5 Survey of case marking

5.1 Introduction

This chapter provides a global perspective of case systems and their marking. It is divided broadly into two parts. In section 5.2 the organisation of the core or nuclear relations is surveyed and in section 5.3 the organisation of the peripheral relations is described. As Nichols 1983 points out, it is difficult to maintain a strict distinction between core grammatical cases, which encode S, A and P, and semantic cases like locative, allative and instrumental. A single case may cover A and instrumental function or P and allative (destination) function. Nevertheless there are significant generalisations that can be made about cases that encode S, A and P, even if they sometimes cover peripheral grammatical relations as well.

5.2 Organisation of the core

As noted in section 3.5.3, noun phrases bearing core relations are often unmarked altogether, while noun phrases in peripheral relations are marked by inflectional cases, adpositions or both. In languages like this the burden of distinguishing subject (SA) from object (P) or the absolutive relation (SP) from the ergative (A) is borne by cross-referencing bound pronouns or word order. On the other hand there are languages with inflectional case only for the core relations, or for these plus possessor function (genitive), with adpositions for other grammatical relations.

In the majority of languages the core grammar is organised on an SA/P basis (accusative system). In a minority of languages the core is organised on an SP/A (ergative) basis. A few languages have a system which could be described roughly as distinguishing agents from patients irrespective of transitivity (active system) and a few others are mixed.

5.2.1 Accusative system

The familiar languages of Europe, whether Indo-European or Uralic, exhibit accusative systems. In Latin, for instance, the subject is encoded in the nominative and the object in the accusative. Moreover, the subject is represented

pronominally in the verb. In Romance languages like French and Spanish the unmarked word order also picks out the SA alignment, the order being subject-verbobject as in English. In the Bantu languages typically there is no case marking, but the cross-referencing agreement system and the word order operate in an accusative system. Both subject and object are represented by prefixes on the verb and the basic word order is subject-verb-object.

Pure accusative systems of marking noun phrases where the marking of the object is always distinct from the marking for subject are rare. Korean provides an example, but, as pointed out in section 1.2.5 (see (12)), the status of the grammatical case markers vis-à-vis the postposition/suffix distinction is controversial. Japanese, which employs postpositions as case markers, provides another example (see (9) in chapter 1). With most languages, however, some qualification is required with respect to animacy and/or definiteness. In Latin and the other Indo-European case languages there is no nominative/accusative distinction with neuter nouns. This is related to animacy in that virtually all neuter nouns are inanimate, though inanimate nouns are also plentiful in the masculine and feminine genders. In the Slavonic languages the accusative is not always distinct from the nominative, but it tends to be the same as the genitive and distinct from the nominative for animate nouns. In Russian, for instance, animate nouns of the masculine o-class and all animate plurals take the accusative-genitive form.

In many languages accusative case marking is not used if the direct object is 'indefinite'. It would probably be more accurate to say 'nonspecific', but even that requires some qualification. Consider the following examples from Turkish. 1

- a. Hasan (1) öküz-ü aldı Hasan, NOM buy.past.3sg ox-ACC 'Hasan bought the ox.'
 - b. Hasan hir öküz aldı Hasan.NOM a ox buy.past.3sg 'Hasan bought an ox.' (nonspecific)
 - c. Hasan hir öküz-ü aldı Hasan, NOM ox-acc buy.past.3sg 'Hasan bought an ox.' (specific)

In (1a) the accusative case marker appears indicating that the direct object is definite. A definite referent is one that is taken to be identifiable by the hearer. In English the definite article is used with common nouns when they are used with definite reference. In (1b) and (1c) the direct object is indefinite as indicated by the indefinite article bir. However, it is possible to use the 'definite accusative', as it is sometimes called, with the indefinite article. The accusative, as in (1c), is likely to be used where the reference is to a particular (specific) ox identifiable by the speaker. Where there is no accusative marker, as in (1b), the reference is more likely to be to a nonspecific ox (*I was looking for an ox, but I couldn't find one*). It might be thought that if buying is the activity involved, then a specific entity must pass into the possession of the buyer, but where the identity of this item is unimportant, no accusative would be used.

In other languages the direct object is marked only if it is both specific and animate. In Hindi, for instance, a postposition ko marks specific, animate patients, a usage with parallels in other languages of the subcontinent (see also (26) to (29) below). In Spanish the preposition a is used to mark specific animate patients. Compare (2a) and (2b).

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a. Deseo un empleado
want.1sG an employee
'I want an employee.' [Anyone will do.]
b. Deseo a un empleado
want.1sG an employee
'I want an employee.' [I can't think of his name for the moment.]
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The preposition a (from Latin ad) means 'to', though not in this context. In Rumanian pe 'on' (from Latin per 'through') performs an analogous function (Mallinson 1987: 315–16).

Personal pronouns are definite and mostly animate and typically share any marking for animate and/or specific patients. In some languages only pronouns bear accusative marking. English is, of course, an example.

In all the examples discussed up to this point the marking of P is sensitive to properties of P alone, but in a few languages the accusative is sensitive to the relative status of A and P on a person hierarchy of the form 1, 2 > 3 or 1 > 2 > 3 (> means 'is higher than'). In the Australian language Rembarnga the proclitic representing P on the verb is suffixed with -n only when the person/number of P is higher than the person/number of A. In this language the hierarchy is of the form 1 > 2 > 3 plural > 3 singular. Compare (3a) where A is lower than P with (3b) where A is higher than P (based on McKay 1976).

```
(3) a. Nga-n-pa-na
1SG-OBJ-3PL-see
'They saw me.'
b. Pa-nga-na
3PL-1SG-see
'I saw them.'<sup>2</sup>
```

5.2.2 Ergative system

Ergative systems are often considered rare and remote, but in fact they make up at least twenty per cent of the world's languages. Ergative systems are to be found in all families of the Caucasian phylum, among the Tibeto-Burman languages, in Austronesian, in most Australian languages, in some languages of the Papuan families, in Zoque and the Mayan languages of Central America and in a number of language families in South America: Jê, Arawak, Tupí-Guaraní, Panoan, Tacanan, Chibchan and Carib.³ Outside these phyla and families where ergative systems of marking are common, ergativity is also to be found in some other languages including Basque, Hurrian and a number of other extinct languages of the Near East, Burushaski (Kashmir, Tibet), Eskimo, Chukchi (Kamchatka peninsula), and Tsimshian and Chinook (these last two being Penutian languages of British Columbia).

In an ergative system of case marking there is normally zero marking for SP (absolutive) and positive marking for A. The morphologically unmarked case is referred to by some as the nominative and by others as the absolutive. In this text the term nominative is used, the term absolutive being reserved for the grammatical relation embracing S and P. The Daghestan language Avar provides an interesting example because the SP/A system shows up also in the cross-referencing bound pronouns (Ebeling 1966: 77).

- (4) W-as w-ekér-ula
 M-child.NOM M-run-PRES
 'The boy runs.'
- (5) Inssu-cca j-as j-écc-ula (M)father-ERG F-child.NOM F-praise-PRES 'Father praises the girl.'

The nominative is unmarked. The case marker glossed as ERG(ative) is the one that also indicates instruments. It is common to find that in ergative languages the so-called ergative marks a peripheral function such as genitive, locative or instrumental as well as A. In fact in Avar A is peripheral relative to P. P is represented generically on the verb by a prefix for masculine, feminine or neuter. In (5) j- is the pronominal prefix for feminine. It also appears on the noun as 'child'. A, on the other hand, is not represented on the verb and is omissible. Note that S in (4) is represented on the verb by w-, the pronominal prefix for masculine.

In most languages the perceiver of verbs of seeing and hearing aligns syntactically with the agent, and the experiencer of verbs of loving, hating, etc. often does too. Avar is interesting in lacking such a conflation. While agents are put in the ergative, experiencers are put in the dative (as in (6)), perceivers in the locative (7) and possessors in an adverbal genitive (8).⁴

Experiencer

ínssu-je j-ó¾'-ula (6) j-as father-DAT F-child F-love-PRES 'Father loves the girl.'

Perceiver

í nssu-da j-íx-ula (7) j-as father-LOC F-child F-see-PRES 'Father sees the girl.'

Possessor

inssu-l (8)j-as j-í go father-GEN F-child F-be 'Father has a daughter.' [lit. of father is a girl]

In a few languages the core case marking is sensitive to the relative positions of A and P on a hierarchy. An example was given above from Rembarnga (see (3)) where the bound pronoun in P function was marked only if A was third person and P was second or first, or A was second and P first. In Fore (Papuan), the use of the ergative case is determined by the following hierarchy: pronoun, personal name, kin term > human > animate > inanimate. If A is higher than P, no case marking is used, but if A is lower than P, then A appears in the ergative. So if a man kills a pig, then no ergative is used, but if a pig kills a man, then the ergative marker -wama is used (Scott 1978: 100-17).5

(9)Yagaa wá aegúye man.NOM 3sg.hit.3sg pig 'The man kills the pig.'

(10)Yagaa-wama wá aegúye pig-ERG man.NOM 3sg.hit.3sg 'The pig kills the man.'

Where A and P both occupy the same position on the hierarchy, the use of -wama is optional. In the absence of marking, the first noun phrase will normally be interpreted as A.

In languages with ergative case marking on nouns it is true more often than not that the ergative marking is lacking from first- and second-person pronouns and sometimes from third. This latter situation is found in Yup'ik Eskimo, for instance, where nouns exhibit nominative-ergative marking but pronouns remain unmarked for all core functions (Reed et al. 1977). In Kiranti and Gyarong (both

(11)

erg abs poss -ku ku--a 2 familiar -ko nu--nu 2 honorific ki--ki -ta -i na--na

Table 5.1 Konjo clitic pronouns

Tibeto-Burman) first- and second-person pronouns lack ergative marking, but all third persons exhibit it (Delancey 1987: 806).⁶

Only a very small number of languages have an ergative system of cross-referencing. Examples are to be found among the Caucasian languages, the Austronesian languages and the Mayan languages. In Avar (see (4) and (5) above) only the absolutive is represented on the verb, but in Abaza and Abkhaz (both Northwest Caucasian) both A and SP are separately represented and there is no case marking on noun phrases (Hewitt 1979).7 A similar configuration is found in the Mayan languages (Larsen and Norman 1979) and the South Sulawesi languages of Indonesia. The paradigm above (Table 5.1) and sentence examples are from the South Sulawesi language Konjo (Friberg 1991). In this language the ergative and absolutive relations are distinguished by both form class (Table 5.1) and order class, the ergative bound pronoun preceding the verb and the absolutive following. Note in passing that the ergative series of bound pronouns is the same as the possessor series except in the second person honorific where the system distinguishes a direct or core form from a possessor form.8

INT-go-1.ABS 'I go.' (12)Na-itte-a 3.ERG-see-1.ABS 'S/he sees me.' (13)Ku-itte-i halla'-na 1.ERG-see-3.ABS house-3 poss 'I see his/her house.' (14)Na-itte-i balla'-ku 3.ERG-see 3.ABS house-l.poss 'S/he sees my house.'

A'-lampa-a

Only a very small number of languages identify S and P in word order. One is Kuikúro, a Carib language of Brazil, where the neutral word order is SV, PVA. SP is also distinguished from A by stress and in the clitic system (Franchetto 1990: 407–9). In Balinese the word order with basic, underived verbs is SV, PVA thereby identifying P with S. There is a derivation yielding verbs with an AVP order (Artawa and Blake 1997).

5.2.3 Active system

Some languages, perhaps no more than a few score, organise their core grammar so that the argument of some one-place predicates is marked like the A of a two-place verb while the argument of the other one-place predicates is marked like the P of a two-place verb. Such languages have been called **active** languages (Klimov 1973), split-intransitive languages or split-S languages (Dixon 1979: 80–5). Examples can be found in the Kartvelian languages of the Caucasus. The following sentences are from Laz (Harris 1985: 52f). Note that the suffix -k, glossed ergative on the basis of its appearance on A in transitive clauses like (17), also appears on the 'agent' of the intransitive verb in (15). On the other hand the subject of the intransitive verb in (16) is unmarked like the P of (17).

- (15) Bere-k imgars child-ERG 3sG.cry 'The child cries.'
- (16) Bere oxori-s doskidu child.NOM house-DAT 3sG.stay 'The child stayed in the house.'
- (17) Baba-k meçcaps skiri-s cxeni father-ERG 3SG.give.3SG.3SG child-DAT horse.NOM 'The father gives a horse to his child.'

This pattern also occurs in Georgian, but it applies only to certain classes of verbs in the aorist tense group. In the present tense all subjects are in the nominative case and the direct object in the dative (Harris 1981: 46).⁹

The active system is also found in the Americas where it usually shows up in the bound pronouns on the verb. It has been reported from Guaraní (Andean); Lakhota and other Siouan languages; the Pomoan languages; Caddo, Arikara and other Caddoan languages; and Mohawk, Seneca and other Iroquoian languages. It also occurs in Acehnese (Austronesian) where 'agent' clitics precede the verb and 'patient' clitics follow; the A of a transitive clause is marked by a preposition $l\hat{e}$ (Durie 1985: 180–95). The position of the clitics with respect to the verb in this language obviously invites comparison with the Konjo examples in (11) to (14) above.

The semantic motivation for splitting the one-place predicates into two groups varies from language to language. In Guaraní predicates meaning 'go', 'walk',

'dance', 'swim', 'fall' and 'die' take agent pronominal prefixes (e.g. *a-xá* 'I go'), whereas one-place predicates with meanings such as 'be sick', 'be dead', 'be wise' and 'be grey-haired' take patient pronominal prefixes (e.g. *šé-rasī* 'I am sick'). The distinction, according to Mithun (1991: 513), is primarily one of lexical aspect or Aktionsart. Verbs in the 'agent' group denote activities, accomplishments and achievements. They involve change over time. Verbs in the 'patient' group denote states. In Lakhota, on the other hand, the marking is sensitive to whether the argument is one that performs, effects and instigates an activity or not. The verbs for 'walk', 'dance' and 'swim' take agent-pronominal prefixes, but verbs for 'fall' and 'die' take patient pronominal prefixes (Mithun 1991: 515–16).

5.2.4 Mixed systems

Some languages employ both ergative and accusative case, though it is rare for a language to have both across-the-board ergative marking and across-the-board accusative marking, i.e. a full tripartite system with S, A and P distinguished for all classes of nominal. The only example reported in the literature is the Australian language Wangkumara (Breen 1976). The more common situation is for ergative or accusative or both to be lacking from some classes of nominal. This is the situation in Nez Perce (Penutian) where first and second persons lack ergative marking. The following examples illustrate the nominative–ergative–accusative opposition (Rude 1985: 83, 228). 10

- (18) Hi-páay-na háama
 3sG-arrive-PERF man.NOM
 - 'The man arrived.'
- (19) Háamap-im 'áayato-na pée-'nehne-ne man-ERG woman-ACC 3SG.3SG-take-PERF 'The man took the woman away.'

In the Hokan language Eastern Pomo (McLendon 1978) there is an interesting variation on the active theme with complementarity between agent and patient in that pronouns, kinship nouns and personal names may take patient marking and other nominals may take agent marking (see Table 5.2) (I eschew the terms absolutive and ergative in view of the distribution to be described below). Verbs fall into five classes with respect to whether they take one argument or two and whether they take agent marking or patient marking:

- 1. One argument marked for agent and optionally a second argument marked for patient: ('kill', 'bite')
- One argument marked for patient: ('fall', 'be burned', 'bleed', 'sneeze', 'become sick')

 Patient
 Agent

 pronouns
 -al

 kin
 -al

 personal proper names
 -yiy

 other
 -la

Table 5.2 Case marking in Eastern Pomo

- 3. Two arguments both marked for patient: ('love', 'hate')
- 4. One argument marked for agent or patient: ('slip/slide')
- One argument marked for agent with pronouns, kin and proper nouns and for patient with common nouns (i.e. no overt marking): ('sit/dwell', 'go/walk', 'stand up').

This distribution is interesting with respect to the distinction between case and case marking. If we follow the traditional method of taking a case to be the set of forms that together express one or perhaps more than one relation, then the columns in Table 5.2 are cases. When it comes to describing the marking with class 5 verbs, we can say that the 'patientive' is used with common nouns and the 'agentive' with pronouns, kinship nouns and personal proper names.

An alternative would be to call the overt patient-marking forms patientive, the overt agent-marking forms agentive and the unmarked forms nominative. This would mean recasting all the statements made above about marking with the various verb classes. Class 2 verbs, for instance, would have to be described as taking patientive with pronouns, kinship nouns and personal names and nominative with common nouns. The statements about marking would all be more complicated except with class 5 where one could now say class 5 verbs take the nominative case.

In a number of languages there is a split in the core case-marking system along tense/aspect lines. Georgian has the same active pattern of marking as its fellow Kartvelian language Laz (see (15), (16) and (17) above), but only in the past tense (Harris 1981).¹¹ In the present it has a 'nominative-accusative system', though it should be noted that P is in the dative not the accusative. It is common to refer to a system that operates on an SA/P basis as a nominative-accusative system, but it would probably be preferable to talk of an SA/P system, since there is not necessarily any accusative case.¹² The Pama-Nyungan language Pitta-Pitta has an unusual three-way system of marking in the past and present with an unmarked nominative for S, an ergative for A and an accusative for P. In the future, however, there is an SA/P system with a marked form for SA and another marked form for P, namely the dative. Sentences (20) and (21) illustrate

(20)

(22)

11.....

baby-ACC

Muvutvu-ngu

the nominative-ergative-accusative system in the nonfuture (based on Roth 1897, Blake 1979b).

(20)	Muyutyu	ппап-ра-ка	nyunukana-ya	
	old.woman.NOM	she-nom-here	tired-PRES	
	'The old woman	is tired.'		
(21)	Muyutyu-lu	nhan-tu-ka	watyama-ka	nhan-(nh)a-ka
	old.woman-ERG	she-erg-here	wash-PAST	she-ACC-HERE
	takuku-nha	thupu-lu		

soap-ERG 'The old woman washed the baby girl with soap.'

The following pair illustrate the future-tense versions of these same sentences. Note that there is a common form -ngu for S function, A function and instrumental function. It is glossed as F(uture) A(ctor) which is an ad hoc label for a case with an unusual range of functions. P appears with dative marking (compare (24) below). The future tense is morphologically unmarked.

nyunukana

(22)	mayaiya nga	man nga ka	nyununana	
	old.woman-FA	she-fa-here	tired.FUT	
	'The old woman	n will be tired.'		
(23)	Muyutyu-ngu	nhan-ngu-ka	watyama	nhan-ku-ka
	old.woman-FA	she-fa-here	wash.FUT	she-dat-here
	takuku-ku	thupu-ngu		
	baby-DAT	soap-FA		
	'The old woman	n will wash the	baby with so	ap.'

nhan-nou-ka

One would naturally wonder whether a sentence like (23) should be taken to be intransitive since the patient is in the dative. However, there is another construction in which the patient appears in the dative, namely the antipassive, and there is a syntactic opposition between a future-tense sentence with a dative-marked patient and an antipassive with a dative-marked patient in that the antipassive allows the patient to be deleted but the future does not. For this reason I suggest that the future construction is transitive and the antipassive intransitive. The dative in Pitta-Pitta is the case used to express 'through' or 'across', in other words it has the perlative function. Its claim to be called dative rests on the fact that it marks the patient complement of a handful of two-place verbs such as yatha- 'to like', tiwa 'be jealous of' and wapa- 'to look for'. Example (24) illustrates one of these verbs, wapa- 'to look for'. The subject is in the unmarked nominative and the other complement in the dative. Example (25) illustrates the antipassive version of (21) above. The effect of the antipassive in this language is to express desiderative modality.

Muvutvu nhan-pa-ka (24)wapa-ya old.woman.nom she-NOM-HERE seek-PRES nhan-ku-ka takuku-ku she-dat-here baby-DAT 'The old woman is looking for the baby girl.' (25)Muyutyu nhan-pa-ka watyama-li-ka nhan-ku-ka old.woman she-nom-here wash-AP-PAST she-dat-here takuku-ku thupu-lu soap-ERG baby-DAT 'The old woman was wanting to wash the baby girl with soap.'

The motivation for using the dative for two-place verbs that are low in semantic transitivity like *wapa*-, for the future tense and for the desiderative modality, is clear. In each of these usages the transitivity is 'unfulfilled', i.e. there is no carrying over of the activity to the patient. With the future and the antipassive this notion of nonimpingement is morphologically marked; with verbs like *wapa*- the notion is inherent or lexical.¹³

A number of Indo-Aryan languages including Hindi-Urdu, Marathi and Punjabi and some Iranian languages such as Pashto and Kurdish are described as having an ergative construction only in the perfect. Typical Indo-Aryan languages are described as having a direct/oblique case system where the direct case encodes S, A and P and the oblique is governed by postpositions. However, if P is animate and specific, it is usually marked by a postposition. There is also subject-verb agreement as in the following examples from Marathi (Rosen and Wali 1989: 4f).

(26)Τi keel khaa-t-e eat-PRES-3SG.F she banana 'She eats a banana.' chal-l-a (27)Τi Ravi laa Ravi ACC torture-PRES-3SG.F. 'She tortures Ravi.'

In the perfect, however, A is marked by a postposition. The verb agreement is with P unless P is marked by the postposition for specific, animate nouns, with the verb

Nonperfect Perfect S agreement agreement A agreement **ERG** P [+specific][+animate] ACC ACC P [-specific] or [-animate] agreement

Table 5.3 Core case marking in Indo-Aryan

then remaining in its neutral form. In Marathi the ergative postposition is ni (Rosen and Wali 1989: 5).

- keli khaa-ll-it (28)Tini banana.PL eat-PERF-3PL she ERG 'She ate bananas.'
- Tini Ravi (29)laa chal-l-a Ravi ACC torture-PERF-NEUT 'She tortured Ravi.'

The postposition *laa*, glossed as ACCusative, marks indirect as well as direct objects. The typical Indo-Aryan patterns of core case marking and agreement are summarised in Table 5.3.

5.2.5 Direct-inverse system

There is one other system that needs to be mentioned in this context and that is the direct-inverse system of marking. In this system, which is characteristic of the Algonquian languages, the marking on the verb indicates whether an activity is in line with the person hierarchy or contrary to it. In the examples given earlier of marking that is sensitive to the relative positions of A and P on the person hierarchy, the marking is identifiable as accusative (as in Rembarnga, see (3)) or ergative (as in Fore, see (9) and (10)). In the Algonquian languages, however, the marking can simply be identified as direct (in line with the hierarchy) or inverse (contrary to it). Compare the following example from Plains Cree. 14

(30)a. Ni-wāpam-ā-w 1sg-see-direct-3sg 'I see him.' b. Ni-wāpam-ik 1sg-see-inverse.3sg (ik < *ekw-w inverse.3sg)'He sees me.'

In transitive clauses with two third-person participants, the direct and inverse markers distinguish whether a more topical participant (**proximate**) is A, which gives a direct combination, or a less topical participant (**obviative**) is A, which gives an inverse combination. A 'more topical participant' will be chosen on the basis of discourse principles and will tend to be the last-mentioned person or the discourse topic. The 'less topical person' is marked by the obviative suffix -wa.

- (31) a. $N\bar{a}p\bar{e}w$ atim-wa w $\bar{a}pam$ - \bar{e} -w man dog-OBV see-DIRECT-3SG 'The man saw the dog.'
 - b. Nāpēw-(w)a atim wāpam-ik man-OBV dog see-INVERSE.3SG 'The man saw the dog.'
- (32) a. Atim nāpēw-(w)a wāpam-ē-w
 dog man-OBV see-DIRECT-3SG
 'The dog saw the man.'
 - b. Atim-wa nāpēw wāpam-ik dog-OBV man see-INVERSE.3SG 'The dog saw the man.'

As can be seen, there are two ways of expressing the same propositional content according to which participant is chosen as topic.

5.2.6 Interpretations of core marking

In many languages where there are local cases such as locative, allative and ablative, there is a straightforward relationship between case marking, case and role or function. Typically there will be a marker peculiar to a case (though the marker may have variant forms determined by the shape of the stem), and the case will have a clear semantic function. With the grammatical cases, however, the function is not always so clear, and the case marking, as we have seen, is often not in a one-for-one correspondence with the cases. The first point that we need to discuss is the meaning or function of the core grammatical cases and then the significance of the distribution of the marking.

Obviously the core grammatical cases express the core grammatical relations, so the first question that needs to be answered is why these relations exist. Basically the core relations of subject and direct object in an accusative (SA/P) system and absolutive and ergative in an ergative (SP/A) system are syntactic rather than semantic, though, with the exception of subject, they could be said to have a semantic basis (see below). Languages do not mark the roles of their complements directly. Apart from anything else it would be extremely uneconomical, since the roles are

predictable from the meaning of the predicate, though with two-place predicates there needs to be some way of indicating which complement encodes which argument (compare the discussion of (27) in chapter 3). So irrespective of whether the core grammar groups S with A or with P, we can expect purely syntactic relations simply because of the redundancy that exists between predicates and the roles of their arguments.

Subject

The most common system for organising the core is the SA/P or nominative-accusative system. This system has a discourse-pragmatic basis rather than a semantic one. It is clear that the subject is not a semantic entity since it embraces diametrically opposed semantic roles, agent in examples like It bit me and patient in examples like I got bitten. On the other hand one can show that the subject is characteristically associated with 'given' as opposed to 'new' material, and that where there is a referential subject a clause can normally be described in terms of being a predication about the subject even where the subject is new.

Let us take the association with given information first. Cross-language studies of the distribution of given and new information reveal the following givenness hierarchy:15

(33)
$$A > S > P > peripheral$$

This is to be interpreted as indicating A is more often given than S which is more often given than P which is more often given than the peripheral relations. The basis for the association of A and to a lesser extent S with given information is the fact that discourse, particularly narrative, typically involves the successive actions of humans and animals. In fact, if one splits S into animate and inanimate or actor (agent, perceived experiencer) and patient, then the hierarchy becomes:

$$(34) \hspace{1cm} A > S_{actor} > S_{patient} > P > peripheral$$

which points even more clearly to the fact that discourse involves higher animates being involved in a succession of clauses.

The subject treats the first two positions on hierarchy (33) alike and some of the grammatical characteristics of the subject can be related to its association with givenness. The most common form of agreement is subject agreement and it is generally accepted that the bound pronouns that figure in agreement derive from unstressed pronouns that have become attached to the verb. If A and S are most frequently represented by given information, one would expect them to be represented very frequently by pronouns, in particular, unstressed pronouns.

The subject is typically used to encode what the clause is about. This is clearest with symmetrical predicates such as *resemble*, *collide with* or *be opposite* in English. If a cathedral and a kiosk stand on opposite sides of the city square, we can describe this as in (35a) or (b).

- (35) a. The kiosk is opposite the cathedral
 - b. The cathedral is opposite the kiosk

(35a) is a statement about the kiosk, about its position in relation to the cathedral. Conversely (35b) is a statement about the cathedral, about its position in relation to the kiosk. Of course (35b) is an odd sentence from the discourse point of view, but that is because we do not normally take an insignificant kiosk as a reference point for saying something about the position of a large building, which highlights the fact that (35b) is a statement about the cathedral.

The fact that a sentence typically embodies a predication about its subject is also evident in co-ordination. It is the subject that can be deleted from a noninitial sentence and the identity of the deleted subject is established by reference to the nearest preceding subject in the sequence of co-ordinated clauses. This is true even where the subject of the preceding clause represents new information as in the first clause of (36b).

- (36) a. What happened to the worms [for fishing]?
 - b. A kookaburra took them and flew off with them

In some languages there are constraints on what can appear as subject; in particular, there are bans on indefinite subjects. In English there are circumstances where an indefinite subject is strongly disfavoured as in the following stock example:

(37) Waiter! There's a fly in my soup

Grammatically one could say *A fly is in my soup*, but this would be to say something significant about a fly, and this is not a likely sentiment in the situation referred to. English grammar demands a subject, so the nonreferential pronoun *there* is used as a subject, which allows the situation to be described without making a statement about *a fly* or about *my soup*. For the latter perspective *My soup's got a fly in it* would be appropriate.

In sum the subject is a purely syntactic relation characteristically associated with presenting given and topical information.

Objects

The accusative is the case that encodes the direct object of a verb. It will encode both the objects where there is a double-object construction and it may mark the object of some or all adpositions. The direct object has both semantic and discourse-pragmatic properties:

- (a) Its core function is to express the role of patient in a two-place construction.
- (b) Where a nonpatient is expressed as direct object the activity is presented from the point of view of its effect on the direct object.
- (c) The direct object holds a position on the givenness hierarchy intermediate between the subject and the peripheral relations.

The direct object encodes the patient by definition. To identify a direct object we need first to identify the patient of a two-place verb, providing it is treated differently from the sole argument of a one-place verb; in other words we want to identify a P that is distinct from S. Not all two-place verbs treat the patient alike. If we want to identify the relation that matches up with the direct object of Ancient Greek and Latin, the reference point for our labelling, we need to specify two-place predicates of maximum semantic transitivity, predicates like SMASH, KILL or DESTROY, which take an affected patient, rather than semantically weaker two-place predicates like HELP or TRUST, which take a patient nearer to the neutral or unaffected end of the patient spectrum. This will ensure that we identify a relation comparable to the direct object of the classical languages. If we deal in verbs of lower semantic transitivity we frequently find that some of these take complements that are not comparable to the direct object of the classical languages. In Latin and Ancient Greek some verbs with meanings like HELP or TRUST took an indirect object in the dative case, and this treatment of twoplace predicates of lower transitivity has parallels in other languages (see section 5.3).

The significance of the direct object can be appreciated if we contrast it with the noncore or peripheral relations. Consider, for instance, the difference between (38a) and (b):

- (38) a. The old man walked in the streets of the village
 - b. The old man walked the streets of the village

(38a) tells us where the old man did some walking, but (38b) tells us that the man traversed a lot of streets, perhaps most of the streets. Where a role other than patient is expressed as P there is often an added sense of affectedness, or a holistic interpretation becomes likely (compare the discussion in sections 3.4.2, 3.4.4 and 3.4.5).

The difference between expression as direct object and expression as a peripheral relation is even more apparent in three-place constructions. Consider, for instance, the following pair:

(39)	a. The vandals	stripped	the branches	off the tree
	agent		patient	source
	b. The vandals	stripped	the tree	of its branches
	agent		source	patient

The roles appropriate for (39a) are noncontroversial. The vandals are clearly the agent, the branches patient and the tree source. Of the two sentences (39a) would appear to be unmarked, since it exhibits a normal association of role and relation: patient with direct object and source with a noncore or peripheral relation. The ascription of roles in (39b) is more problematic. Under a common interpretation of constructions like this the tree in (39b) would still be the source and the branches the patient. But note the difference in meaning. (39a) presents the situation from the point of view of the effect of the activity on the branches, whereas (39b) emphasises the fate of the tree. In fact, the phrase of its branches can be omitted from (39b). This makes it problematic for those who claim that every clause has a patient. The problem could be avoided by claiming that the tree in (39b) has been reinterpreted as a patient, but that creates the further problem of finding a different role for the branches. As with the previous example it seems that the role normally associated with the direct object is patient and that the encoding of another role as direct object may involve some added sense of affectedness.

In the double-object construction, where one could say that a recipient or beneficiary is advanced to direct object, the patient object remains as a secondary object; it is not demoted as the branches is in (39b). It is clear in these constructions that the recipient or beneficiary object is not reinterpreted as a patient, but the effect of using the double-object construction is to present an activity from the point of view of its effect on the recipient or beneficiary.

- (40)a. I gave her a fiver and she was pleased as punch
 - b. I made her a new frock for the party and she was ever so pleased

These sentences are appropriate ways of reporting the effect on the recipient and beneficiary respectively.

It is significant that in most languages the passive allows as its subject only the direct object of the corresponding active. The main function of the passive is to allow a nonsubject of the active to be promoted to subject where it can serve as topic (the subject almost always has the function of topic in the passive). Only noun phrases expressing an entity that is seen to be of central concern, like the branches in (39a), the tree in (39b), or her in (40a), are suitable choices for promotion.

Part of the motivation for the double-object construction as an alternative to the single object plus prepositional phrase is to allow a redistribution of roles in terms of given and new. The recipient or beneficiary object tends to be given and the patient object new, whereas in clauses with a direct object and a prepositional phrase there is a tendency for the direct object to be given and the prepositional phrase new.

Outside the roles of recipient and beneficiary the association of new information and prepositional phrases remains strong. Entities in roles such as instrument and location tend not to recur much in discourse. They come up an odd time as new information expressed as a peripheral relation and languages do not provide for the possibility of advancement to direct object nearly so often as they do with recipient and beneficiary. The direct object, on the other hand, is more frequently given and this is reflected in the fact that languages often have a series of bound pronouns for direct object.

Absolutive and ergative

At first blush it might seem difficult to find a semantic basis for an SP/A system, since the absolutive relation (SP) will include agents as in I swim and patients as in It grabbed me. However, a number of linguists including John Anderson (1977, 1979), Kibrik (1979) and Wierzbicka (1981) have in fact claimed that the SP/A distinction has a semantic basis. A is seen as an entity acting on or towards an entity external to itself, while the absolutive complements this. It encodes a range of patients from strongly affected (The meat was eaten), through weakly affected (The spear was taken) to unaffected or neutral (The spear lay there) and, for a few verbs, agents who do not impinge on another entity (John swam). Since the absolutive also encodes various nonpatients that are advanced to the absolutive through various verbal derivations (see, for instance, (3) in chapter 3 where an instrumental is advanced to P), it would be best to recognise that the absolutive is a purely syntactic grammatical relation with the expression of patient being its core function. This interpretation is similar to the interpretation of direct object offered above, the difference being that the direct object encodes the patient when there is an A in the clause, whereas the absolutive encodes the patient irrespective of the presence of A.

It is interesting to note that in languages where there is number marking in the verb, this marking almost always refers to the absolutive irrespective of the organisation of the core grammar. The marking referred to here is pure number marking, which is often marked suppletively, not the more familiar person/number marking. In Dyirbal, for instance, the suffix -dyay added to the verb nyinya 'to sit' refers to the plurality of the sitters, but when added to a transitive verb like gundal 'to put' it refers to the plurality of the items put. ¹⁶ Dyirbal is a morphologically and syntactically ergative language, but the point is that this pattern holds irrespective of any other manifestation of ergativity. This would appear to reflect the fact that the absolutive is the relation most intimately connected with the verb and conversely that the ergative is not so closely connected with the meaning of the verb. It should also be noted that in many ergative languages the ergative relation is very much an agent. There is often not much conflation of other roles with the agent, often only a conflation of the perceiver of a few verbs like SEE/LOOK AT and HEAR/LISTEN TO, and in no language is there is any possibilty of other roles being advanced to A.

To claim that an SP/A system has a semantic basis does not entail claiming that the distinction is devoid of discourse-pragmatic significance. In fact it would appear that all the points made above about the difference between encoding a participant as a direct object rather than in a peripheral relation apply to encoding a participant in the absolutive as opposed to a peripheral relation. The significant difference seems to be P versus peripheral. Moreover, the distribution of marking in an ergative system has discourse-pragmatic significance. If we accept that A > S > P > peripheral as in (33) is a universal hierarchy of givenness, then ergative systems present a pattern of marking that is in conflict with this hierarchy insofar as they have positive marking for the function that is at the top of the hierarchy and unmarked forms for the middle of the hierarchy.

The marking

Now we come to the question of the distribution of core case marking. There are two aspects of this that are remarkable. The first is that languages with simple across-the-board ergative or accusative systems are a distinct minority. As noted earlier in this chapter, a majority of languages have partial ergative marking, partial accusative marking, or both partial ergative marking and partial accusative marking. The second remarkable aspect of core case marking is that partial ergative and partial accusative marking define a hierarchy of nominal categories (pronoun, kinship term, etc.).

Linguistically naive common sense would predict the occurrence of accusative and ergative systems. If we have three entities, S, A and P, with two of them in syntagmatic contrast, namely A and P, then the simplest marking system is one that provides positive marking just for P (accusative system) or positive marking just for A (ergative system). An S/AP system would obviously be dysfunctional and an S/A/P system though functional is uneconomic. This discriminatory view of the function of case marking fares fairly well. Accusative systems are common; ergative systems are reasonably common; three-way S/A/P marking is rare, and no across-the-board S/AP system has been reported. What this logical approach fails to predict is the high frequency of partial marking.¹⁷

Silverstein 1976 demonstrated that the distribution of partial ergative marking and partial accusative marking defined a hierarchy of lexical content. The hierarchy is as follows:

(41) 1st person (speaker)
2nd person (addressee)
3rd-person pronoun
personal name, kin term
human
animate
inanimate¹⁸

Partial accusative marking will always run from the top of the hierarchy covering a continuous segment. Partial ergative marking on the other hand will always run from the bottom of the hierarchy. A language may have accusative marking only on first-and second-person pronouns (Dyirbal), only on personal pronouns (English), only on pronouns, kin terms and personal names (Nhanda), and so on. All the positions on the hierarchy can be defined on the basis of the distribution of accusative marking, i.e. seven different cut-off points are attested. Ergative case marking tends to be found on all nouns or all nouns and third-person pronouns. ¹⁹ In languages with a mixture of ergative and accusative marking, the two may overlap in the middle of the hierarchy giving a three-way nominative—ergative—accusative opposition for some category such as third-person pronouns.

If this hierarchy is to have any explanatory value with respect to case marking, it needs to be established on an independent basis. It has been referred to as an agency hierarchy, but this is only applicable to part of the hierarchy, namely human > animate > inanimate where we can safely assume that humans act on animates (in effect animals) and inanimates, more than the other way round, and similarly animals act on inanimates more than the other way round. It has also been characterised as an animacy hierarchy, but this too applies only to the last three categories in the hierarchy. Mallinson and Blake suggest the hierarchy reflects a relative centre of interest, that events tend to be seen from the point of view of the speech-act participants (1981: 86). With respect to the lower end of the hierarchy, what is involved is the interest of categories for humans in general. Humans are most interested in other humans, and more interested in animals than inanimates. With respect to the top of the hierarchy, the degree of interest is related to the speech act.

Silverstein 1981 claims that the hierarchy represents the extent to which entities are given or presupposed in language use. The act of speaking presupposes a speaker, and communication presupposes an addressee. Anaphoric pronouns are presupposed on the basis of reference earlier in the discourse and demonstrative pronouns presuppose the presence of entities in the ambit of the speech event. Personal names (Maria, John) and kin terms (mother's brother, grandpa) are known to the speech act participants. All the categories down to this point are definite. The last three categories are hardly presupposed on the basis of inherent features, but where accusative marking extends to these categories it is usually only where they are definite or at least specific.

The hierarchy manifests itself in a number of areas besides case marking. These include the following:

- (a) rules of order
- (b) number marking
- (c) agreement
- (d) advancement

(a) Order

In some languages the order of bound pronominal elements is sensitive to the hierarchy. In Gunwin^ygu (Northern Australian) a first- or second-person bound pronoun always precedes a third irrespective of whether it is subject or object (Carroll 1976).

- (42)a. Nga-be-n-bun 1sg-3pl-obj-hit.fut 'I'll hit them.'
 - b. Nga-n-di-bun 1SG-OBI-3PL-hit.FUT 'They'll hit me.'

In French a direct object clitic generally precedes an indirect object clitic: Marie les lui donne 'Mary gives them to him.' But if the indirect object is first or second person, the indirect object clitic precedes the direct object clitic: Marie me les donne 'Mary gives me them.'

Kalkatungu (Pama-Nyungan) is an ergative language with pragmatically determined word order. In transitive clauses the orders APV and AVP predominate, but where P is first or second person and A inanimate it is unusual not to have P first as in (43).

(43)unthayi-nha kuu-ngku Ngai soak-PAST me water-ERG 'I got soaked by the rain.'

Number *(b)*

In many languages there are obligatory number distinctions with pronouns, but not with nouns. In Chinese, for instance, pronouns are obligatorily marked for plural (tā 's/he', tā-men 'they'), but there is no bound form for plural that can be used with nouns, though -men can be used with human nouns providing the stem is polysyllabic: laoshī-men 'teachers'. In some languages number distinctions are made only with pronouns and kin terms (e.g. Kalkatungu, see (4) in chapter 3). In some noun-classifying languages of northern Australia a human plural class occurs, but there is no corresponding nonhuman plural class. In Wappo (Penutian) plural marking is obligatory for human nouns but only optional for nonhuman nouns; adjectives show number concord only with human nouns (Li and Thompson n.d.). In Turkish the third-person-plural pronominal agreement is dropped if the subject is inanimate.

(c) Agreement

Agreement is normally on the basis of grammatical relations: subject only (Indo-European, Uralic, Altaic, Dravidian), subject and object (Chukchi, numerous Australian, Turkana), absolutive (Avar) or absolutive and ergative (Mayan). However, in some languages agreement is with the argument higher in the hierarchy irrespective of grammatical relations. In Dargwa (Northeast Caucasian) the verb agrees with first or second person not third irrespective of whether first or second is A or P. Where both A and P are speech-act participants, agreement is with P. In Sora (Munda) a first- or second-person object is marked on the verb but not third. In Pintupi and Walmatjari (Pama-Nyungan) the subject and object are represented by bound pronouns enclitic to the first constituent of the clause. Noncore relations may be represented too provided that they are animate.20

In most languages with clitic pronouns for P only specific objects can be represented by the clitic. The Swahili example given as (14) in chapter 1 implies that Ali loves a specific beautiful woman. Without the object clitic it would mean that Ali loves any beautiful woman.

Advancement (d)

Verb derivations such as passive are normally based on grammatical relations, but in some languages the pronoun-animacy hierarchy is involved. In the Wakashan languages the passive is obligatory where the agent is third person and the patient first person. In Tiwa (Aztec-Tanoan) only a third person can appear as the agent of a passive and the passive is obligatory where a third person is agent and first or second person patient.

The relevance of the hierarchy is also apparent with the double-object construction. In English, for instance, it is practically confined to constructions with an animate recipient or beneficiary: He sent the refugees food but not *He sent the station food; He made his guest a weak cocktail but not *He made the lemon tree a weak emulsion of white oil. In Relational Grammar the double-object construction is considered to be derived and to reflect the advancement of an indirect object or a beneficiary to direct object (see section 3.4.3). Not everyone would agree with this analysis, but the construction certainly involves two object-like noun phrases as opposed to a direct object and a prepositional phrase and it is certainly true that the extra object is almost always animate. The double-object construction and its counterpart in syntactically ergative languages (see section 3.2) is not uncommon across languages and it is true that it is generally confined to animate advancees. In languages where there are bound pronouns for P but not for indirect object, it is almost always true that in the double-object construction the P series represents the recipient or beneficiary, a fact that supports an advancement analysis.

Case marking apart, these manifestations of the hierarchy are consistent with the view that events are seen from the point of view of the speaker and hearer. In most languages the subject, which typically encodes the topic, precedes the object either as the result of a discourse-pragmatic strategy or a grammatical rule. Rules placing first and second person ahead of third can be interpreted as reflecting a topic-first principle. Rules of advancement favouring the top end of the hierarchy can be given a similar interpretation, as can preferential treatment in agreement since representation by a bound pronoun reflects givenness. The tendency to have more number marking at the top end of the hierarchy is surely an example of speakers making more distinctions in categories of greater interest to them.

If we have then a hierarchy based on the point of view of the speech-act participants, how is it that partial accusative marking is regularly distributed from the top of this hierarchy and partial ergative marking from the bottom? Silverstein and Comrie see language as taking as most natural an event in which the agent is the speaker or addressee and the patient a nonspecific inanimate.

Silverstein comments on the naturalness of the distribution as follows (1981: 243):

It would appear that... language structure is grammaticalising (with characteristic asymmetry) the perspective from which a state of affairs is predicated of referents, the most 'natural' being that which grows out of the configuration of the ongoing speech event, the informational givens of which, the maximally presupposable entities, are of course the same orderings as above [see (41)]. Hence, speaker 'Agent-of' and 'Subject-of' in direct (as opposed to inverse) predicate schemata.

In similar vein Comrie talks of the most natural kind of transitive construction being one in which A is high on the pronoun-animacy hierarchy and P low and

nonspecific. He sees deviations from this pattern as leading to a more marked construction (1989: 128). On this interpretation accusative marking at the top of the hierarchy reflects the fact that it is less than maximally natural for a category such as a pronoun or a personal name to be the object than for lower categories such as nonspecific animates or inanimates. Conversely the confining of ergative marking to nouns reflects the fact that it is less natural for a noun to be an agent of a transitive verb than for a pronoun. This might seem strange outside the context of discourse; after all, sentences of the pattern The man hit the dog are common as linguistics examples. But in discourse sentences with nouns in A function are not so common as one might think (see the givenness hierarchy in (33)). The A function will be filled by a noun only where A is new, but in any coherent text most of the activities will be carried out by an A (or S) that is given on the basis of prior mention or because it is a speech-act participant. In both these circumstances A will be represented by an unstressed pronoun, by a bound pronoun if one is available. Where ergative-marked noun phrases occur, they are often encoding nonspecific agents or the forces of nature (as in (43) above).

In most languages with partial ergative or accusative case marking, A and P are marked independently, i.e. simply according to the category of nominal instantiating them, e.g. A is marked ergative if it is a noun and P is marked accusative if it is a pronoun. In a few languages, as we have seen, the marking is determined by the relative positions of A and P on the hierarchy and these are the most convincing examples of the sensitivity of marking to hierarchical considerations. The examples given in previous sections include the following types:

- accusative marking used only where A is lower than P. See examples (3a) and (b) involving bound pronouns in Rembarnga.
- (b) ergative marking used only where A is lower than P. See examples (9) and (10) involving noun phrases in Fore.
- marking for direct combinations (A higher than P) or inverse combinations (A lower than P) that cannot be linked either to A or P. See examples (30) to (32) from Cree.

The notion that partial ergative and partial accusative marking appear where there is a deviation from a kind of ideal transitive predication has the advantage of supplying a single explanation for both ergative and accusative marking. There are, however, some other attempts at explanation, one relevant primarily to accusative marking and one relevant primarily to ergative marking.

Hopper and Thompson make cross-language generalisations about the way greater semantic transitivity is reflected in formal transitivity. Full semantic transitivity involves an agent affecting a patient. There is less than full transitivity if the predicate is one of perception (SEE) or emotion (LOVE) or if the tense is future, the polarity negative, the aspect imperfective and so on. Languages usually have two ways of treating two-place predicates. There will normally be a large class of transitive verbs and another smaller class of intransitive verbs and adjectives that take their complement in a noncore relation. The formally transitive verbs will encode the predicates of greater semantic transitivity and the intransitive verbs and adjectives will naturally correlate with less than full semantic transitivity. Hopper and Thompson consider that there is greater semantic transitivity where a patient is specific rather than nonspecific, definite rather than indefinite, human or animate rather than inanimate. They see positive marking for P, whether it be signalled by cross-referencing, position or case marking, to be indicative of greater semantic transitivity.

A view particularly relevant to ergative case marking is to be found in Wierzbicka (1980: 129f, 1981: 66ff). She sees ergative constructions as ones in which the action is seen from the point of view of the patient rather than of the agent; the patient is presented as the central, unmarked entity and the agent as a peripheral, marked entity. First and second persons especially and pronouns in general are most likely to drop their 'peripheral' marking, since they are given and topic-worthy. One could note that in English and various other languages passives with pronominal agent phrases are generally disfavoured. The ergative construction, which is transitive, and the passive, which is intransitive and in marked opposition with an active transitive construction, cannot be fully identified. Nevertheless there is some analogy between the marked A of the ergative and the marked agent of the passive.

The approaches to ergative marking of Comrie and Silverstein on the one hand and Wierzbicka on the other are perhaps not too far apart. In the former pronouns do not bear ergative marking because they are the most natural exponents of A and languages tend to leave what is most natural least marked. In the Wierzbicka view pronouns, especially first- and second-person pronouns, are natural topics and it is therefore appropriate that they be encoded as central, unmarked entities.²¹

One last point. Where there is an SA/P system and an SP/A system in the one clause, then it is always true that the SA/P system is found with bound pronouns, which naturally will be carrying given information rather than new. It should also be noted that interclausal rules of syntax such as the marking of switch-reference usually operate on an SA basis even where the case-marking system is nominative-ergative. These rules involve given information in at least one clause.²²

5.3 Dative

In Ancient Greek the case used to express the indirect object with verbs like *didonai* 'to give' was called the *ptōsis dotikē* or 'giving case'. The label *dative* is the Latin translation applied to the Latin case with the corresponding function: *Cassius Brūtō librum dat* (Cassius.NOM Brutus.DAT book.ACC give.3sG)

'Cassius gives a book to Brutus.' However, in both Greek and Latin the dative also marked the nonsubject complement of certain intransitive verbs. These complements were taken to be indirect objects like the dative complements of three-place verbs. Here are some examples of intransitive verbs that take an indirect object in the dative:

(44)	Greek	Latin	
	boēthein	auxiliarī	help
	peithesthai	parēre	obey
	pisteuein	fidere	trust
	orgizesthai	īrāscī	be angry with

Cases are not isomorphic across languages, i.e. we do not find that languages generally have the same number of cases with each case in one language matching the extension of a corresponding case in other languages. The dative in Greek, for instance, covers a greater range than the dative in Latin. Greek does not have an ablative as Latin does and the Greek dative covers the instrumental and locative functions of the Latin ablative.²³ This lack of isomorphy can lead to difficulties in applying case labels. What does one do in describing language X if one case encodes the recipient of giving and another case the complement of some intransitive verbs? This problem confronted me in describing Kalkatungu (Blake 1979a). One case marked by -ku encoded the complement of a handful of intransitive verbs as well as the roles of purpose and beneficiary. Another case marked by -kunha encoded the recipient of the verb 'to give' as well as the role of destination. I chose to call the -ku case dative, since it marked the complement (indirect object) of verbs analogous to verbs in Ancient Greek and Latin like those illustrated in (44), and the -kunha case allative (see Table 2.14). This strategy for identifying a dative gives good cross-language comparability. The dative under this interpretation emerges as the main noncore case used to mark complements. Its range of functions will typically include those listed as (a), (b) and (c) in (45) and quite frequently functions (d) to (h).

- (45) a. indirect object of some two-place verbs low on the transitivity scale (e.g. verbs such as HELP, SEEK or LIKE)
 - b. indirect object of a few three-place verbs such as GIVE and SHOW
 - c. the roles of purpose (*She went for fish*) and beneficiary (*She went for (on behalf of) her mother*). In a few languages there is a separate purposive case (e.g. Irula). Basque has a purposive case and a benefactive case (Saltarelli et al. 1988: 156–66)
 - d. possessor (frequently expressed by the genitive)

- e. destination (sometimes expressed by a separate allative case as in many Australian languages)
- f. the indirect object of a detransitivised construction as in the antipassive of various languages (see (25) above from Pitta-Pitta)
- g. the direct object in certain aspects or tenses (see (23) above from Pitta-Pitta and (53b) below from Georgian)
- h. the indirect subject of certain verbs or of all verbs in certain aspects. This usage is somewhat different from the rest and is described at the end of this section. See (51), (52) and (53).

The accusative is a syntactic case which can encode a variety of semantic roles, but one could take the central and defining function to be that of encoding the affected patient of activity verbs. The dative is likewise a syntactic case that can encode a variety of roles, but I would suggest that its central function is to encode entities that are the target of an activity or emotion. Traditional definitions refer to the entity indirectly affected as opposed to the entity directly affected, which is encoded by the direct object (at least in the active). The accusative and the dative may be in syntagmatic contrast or in paradigmatic opposition. With verbs like Latin dāre 'to give', monstrāre 'to show' and mandāre 'to entrust', the two cases are in syntagmatic contrast with the accusative encoding the entity that is directly affected in the sense that it is moved or transferred to new ownership and the dative encoding the sentient destination, the one to whom the transfer is directed.

(46) Brūtus rem mihi mandāvit
Brutus.NOM matter.ACC me.DAT entrust.PERF.3SG
'Brutus entrusted the matter to me.'

With a two-place verb like *auxiliārī* 'to help', *parēre* 'to obey', *fidere* 'to trust' or *īrāscī* 'to be angry with' the dative complement is in paradigmatic opposition with the accusative with verbs like *necāre* 'to kill', *tractāre* 'to pull' and *movēre* 'to move'. The accusative encodes entities that are directly affected whereas the dative encodes entities that are not directly affected. It should be added that one cannot predict the case from the role, since while it is true that entities directly affected by activities are always encoded in the accusative (at least in the active voice), entities that are not affected are encoded as accusatives with some verbs and datives with others. *Amāre* 'to love', for instance, is a transitive verb which takes an accusative direct object encoding the neutral (unaffected) patient, so is *vidēre* 'to see'. This generalisation about accusative—dative alternation carries over to a great number of other languages, although it needs to be reinterpreted somewhat for

languages that lack a dative case. In English, for instance, some predicates low on the transitivity scale are instantiated as verbs that take prepositional complements (*look for, look like*, etc.) and others are instantiated by adjectives that take prepositional complements with *of* as the unmarked or default choice (*be jealous of, be supportive of*).

In many languages some verb roots appear both as transitive verbs with a direct object and as intransitive verbs with an indirect object in the dative. A few verbs in Latin are like this; *temperāre* 'to temper' or 'to restrain' is one; *moderor* which has much the same meaning is another. When these verbs refer to restraining or controlling an entity external to the agent, they are used transitively (47a), but where they refer to exercising self-restraint they take a dative complement (47b).

- (47) a. Ego moderor equum meum

 I.NOM moderate.1SG horse.ACC my.ACC

 'I control my horse.'
 - b. Ego moderor .ōrātiōnī meae
 I.NOM moderate.1sG speech.DAT my.DAT
 'I moderate my speech.'

With self-restraint the restraint is directed towards oneself and the entity specified in the dative is only indirectly involved. In some Australian languages a particular verb root may cover 'look for' and 'find'. When such a verb takes a dative complement, it means 'look for', but when it is used transitively it means 'find'. Here the difference seems to be between activity directed towards a target and successful achieving of the target.

In many languages alternations between a transitive construction and a detransitivised antipassive-type construction are not confined to particular roots, but express some general difference of aspect or modality. Many of these detransitivised constructions involve the dative case. Examples from two Australian languages, Kalkatungu and Pitta-Pitta, have been given earlier. In Pitta-Pitta the dative is used as follows:

- (a) the indirect object of a handful of verbs such as *wapa* 'to look for', *yatha* 'to like' and *tiwa* 'to be jealous of' (24)
- (b) the indirect object in the antipassive construction which expresses desiderative modality (25)
- (c) the direct object in the future tense. A tentative example from Pitta-Pitta was given as (23) above. A stronger example from Georgian is given as (53b) below.

As noted in the discussion of the Pitta-Pitta examples, the use of the dative across this range makes sense. It marks entities that are unaffected either because of the lexical meaning of the predicate (as with *tiwa* 'be jealous of') or because of a modality (desiderative) or a tense (future) that logically overrides any sense of direct impingement inherent in a particular predicate. Of course it should be added that this 'logic' is not normal language practice. More often than not case marking is simply insensitive to tense, aspect, modality and the like.

In the examples discussed up to this point the clause containing the dative has also contained a subject expressing an agent or an experiencer In these examples the alignment of roles and relations has been normal. However, it is also possible to find examples where the dative encodes the roles normally assigned to subject. In many languages the dative is used to express the experiencer with a handful of verbs often including the translational equivalent of English *please*. This can be illustrated from Latin where *placēre* takes an experiencer in the dative. It may be used with a referential subject (48) or impersonally (49).

- (48) Nōn placet Antōniō meus cōnsulātus not please.3sg Antonius.DAT my.NOM consulship.NOM 'My consulship does not please Antonius.'
- (49) Venerī placet mittere ...

 Venus.DAT please.3sG send.INF

 'It pleases Venus to send'

Latin also affords examples of a dative that is not limited lexically, but which can apply to any verb. This is the so-called dative of agent. It is used with the gerundive, a passive-like participle with a modal force of obligation. An example was given in chapter 3 in connection with identifying the role of agent across different cases (see (32)). It is repeated here as (50b) with its active counterpart (50a).

- (50) a. Ego hanc provinciam dēfendō
 I.NOM this.ACC province.ACC defend.1sG
 'I defend this province.'
 - b. Haec mihi provincia est dēfendenda this.NOM me.DAT province.NOM is.3sG defend.GER.NOM 'This province is to be defended by me.'

In (50b) the direct object of the active verb has been re-expressed as the subject of the gerundive. If we use the gerundive construction with a dative-taking verb like

moderor in (47), the dative complement cannot be re-expressed as subject, so an impersonal construction must be used. In (51) the verb has a third-person-singular neuter nonreferential subject expressed in the verb. Note that the original dative of the base verb is retained so that putting the subject of the base verb into the dative results in two datives with a syntagmatic contrast between an indirect object and what is sometimes referred to as an indirect subject.

(51) Moderandum est mihi orātiōnī meae moderate.GER.3SG.NEUT is.3SG me.DAT speech.DAT my.DAT 'I must moderate my speech.'

The constructions illustrated in (48), (49) and (50b) are all examples of inversion constructions. The label **inversion** implies that the alignment of role and relation is inverted, in particular it implies that the roles normally encoded as subject are encoded in the dative (see also the discussion of inversion in section 3.4.3). These indirect subjects, as they are sometimes called, are not uncommon; they are an areal feature of the Indian subcontinent. The following example is from Malayalam (Dravidian) (McAlpin 1976: 191):

(52) Avalkku avane itikkaam her.DAT him.ACC can/may.hit 'She can hit him.'

In the Malayalam example the dative in conjunction with the potential marker -aam on the verb signals physical ability or permission. In some Kartvelian languages such as Georgian the use of the dative to mark the agent indicates the evidential mode: 'Evidently she did so-and-so' (Harris 1984). The following group of examples illustrate the ergative construction used in the past tense (53a), the accusative construction with dative-marked direct and indirect object used in the present tense (53b), and the inversion construction used to indicate lack of direct evidence (53c) (Harris 1984: 263).

(53)a. Rezo-m gačuka samajuri (šen) bracelet.NOM you.gave.3s.it (you-DAT) Rezo-ERG 'Rezo gave you a bracelet.' $(\check{s}en)^{25}$ b. Rezo gačukebs samajur-s bracelet.DAT Rezo.NOM you.give.3s.it (you.DAT) 'Rezo gives you a bracelet.'

c. *Turme Rezo-s učukebia samajuri šen-tvis* apparently Rezo-DAT gave.3s.it.evid bracelet.NOM you-BEN 'Apparently Rezo gave a bracelet to you.'

Indirect subjects are rather like ergative-marked dependents in lacking the superficial properties of subject such as case, obviously, and control of agreement. However, they often exhibit syntactic properties of subjects. In Italian the dative complement of *piacere* 'to be pleasing to' can control the understood subject of a nonfinite complement just as an unequivocal subject of a noninversion verb can. In (54) which contains a normal noninversion verb, the subject *Giorgio* is understood as the subject of the infinitive *far(e)*. In (55) it is still *Giorgio* that is understood as the subject of the infinitive *lasciar(e)*, even though *Giorgio* is not the subject of the main verb, *una compagna d'ufficio* is (examples adapted from Perlmutter 1982: 316–18).²⁶

(54)

Giorgio farmi ha rimproverato volte da mi tante paura George me has reproved so.many times to make.me fear 'George rebuked me so many times that he scared me.'

(55)

A Giorgio è talmente piaciuta una compagna d'ufficio da lasciarci
To George is so pleased a companion-of-office to leave.us
[lit.] 'To George was so pleasing an office co-worker that he left us.'

'George was so taken with a woman at the office that he left us.'

In Old and Middle English there were inversion verbs where the dative complement could be treated as a subject from the point of view of co-ordination. In the following example from Chaucer, *thoughte* (< O.E. *thyncan* 'to seem'), which is an inversion verb, is conjoined with *graunted*, which is a normal verb. The pronoun *us* is an oblique form, as it is in modern English. It represents a syncretism of accusative and dative. The subject of *graunted*, if it had been expressed, would have been *we* (*Canterbury Tales*, the Prologue A 785–7).

(56) Us thoughte it was noght worth to make it wys
And graunted him withouten more avys,
And bad him seye his verdit, as him leste.

The verb *leste* (< O.E. *lystan* 'to please') is also an inversion verb used impersonally, literally 'as to-him it lusted', i.e. 'as it pleased him'.

It is quite common for the dative to be used to express the possessor. In languages where there is a dative but no separate genitive the dative is used adnominally.

A dative of possession occurred in Latin as well as a genitive of possession and a possessive adjective (examples from Woodcock 1959: 46).

- (57) Illi duae fuēre filiae that.DAT two.NOM were.3PL daughters.NOM 'He had two daughters.'
- (58) Illius duae fuēre filiae
 that.GEN two.NOM were.3PL daughters.NOM
 'The two daughters were his.'

With the dative the existence of the daughters is asserted; with the genitive the existence of the daughters is taken as given and the identity of the possessor asserted.

5.4 Genitive

A genitive case is widespread. On the basis of Latin one would normally ascribe the label genitive to the most common or unmarked adnominal case, although one would not expect such a case to be exclusively adnominal. In Latin the genitive marks the complement of a handful of verbs such as *oblīvīscī* 'to forget' and *miserērī* 'to pity'. In other languages, Old English for instance, the genitive marks the complement of some scores of verbs and vies with the dative as the case used to encode the complement of intransitive verbs. In such a situation the adnominal function would be crucial for allotting the label genitive. The unmarked adnominal case normally covers the sense of possessor, and the label **possessive** case is a common alternative. A genitive is found not only in Indo-European languages, but also in Uralic, Caucasian, Altaic, Dravidian and Semitic languages. In some Australian languages a single case covers the range of the Latin dative and genitive cases and the label dative is preferred.

In a few languages there is a case common to A function and possessor function. These include Zoque (Mexican), a number of Caucasian languages and the Eskimo languages, where the case concerned is called the **relative** case.²⁷ The following example is from Yup'ik Eskimo (Reed et al. 1977: 83). An explanation for the complex gloss on the possessed noun is given below in connection with (63) and (64).

- (59) Angute-m nera-a neqa man-REL eat-3sg.3sg fish 'The man is eating the fish.'
- (60) Angute-m qimugta-i
 man-REL dog-3PL.ABS.3SG.ERG
 'the man's dogs'

In a number of languages the pronominal affixes that mark the person and number of the possessor are the same as those used for subject function or the same as those used for A function. An example of an ergative—genitive series of bound pronouns in Konjo was given above (Table 5.1). An ergative—genitive series is also found in the Mayan languages and in Abaza. To appreciate what is going on here it is interesting to look at languages that use bound forms for both the possessor and possessed. The first example is from Abaza (Northwest Caucasian), a language which has extensive cross-referencing of pronominal elements on both the verb and the noun. The example is taken from a paper by W. Sidney Allen, who was perhaps the first to draw attention to parallels in the expression of A and possessor (Allen 1964: 340). In Abaza there is an ergative—absolutive distinction in third-person bound pronouns.

- (61) D-l-pa-b
 3SG.MASC.ABS-3SG.FEM.ERG-son-is
 'He is her son.'
- (62) D-l-šə-d
 3SG.MASC.ABS-3SG.FEM.ERG-kill-PAST
 'She killed him.'

In (61) the prefix d- acts as a class marker to the noun, and in relation to -l-, which marks the possessor, it represents the possessed.

In Yup'ik Eskimo, where the relative case marks both A function and possessor function as illustrated in (59) and (60) above, 'our (dual) boats (dual)' is expressed thus:

(63) angya-g-puk
boat-3DU.ABS-1DU.ERG
'our boats'

The bound forms used are the same as for a transitive verb with a first-person dual A and third-person dual P (Reed et al. 1977: 140).

(64) Ceńirciiqa-g-puk
visit.FUT-3DU.ABS-1DU.ERG
'We shall visit them.'

It appears from these examples that the possessive schema is transitive with the possessor encoded as A and the possessed as P. This is obvious where there is a bound form corresponding to the possessed noun, but it may be that possession is conceived of as transitive also in other languages where a subject or an ergative bound form

is used to encode the possessor. As we observed in describing nominalisation, the genitive case is often used to encode a complement of a nominalised verb, most often the subject. See sections 4.3.1 and 4.5.1.

A large number of languages have possessive affixes for first, second and third person. In many of these the possessive affix cross-references the possessor. An example from Turkish was given in section 1.1, namely adam-in ev-i 'man-GEN house-3sg.poss (the man's house)'. Here of course there is a genitive, but in many languages the cross-referencing is the sole means of marking possession.

5.5 Partitive

In eastern Europe it is common to find that partly affected patients are put in the partitive case as in Hungarian (Moravcsik 1978: 261).

- (65)Olvasta könvvet a read.3sg the book.ACC 'He read the book.'
- Olvasott könvvböl (66)a read.3sg the book.PARTITIVE 'He read some of the book.'

In Estonian and Finnish the partitive is used for the patient if it represents part of a whole or an indefinite quantity, or if the action is incomplete, or if the polarity of the clause is negative. In Polish and Russian similar conditions determine the choice of genitive as opposed to accusative (Moravcsik 1978: 265, 269; see also Plank (ed.) 1984).

5.6 Local cases

The term local in this context refers to 'place'. Local cases express notions of location ('at'), destination ('to'), source ('from') and path ('through'). In languages with inflectional case systems usually at least two different cases are employed to make local distinctions, though not necessarily two exclusively local cases. Indo-European languages originally used two local cases, locative and ablative, with the accusative expressing destination and path. In Turkish there is a locative and an ablative, with destination expressed via the dative. An allative case expressing destination is found in a number of languages including Uralic and Australian languages. A separate case for path is not so common but such a case is found in a few Australian languages (Blake 1987: 40), and is part of the local case system in some Northeast Caucasian languages including Avar (Table 5.4).

Where languages have large case systems it is always through the elaboration of the local cases. Large case systems are characteristic of the Finno-Ugric branch

	locative (location)	allative (destination)	ablative (source)	perlative (path)
on (top of)	-da	-d-e	-da-ssa	-da-ssa-n
at	-q	-q-e	-q-a	-q-a-n
under	-∄′	-∄' -e	-Ã'`-a	-Ã'-a-n
in, among	- ⋬∕	- ૠ̃-e	-¾ -a	-\$\dag{x}-a-n
in a hollow object	-Ø	- Ø -е	-Ø-ssa	-Ø-ssa-n

Table 5.4 Avar local cases

of the Uralic family and of the Northeast Caucasian languages. They arise from a combination of markers for relative orientation ('above', 'beside', etc.) with markers for location, destination, source and path. One dialect of Tabassaran (Northeast Caucasian) is reported to have fifty-three cases (Comrie 1981: 209, but see Comrie and Polinsky 1998 and comments below). In Avar (also Northeast Caucasian) there are twenty-seven cases, including twenty local cases deriving from a combination of four 'cases' and five orientation markers. The combinations of orientation markers and 'case' markers are morphologically agglutinative and semantically transparent. (See Table 5.4, which is based on Ebeling 1966.) In a language like this one could simply recognise a layer of orientation markers plus a layer of 'case' markers. If one analyses a further outermost layer of forms as case markers rather than as clitic particles, the system is even larger (Hjelmslev 1937: 2–25).

In Avar, as in other Northeast Caucasian languages, the locative (usually called 'essive' in sources on Caucasian languages) is literally unmarked and the perlative is doubly marked, consisting of the ablative -*a* plus -*n*. This distribution of marking in Northeast Caucasian languages fits Hjelmslev's notions of markedness and perhaps played a part in shaping them (see Table 2.11).

The method of labelling local cases builds on the model of the Latin $abl\bar{a}t\bar{t}vus$ 'ablative' which is made up of the preposition ab 'from' plus a stem $l\bar{a}tivus$ the root of which is $l\bar{a}t$. This root supplies the perfect participle of $fer\bar{o}$ 'I bear'. Other labels are formed by varying the preposition or by combining prepositions with the stem $ess\bar{v}vus$ from esse 'to be' (cf. Mel'čuk 1986:72–75). Some local case labels are presented in Table 5.5.

More often than not the transparency of large local systems is obscured by some fusion of the orientation marker and what could be called the case marker proper, by innovating forms or by semantic shifts. In Finnish, for instance, there are fifteen cases of which nine are local. As a first approximation one can say that there are local cases for location, destination and source, which can appear on their own or appear with interior ('inside') and exterior markers ('outside'). These are displayed

Latin root	Meaning	Case label	Meaning
ad	'to'	allative	to(wards) (the exterior of)
in	'into'	illative	into
ab	'from'	ablative	from (the exterior of)
e(x)	'out of'	elative	from (the inside of)
super	'above'	superlative	to the top of
trans	'through'	translative	through
per	'through'	perlative	through, along
		essive	at (cf. locative)
in	'in'	inessive	in(side)
ad	'to'	adessive	at
super	'above'	superessive	above
sub	'under'	subessive	below

Table 5.5 Labels for local cases

in Table 5.6. The proto-forms for the cases are *-na locative, *-ta ablative and *-ne allative. As can be seen, the formative for interior is -s- and for exterior -l-. The nof the locative and allative assimilated to the preceding consonant to yield the array in (67), which corresponds to Table 5.6.

A comparison of (67) with Table 5.6 reveals that -ksi and -(h)Vn/-sVVn have been substituted for the forms expected on comparative-historical grounds. Semantically

Table 5.6 Finnish local cases

	Location	Source	Destination
ø	-na	-tta	-ksi
	essive	partitive	translative
Interior	-ssa	-sta	-(h)Vn, -sVVn
	inessive	elative	illative
	'in'	'from (inside)'	'into'
Exterior	-lla	-lta	-lle
	adessive	ablative	allative
	'at'	'from (outside)'	'to(wards)'

the system is not as transparent as one would gauge from combining the labels for the rows and columns in Table 5.6. The *-tta* form has a partitive function, the translative *-ksi* is used to mark the category into which something has been changed (*You'll turn into a pumpkin, Translate it into English*), and the allative *-lle* has dative functions.

If one recognises that the orientation markers in any of the truly agglutinative systems as in Avar form a separate system from the case system proper, then naturally the allegedly very large systems reduce to no more than a score or so. Comrie and Polinsky (1998: 99) analyse northern dialects of Tabassaran as having seven cases and eight orientation markers. Finnish is not entirely agglutinative nor semantically transparent so it is appropriate to take the fifteen case markers as constituting a single system.

5.7 Other cases

A variety of languages including Basque, Zoque (Mexican), Ossete (Indo-Iranian), Archi (Northeast Caucasian) and Finnish have a **comitative** case expressing accompaniment. It is also found in Tamil, Telugu and a majority of Dravidian languages, where it is known as **sociative**.

An **instrumental** case encodes the instrument with which an action is carried out as in *She wiped the screen with a cloth*. It is found in the Indo-European family (e.g. Sanskrit), Uralic (e.g. Komi-Permyak), Altaic (e.g. Nanai), Dravidian (e.g. Tamil), Basque, Tonkawa (Uto-Aztecan), Tarascan, Australian and elsewhere. It is sometimes used to encode the agent of the passive in an accusative language (e.g. Russian). In a number of ergative languages the ergative case covers instrumental as well as A function (e.g. Avar, Tibetan and the majority of Pama-Nyungan languages).

In the Uralic language a case called **abessive** (Latin *ab-esse* 'to be absent') or **privative** (Latin *prīvāre* 'to deprive') is found. It means 'lacking', 'not having'. In Finnish, for instance, *rahta-tta* is (money-AB) 'moneyless'. This case is also found in Australia where it is matched by a 'having' case called the **concomitant** or **proprietive.** These two categories tend to show up in many Australian languages in lexicalised formations. In Kalkatungu, for instance, *putu-yan* (stomach-PROP) means 'pregnant'. In light of this and other evidence the 'having' and 'lacking' suffixes have been taken to be derivational. On the other hand they exhibit concord in languages with case concord which suggests they are inflectional and should be considered cases (Blake 1987: 87f; Dench and Evans 1988: 7–13).

The labels **aversive** (lit. turning from), **evitative** (avoiding) and **causal** have been used for a case category common in Australian languages. It indicates what is to be feared or avoided, as in Kalkatungu: *Yanyi-ngkungu rumpi* (ghost-AVERSIVE fear)

'S/he is afraid of ghosts' or the cause of a state or activity, again from Kalkatungu: palpir-tungu uli-nyin (poison-AVERSIVE die-PART) 'dying from poison'.

The only other case not mentioned up to this point that occurs with any frequency is the comparative ('than'), which occurs, for instance, in some Dravidian and some Northeast Caucasian languages. There are certainly more than a dozen or so other case labels to be found in the literature, quite apart from systematic local labels of the type illustrated in Table 5.5. Not all of these are described in detail and some may turn out on closer inspection to be variants of some of the labels presented here. We shall not pursue the matter.

Inflectional case hierarchy

Morphological case systems range from two members to a dozen or so. However, if one takes all the combinations of orientation markers and case markers proper in some Finno-Ugric and Northeast Caucasian languages as cases, then the figure runs to forty or so (see section 5.6). The question addressed here is whether morphological (inflectional) case systems grow and decay in a certain order. In attempting to answer this question I shall consider first case marking on independent nominals and ignore bound pronouns and word order. However, bound pronouns and word order are relevant to morphological case in that they represent alternative ways of encoding grammatical relations that lie at the top end of the relational hierarchy and therefore preclude the possibility of what otherwise might be implicational relationships. One might consider that a peripheral case like ablative is not likely to be found in an accusative language unless a core case like accusative is also found, but this will not hold in a language where the object is represented pronominally in the verb or only by position after the verb. Similarly one might propose that a language will not have a comitative case (which is only moderately common across languages) unless it has a genitive (which would appear to be more common), but a possessor in many languages is represented by a bound pronoun standing, where necessary, in cross-reference with a noun as in Warndarang (Northern Australian) (Heath 1980).

Comparing cases across languages is problematic from the methodological point of view. If we compare nonisomorphic case systems, then strictly no case in one system will correspond with any case in the other system. As remarked previously, the dative in Ancient Greek, for instance, does not correspond closely with the dative of Latin. Greek lacked the ablative of Latin and the source function ('from') of the Latin ablative was expressed by the genitive, while the locative and instrumental functions of the Latin ablative were expressed by the dative. The Greek dative is a more comprehensive case than the Latin dative. So in comparing cases across languages we need to consider the functions covered by a particular case and we must not accept traditional labels at face value.

If we look at a sample of case systems, ignoring for the moment those languages where some relations are marked exclusively by bound pronouns or word order, we find that indeed they do tend to be built up in a particular order, i.e. a hierarchy emerges.

(68) nom acc/erg gen dat loc abl/inst others

This hierarchy is to be interpreted as follows. If a language has a case listed on the hierarchy, it will usually have at least one case from each position to the left. Thus if a language has a dative case it will have a genitive, an accusative or ergative or both, and a nominative. In a small system of two, three, four or five cases the lowest ranked case will usually have a large range of functions, i.e. it will be a kind of 'elsewhere case'. The hierarchy as it is presented in (68) gives the impression that a language could have a two-case system in which the non-nominative case was accusative or ergative. While it is true that the second case is likely to cover P or A function, it is also likely to cover such a wide range of functions that the label **oblique** would be more appropriate than accusative or ergative.

A number of languages have a two-case system. Chemehuevi, a language of the Numic branch of Uto-Aztecan, has a nominative-oblique system in which nominative marks subject and oblique marks object and possessor. There are also post-positions which attach directly to the stem and perhaps could be said to belong to the case system, but unlike the oblique case marker they cannot figure in concord (Press 1979). A nominative-oblique system plus postpositions is typical of the Uto-Aztecan family (Langacker 1977).

Kabardian (Northwest Caucasian) has a two-case system in which the marked case covers A and possessor function. Two-case systems are also found among the Iranian languages. Yaghnobi has both an accusative construction and an ergative construction, the latter used in tenses based on the past stem. Within the core the marked case is used for a specific direct object in the accusative construction and for A in the ergative construction. Outside the core the marked case is used for possessor, indirect object and object of a preposition (Comrie 1981: 169–70).²⁸

In a three-case system there is usually a nominative, an accusative and a genitive—oblique. The Semitic languages have systems like this. Classical Arabic provides an example, though there is accusative—genitive syncretism in the plural. The Nubian languages (Nilo-Saharan) also have a nominative—accusative—genitive system. Modern Greek has a nominative—accusative—genitive system and so has Comanche (Uto-Aztecan) (Robinson and Armagost 1990). Greek also has a vocative, but since the vocative is functionally so different it is not considered a case here (see section 1.2.3).

As the hierarchy in (68) stands, it would appear that a three-case system could contain nominative, accusative and ergative. Accusative and ergative cannot be separated on the hierarchy, but as far as I know there are no languages that have both a case covering A and a case covering P unless a fourth case is present.

A number of languages have the following four-case system:

(69)gen dat/obl nom acc

The last case often has a variety of functions and is variously named. Languages with this system include Ancient Greek (which also had a vocative), a number of Germanic languages including German, Icelandic and Old English (where there was also a vestigial instrumental), Yaqui and several Nilo-Saharan languages including Fur, Nuer and languages of the Didinga-Murle group where the accusative rather than the nominative is unmarked.

The next case to be distinguished from the elsewhere case is the dative. In Latin, for instance, we have the following system of five cases (plus a vocative) (see also Table 1.2):

(70)abl/obl dat nom acc gen

The lowest case in Latin is called the ablative, but the Latin ablative represents a syncretism of an earlier ablative, instrumental and locative (still vestigially distinguishable in Classical Latin). The label is somewhat arbitrary. Old and Middle High German had a similar system with an 'instrumental' where Latin had an 'ablative'. The OHG and MHG instrumental expressed locative and ablative functions as well as instrumental.

The only other case that can be placed on the hierarchy with any confidence is the locative. Systems of six or more cases almost always have a locative. In a number of Slavonic languages including Polish, Czech, Slovak and Serbo-Croatian the following system is found:

(71)nom acc gen dat loc inst

The next cases for consideration are the ablative and the instrumental. It does not seem that they can be distinguished hierarchically. Both are quite common, and there are languages with an instrumental but no ablative (like the Slavonic languages where source is normally expressed by a preposition governing the genitive) and there are languages like the Altaic languages where there is an ablative but no instrumental. The case system in Turkish is as follows. The instrumental function is expressed by a postposition.

(72) nom acc gen dat loc abl

Some Altaic languages have both an instrumental and an ablative as does Classical Armenian which reflects the system of proto-Indo-European minus the vocative:

(73) nom acc gen dat loc abl inst

It is doubtful whether the hierarchy can be developed much further. Outside the cases discussed up to this point the most common would appear to be the comitative ('accompanying'), the purposive, the allative ('to'), the perlative ('through') and the comparative ('than'). Tamil, for instance, has the seven cases listed in (73) plus the comitative (called sociative in Dravidian linguistics):

(74) nom acc gen dat loc abl inst com

Two other Dravidian languages, Toda (Sakthivel 1976: 435–48) and Irula (Perialwar 1976: 495–519), have a purposive as well (plus a vocative):

(75) nom acc gen dat loc abl inst com purp

Dravidian languages mostly have largish case systems. Kodaga (Balakrishnan 1976: 421–34) and Kasaba (Chidambaranathan 1976: 467–80) also have a comparative ('than') case.

The Pama-Nyungan languages of Australia mostly have case systems with eight to ten members. There is normally a common case for A and for instrumental function, most often referred to as the ergative, and there is frequently an allative and often an evitative (indicating what is to be avoided). Some Pama-Nyungan languages lack a genitive, the possessor function being expressed via the dative (Blake 1977, 1987).

In illustrating the hierarchy I have so far avoided languages which encode grammatical relations solely by word order or by bound pronouns, since the use of these alternative mechanisms can mean there are gaps in the morphological case hierarchy. However, the use of word order as the sole means of distinguishing subject and object is practically confined to subject—verb—object (SVO) prepositional languages like French, Cambodian and Thai. The only real competitor for morphological case is the use of bound pronouns. Bound pronouns may be used for subject, object, indirect object and possessor, and in some ergative languages for the absolutive

and ergative relations. Naturally there will be gaps where bound pronouns are used instead of morphological case. In Nanai (Tungusic), for instance, there are seven cases but no genitive, the possessor relation being expressed by a cross-referencing bound pronoun (Nichols 1983):

Northern Australian languages have cross-referencing for subject and object and some have no core case marking. In Warndarang, for instance, the case inventory is as follows (Heath 1980: 26–8):

The missing cases are genitive, dative and a second core case, ergative or accusative. All of these gaps can be accounted for by reference to the cross-referencing bound pronouns which encode subject, object and possessor. With the verb for GIVE the object series of bound pronouns encodes the recipient. There is also a verbal prefix *ma*- to indicate that the object series is encoding a beneficiary. In this way the functions that would be associated with a dative are covered.

If morphological case systems are built up on hierarchical lines and if most of the gaps in the hierarchy can be attributed to the use of bound pronouns, then morphological cases and systems of bound pronouns between them define a hierarchy of functions or relations. It seems languages place more importance on having some morphosyntactic means of expressing relations such as subject and object than on having some morphosyntactic means of expressing relations such as locative or instrumental. Lower ranked relations like these are often expressed via prepositions or postpositions. Adpositions, although forming closed classes of some dozens or perhaps some scores of members, are mostly lexical rather than grammatical.

There are instances where a number of functions are expressed by a single case. As mentioned above, it is not uncommon in Australian languages to find a genitive—dative case and in Kannada there is syncretism of the ablative/instrumental distinction even though there is a comitative which one would expect to be ranked lower on the grounds of its sparser distribution across languages. In Tarascan (Chibchan) there is also a comitative even though there is no dative or ablative. In this language there is no indirect object; the recipient and beneficiary are expressed in the accusative. The locative covers not only location, but the other local notions such as 'from' and 'to' (Suarez 1983: 87):

(78) nom acc gen loc inst com

Survey of case marking

The fact that syncretisms occur and gaps, mostly attributable to an alternative grammatical device, precludes the possibility of establishing implicational relationships between cases, but the syncretisms and gaps do not render the hierarchy vacuous. Case systems tend to be built up in a certain sequence 'with overwhelmingly greater than chance frequency', to borrow a phrase from Greenberg (1963).²⁹

On the point of one case expressing more than one function, it is interesting to note an asymmetry between the treatment of ablative and allative. An ablative is much more widely distributed than an allative. The *to*-function is frequently expressed by another case such as the accusative (Latin and some other Indo-European), the dative (Turkish and other Altaic) or the locative (Yidiny). Of course, instances like these where a case expresses more than one function or role raise the question of how these cases are labelled. It seems that it is widely accepted practice to label on the basis of the higher function on the hierarchy. Where a particular case expresses, say, A function and instrumental function, it is usually labelled ergative. This practice will of course create apparent gaps in the hierarchy at the point where the lower function occurs.