a) with the non-directional loc in (36b), where the preposition is accompanied by the ablative case:

- (36) a. In Graeciam pervēnit
in Greece+acc s/he arrived
- b. In portū nāvigō
in harbour+abl I-sail

All the Latin examples are taken from Gildersleeve & Lodge (1968). The situation illustrated here involves what we might call ‘goal accusative marking’:

- (37) *Goal accusative*
Accusatives signal a goal which is not also a source

Here, the accusative signals either spatial or non-spatial goal. This and the ‘narrow neutral goal marking’ are the most constrained accusative usages. They, and particularly the latter, reflect the core.

The use of either may be restricted by other factors. Thus in Latin, the spatial goal accusative is limited to certain names and a few other items. And in Finnish the use of the non-spatial-goal accusative alternates with the partitive as a neutral marker. There are similar restrictions on adpositional marking of goals. Thus, in Spanish the adposition *a* that marks the spatial goal signals only animate non-spatial goals:

- (38) a. Esperan a alguien
they-are-waiting-for someone
- b. A ella no la conocen
her not her-they-know

A is lacking with non-animate non-spatial goals.

Of course, the accusative can be grammaticalised, particularly the ‘narrow neutral goal’ usage. Thus, the descendant of the accusative has spread in (29b) even to the equative complement. And this same form marks pronouns governed by a preposition in English (*to her/him* etc.). We also find this same form with the abs arguments of verbs with simple locative sentences, where there is no question of an agent or experiencer, i.e. a non-locative source, triggering goal:

- (16) b. That box contained them/*they

Again we are closer to the situation of this form marking any non-subject abs, as well as any preposition-governed pronoun. The descendant of the accusative marks any pronoun with an overt non-subject governor, in informal English at least. However, the core accusative, that found in all languages with something we can call an accusative, conforms

to (33)/(33)'. And this underlies the traditional notion of the accusative as marking the 'goal of the action'.

In one prominent tradition accusative is primarily the case of the '(direct) object'. The relationship is not straightforward, however. Thus, not all languages to which 'objects' have been attributed have accusative marking of these 'objects'. English is now arguably such a language where there is a mismatch. And other criteria – such as capacity for passivisation – have been invoked in relation to the identification of 'objects', and these may not coincide with accusative marking. But accusative at least serves to identify, in those languages where it is appropriate, a core of '(direct) objects', without our having to involve ourselves in too many of the uncertainties surrounding the latter notion. Thus, in exploring the characterisation of accusatives I have also tried to give some definite content to a putative grammatical relation whose identification – indeed existence – is otherwise uncertain (cf. again Anderson 1984b, S.R. Anderson 1988).

7.4. Patients'

There is an apparent problem for the analysis of 'objects' and accusatives as non-subject neutrals when we consider locs that are not subjects but appear in 'object' position. Consider such verbs as those in (39), which seem to take a goal or source 'object' or an 'object' that is a simple loc:

- | | | |
|---------|--|------------------------|
| (39) a. | The ferry reached Patra (on Wednesday) | <i>goal</i> |
| b. | The ferry left Venice (on Tuesday) | <i>source</i> |
| c. | The ferry occupies that berth | <i>simple locative</i> |

We have 'objects' (with some possibilities for passivisation) which bear various loc relations.

But these 'objects' are semantically not simply locs. They all conform to something like Pinker's (1989:85) description of 'patients'. He discusses this in relation to the 'object' of a verb like *Hit*:

A patient is acted or impinged upon or inherently involved in an action performed by an agent but does not necessarily undergo a specified change. Of course, in real life a patient may undergo a change of state or location, but if it does, the verb does not care what the change is (e.g. the wall could shatter, fall over, or tumble down a hill, and the verb hit would be equally appropriate). However, the patient must be inherently involved in or affected by the action, playing a role in defining what the action consists of. For example, moving one's hand to within a fraction of an inch of the wall, even if the accompanying wind or static electricity causes the wall to fall over, would not count as *hitting the wall*, because the kind of motion or act denoted by hitting is inherently defined as terminating in contact with some patient.

Pinker's 'patient' as a whole is a very inclusive category, apparently including almost any neutral. And Chafe, for instance, also offers such a general definition of 'patient', whereby it introduces any entity undergoing a process or having a state attributed to it (1970: §9.8). But the various 'objects' in (43) belong to a more specific subset which involve what one might call 'intimacy of contact'. They focus on the 'contact' referred to by Pinker latterly in the quotation. If this narrow notion 'patient' is to have any content independent of 'neutral', it involves something like 'intimate contact'. I shall refer to a contactive relation.

In (42a-b) one consequence of the contactive status of the argument concerned is the ‘demotion’ of the other locational to adjunct status. This status is reflected not just in their optionality, where absence is the preferred option. But it is also reflected in the fact that, even when present, they are not normally understood as falling within the scope of the time adjunct in (43a-b):

- (43) a. The ferry reached Patra (from Venice) (on Wednesday)
 b. The ferry left Venice (for Patra) (on Tuesday)
 c. The ferry travelled from Venice to Patra on Tuesday

The time given in (43a-b) is respectively that of arrival and departure. In (43a), for instance, the departure was not necessarily on Wednesday. Indeed, presently, in practical terms the crossing does not normally take place in a single day. This means that neutral utterance of (43c) would imply the introduction of a new ‘super-fast’ ferry. Both locs, as complements, come within the scope of the time adjunct. Thus ‘objecthood’ here seems to be associated with ‘contactivehood’, in the form of ‘focus’ on contact, together with ‘demotion’, out of ‘focus’, of the other loc which normally accompanies directional verbs.

‘Objects’ are generally neutrals. We can associate ‘contactivehood’ with a loc that is simultaneously neutral: the ‘object’ is interpreted as being ‘acted upon’ as well as being a goal or a source. ‘Patient’ in the narrow sense of contactive involves neutral combined with loc:

- (44) *Contactive* = neutral,loc

Locs that are not also neutral do not necessarily involve ‘intimate contact’; nor does a neutral that is not also loc, as in (45a):

- (45) a. Bill reads lots of books
 b. Bill’s books are much read
 c. Bill’s books are well-read

Only in (45c) is the ‘reading’ form, here a derived adjective, contactive; ‘intimate contact’ is apparent.

Thus, *reach* is a verb that, despite being directional, takes a goal but not a source as overt complement (rather than adjunct), despite the predictions of (33)/(33)'; and this goal is also neutral, represented lexically as the second argument in (46a):

- (46) a. *reach* ntr,source + ntr,loc{goal}
 b. *leave* ntr,source + ntr,loc{source}

Leave shows the complementary pattern shown in (46b). Such a suggestion involves again infringement, indeed two infringements, of the first part of the θ -criterion, as well as, along with equatives, of the second part: there are two instances of neutral, of equal degree.

I note in passing that we can associate the same properties with ‘prepositional objects’, such as that in (47):

- (47) The ferry arrived at Patra (from Venice)(on Wednesday)

Again this is not a simple loc, despite the presence of the preposition.

So far we've been dealing with 'point' locs, realised in English, when not combined with neutral, as *to/from*, and with agentive intransitives. We find transitive examples of such pairs in (48) and (49), in the first case with phonologically the same verb:

- (48) a. John supplied Bill (with the treasure)
 b. John supplied the treasure to Bill
- (49) a. John robbed Bill (of the treasure)
 b. John stole the treasure from Bill

Here, in the contactive variant the neutral of the simple loc version is 'demoted' lexically to adjunct status.

Let's turn now to 'multidimensional' locs. With *in/on* and *out of/off of*, there is a further consequence of this conjunction of semantic relations. With such 'multidimensional' locs, conjunction of loc and neutral is also associated with 'exhaustiveness' of the action of the verb with respect to the dimensions involved. As discussed, these arguments are said to be 'holistic', as in the familiar example of (50a), compared with (b):

- (50) a. Rick loaded the wagon (with hay)
 b. Rick loaded hay on(to) the wagon

For references see again Anderson (1977: §1.8). (46a) is normally interpreted as involving an action which exhausts the relevant dimensions of the loc. This is not the case with (46b) in which the loc is not 'object'. And we find the same pattern with the {source} of (51a) vs. (b) (cf. e.g. Vestergaard 1973):

- (51) a. John cleared the attic (of junk)
 b. John cleared junk from the attic

Lexically these verbs are respectively as in (52):

- | | | | |
|---------|--------------|----------------------------|-------|
| (52) a. | <i>load</i> | source + ntr,loc{goal} | (50a) |
| | | source + ntr + loc{goal} | (50b) |
| b. | <i>clear</i> | source + ntr,loc{source} | (51a) |
| | | source + ntr + loc{source} | (51b) |

With them again, not only the other loc but also the neutral of the 'non-holistic' (b) examples of (50-51) are 'demoted' to adjunct status in the 'holistic' version. Notice the use of *with* as marker of 'demotion' in the 'goal-focused' (50a) and (50a), and of *of* in the 'source-focused' (51a) and (47a). We can also attribute 'holisticness' to the non-directional loc 'object' in (39c).

Association of 'holisticness' with the presence of neutral is again quite natural. As observed, we find a 'holistic'/'non-holistic' distinction with both subjects and 'objects', a distribution associated with neutral. (53a) gives another example of a 'holistic' subject:

- (53) a. The tank flooded with sewage
 b. Sewage flooded into the tank

And, semantically, neutral normally marks an entity as participating as a whole in the situation identified by the verb, though not necessarily contactive. Thus, (5a) is to be understood, unless this is corrected, as meaning that the book was read as a whole:

(5) a. Bill read the book

As again we have observed, this may be overruled in various ways, as by the presence of a progressive in English, or of a quantifier of some sort:

(54) a. Bill was reading the book
 b. Bill read some of the book

Cf. too (55):

(55) a. John was painting the wall
 b. John was clearing the attic

with ‘holistics’.

In Finnish this ‘cancelling’ function may be performed by a different kind of special form of the neutral; this is the ‘partitive’ of (56b), vs. the ‘accusative’ of (56a):

(56) a. Mies luki kirjan
 man read book+accusative (‘The man read the book’)
 b. Mies luki kirjaa+partitive (‘The man was reading the book’,
 ‘The man read some of the book’)
 c. Miehiä tulee
 men+partitive come+III,singular (‘Some men are coming’)

Neutral is inherently ‘holistic’. Consider too the subject neutral in (52c). The subject here is marked by a partitive rather than a nominative, signalling partial participation, cancelling the normal assumption with neutral. The verb is also singular despite the partitive subject being plural. If the neutral here is indeed a subject, despite the concord anomaly, and since it conforms to the hierarchy, the sentence also provides an example where even the subject nominative is excluded on semantic grounds.

As I’ve observed, ‘patient’ has been applied in a variety of related ways. Es such as (15h-j) are arguably also ‘patients’, in a slightly wider sense. Here I’ve been associating ‘patient’, more narrowly, with ‘intimate contact’, involving specialised location. With Es the ‘contact’ is physical, mental or both, but also ‘experiential’. They too are specialised locs with a syntactic distribution different from ordinary locs. The generalisation covering ‘patients’ in general seems to be that loc combined with a non-loc relation, i.e. a simple source (erg) or neutral, is a ‘patient’:

(57) Patient = non-loc,loc

Es are a kind of patient. And, as with Es, another putative ‘abstract’ case relation, ‘patient’ in general, can thus be provided with a localist interpretation.

Some patients are also both ‘experiencers’ and ‘contactives’, as perhaps the subject of (58):

- (58) Phil suffered (from asthma)
neutral,source,loc{goal} (loc{source})

Thus as well as all being co-argumental, as in (33)', these first-order secondary features can all combine.

‘Patient’ has also been used in a more general way still to include neutral arguments that undergo a change of ‘place’ or ‘state’. If, in accordance with a fairly obvious application of localist assumptions, we interpret ‘states’ as abstract places, then we can characterise such ‘translatives’ as:

- (59) V/loc{source}
|
Translative = neutral

That is translatives are the neutral of a verb that is also subcategorised for a loc{source}, i.e. is directional. I assume this class includes verbs that take ‘effective/created’ and ‘affective’ neutral arguments, as exemplified by (60a) and (b), respectively:

- (60) a. Bert built the shrine
b. Conan demolished the shrine

In (60a), the shrine is brought into existence, in (b) it goes out of existence. Together, we can perhaps label patients (as in (57)) and (at least) ‘affective’ translatives as ‘affected’ arguments – though, as with ‘patient’, usage, even within linguistics, shows considerable fluctuation in this area.

However, we set out looking at ‘patients’ and the like in pursuit of an evaluation of the notion that accusatives are a kind of non-subjective neutral, the core of which is defined by (39c). The loc ‘objects’ we’ve just been looking at are, on the account I’ve given, all neutrals, and a core of them, at least, conform to (33c). It looks as if we can indeed suggest, then, that ‘objects’ and core accusative are associated with a specialisation of ntr/abs. Prototypically, in the presence of a separate source, ntr is marked as goal, triggering accusative.

7.5. Conclusion

If the interpretation of ‘objects’ given in the preceding two sections is appropriate, this leaves us with only subject as a grammatical relation, and only nominative as a truly grammatical or ‘syntactic’ case in predicational structure – in accord with a tradition with some rather ancient roots. And even its occurrence can be limited by semantic constraints. Genitive is an adnominal case that in some languages also neutralises semantic relations. The characterisations of the morphological cases offered here are intended to identify what it is that has underlain whatever has been consistent in the deployment of the traditional labels for them.

One last point concerning subjects. If they can only be participants that bear a neutral or a non-spatial source (erg) relation, as would follow from the presence of both relations in the hierarchy and the universality of neutral, then we can give a straightforward account of the neutralisation involved in subject formation. The crucial neutralisation is

between agent and agentive neutral on the one hand, and non-agentive neutral on the other. We can formulate this as a sequel to (33b) or (c):

- (33) b.
$$\begin{array}{ccc} V/\text{source} & & V/\text{source} \\ | & & | \\ \text{neutral} & \Rightarrow & \text{neutral}\{\text{goal}\} \end{array}$$
- c.
$$\begin{array}{ccc} V/\langle \text{loc}\{\text{>source}<\} \rangle & & V/\langle \text{loc}\{\text{>source}<\} \rangle \\ | & & | \\ \langle \text{loc} \rangle & \Rightarrow & \langle \text{loc} \rangle \{\text{goal}\} \end{array}$$

That is, we can add here (61), which occurs if (33b/c) fails; it affects a participant neutral not marked as goal:

(61) *Subject-formation*

$$\text{neutral} \Rightarrow \text{neutral}\{\text{source}\}$$

As a consequence of (61) we can say, then, that subject is a source which is not spatial, whether an inherent source (combined or not with ntr) or one derived by (61). By (39b/c) expression of neutral is diversified, and this is complemented by the neutralisation resulting from the application to non-goal neutrals of (61).

The semantics of categories can come to apply, if only weakly, even to peripheral members, even one that might seem to share simply a distribution in common with the prototypical. Even subject may not be purely grammatical, if some content in common can be given to the label ‘source’ which by (61) comes to be associated with non-spatial in general. One (not unparalleled) suggestion is that of Noonan (reported by Li & Thompson 1976: 464):

The subject can be characterized as providing the orientation or the point of view of the action, experience, state, etc., denoted by the verb.

But such a characterisation is difficult to make precise. And we cannot claim that a source derived by (61) can be given anything like the agentive interpretation of an inherent non-spatial source. For what it’s worth, (61) at least provides an articulation of Hjelmslev’s suggestion: recall his discussion of (6):

(6)
$$\begin{array}{ll} \text{róz-a} & \text{krasív-a} \\ \text{rose-nom} & \text{beautiful-nom} \\ & \text{('The rose is beautiful')} \end{array}$$

Ici le nominatif de *róz-a* implique un éloignement syntagmatique (le fait de régir), et le nominatif de *krasív-a* implique un rapprochement syntagmatique (le fait d’être régi).

The subject nominative is the rectional source.

Conclusion

I have provided here an interpretation of part of the history of grammars of case in the twentieth century. I have not brought the story fully up to date, except to some extent in §7. This reflects a decision to pursue, after the survey of developments up to the early days of 'case grammar' in the sixties and seventies of last century, one particular aspect of what I called in §6.3 the consequences of 'case grammar', namely that involved in attempting to answer question α of (6.20), which is repeated here for ease of reference along with the other questions that define major items of 'unfinished business' arising from early developments in 'case grammar':

(6.20) *Consequences of case grammar:*

- α) the question of content
- β) the question of category
- γ) the question of consistency
- δ) the question of derivationality

The other questions each deserve a study in depth. Preliminary accounts are provided in the course of Anderson (1997).

I have also endeavoured to show that the history of grammars of case has often been misrepresented. One instance of this is the general failure to recognise how great a departure from the dominant tradition in studies of case (that associated with pre-structuralist and European structuralist work) is represented by the approach to case adopted by the American structuralists, including the transformationalists. And I have also been concerned to point out something of the extent to which this previously dominant tradition, including the developments associated with 'case grammar', has been prematurely dismissed. The appropriateness of indicating this is well illustrated by the tortuous and hermetic evolution of transformational grammar towards the re-discovery of the centrality of the grammar of case.

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Note

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Note that the numbering of examples in the text starts again at the beginning of each section (or short chapter): this means that e.g. reference to example (12) is to example (12) of the current section, while (3.12) refers to example (12) in section 3 when it is being referred to in another section.

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