Relationships within the clause

6.1 INTRODUCTION

In this chapter I investigate the relationships between verbs and their noun phrase arguments within the clause. All languages have intransitive clauses—clauses with a verb and just one NP participant, such as The dog growled—and transitive clauses—clauses with a verb and two NP participants, such as The dog bit my friend. The NP participants that occur in these basic clause types are known as core arguments, and this chapter examines the ways in which the world’s languages distinguish between core arguments.

There are three main ways in which a language may indicate the relationship between core NPs and the verbal predicate. First, each core NP may have a fixed position in the clause; such a system uses constituent order to indicate the relationship between NP and verb. In English, both subjects and objects have a fixed position, which is how we determine who killed who in a pair of sentences like The snake killed the bird and The bird killed the snake.

But core NPs don’t have a fixed position in all languages. Core NPs in Latin can appear quite easily in different positions; both sentences in (1) have the same meaning, although the order of the NPs is different in (1a) and (1b):

(1) a. Puer-um puella audi-t.  
   [boy-ACC girl Nom hear-PASS:3SG]  
   ‘The girl hears the boy.’

b. Puella puer-um audi-t.  
   [girl Nom boy-ACC hear-PRES:3SG]  
   ‘The girl hears the boy.’

This variation in constituent order is possible because in Latin, the form of the NPs themselves indicates what relationship they have with the verb: the nominative NP (glossed Nom) signifies the subject and the accusative NP (glossed ACC) signifies the object of the verb. Latin utilizes the second main way of distinguishing core NPs: it has CASE MARKING. Subjects in Latin are not distinguished from objects by their position, but by being specifically marked as subjects or objects.

The third way in which a language can indicate the relationship between NP and the verbal predicate is to utilize verbal affixes, which are the focus of this chapter.
6.2 ORDER OF PHRASES WITHIN THE CLAUSE

6.2.1 Basic and marked orders

As we saw in Chapter 1, linguists often talk about the 'word order' of a particular language. In fact, this term refers not to single words but to the order of phrases, so a better term is constitutent order. Here, I concentrate on the order of the three major constituents in a transitve clause: subject, object and verb. In many languages, including English, objects are distinguished from objects by having a fixed position for each NP, in the ordinary, basic constituent order: Given the three constituents S, O and V, there are six logically possible variations, and indeed all six orders do occur as a basic constituent order among the languages of the world:

(5) Thugann Bríd Gaeilge.
   V   S   O
   understands Bridget Irish

\[ \text{Irish} \]

(6) E kamatea te naeta te moa.
    V   O   S
    'who ate what?'

\[ \text{Gilbertese} \]

(7) kaikuxi etapa-vā toto, papa tomo
    O   V   S
    jaguar kill-past 3pl. father 3pl.

\[ \text{Apalai} \]

In the examples above, the constituent orders shown are all reasonably uncontroversial: they represent the basic order, or one of the basic orders, found in each of the languages. So, for instance, we can say Northern Sotho is an SVO language, and Turkish is an SOV language. However, saying a language has a certain basic constituent order doesn't mean that it never has any other orders. For instance, English has basic SVO order, as in They adore syntax, but we can also use an object-initial order, as in Syntax, they adore, to give particular emphasis to the direct object, in this case syntax. An order which is used like this to focus on a constituent is known as a marked (= non-basic) order.

In some languages, it is not easy to decide on a basic constituent order. First, two (or more) orders may be unmarked — equally basic and neutral. In that case, the actual order used in any given situation depends more on pragmatic factors than syntactic ones. For instance, some verb-initial languages such as Fijian, Tongan and Samoan (all Austronesian languages) are not clearly definable as either VSO or VOS: both orders are frequent.

Second, some languages have a different order in main clauses and in subordinate clauses. For instance, a number of Germanic languages, including German and Dutch, have SOV order in embedded clauses but have unmarked SVO order in main clauses.

Third, in languages which are strongly head-marking (see Section 4.3) the verb itself always has object and object markers (see (2)), but there are typically very few clauses which have both a subject and an object NP, so we can't easily tell what the order of S, O and V might be. In instances like these, the constituent order which is designated 'basic' often depends more on the theoretical allegiances of the linguist than on any properties of the language. The criteria linguists use to determine a basic constituent order include frequency — which means seeing how often each order occurs in a text — and neutrality — which means looking at sentences with no particular focus or emphasis; native speakers also have strong intuitions about which order (if any) is basic.
6.2.2 Variations of order

Languages which allow all of the six possible constituent orders are common; which order is actually chosen depends on pragmatic factors such as focus and what is the topic of the sentence. Some of these languages with free constituent order do have one order which is clearly basic. So, for example, the Slavic languages Polish and Russian are SVO; Mohawk, on the other hand, has no single basic order. Some languages also have free or very unrestricted word order in the most literal sense. One such language is Warlpiri, from the Australian Pama-Nyungan family. First, I illustrate the fact that Warlpiri has free constituent order: the only restriction is that the auxiliary, expressing tense and agreement, must be in second position (i.e., means the ‘ergative’ case, discussed below in Section 6.3.3).

   man-ENG AUX-PRES kungaroo SPEAR-MONPAST
   ‘The man is spearing the kangaroo.’

b. Wawirri ka panti-rni ngurrla-neku.
   kungaroo AUX-PRES SPEAR-MONPAST man-ENG
   ‘The man is spearing the kangaroo.’

c. Panti-rni ka ngurrla-neku wawirri.
   SPEAR-MONPAST AUX-PRES man-ENG kungaroo
   ‘The man is spearing the kangaroo.’

These three as well as the other three orders of S, O and V are all possible, with no single basic order. However, constituents can also be split up, so a noun phrase such as wawirri yalumpu ‘kangaroo that’ (i.e., ‘that kangaroo’) can be expressed as in (10a) or (10b):

10 a. Wawirri yalumpu kapi-rna panti-rni.
   kungaroo that AUX-PRF-Isg:SU SPEAR-MONPAST
   ‘I will speak that kangaroo.’

b. Wawirri kapi-rna panti-rni yalumpu.
   kungaroo AUX-PRF-Isg:SU SPEAR-MONPAST that
   ‘I will speak that kangaroo.’

In (10b) we have a discontinuous constituent; the elements of the noun phrase in bold type are not contiguous. The auxiliary is still in second position, but now follows the first word, not the first constituent. Other languages allowing at least some discontinuous constituents include Mohawk, Nahuatl, Southern Tiwa and Latin.

6.2.3 Statistical patterns

Although I presented all the six basic constituent orders in Section 6.2.1 as if they had equal status, this is actually not the case. Statistically, we would expect to find the world’s languages split evenly among the six possible orders. But in fact the basic orders SVO and SOV are by far the most frequent, between them covering around 80-90 per cent of the world’s languages (wittingly similar, with VSO in the low 30s). A major group, covering perhaps 9–12 per cent of the world’s languages, including Celtic, Semitic (for example, Biblical Hebrew and Classical Arabic) and Polynesian languages (such as Maori). Languages with the basic order VOS are much rarer, covering around 3 per cent of the world’s total. As noted in Section 6.2.1, though, many verb-initial languages have both VSO and VOS as basic patterns. Both OSV and OVS were until quite recently thought not to exist, and in particular the OVS order is extremely rare. But both are attested in the languages of the Amazon basin, as shown in (7) and (8). A certain amount of estimation is unavoidable in any figures given, not least because reliable data on basic constituent order is not always available.

Two major generalizations about constituent order in the world’s languages emerge from the statistics. First, the vast majority of languages have subject-initial order (SOV, SVO), and even if subjects are not absolutely clause-initial, they generally precede objects (SOV, SVO, VSO). In one large language sample (Tomasia 1986), 96 per cent of the languages have subjects before objects. Subjects appear to be more salient than objects, which may account for their initial position: subjects typically initiate the action expressed by the predicate, are often agents of that action or at least in control of it, and are often the topic of the clause. On the other hand, objects are the theme or patient, the entity which is acted upon, and are less typical as topics.

Second, the majority of languages have either V-to-0 (in either order); again, over 90 per cent of a typical sample of languages do this. Only two constituent orders fail to have a VO/OV grouping – the extremely rare SV order and the much more frequent VSO order. In VSO languages, though, there are often alternative orders available which do place O and V together. For example, many VSO languages have an SV alternative order (e.g., Arabic and Berber). This grouping of O and V which predominates cross-linguistically gives support to the traditional two-way division of the clause into a subject and a predicate, which in turn contains the verb and its object (see Chapter 5).

Examination of large statistical samples of languages also reveals that the word order within constituents correlates with the order of the major constituents themselves (see, for example, Dryer 1991). In Chapter 4, I introduced the idea that languages fall into two basic groups, HEAD-INITIAL and HEAD-FINAL:

Head-initial order
- The verb precedes its objects and complement clauses.
- Adpositions are prepositions, giving [P NP] order in PPs.
- Complementizers (such as that, if, whether) precede the clause they select as complement.

Head-final order
- The verb follows its objects and complement clauses.
- Adpositions are postpositions, giving [NP P] order in PPs.

Note: Some languages falls in either, but not always both.
It turns out that OV languages (the largest group is SOV) are very generally head-final, whilst VO languages (SVO plus all verb-initial languages) are characteristically head-initial. For example, OV languages are far more likely to have postpositions than prepositions: in a typical sample (for instance, Dryer 1991) around 96 per cent of verbal-final languages are postpositional. On the other hand, VO languages are typically prepositional: only around 14 per cent of SVO languages have postpositions, and only 9 per cent of verb-initial languages. Similarly, in VO languages, complementizers such as if and that virtually always precede their subordinate clause, as in English. But in around 70 per cent of OV languages, the complementizers follow the subordinate clause; see, for example, the Japanese (1a) in exercise 5 in Chapter 4.

To summarize Section 6.2, for some languages constituent order is the major way to distinguish the grammatical relations (subject, object, etc.) in a sentence. We expect such languages to have a fairly rigid constituent order, as is true of English, for example. Other languages have much more freedom of constituent order or even word order. These are typically languages which have case marking or a well-developed system of verb agreement; both these features allow subjects to be distinguished from objects even if the NPs don't have a fixed position in the sentence. I turn next to an examination of case marking.

### 6.3 CASE SYSTEMS

#### 6.3.1 Ways of dividing core arguments

In Chapter 4, I introduced the concept of a head and its dependents, and showed that the relationship between them can be indicated by the head (head-marking) or on the dependents (dependent-marking). In languages with case systems, the noun phrase dependents are marked to show their relationship with the head element in the phrase or clause. This section concentrates on the relationships between a head verb and its NP arguments; case marking shows, for example, which NP is the subject and which the object.

Up to now, I’ve used the terms ‘subject’ and ‘object’ as if they apply equally well to all languages. In this section, we will see that it is helpful to distinguish between different types of subjects, in order to describe the case systems that occur outside the familiar European language families. I will divide the core arguments of a verb as shown in Table 6.1, and use the abbreviations S, A and O to designate their grammatical relations (Dixon 1972, 1979, 1994).

<table>
<thead>
<tr>
<th>Core Argument Type</th>
<th>Abbreviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject of an intransitive verb</td>
<td>S</td>
</tr>
<tr>
<td>Subject of a transitive verb</td>
<td>A</td>
</tr>
<tr>
<td>Object of a transitive verb</td>
<td>O</td>
</tr>
</tbody>
</table>

Table 6.1 The core arguments

For example:

(11) The snake(S) hissed.
    The chicken(A) bit the snake(O).

You can remember 'S' as 'subject' but, more transparently, as the 'single' argument of an intransitive verb; 'O' is clearly 'object', and 'A' is for 'agent', which is the prototypical semantic role taken by the subjects of transitive verbs such as 'bite', 'examine' or 'regurgitate'. All languages must have some way of distinguishing the transitive subject, A, from the object, O, so that we can tell, for example, who gets bitten. In languages like English, fixed constituent order does this work. What, though, if the constituent order is free? One solution is to ensure that A has a different form from O: this is the role of case marking.

A logically possible way of distinguishing the three core arguments would, of course, be to have a different marking for each of them. Such a language would distinguish three different cases, one for S, one for A, one for O; an example is given as (26) below. However, this is actually an extremely unusual system, cross-linguistically. The reason for this is undoubtedly because a much more economical system is attainable, using just two case distinctions. Only A and O need to be marked differently. There are no clauses with both an S and an A: they can't co-occur, because within any given clause the verb is either transitive or intransitive. Similarly, there are no clauses with both an S and an O: if the verb is intransitive, it just has an S, and not an O. So to achieve the most economical case system possible, there are two equally logical alternatives, both of which require just two case distinctions.

The first system marks S and A in the same way, and O differently. In other words, all subjects receive one case marking, and objects receive a different case. This is known as the nominative/accusative pattern, and it occurs in most European languages. In Modern English, all noun phrases have a formal case marking, but we can see the relics of a previous nominative/accusative case system in the forms of the first and third person pronouns:

(12) We(S) left.
    We(A) like her(O).
    She(S) left.
    She(A) likes us(O).

We and she are nominative forms, used for both S and A; in other words, all subjects have the same form. Her and us are accusative forms, used for O.

Because this system is so familiar from European languages, you may consider it entirely natural to case-mark all subjects in the same way. But remember that this is only one of the two equally economical ways of dividing the core arguments. The second system marks S and O in the same way, but marks A differently; this is known as the ergative/absolutive pattern. Ergative is the case of A—the subject of transitive verbs. Absolutive is the case of both S and O, the subject of intransitive verbs and the direct object of transitive verbs.
Table 6.2
The major case systems

<table>
<thead>
<tr>
<th>Accusative system</th>
<th>Ergative system</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>S</td>
</tr>
<tr>
<td>Nominaive</td>
<td>Accusative</td>
</tr>
</tbody>
</table>

A summary of the two systems is shown in Table 6.2. You can see that both case systems only require two distinctions. One system groups S with A (since they never co-occur); the other system groups S with O (they too, never co-occur).

In the following two sections I move on to an illustration of each of the main case systems in turn.

6.3.2 Nominative/accusative systems

I start with the most familiar system, nominative/accusative (often known simply as accusative). This system has an AS/O pattern; A and S are marked the same, O differently. Good examples are Latin, German, Japanese and Turkish, among many other languages. Subjects of both transitive and intransitive verbs are marked in the same way: they have nominative case; objects of transitive verbs are marked with accusative case.

(13) Puella veni-t.
    gir:Nom come-PRES:3sg
    'The girl(S) comes.'

(14) Puer-um puella audi-t.
    boy:ACC gir:Nom hear-PRES:3sg
    'The girl(A) hears the boy(O).'

(15) Puella puer-um audi-t.
    gir:Nom boy:ACC hear-PRES:3sg
    'The girl(A) hears the boy(O).'

Since the A and O arguments of the 'hear' verb are in different cases, there is no problem determining which is which, despite the free constituent order illustrated in (14) and (15).

Case is generally considered to be a property of an entire noun phrase, rather than just the head noun itself. In some languages, case is indeed marked on the noun itself via changes in its morphology (= changes in its form), as in the Latin examples. But elsewhere, for instance in German, case is typically not marked on the head noun, but is marked instead on the determiners and any adjectives in the noun phrase.

(16) [Der gross-e Hund] knurrte.
    thenom big-nom dog growled
    'The big dog growled.'

The (masculine) head nouns Mann 'man' and Hund 'dog' in (16) and (17) don't undergo any morphological changes; they're in their basic form. But we can tell who gets bitten in (17) from the case marking on the determiners and the adjectives: for instance, der is the nominative form of the definite article ('the') for masculine nouns, whilst den is its accusative form. The NP den kleinen Mann is accusative, so it's the object, whilst der grosse Hund is nominative, so it's the subject.

6.3.3 Ergative/absolutive systems

The ergative/absolutive system (often known simply as ergative) has an SO/A pattern: S and O are marked the same, and A is marked differently. Lezgian (a Daghestanian language spoken in the Caucasus) is a standard ergative language. The subject (A) of a transitive verb has ergative case, whilst the object (O) of a transitive verb and the subject (S) of an intransitive verb both have absolutive case. Compare in particular the forms of the first person singular pronouns ('I/me' in the English translations) in (18) through (20).

(18) Za zi balk'an c'ud xipe-q' ga-na.
    Ims my horse:nom ten sheep: nom give-PRES-3sg
    '(I)A gave away my horse(O) in exchange for ten sheep.'

(19) Zun ata-na.
    Ims come-PRES
    '(I) came.'

(20) Abura zun ajib-da.
    they:ACC Ims shame-PUT
    'They(A) will shame me(O).'  

In the English translations, the first person singular pronouns have the same form, I, both as an A and an S, whilst the O has a different form, me. By contrast, in Lezgian the A form (za) differs from the S, and instead the S and O forms are identical (zun). When the pronoun meaning 'I/me' is an A - the subject of a transitive verb, as in (18) - it takes the ergative case, giving the form za. But when it's either an S (the subject of an intransitive verb) as in (19), or an O (an object) as in (20), it takes the absolutive case, giving zun.

My second example comes from an ergative language spoken in Europe, namely Basque, which is a language isolate (= a language with no known relatives). Examples from the Leketio dialect are given in (21) through (23); compare the case marking of the word for 'man' in each example.

(21) Gixona-k liburua erozi dau.
    man-1sg book:nom buy AUX:3sg
    'I bought a book.'
pronouns in Dyirbal employ a different system, as you now have the opportunity to work out for yourself.

Before reading further, please examine the sentences in (25) and work out how the case-marking system for pronouns differs from that of nouns.

(25) a. ngana banagan'yu
    vewam returned
    'We(S) returned.'

b. n'urra banagan'yu
    youvow returned
    'You(S) returned.'

c. n'urra ngana-na buran
    youvow we-acc saw
    'You(A) saw us(O).'
pronouns in Dyirbal employ a different system, as you now have the opportunity to work out for yourself.

Before reading further, please examine the sentences in (25) and work out how the case-marking system for pronouns differs from that of nouns.

(25) a. ngana banagan'yu
     we'om returned
     'We(S) returned.'

b. n'ura banagan'yu
    you'om returned
    'You(S) returned.'

c. n'ura ngana na buran
    you'om we-acc saw
    'You(A) saw us(O).'
c.  

caterpillar-

"A caterpillar (A) is biting me (O)."

The pronoun for 'I' has ergative case in (26a), where it's an A; nominative case in (26b), where it's an S, and accusative case in (26c), where it's an O. These examples show that in the two main case marking systems - the ergative system and the accusative system - partially intersect.

6.3.5 Marked and unmarked forms

At this point we can see why linguists often just use the terms 'ergative' or 'accusative' to describe the two systems: it is common for this member of each system to be the only one that is actually case marked, whilst the other member of each system has no special inflection for case at all. Instead we find the ordinary root of the noun or pronoun (the form with no inflections).

In an ergative system, the form without overt marking is the absolutive NP, whilst the ergative NP has a special inflection. This is true of all the ergative systems illustrated so far, viz. Zeglian, Basque and Dyrribal. Please confirm this by looking at the Dyrribal examples in (24); the absolutive forms are not inflected; the ergative form is.

In an accusative system, the form without overt marking is the nominative NP, and the accusative form has a special inflection. This is confirmed by (25): the nominative pronouns are not inflected, whilst the accusative one is.

In fact, we can make a generalization which works for both case systems: whichever case is used for the S argument (either absolutive or nominative), that will generally (with a few exceptions) be the NP that lacks any overt marking (Dixon 1994: 56f). Not only is the case used for S generally formally unmarked (= lacking special marking), but as in the Dyrribal examples in (24) and (25), it's also functionally unmarked; this means it's more widespread in occurrence and more basic in terms of usage. So the absolutive or nominative form is typically used as the citation form of a noun, the form given in a dictionary for example.

6.4 AGREEMENT

Case marking and verb agreement are in fact two alternative (and sometimes overlapping) ways to represent the same information. Recall that the relationship between a head verb and its dependent NPs can be indicated either by DEPENDENT-MARKING (case) or HEAD-MARKING (agreement). So when we talk, for instance, of an accusative system, this doesn't necessarily imply that the language has nominative/accusative case. Instead, the accusative system (or the ergative system) can be represented by verb agreement; this means that the verb agrees with certain of its dependents and not others. This section looks in detail at verb agreement.

Agreement, or cross-referencing, means that a head verb is formally marked to reflect various grammatical properties of its NP arguments. To take a simple example, a verb might be marked for third person singular when its subject is singular and for third person plural when its subject is plural. English has a verb agreement marker for third person singular subjects, -s, but only in the present tense: *She sings.*

Cross-linguistically, the most common categories involved in agreement are person, number, gender (= noun class), which are inherent properties of NPs, and also the relational property, case. We will see that verb agreement may reflect a case system even where there's no actual case marking on the NPs themselves.

Logically, the options are for a verb to agree (a) with none of its arguments; (b) with some but not others; or (c) with all its arguments, and in fact all of these possibilities occur. First, then, there are languages with no verb agreement whatever, for example, Swedish, Japanese, Chinese, Maori and Madagascan. Example (27) illustrates this for Chinese:

(27) a. Wo xihuan ta  
   I like him.

b. Ta xihuan wo
   He likes me.

The verb has the same form, xihuan, no matter what the person and number of the subject pronoun. In fact, constituent order is the sole way of distinguishing the subject and object in these examples, since there's no case marking on the NPs either: the third person singular pronoun, for instance, is ta whether it's a subject or an object (see also Section 4.3.7).

Within the Indo-European family, it is common for the verb to agree only with the subject, as for example in Italian, French, Spanish, German, Dutch and English. Subject-only agreement also occurs in Turkish and other Al tinic languages, in Tamil and other Dravidian languages, and in Finnish and other Uralic languages. Examples (28) and (29) illustrate from French:

(28) Nous avons vu ce film.  (French)
   we have:1pl seen this film
   'We(A) have seen this film(O).'

(29) Nous avons décidé.
   we have:1pl decided
   'We(S) have decided.'

The auxiliary avons has a first person plural inflection to agree with the 1pl subject pronoun nous. The subjects of transitive verbs (A) and the subjects of intransitive verbs (S) are both marked on the verb in the same way, whilst the verb does not agree with the object, ce film, in any way in (28). We can therefore say that French has an ACCUSATIVE agreement pattern: A and S pattern together, as opposed to O. French does not have case marking on NPs, however: as in English, only pronouns display the relics of an earlier case system.

A second possibility, also common cross-linguistically, is that the verb agrees with more than one of its arguments. So in Japanese, the verb agrees with both the subject and object of the sentence. In Section 4.3.8, we will look at some of the languages that have such agreement patterns.
and the object: these markers are shown in bold type in (30). To help you see what agrees with what, I’ve indicated both the independent subject NP and the subject agreement marker with a subscript. I also indicate both the independent object NP and the object agreement marker with a subscript:

(30) [I Ama]_{su} na-kei ya_{oq} [na ri • muru]_{oq}. (Kambara)
the father 3sc:buy-3sc:Obj the vegetable green
‘Father buys the green vegetables.’

In Kambara, subject agreement is a prefix, and object agreement is a suffix. Example (30) has an overt subject and object, but if these are omitted the sentence is still perfectly grammatical, because the agreement markers fulfill the verb’s requirement for both a subject and an object. Such a sentence would then simply have the (less specific) meaning ‘He/she buys it’. As we saw in Chapter 4, head-marking languages (such as Kambara) often have sentences consisting of just the verb. In particular, overt pronouns aren’t required, since the person and number marking on the verb provides all the information about person and number: see example (2) above.

In some languages, constituent order affects which agreement markers occur. So, for example, in another Bantu language, Northern Sotho, the unmarked (= basic, usual) constituent order is SVO, as in (31) and (32):

(31) Mpsa e-lomile ngwana.
   dog Su-bit child
   ‘The dog bit a child.’

(32) Di-mps-a di-lomile ngwana.
    rl-dog Su-bit child
   ‘The dogs bit a child.’

In (31) and (32) there is only a subject marker, a verbal prefix (shown in bold). This prefix agrees with the noun class and number of ‘dog’. To be precise, the prefix e- is used for subject agreement with nouns from Class 9 (mostly animals), whilst the verbal prefix di- in (32) is a Class 10 agreement marker – in fact this is the plural of Class 9 (a di- prefix also occurs on the subject in (32), showing the noun as plural). In (33) and (34) we have two variations on (31): these examples have a marked constituent order, namely OSV in (33) and SOV in (34). And in these marked orders, we find both the subject marker and an object marker (the prefix mo-) which agrees with the noun class of ‘child’ (Class 1, for human beings):

(33) Ngwana mpsa e-mo-lomile.
    child dog Su-Obj-bit
   ‘As for the child, the dog bit him/her.’

(34) Mpsa ngwana e-mo-lomile.
    dog child Su-Obj-bit
   ‘As for the dog, it bit the child’.

First, consider (31) and (32): only one NP precedes the verb, so a Sotho speaker can assume that the order is the normal SVO order. The speaker can therefore tell that the first NP in the clause is the subject. Variations in this normal constituent order are used in Sotho to make a constituent the ‘topic of the sentence, with the topicalized NP appearing in initial position. The translations of (33) and (34) give effect of this topicalization with the formula As for the X. In these examples, there are two NPs before the verb, either one of which might potentially be the subject. But since there’s a subject marker e- which refers to ‘dog’ and an object marker mo- which refers to ‘child’, a Sotho speaker can sort out whose biting who; in this instance, the subject and the object are in different noun classes, so the sentence is unambiguous. Note that these subject and object agreement markers occur in a fixed order (in all languages, the order of elements within words is generally fixed), although either ordering of the independent object and subject NPs in (33) and (34) is grammatical.

If a language has object agreement, we can (with one or two exceptions) be sure that it will also have subject agreement: in other words, object agreement presupposes subject agreement. What about verbs which take more than two arguments, such as ditransitive verbs (see Chapter 4) like give or buy? In some languages, a verb agrees with more than two arguments, although this is not a common situation. In (35), again from Kambara, the verb meaning ‘buy’ has markers for all three of its arguments, although only the subject i Ama ‘father’ occurs as an independent NP too:

(35) I Ama na-kei nggna-nya.
     the father 3sc:give-1sc:directive-3sc:emotive
     ‘Father buys it for me.’

The verb in (35) has a nominative prefix, agreeing with the subject i Ama, ‘father’; a first person singular suffix -nggna representing the indirect object (‘me’); and a third person singular suffix -nya representing the direct object it! In the cases of (31) and (32), on the other hand, the verb is followed by a subject agreement marker – in this case, the prefix e- from Class 9, Agreeing with the ‘dog’.

So far in this section I’ve illustrated agreement in accusative systems: the verbs agree with their subjects, or both with their subjects and objects. I turn now to ergative systems. When verb agreement follows the ergative pattern, it marks S (intransitive subjects) and O (all objects) in the same way and A (transitive subjects) differently. EROATIVE AGREEMENT MARKING occurs in a number of Caucasian languages, and also in Mayan languages (Mexico and Central America). My examples are from the North-West Caucasian language Abaza: in (36) we have an intransitive verb, and in (37) a transitive verb. In all these examples, the data consist of simply a verb with

1 In (30) the direct object suffix is accusative, as we generally expect in a nominative/accusative system. However, in (35) we find dative marking not only for the indirect object (notice that the (tative) for a (beneficiary) such as ‘me’ in (35)) but also for the direct object. The reason for this is simply that Kambara

Before reading further, try to figure out why an object agreement marker is required in (33) and (34) but not in (31) or (32).

<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>
markers showing the person and number of the participant(s): I have indicated in bold the function of each element:

(36) a. d-thád.
   S-V
   3sg-go
   'He/she's gone.'

b. h-thád.
   S-V
   1pl-go
   'We've gone.'

(37) a. h-l-bád.
   O-A-V
   1pl-3sg-see
   'She saw us.'

b. h-y-bád.
   O-A-V
   1pl-3sgm-see
   'He saw us.'

c. d-h-bád.
   O-A-V
   3sg-1st-see
   'We saw him/her.'

All the person/number markers are prefixes on the verb in Abaza: note that they have a fixed order, S-V and O-A-V, so it is always clear who's doing what. The prefixes show the SO versus A pattern characteristic of ergativity. This means that throughout, any S and O markers which refer to the same person/number will have the same form. First, (36a) has a 3sg S prefix d-, giving a meaning equivalent to 'he' or 'she', and the same prefix occurs as the 3sg O prefix in (37c). Note that d- is only an SO form — the 3sg A prefixes in (37a) and (37b) occur in an entirely different form, and moreover they're differentiated according to gender (I- for the 3sg feminine, and y- for the 3sg masculine), which the SO form isn't.

Second, (36b) has a 1pl S prefix h-, giving a meaning equivalent to 'we', and the same prefix occurs as the 1pl O prefix in (37a) and (37b). (You may have noticed that h- also means first person plural ('we') in (37c), where it's an A. This might seem like an additional complication, but it's only hard for us, not for native speakers of Abaza: because the order of prefixes is fixed, it can be seen that this really is the A argument, the subject of the transitive verb, since it follows the O prefix.)

A language with an ergative agreement system may have ergative case marking too (for instance, the North-East Caucasian language Avar) but it is also possible to have ergative agreement on the verb but no case marking on NPs — in fact, Abaza (illustrated above) falls into this category. There are also languages with ergative case marking but a nominative/accusative system of verb agreement. The Australian languages Warlpiri and Murrinh-Patha (Kriol) are examples. In Warlpiri, the agreement markers are attached to the auxiliary verb in second position in (38) and (39):

(38) Ngajulu-rul ka-rina-rna-yu wangka-mi.
   (Warlpiri)
   LASS AUX:PREP-1SG:SU SPEAK-PRES 
   '(I) am speaking.'

(39) Ngajulu-rul ka-rina-ngku nyuntu nya-nya.
   L-ERG AUX:PREP-1SG:SU 2.OBJ YOU:PLS SEE-PRES 
   '(I) see you (O).'

Look first at the independent (freestanding) pronouns in (38) and (39), which are marked according to the ergative/absolutive system. The S argument ngajulu ('I') in (38) is absolute, as is the O argument nyuntu ('you') in (39), whilst the A argument ngajulu-rul ('I') in (39) is ergative. As expected in an ergative case system, then, the pronoun for 'I' has a different case according to whether it's the subject of an intransitive verb (S) or a transitive verb (A). But the verb agreement marks both instances of first person singular in the same way, with the suffix -rna designating any first person singular subject. So the suffixes reflect a grouping of all subjects as opposed to all objects, namely a nominative/accusative system. The Warlpiri system is not at all unusual, whereas there are no known languages with accusative case systems but ergative agreement systems. This is, then, another way in which the accusative system predominates cross-linguistically.

8.5 GRAMMATICAL RELATIONS

8.5.1 Introduction

In this section I examine the cross-linguistic properties of two major core grammatical relations, subject and object. To show that these concepts exist, we need to demonstrate that certain linguistic phenomena are best described in terms of subject or object. For languages in the nominative/accusative class, it's clear that 'subject' and 'object' are valid categories: in the last two sections we've seen a number of illustrations of both case and verb agreement operating in terms of a subject/object split. The examples seem so far show that certain languages are morphologically nominative/accusative. This means that the characteristic ASO split is indicated by changes in the morphology — the form — of the NPs (by case marking) or of the head verb (by agreement), or indeed by marking on both NPs and verbs. However, the ASO pattern is also pervasive in syntax: many languages, including some with no case marking and some with ergative case marking, are syntactically nominative/accusative. In such languages there are a number of syntactic processes which revolve around the subject and object relations — in fact, particularly the subject, since this grammatical relation is by far the most important. I will examine some of these processes in this section, and return to this topic in Chapter 7.

The subject relation is crucial cross-linguistically: subjects tend to control the center in a number of ways, so I will show. However, it is hard to give a satisfactory account of subjects in Warlpiri, because it is the only system in this language that is not ergative.
definition of 'subject', because no single property is shared by all subjects in all languages. Instead, there's a set of properties typical of subjects, and each language is likely to exhibit a subset of these properties. I begin by looking at some of the main cross-linguistic properties of subjects (Section 6.5.2), and then turn to the question of subjecthood in specific languages (Section 6.5.3).

### 6.5.2 Subjects: Typical cross-linguistic properties

i. **Subjects are normally used to express the agent of the action, if there is an agent.**

ii. **Subjects tend to appear first in the clause in unmarked (basic) constituent order. Recall that up to 90 per cent of languages are either SOV or SVO, therefore subject-initial. But since that leaves 10 per cent or more of the world's languages that are not subject-initial, we can't use this as a defining property.**

iii. **Subjects are understood as the missing argument in imperative constructions. An imperative is a command such as *Sit! Eat up your greens!* Both intransitive and transitive verbs have an understood (or in some languages, overt) second person subject pronoun ('you') in the imperative.**

iv. **Subjects control reflexive NPs, that is, 'self' forms such as the English *herself, themselves*, and also reciprocal NPs such as *each other.* So we get *My sister really admires herself, where the NP herself (feminine singular) refers back to the feminine singular subject, my sister, but we don't get *Herself really admires my sister.* Note that we can't simply say that the reflexive must refer to a preceding NP: the Madagascan language Malagasy has VOS order, so the subject does not precede the 'self' form, but the subject nonetheless determines the reference of the 'self' NP (that is, the subject determines which NP the 'self' form refers to).**

(40) a. Manaja tena Rabe, respect self Rabe
   'Rabe respects himself.'

b. *Manaja an-dRabe tena.
   respect acc-Rabe self
   'Himself respects Rabe.'

In (40b), *Rabe* is the object, as we can tell from its accusative case marker; only when *Rabe* is the subject is the reflexive sentence grammatical, as in (40a).

v. **Subjects often control the referential properties of an NP in another clause. For instance, when two clauses are conjoined, as in (41), the subject of the second clause can be omitted because it is coreferential with the subject of the first clause, *Chris:* I show the omitted NP with θ. But it's only the subject that can be omitted, (41a), not the object, (41b). Moreover, the NP that's omitted has to refer back to the subject of the first clause, *Chris,* and not the object, *Lee.* The subscripts *i* and *j* here have no meaning of their own, but are simply labels to show the pattern of which NPs co-refers (i.e., designate the same entity).**

(41) a. [Chris phoned Lee] and [θ; met him; later].
   b. *[Chris phoned Lee] and [he; met θ; later].

Second, in many languages verbs like *begin* and *want* take an infinitival complement clause, as in *Kim began to grate the carrots.* The 'understood' subject of the 'grate' clause is co-referential with the matrix clause subject. But only the subject in the infinitival clause—and not the object—can be the 'understood' NP:

(42) a. *Chris wants [θi to meet this famous film star].
   b. *Chris wants [this famous film star to meet θi].

vi. **Subjects are the most usual target for promotion from other positions. For instance the *passivization* construction promotes an NP from direct object position to subject position (see Chapter 7), turning *The students forgot me into* I was forgotten (by the students): the pronoun has the form *me* as an object, but *I* as a subject. Although not all languages have promotion processes, if a language has any promotion processes, then it will have ones that move some constituent into subject position.**

### 6.5.3 An examination of subjects in specific languages

I turn now to an examination of subjects in particular languages. In this section I look first at Icelandic (Section 6.5.3.1), which has nominative/accusative morphology and syntax, and so has a clear subject relation. I then turn in Section 6.5.3.2 to an ergative language, Lesgan, for which the notion of subject is more controversial. Finally, in Section 6.5.3.3, I examine Tagalog, which represents a language type different to both accusative and ergative.

#### 6.5.3.1 Icelandic

Icelandic is a standard accusative language—subjects are usually in the nominative case and objects in the accusative case:

(43) Fug sau stúlkuna.

*Nom saw the girl:-
   'I saw the girl.'

Verbs in Icelandic agree in person and number with the nominative subject:

(44) a. Við dónusúðum.
   *we.nom danced:1pl.
   'We danced.'

b. Peir dóu.
   *they:nom died:3pl.
   'They died.'

However, some verbs have subjects in cases other than nominative. In (45), we...

...
also accusative in (46));

(45) **Henni** leidist.
hetærve: bored

'She was bored.'

(46) **Hana** vanrar peninga.
hetærve: lacks money:acc

'She lacks money.'

Subjects with 'quirky' case don't trigger subject/verb agreement. In (47), the subject is a plural pronoun, 'them' (accusative), but we find the same form of the verb *vanjar* 'lacks', as in (46) where the subject is singular. Compare (44b), where the nominative *þær* 'they' results in a plural form of the verb:

(47) **Pá** vanjar peninga.
them:acc lacks money:acc

'They lack money.'

So if these 'quirky' subjects don't trigger verb agreement, on what grounds can we say they're subjects? There are, in fact, a number of diagnostics for subjects in Icelandic, and the NPs with quirky case pass all of these tests. First, subjects can undergo subject/verb inversion (see Section 3.2.2 on inversion in English). Example (48) shows that an ordinary nominative subject inverts with the finite verb, and in (49), we see that a dative subject also inverts. The subjects are in bold type:

(48) **Hafdi** Sigga aldré hjá þeim Haroldi?
had Sigganom never helped Harold:ACC

'Had Sigga never helped Harold?'

(49) **Hefur henni** allar þótt Olafur leðinlegur?
has herærve always thought Olafanom boring

'Has she always thought Olaf boring?'

Even though there's also a nominative NP *Ólafur* in (49), this couldn't be inverted with the verb *hefur* 'has'.

Second, when two clauses are conjoined, the subject of the second clause can be omitted when it's co-referential with the subject of the first clause, just as in English: see (v). in Section 6.5.2 above. Example (50) illustrates with ordinary nominative subjects:

(50) **Þær** fluttu liðið og (þær) grófu þeim.
they:ACC moved the corpse:ACC and they:ACC buried it

'They moved the corpse and they buried it.'

Turning next to a quirky subject, we see in (51) that the verb meaning 'like' takes a dative subject:

(51) **Mér** liðar vel við hana.
mediative likes well with her

'I like her.'

And it turns out that this dative subject can undergo this subject ellipsis (= omission) too; the dative subject pronoun *mér* can be omitted in the second clause in (52):

(52) **Ég sót stúlku og (mér) líkaði vel við hana.

I saw the girl:ACC and mediative:ACC liked well with her

'I saw the girl and (I) liked her.'

In fact not only can a quirky subject undergo ellipsis, as in (52), it can also be the NP which permits ellipsis of another subject. This, then, is the third test for subjecthood. Example (53) has a dative subject in the first clause, and the nominative subject *þær* can undergo ellipsis in the second clause:

(53) **Peim** liðar maturinn og (þær) bórða mikil.

thematic likes the food:ACC and they:ACC eats much

'They like the food (and) they eat a lot.'

Note that even though there is a nominative NP in the first clause, this is not the subject, and a missing subject can't refer back to it: the sentence couldn't mean, even jokingly, that the food eats a lot.

In sum, then, these (and other) tests for subjecthood in Icelandic show that subject NPs with quirky case really are subjects, despite the fact that they fail to trigger subject/verb agreement.

### 6.5.3.2 Lezgian

In Section 6.5.1, I noted that morphologically ergative languages (i.e. those with ergative case and/or agreement) may be syntactically accusative. This means that syntactic constructions such as subject ellipsis utilize a grouping of the S and A arguments, as opposed to the O argument. In fact, it is quite usual for morphologically ergative languages to be syntactically accusative. We will see more on this in Chapter 7.

As we saw in Section 6.3.3, Lezgian is morphologically ergative: the case marking on NPs contrasts absolutive (on S and O noun phrases) with ergative (on A noun phrases, the subjects of transitive verbs). It will help to review the discussion of (18) through (20) before reading further.

Evidence of syntactic accusativity in Lezgian comes from the fact that it has a subject grammatical relation (Haspelmath 1993). Let's look first at some basic data. The 'subject' consists of three NP types. The first two types are the A and S arguments, i.e. the two NPs that would constitute the 'subject' relation in an accusative language. To illustrate these two, we have the ergative argument (A) of a transitive verb, as in (54), and the absolutive argument (S) of an intransitive verb, as in (55). The NPs in bold type in (54) to (56) are the putative subjects.

(54) **Rus-a** gadad-z cik g-ka.
girl:ERG Boy-NOM flowers:ACC give-PAST

'The girl gave a flower to the boy.'

(55) **Rus** elqwna q'ulaqdi kilig-ka.
girl:ACC turn backward look-PAST

'The girl turned around and looked back.'

(56) **Rus-a** gadad-z cik g-ka.
girl:ERG Boy-NOM flowers:ACC give-PAST

'The girl gave a flower to the boy.'
The third potential 'subject' is the experiencer argument of verbs with meanings such as 'want', 'see' and 'be afraid', which in Lezgian take theATIVE case, as in (56); cross-linguistically, this use ofATIVE case for the semantic role of experiencer is quite common.

(56) Ruş-y kî če xa-na-č.

girl-ATIVE he-of afraid be-PAST-IMPF
'The girl wasn't afraid of him.'

Note that all three putative subject NPs have different cases, so we certainly can't identify 'subjects' by their morphological case in Lezgian. Furthermore, although the NP in bold in (55) is absolute, not all absolute NPs are subjects, of course: the O noun phrase čak 'flower' in (54) isn't. Similarly, not allATIVE NPs are subjects: gadadiz 'boy' in (54) isn't the subject –ATIVE case here identifies the indirect object (see Section 6.5.4). If there is a 'subject' grammatical relation in Lezgian, then, it cuts across the morphological case marking.

So why would anyone think that Lezgian has a 'subject' relation? Constituent order provides some indication that all three NP types in bold in (54) through (56) pattern together: all have the same clause-initial position, which, as we know from Section 6.2, is the most common position for subjects cross-linguistically. But position alone won't uniquely identify subjects in Lezgian, because the constituent order is actually very free, so other NP types can be initial in the clause.

However, we can test for subjects using a construction parallel to that in (42) in Section 6.5.2.1 – please look back to check on this – in which an embedded infinitival clause has an understood subject that refers back to the matrix clause subject. Look first at the English translations in (57) through (59) to get the idea of the construction, which is very similar in the two languages: the infinitival clause is the complement of a finite verb 'wants' in the matrix clause. The main difference is that in Lezgian, the infinitival clause (shown in square brackets) precedes the finite verb k'an-za-wa 'wants', whilst in English the embedded clause follows wants. Crucially, the understood subject in Lezgian (marked with θ) can only be one of the three NP types tentatively identified above as forming a 'subject' category: either an ergative subject (an A), an absolute subject (an S) or aATIVE subject.

(57) Nabisata-zi [ŋCADg 0i] ktab k'el-[iθ] k'an-za-wa.

Nabisat-ATIVE (Subject) book read-INFN want-IMPF

Nabisat wants to read a book.

(58) Nabisata-zi [ŋCADg 0i] qit-ir-[iθ] k'an-za-wa.

Nabisat-ATIVE (Subject) laugh-INFN want-IMPF

Nabisat wants to laugh.

(59) Nabisata-zi [ŋCAMg 0i] xwa akw-ir-[iθ] k'an-za-wa.

Nabisat-ATIVE (Subject) son see-INFN want-IMPF

Nabisat wants to see her son.

We know what case the understood subject would have in each example by looking at what happens in ordinary finite clauses with overt (= pronounced) subjects: the verb for 'read' takes an ergative subject, the verb for 'laugh' an absolute subject, and the verb for 'see' aATIVE subject. Compare (60): here, the understood NP is again absolute, but (60) is ungrammatical because this absolute NP is an O, an absolute object (Musa is the one being sent) rather than an S, an absolute subject as in (58).

(60) *Musa-zi [ŋNAMs 0i] sheri-ri [ŋNAMs 0i] raq-ir-[iθ] k'an-za-wa.

Musa-ATIVE motherING (Abs.Object) town-ATIVE send-INFN want-IMPF

('Musa wants to be sent to town by his mother.')

In sum, the Lezgian data shows that even a morphologically ergative language may display syntactic accusativity, and indeed there does seem to be evidence for a subject relation in Lezgian.

6.5.3.3 Tagalog

In this section we will examine a language which resists clear classification into either the accusative or the ergative type, and seems in fact to have a totally different marking system for NPs. In Tagalog and other languages of the Philippines, NPs are not case-marked, but they are preceded by a marker (which we can consider as a preposition) that indicates their semantic role (see Section 2.2.2.2). The preposition ng marks both agent and theme; sa/mula sa marks locative, i.e. indicating location, and glossed as 'from' in (61); and para sa marks beneficiary, glossed as 'for' in (61). However, in every sentence one of the NP participants must be chosen to be the topic of the clause, and it is marked as such by a special preposition, ang, which replaces the marker it would have otherwise. The topic is shown in bold in each example. (Note that the topic is always understood to be definite, whilst the other NPs can be understood as definite or indefinite.) Furthermore, the verb itself has an affix that marks the semantic role of the NP chosen as topic. I've indicated this beneath the gloss for the verb in each example. This marking is clearly a kind of verb agreement, but it is different from either the accusative system or the ergative system in that it does not operate in terms of the grammatical relation of the NP arguments. In examples like (61), any one of the NP participants can be marked as the topic – and whichever semantic role the topic has will be indicated on the verb, resulting in a verb marked to agree with one of the properties 'agent', 'theme', 'locative' or 'beneficiary':

(61) a. Kukuhan ang babae ng bigas sa sako para sa bata.

put:take.out TOPIC woman THEME rice from sack for child

'The woman will take some rice out of a sack for the child.'

b. Kukunin ng babae ang bigas sa sako para sa bata.

put:take.out AGENT woman THEME rice from sack for child

'The woman will take some rice out of a sack for the child.'
It's clear, then, that Tagalog isn't morphologically marked in accordance with either the accusative system or the ergative system, either by case marking or by verbal agreement. However, as we have already noted, a language may nonetheless be syntactically accusative despite not being morphologically accusative. Does Tagalog fit this pattern? Looking at the syntactic behaviour of NPs, there are some processes that operate in terms of topics, irrespective of their semantic and syntactic role. But there are also other processes that operate in terms of a grouping of the A and S noun phrases, whether or not they are topics: this is a syntactically accusative pattern.

Let's look first at a process that targets topics: the 'all' construction. In (62a) we see that latat, 'all', is understood as modifying whichever NP is the topic. In (62a) the topic is the agent, so latat must modify the A noun phrase, meaning 'the agent'. But in (62b) we have a theme topic, referring to the 'thing written', so latat must modify the O noun phrase, meaning 'the letters'. Note that latat is not even adjacent to this latter phrase, ang mga liham, in (62b):

(62) a. Susulat latat ang mga bata ng mga liham.
  write all child theme letter
  'All the children will write letters.'

b. Susulatin latat ng mga bata ang mga liham.
  write all agent child theme letter
  'Some children will write all the letters.'
  not 'All the children will write letters.'

Since linguists don't normally consider a grouping of A and O to form any grammatical relation, the 'all' construction favours a view of Tagalog as not having subjects.

Now consider a syntactic process in Tagalog that targets S and A noun phrases – the classic 'subject' pairing – and not topics. My examples are complement clauses with an understood subject. You will find it helpful to look again at the discussion of similar examples given earlier on before reading further: see (42) from English and (57) through (59) from Lezgian. In the 'Tagalog construction, the 'missing' subject is always an S or an A, whether or not it's a topic. In the examples in (63), the topic of each example is also the subject (the topic in (63a), the accusative in (63b))

(63) a. Nagamatik siya ng [humiran ng pera sa banko].
  hesitate person money bank
  'He hesitated to borrow money from the bank.'

b. Nagamatik siya ng [hiramin ang pera sa banko].
  hesitate person money bank
  'He hesitated to borrow the money from the bank.'

Remember that these 'borrow' clauses are embedded clauses with an understood subject. In both embedded clauses in (63a) and (63b), this understood subject is the agent (meaning 'he'), an A noun phrase. In (63a), the missing agent NP in the 'borrow' clause happens also to be the NP chosen as the topic, as we can tell from the form of the verb, which, as you'll recall, is marked for the semantic role of the topic. In (63a), then, there isn't an overt ang-NP – an overt topic – because this topic is the understood NP. But in (63b), the topic of the embedded clause is the theme (thing borrowed), namely ang pera 'the money', yet the understood subject of that clause is still the A noun phrase ('he'). So topics are clearly not the targets for the ellipsis (the omitted part) in this construction. In fact, this process of NP ellipsis suggests that Tagalog is syntactically accusative, at least in this one construction. The reason for thinking this is that the understood subject can be either an S or an A argument (i.e. any type of 'subject'), but not an O argument. Any process that treats S and A noun phrases together – and O arguments differently – suggests that the language operates at least part of its syntax in terms of a nominative/accusative alignment. Tagalog may indeed, then, have a subject grammatical relation consisting of S and A.

6.5.4 Objects

The other major grammatical relation is that of object, the complement of a two-argument verb. There is plenty of morphological evidence for the existence of an object relation in languages with nominative/accusative morphology, since the O argument is designated by a special case (accusative) and/or verbal agreement. This chapter contains examples of case-marked O from languages as genetically diverse as Latin (1), Turkish (4) and Dyirbal (25). (Recall from Section 6.3.4 that Dyirbal is largely ergative, but its first/second person pronouns have an accusative case system.) Verb agreement with the O argument is shown in several examples: see (30) from Kambera and (39) from Warjiri.

Syntactic evidence for the O relation is more limited than for subjects, but in many languages only an O can be passivized (see Chapter 1 and also Chapter 7 for a demonstration of this). Recall that in Icelandic, we see certain constructions in which a noun phrase doesn't receive the expected case-marking, but instead gets a 'quirky' case: examples of subject NPs with quirky case were given in Section 6.5.3.1. Icelandic is the only language in this NP with which the Quirkiness phenomenon is attested. In Tagalog:
in terms of typical object behaviour. It turns out that not only do ordinary accusative
0 arguments undergo passivization, but so too do 0 arguments with quirky case. An
example of a quirky object is the NP mér in (64): this is not accusative, as objects
typically are in Icelandic, but rather it is dative:

(64) Deir hjólpdu mér.

( Icelandic)

they: nom helped me

'They helped me.'

Like other objects, however, this 0 can be promoted to subject position, giving (65).
Note, though, that the dative case remains on this NP—it doesn't become nominative—
though its position is the standard clause-initial position of the subject:

(65) Mér var hjólpð.

mecative was helped

'I was helped.'

Verbs such as 'give', 'send' and 'show', which take three arguments (X gave Y to Z),
can in some languages be said to distinguish a direct object from an indirect object. In
accusative languages with extensive case systems, the direct object bears accusative
case, whilst what is traditionally termed the indirect object bears nominative case, as in
Turkish, German, Greek and Latin. The indirect object is typically the 'recipient' or
gal NP such as mir in (66):

(66) Mein Freund gab mir sein Fahrrad.

my: gen friend gave me his bicycle

'My friend gave me his bicycle.'

The dative is also used for the same purpose in many ergative languages: see (54) from
Luganda. Cross-linguistically, then, the central use of the dative case is to designate the
NP that's the recipient or the beneficiary or the goal of a three-argument verb.

But this type of NP does not always get a special case. For instance, although in
Ancient Greek most three-argument verbs have an accusative direct object and a dative
indirect object, the verb for 'teach' is exceptional in that both of its complements ('the
boy' and 'the music') have accusative case:

(67) Edidaxan [ton paida] [tên mousikên].

(Ancient Greek)

taught: 1pl the: acc boy: acc the: acc music: acc

'They taught the boy music.'

In fact, in English and many other languages there is little justification for distin-
guishing an 'indirect object' from any other object. Very often, the recipient NP looks
just like a direct object — in what is known as the double-object construction, the recipi-
ent immediately follows the verb and has the same case marking as any object, as in,
Kim lent me the book. Alternatively, the recipient appears in an ordinary PP headed by
'to' or 'for', as in Kim made a cake for me. In other words, there's neither a special case
nor any special syntactic behaviour associated with the NP that traditional grammar
calls the indirect object.

In Section 6.4 we saw that a ditransitive verb such as 'give' may agree with all three
of its argument NPs—see (35) from Kambera. However, a more common situation is
that only two arguments of a three-argument verb are actually marked on the verb.
One is always the subject, but languages differ in terms of which other NP the verb
agrees with; it can be either the NP with the semantic role of theme (such as 'thing
given'), or else the recipient. Commonly, and perhaps surprisingly for speakers of
European languages, the verb agrees with the recipient NP rather than the 'thing given'
as we might expect. Example (68) illustrates from Wardiri, which, as we saw in (38)
and (39) in Section 6.4, has ergative case marking but accusative verb agreement:

(68) Ngaju-ku ka-npa-ju karli yi-nji nyuntu-tlu.

me-necative pres-2sg: su-1sg:obj boomerang give-nompast you-erg

'you are giving me a boomerang.'

There are two agreement suffixes in (68). The first, -npa, marks the subject ('you').
There is no agreement marker for karli, 'boomerang', on the verb at all, but the second
suffix is a 1sg marker for the recipient, the dative NP ngaju,ku, meaning 'me'. What's
more, the 1sg agreement suffix -ju is the same suffix that is used to mark the first
person singular 0 argument of an ordinary transitive verb (as in 'you saw me'). It
appears, then, that in some languages the recipient functions as a kind of object.

6.6 SUMMARY

This chapter has examined three different ways in which languages represent the
relationships between core NPs and the verbal predicate on which they are dependent:
case marking, case marking and verb agreement. All languages use at least one
of these methods, and often more than one. Case marking order may be very free or
very fixed. In languages with free constituent order (or word order), it is more likely
that there will be some system of either dependent-marking (case) or head-marking
agreement) in order to identify the grammatical relation of each core NP partic-
ipation. The two main case systems are the accusative and the ergative systems. Some
languages, such as Chinese, have neither case nor agreement. But even in languages
without morphological case, the need to recognize grammatical relations is evident in
the syntax. Syntactic constructions generally follow either an ergative or an accusative
pattern, the accusative being by far the most common.

FURTHER READING

A good place to start on the topics of constituent order, case and agreement would be
Whaley (1997: ch. 5, 6 and 9), moving on to Conrie (1989: ch. 4 and ch. 6). The seminal
work on constituent order and word order is Greenberg (1966). More recent proposals
can be found in Hawkins (1993) and in Tomka (1995); see also the large body of work
...
by Matthew Dryer, for instance, Dryer (1991). Case and grammatical relations are the subjects of textbooks by Blake (1994) and Palmer (1994), both of which I recommend.

Exercises

1. Examine the data in (1) through (3) below (all taken from Stucky 1983). These are simple sentences from the Bantu language Makua, spoken in Tanzania, and they show that the order of phrases is very free in this language. (Makua marks both subject and object with agreement prefixes on the verb. The applicative suffix on the verb is an 'applicative' marker; it's this that gives the sense of preparing porridge for someone, rather than an actual preposition meaning for, which marks the recipient in the English. This construction is discussed further in Chapter 7.)

1. Aaraarima aho-n-ruw-el-a mwaana isima.
   Aaraarima Su-Obj-prep-APPLIC-PAST child porridge
   'Aaraarima prepared porridge for a child.'

2. Isima Aaraarima aho-n-ruw-el-a mwaana.
   porridge Aaraarima Su-Obj-prep-APPLIC-PAST child
   'Aaraarima prepared porridge for a child.'

3. Aho-n-ruw-el-a Aaraarima mwaana isima.
   Su-Obj-prep-APPLIC-PAST Aaraarima child porridge
   'Aaraarima prepared porridge for a child.'

Each sentence contains four phrases—subject, a verb, a direct object and an indirect object—but they appear in a different order. In fact, any of the 24 possible orders of the four phrases can be used, given the right context.

Now consider complex sentences: given a subject, a verb and an embedded clause, there are six logically possible orders of these three phrases. However, only three out of the potential six orders are grammatical. The orders actually found in Makua are:

- Subject–Verb–embedded clause (4);
- Verb–embedded clause–Subject (5);
- and in addition, Verb–Subject–embedded clause (I haven't illustrated this, but you should be able to reconstruct it).

4. Aaaarimaa aheeven-a [wiira n'tu aho-thek-3k iluwa].
   Aaaarimaa Su-object-3PAST that fence built
   'Aaraarima has heard that someone built a fence.'

Your task is to work out what the three unattested (= non-occurring) phrase orders are and state the generalization about possible phrase orders in Makua. In order to do this, you'll need to look at what the three attested orders and then the three unattested orders have in common.

2. Examine the data below (slightly adapted from Van Valin 1985) from the Native American language Lakota (a Siouan language of South Dakota, Montana, and Manitoba) and answer questions (i) through (iv).

(1) wičáha ka mathó wq o-a-kté
   man the bear a 3sc:Obj-3sc:Su-kill
   'The man killed a bear.'

(2) mathó wq wičáha ki o-a-kté
   bear a man the 3sc:Obj-3sc:Su-kill
   'A bear killed the man.'

(3) wičáha ka mathó ota wičáha-a-kté
   man the many 3sc: Obj-3sc:Su-kill
   'The man killed many bears.'

i. Which argument(s) of the verb, if any, does the verb agree with?

ii. How is agreement (or cross-referencing) indicated in Lakota?

iii. Using the data in (1) through (3) as comparison, try to figure out why (4) and (5) are grammatical, but (6) is ungrammatical. The notation &gt; indicates that the Lakota form is not a possible way of translating the English sentence given.

(4) wičáha ka ix'té ota o-yake
   man the rock many 3sc:Su-see
   'The man saw many rocks.'

(5) wičáha ka mathó ota wičáha-a-yake
   man the bear many 3sc:Obj-3sc:Su-see
   'The man saw many bears.'

(6) wičáha ka ix'té ota wičáha-a-yake
   man the rock many 3sc:Obj-3sc:Su-see
   'The man saw many rocks.'
(7) *ix?e kí hená hokšila wá ø-pi-phá
rock the those boy a 3sg:Osg-3pl:Su-hit
(≠ 'Those rocks hit a boy')

3. A CAUSATIVE construction is one in which an event has been caused to come about by some external agent; in English, (ii) and (iii) but not (i) are causative. (The causative construction is discussed in detail in Chapter 7, but you do not need to read this first in order to work out this exercise.)

i. The students were confused.

ii. The lecturers caused the students to get confused.

iii. The lecturers deliberately confused the students.

Study the data in (1) through (10) (from Klamer 1994) and then say exactly how the causative construction is formed in the Malayo-Polynesian language Kambera. Note that one crucial affix in the Kambera is left unidentified and unglossed.

(1) Na pakambu-ta weling la ãi.
he fall-1pl:Osg move from tree
'He made us fall from the tree.'

(2) Da rara hänmu da pân.
they be.red be.good there mango
'The mangoes are nice and ripe.'

(3) Na lui du...
it melt EMPHASIS
'It should dissolve . . . '

(4) Na pâliyi-ya na lîlîng.
he melt-3sg:Osg these:sg candle
'He melts the candle.'

(5) Da pâkatuda-ya na anakêda.
they sleep-3sg:Osg these:sg child
'They put the child to sleep.'

(6) Nâpâ jàkâ u kâbeli...
later if you return
'Later, if you (sg) return . . . '

(7) Parârâ-yâ na pân.
be.red-3sg:Osg these:sg mango
'Let the mango ripen.'

(8) Da kawàra katuda.
they both sleep
'The both slept.'

(9) Ta pakabeli-ha da tentara.
we return-3pl:Osg there:pl soldier
'We get the soldiers to return.'

(10) Ambu ta kanabu.
we fall
'Let's fall.'

4. Examine the data in (1) through (3) below (from Blake 1977) and determine what case system is found in the Australian language Yalarunna: either nominative/accusative or ergative/absolutive. Make clear what the evidence is for your conclusion. I have indicated the different case markers on the NPs in the gloss by marking one case with X and the other with Y.

(1) nga wakamu
1X fell
'I fell.'

(2) nga-tu kupi-ø wakamu
1-Y fish-X killed
'I killed a fish.'

(3) kupi-ngku nga tacamu
fish-Y 1X bit
'A fish bit me.'

5. Examine the data from Swahili in (1) through (4) below (from Dixon 1994) and determine first whether verbal agreement in this language represents a nominative/accusative system or an ergative/absolutive system. Make clear what the evidence is for your conclusion.

Hint
Remember that the same form may sometimes be used for marking a particular person/number combination in more than one case, as in the Abaza data in (36) and (37) in the text of Chapter 6.

(1) tu-li-anguka
1pl- past-fall
'We fell down.'

(2) m-li-anguka
2pl-past-fall
'You all fell down.'

(3) m-li-tu-ona
2pl-past-1pl-see
'You all saw us.'
(4) tu-li-wa-ona
1PE-PAST-2PL-see
'We saw you all.'

Second, describe the position of the agreement affixes in Swahili as concisely and
accurately as you can.

6. Examine the data in (1) through (4) below (from Anderson 1976) and determine
what case system is found in Tongan, either nominative/accusative or ergative/
absolutive. Make clear what the evidence is for your conclusion. Finally, describe
exactly how case is represented in Tongan. I have indicated the different case
markers on the NPs in the gloss by marking one case with X and the other with Y.

(1) na'e lea 'a etalavou
PAST speak X young.man
'The young man spoke.'

(2) na'e alu 'a tevita ki fisi
PAST go X David to Fiji
'David went to Fiji.'

(3) na'e tama'ti 'a kola'ate 'e tevita
PAST kill X Goliath Y David
'David killed Goliath.'

(4) na'e ma'u 'e siale 'a e mea'ofa
PAST receive Y Charlie X the gift
'Charlie received the gift.'

7. For this exercise it will help to revise Sections 6.5.2 and 6.5.3, on subjects. Recall
from this section that in Icelandic, the subjects of some verbs take what is known
as 'quirky' case. Now examine the Icelandic data in (1) through (3): the data and
arguments on which this exercise is based are from Sigurðsson (1991). You will
see that the quantifiers in bold type meaning 'all' (so called because it quantifies the
number of boys) agree in case with the subject of the clause, as well as in number
(plural, here) and gender (masculine, here):

(1) Strákarnir komaust allir í skóla.
the.boys:MOM got all:MOM:PLM to school
'The boys all managed to get to school.'

(2) Strákana vantaði alla.
the.boys:ACC lacked all:ACC:PLM
'The boys were all absent.'

(3) Strákannum leiddist öllum.
the.boys:ACC-MF bored all:ACC:PLM
'The boys were all bored.'

Next, examine the data in (4) through (6). These examples are parallel to the
construction from Leggian discussed in Section 6.5.3, and it will help you to revise
this particular section. How can we account for the case-marking (as well as the
number and gender marking) found on the quantifier meaning 'all' in each of the
examples in (4) through (6)? What does the quantifier agree with?

(4) Strákarnir vonast til [að komast allir í skóla.]
the.boys:MOM hope for to get all: NOM:PLM to school
'The boys hope to all get to school.'

(5) Strákarnir vonast til [að vanta ekki alla í skólaann.]
the.boys:MOM hope for to lack not all:ACC:PLM to the.school
'The boys hope to not all be absent from school.'

(6) Strákarnir vonast til [að leiddast ekki öllum í skóla.]
the.boys:MOM hope for to bore not all:ACC:PLM to school
'The boys hope to not all be bored in school.'