Processes that change grammatical relations

Chapter 6 examined the two major systems used in languages to distinguish grammatical relations, the nominative/accusative system and the ergative/absolutive system. It also examined the ways in which the grammatical relations may be represented cross-linguistically: constituent order, case marking and verb agreement. This chapter shows that grammatical relations between a verb and its arguments are not static: most languages have ways of changing the grammatical relations via processes of promotion and demotion of NPs. Section 7.1 examines the best-known of these processes - the passive construction. Section 7.2 looks at a counterpart found in ergative systems, which is known as the antipassive. Sections 7.3 and 7.4 introduce another two processes which also change grammatical relations, the applicative and the causative constructions.

7.1 PASSIVES

7.1.1 The passive construction and transitive verbs

Consider the pairs of sentences in (1) through (3):

(1) a. Kim took some great photos with that old camera.
    b. Some great photos were taken (by Kim) with that old camera.

(2) a. We stole that Ming vase yesterday.
    b. That Ming vase was stolen (by us) yesterday.

(3) a. Three cups of tea have revived the nurse.
    b. The nurse has been revived (by three cups of tea).

In each example, the (a) sentences are said to be active and the (b) sentences passive.

Before reading further, examine each pair of sentences in (1) to (3), and list as many syntactic differences as you can between the active sentences and the passive sentences. Use the correct grammatical terminology to the best of your ability.

The active (a) sentences all have a transitive verb - a verb that has a subject and a direct object. By contrast, the passive (b) sentences all have only a subject, and no object: they have become intransitive. The NP that was the original subject in the active sentences (Kim, we, three cups of tea) has been demoted in the passive: it is no longer a subject, but instead appears inside a PP headed with by. In fact, the original subject of the active sentence doesn’t necessarily appear in the passive sentence at all: we can also say simply Some great photos were taken with that old camera, That Ming vase was stolen yesterday and The nurse has been revived. The NP that was the original object in the active (a) sentences has been promoted in each (b) sentence, becoming the subject of the passive sentence. Finally, the verbs in the passive sentences differ in form from the verbs in the active sentences. The passives all contain the past participle form of the verb: taken, stolen, revived; and they all contain a form of be as an auxiliary (in bold): were taken, was stolen, has been revived.

The passive in English can therefore be recognized by the following signs:

- Subject of the active sentence > demoted to a by-phrase or deleted.
- Object of the active sentence > promoted to subject of the passive.
- Passive contains auxiliary be + past participle of the main verb.

How do we know for sure that the NPs some great photos, that Ming vase and the nurse really are the subjects of the passive sentences? After all, each of these NPs has the semantic role of theme (or patient) – what has been taken, what has been stolen, the person being revived – and this is more usually the role associated with objects. We can tell that these NPs in the (b) sentences are nonetheless subjects because they trigger subject/verb agreement, which, as we saw in Section 2.2.2.2, is one of the diagnostic properties for subjects in English. In (1b) the subject some great photos is plural, so we get were taken, whilst in (2b) the subject that Ming vase is singular, so we get was stolen. The other test for subjecthood in English discussed in Chapter 2 was pronominal case: first and third person pronouns have a special form (nominative case) when they are subjects: I, we, he, she, they. The subject of the active sentence in (2a) is we, but in the passive, (2b), us does not have nominative case, so is no longer a subject. And the subject of (3b), the nurse, could be replaced by the nominative pronoun he or she, so confirming that this is a subject position.

Although not all languages have a passive construction, it is extremely common in a wide variety of languages. Basic passive constructions in all languages are formed from transitive verbs. There are two hallmarks of the passive, the core arguments of a transitive verb - its subject and object - both undergo changes in their grammatical relations. Specifically, the object of the active sentence is promoted to be the subject of the passive sentence, whilst the subject of the active sentence is either removed altogether in the passive (as in Some great photos were taken with that old camera) or else is simply demoted. 'Demotion' here means that the NP is still present, but is no longer one of the core arguments of a transitive verb (subject/object). Instead, the former subject becomes an oblique argument - for instance, it appears inside a PP such as the by-phrase in English; oblique arguments are never subjects or objects, but instead may take a variety of positions in a sentence. Second, the verb simple does not change in form from the passive to the active: whereas we have The nurse has been revived, we do not have The nurse revived (The nurse is not the subject of the active).
these changes in the grammatical functions of its core arguments by changes in its own form, such as took becoming were taken in the earlier examples. To summarize, the prototypical passive construction has the following properties cross-linguistically.

The passive construction

- Applies to a transitive clause (the active clause) and forms an intransitive clause.
- Object promoted > subject.
- Former subject demoted > oblique argument, or is deleted.
- Changes occur in the morphology (= form) of the verb to signal passivization.

In English, as in numerous other European languages, there is no specifically passive form of the verb; the two distinguishing features of the passive construction, namely auxiliary be and the past participle verb form, both occur separately in different constructions.

Where does auxiliary be occur in English apart from in passives? Where does the past participle of the verb occur in English apart from in passives? Name the most typical construction in each case.

Auxiliary be occurs in progressive -ing constructions, as in I was singing, We're going, and the past participle occurs (with auxiliary have) in the perfect aspect, as in She has taken the old woman to the shops; We've stolen them; see Section 3.1 if you need reminding of the details. So neither auxiliary be nor the past participle alone indicate a passive construction in English; only when they occur together do we have a passive.

(If you answered that be occurs in copula constructions such as Lee is happy, recall that is here functions as a main verb, not as an auxiliary, since it's the only verb in the clause.)

Examples (4) and (5) illustrate languages which, like English, have an auxiliary-plus-main verb kind of passive. As before, the (a) sentences are active, the (b) ones passive, and the auxiliary verbs are in bold.

(4) a. Der Frost verdarb den Apfel. (German)
   the:frost spoiled the:NOM apple.
   'The frost spoilt the apple.'

b. Der Apfel wurde vom Frost verdorben.
   the:NOM apple was by:the:MANIFEST:PARTICIPLE frost:PASSIVE-PARTICIPLE
   'The apple was spoilt by the frost.'

(5) a. Eglur-odd y daroth-wdd y seffylla.
    explain-past the:lector:ACC the situation
    'The situation was explained by the lecturer.'

b. Cafodd y seffylla ei egluro (gan y daroth-wdd).
    get:PASSIVE the situaton its explain-NOM:by the lecturer
    'The situation was explained (by the lecturer).'

(Literally, 'The situation got its explaining by the lecturer'.)

As (4b) shows, some other languages also use the past participle form of the verb in the passive construction, but this is by no means universal. Welsh, for instance, doesn't have a past participle, and the main verb just has one non-finite form, which is used in active sentences as well as in passives such as (5b). According to Keenan (1985a), the most common auxiliaries occurring in passive constructions are verbs like be', become', get' and 'receive', as illustrated in (4) and (5). In fact, English also has a commonly used get passive, as in My bike got stolen.

In the German examples, we can tell that the former object of the active clause becomes the subject of the passive clause by the change in its case-marking: den Apfel in (4a) is accusative, the case of direct objects in German, whilst der Apfel in (4b) is nominative, the case of subjects.

Instead of the auxiliary-plus-verb kind of passive, many languages have a specifically passive form of the main verb; this is known as a MORPHOLOGICAL PASSIVE. Each language illustrated in (6) through (8) has a special passive marker on the verb, shown in bold in each (b) example; this affix is the only change in the verb form that indicates the passive. As before, all the (a) sentences are active, and the (b) sentences passive.  

(6) a. Si Juan ha dulilak si Jose.
    'Juan has followed Jose.'

b. D-in-lilak si Jose as Juan.
    PASSIVE-FOLLOW PN Jose by Juan
    'Jose was followed by Juan.'

(7) a. Neko-ga sakana-o tabeta.
    cat-NOM fish-ACC eat:PASSIVE
    'The cat ate the fish.'

b. Sakana-ga neko-ni tabe-rare-ta.
    fish-NOM cat-DATIVE eat-PASSIVE-PAST
    'The fish was eaten by the cat.'

(8) a. E kamata-a te naeta te moa.
    it kill:PASSIVE the snake the chicken
    'The chicken killed the snake.'

b. E kamata-aki te naeta (irou te moa).
    it kill-PASSIVE:PARTICIPLE the snake by the chicken
    'The snake was killed (by the chicken).'

1 The abbreviation PN in (6) is for 'proper noun marker', that is, it marks names in Chamorro. Note also that the person and number adposition on the verb in (4b) is inserted into the stem of the verb itself.
Note also here that in Japanese, a language with nominative/accusative case-marking, we can again see the changes in case that result from the promotion of the object to the subject position, and the demotion of the erstwhile subject. In the passive in (7b), the 'flat' NP has become nominative, the case of subjects in Japanese, and the 'cat' NP has been demoted from subject position to an oblique position, marked by dative case.

In fact, passive constructions occur most typically in languages which, like German or Japanese, are syntactically and morphologically accusative. Recall from Chapter 6 that this means languages which have a definite subject grammatical relation, and which generally also have case marking and/or verbal agreement which patterns according to the nominative/accusative divisions. You should also recall that accusative systems treat all subjects the same way (A plus S noun phrases), and treat objects differently (O noun phrases).

But what about the passive in ergative/absolutive languages, which group S and O arguments (the absolute NPs) in opposition to A arguments (the ergative NPs)? It will help at this point to revisit the discussion in Chapter 6 concerning the different ways in which NPs group together in each system. Table 7.1 should help to refresh your memory.

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9a. angut-ιp arnaq-θe taku-vaa
   man-erg woman-abs see-3sg:3sg
   'The man(A) saw the woman(O):'

9b. arnaq-θ (angut-mit) taku-tau-puq
   woman-abs man-by see-passive-3sg
   'The woman(S) was seen (by the man):'

10a. S-mil-ox-θ Xun li Petul-e
    3sg:erg kill-passive-3sg:3sg
    John the Peter-def
    'John(A) killed John(O):'

10b. Mil-bil-θ ju?un Petul li Xun-e
    kill-passive-3sg:3sg
    by Peter the John-def
    'John(S) was killed by Peter.'

In (9a), the ergative/absolutive system is indicated in the active sentence via case marking on the NPs, the A argument being ergative, and the O argument absolutive: in other words, standard ergative case marking, given a transitive verb. The verb in (9a) also agrees with both its core arguments (both are third person singular). In the passive, (9b), the former ergative NP meaning 'man is demoted, and appears in an optional 'by'-phrase. Moreover, the verb is now intransitive, so agrees only with its remaining core argument, the 'woman' NP, which has become the S argument of the intransitive verb. Just as in accusative languages, the 'woman' NP has undergone a change in its grammatical relation in the passive, from O to S. However, in an ergative language, the 'woman' NP does not change its case marking in the passive, but remains absolutive (the case both for O and for S). It doesn't become ergative, since this case is reserved for the A argument of a transitive verb.

The Mayan language Tzotzil (spoken in Mexico) has no case marking on the NPs themselves, but has an ergative agreement system, indicated by verbal affixes. In the active sentence in (10a) we see two verbal affixes: an ergative prefix, marking the A argument 'Peter', and an absolutive suffix, marking the 0 argument 'John'. The passive construction in (10b) shows that the verb has lost the ergative prefix, since the former ergative NP 'Peter' is now demoted, again appearing in a 'by'-phrase. The passive verb has become intransitive, as in the other passives we've seen, and so agrees just with its one remaining core argument, the NP 'John'. This agreement marker is still absolutive: 'John' has changed from being an absolutive O argument in (10a) to the absolutive S in (10b) - the single argument of an intransitive verb.

Other ergative languages with a passive construction include other Mayan languages, the South Caucasian language Georgian and the European language isolate Basque.

Since the passive construction in an ergative language doesn't change the case of the original O noun phrase - it's still absolutive when it becomes an S, as we've seen - then why have a passive at all? Perhaps the main effect of the passive in ergative systems is to remove focus from the original A noun phrase, in examples such as (9a) and (10a), by demoting it to a 'by'-phrase, and so making it less prominent. In fact, passives also have this same effect of defocussing the agent in accusative languages as well, as shown for English in (1) through (3) - the agent is either demoted or deleted entirely, and so becomes much less prominent. Cross-linguistically, then, passives have a common function: that of removing focus from the agent NP. This function holds for passives both in accusative systems and in ergative systems.

7.1.2 The passive construction and intransitive verbs

The basic passive construction involves verbs that are transitive, as shown in Section 7.1.1. In Section 7.1.2 we will consider the use of the passive construction with intransitive verbs, and the role of absolutive markers.

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changes grammatical relations also occurs in ergative languages. This is known as the antipassive, and this does not occur in accusative languages. Like the passive, the antipassive also takes a transitive clause and makes it intransitive via a process of promotion of one NP and demotion of another. I will focus first on the demotion effects of the antipassive. Compare the ordinary active sentence in (13a) with the antipassive version in (13b), both from Greenlandic Eskimo; the antipassive marker is in bold:

(13) a. arna-p niiqi-o niiri-vaav
    (Greenlandic Eskimo)
    woman-erg meat-abs eat-3SG:3SG
    'The woman(A) ate the meat(O).'

b. arnaq-o niiqi-mik niiri-NNiig-puq
    woman-ABS meat-with eat-ANTIPASSIVE:3SG
    'The woman(S) ate some of the meat.'

In (13a), the 'woman' NP is the A argument of a transitive verb, and is therefore ergative, whilst the 'meat' NP is the O argument of the transitive verb, and is therefore absolutive: this is the standard kind of ergative case marking discussed in Chapter 6. In the antipassive sentence in (13b), the former O argument niiqi 'meat' is now demoted: it is no longer a core argument of the verb, but is instead an oblique NP (the suffix -mik in fact indicates what is known as 'instrumental' case, which I have glossed as 'with'). The effect of this demotion is to give the 'meat' NP a passive reading - the woman ate some of or part of the meat, as indicated in the translation. Since the verb in (13b) is no longer transitive (in Greenlandic Eskimo), the NP arnaq-o 'woman' is the single argument of an intransitive verb, and so takes the absolutive case.

The antipassive construction has a variety of functions in ergative languages, including giving rise to a partitive reading as shown above. Consider first the pair of sentences from the Siberian language Chukchee in (14); the (a) sentence is active, the (b) antipassive, with the antipassive marker in bold:

(14) a. atlag-e keyng-an penra-ten
    (Chukchee)
    father-erg bear-ABS attack-3SG:3SG:PAST
    'Father(A) attacked the bear(O).'

b. atlag-an penra-tsoo-g?e keyng-eto
    father-ABS attack-ANTIPASSIVE:3SG:PAST bear-DEFIV
    'Father(S) ran at the bear.'

In the active sentence, (14a), the 'father' NP is the A argument of a transitive verb, and hence is marked with ergative case, whilst the 'bear' NP is an O, the object of a transitive verb, and hence is marked with absolutive case. The verb agrees with both these core arguments in (14a); it has a 3SG marker for each of them. The antipassive again has the effect of demoting the former object: the 'bear' NP in (14b) has become dative, and we get the effect of running at the bear rather than attacking it. The 'father' NP becomes the single argument of an intransitive verb in (14b), and hence is marked as an S - with absolutive case - and the verb now agrees with just this single core argument. In both (14a) and (14b), the antipassive has the door effect ofturning away.
Processes that change grammatical relations

the verb - making it no longer transitive - and the former object becomes in some way less affected by the action of the verb (Palmer 1994: 181).

Next, consider the pair of sentences from Chamorro in (15). As before, the (a) sentence is active and the (b) sentence is the antipassive, and the antipassive marker is in bold:

(15) a. un-hongge i lahi 2SG:believe the man 'You(A) believe the man(O).'
b. man-hongge hao [nu i lahi] ANTIPASSIVE-believe you:ABS oblique the man 'You(S) believe in/have faith in the man.'

In the active sentence, (15a), the 'you' argument is the A, shown by the ergative verbal inflection un-; there is no overt second person pronoun. The 'man' NP is the object of a transitive verb, and is therefore absolute - this doesn't receive any overt marking in (15a). The effect of the antipassive in (15b) is to demote the 'man' NP and remap it from core argument status; it is no longer the O (object of a transitive verb), and now instead has an oblique marker nu. Since the verb doesn't have an object NP in (15b), but is now intransitive, the former ergative argument (meaning 'you') must now be marked as the single argument of an intransitive verb. So hao, 'you', is marked for absolute in (15b), as is standard for the S argument in an ergative system. The verb is again detransitivized in the antipassive, and its former object demoted.

An O argument may be not just denoted in the antipassive, it can also be deleted altogether. In this sense, the antipassive is parallel to the passive construction, where an A argument can be deleted, as in The vases were stolen. Again, the verb is detransitivized. In (16) there is an example of O deletion from the Australian language Yidiny. As before, the (a) sentence is active and the (b) sentence is the antipassive:

(16) a. [Yinydyu-n bunya-n] [mayi-ŋ] buga-ng. (Yidiny)
    this-ERG woman-ERG vegetables-ABS eat-PRES
    'This woman(A) is eating vegetables(O).'
b. [Yimu ō bunya-ŋ] bugaa-dyi-ng.
    this-ABS woman-ABS eat-ANTIPASSIVE-PRES
    'This woman(S) is eating.'

The active construction in (16a) has a transitive verb, and the clause has the standard case marking: an ergative A noun phrase, Yinydyu-n bunya-n 'this woman', and an absolutive O noun phrase, mayi 'vegetables'. The antipassive construction in (16b) has only one argument - the absolutive S argument of what is now an intransitive verb - and the former O noun phrase is simply deleted.

So far, we have considered antipassives in which the main effects of the construction are on the O argument of the active verb: this NP has been demoted so it's no longer a core argument of the verb, or it's been deleted entirely. However, another equally important use of the antipassive in ergative languages involves the promotion of the A noun phrase - the ergative 'subject' in the transitive clause - to be an S: an absolutive

'subject' in an intransitive clause. It may surprise you to think of this as promotion. In the more familiar accusative languages, it's easy to see how the passive construction, which changes the grammatical relation of an object NP and makes it the subject, is a process of promotion - consider the difference between the active A crocodile ate my friend and the passive My friend was eaten by a crocodile. Any native speaker of English would agree that the passive focusses on what happened to the friend in a way the active does not - indeed, the active can sound truly callous!

Recall, however, from Chapter 6 (starting with Section 6.3.5), that in both accusative systems and ergative systems it's the noun phrase that appears as the S argument which is the most basic in usage. Whether it's a nominative NP as in accusative systems, or an absolutive NP as in ergative systems, the S is generally unmarked in both form (case marking) and function (syntactic constructions). Following Palmer (1994) we can say that the S is always a PRIMARY GRAMMATICAL RELATION. In accusative systems, of course, S groups with A to give subject as the primary grammatical relation, whilst in ergative systems, S groups with O to give absolutive as the primary grammatical relation.

Table 7.2
Primary grammatical relations

<table>
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</table>

The passive construction is mostly found in accusative systems, whilst the antipassive occurs exclusively in ergative systems. Both passive and antipassive constructions have the effect of creating a new S argument. The passive does this by promoting O > S, and the antipassive does it by promoting A > S. So both constructions have the effect of making a NONPRIMARY NP into a primary NP: the nonprimary NPs are O in accusative systems, A in ergative systems. Let's see now what sort of effects this has in ergative systems.

In the Mayan language Mam (Guatemala and Mexico), the verb is initial in the clause in the basic constituent order, but an NP can be focussed by moving it to the start of the clause. However, the only NPs which can undergo fronting are the two absolutive NPs, the S and the O - the two NPs which form the primary grammatical relation in an ergative language. Examples (17) and (18) illustrate this fronting, in an intransitive and a transitive clause respectively. The fronted NP is shown in bold in each sentence. Verbal agreement markers occur in each example: you can tell which NP the ergative and absolutive markers refer to by the fact that the man' NP, xiinaq, is always indicated by a 3sg marker, whilst 'the horses' NP is 3pl.

(17) xiinaq s-uul
    man§ ASPECT:3SGABS-arrive.here
    'The man arrived here.'

(18) man§ xiinaq s-uul
    'The horses arrived here.'

(Mam)
Processes that change grammatical relations

(18) qa-cheej x-hi kub' t-tzyuun xinaq
pl-horse aspect-3pl-bar direction 3sger-grab man
"The man(A) grabbed the horses(0)."

Examples (17) and (18) are standard active clauses for an ergative language. In an intransitive clause, the S argument is marked as absolutive, as in (17), where the marking is an affix - on the verb. In the transitive clause in (18), the O argument meaning 'the horses' is marked absolutive (by the agreement marker -hi) and the A argument xinaq 'the man' is marked ergative (by the agreement marker t-). What if a speaker wants to focus on the A noun phrase in (18), 'the man'? As (19) shows, it's not possible to do this by simply fronting xinaq in the ordinary active sentence: the result is ungrammatical, because xinaq, 'the man', is an A, not an S or an O, and so is not a primary grammatical relation:

(19) xinaq chi kub' t-tzyuun qa-cheej
man aspect-3pl-bar direction 3sger-grab pl-horse
("The man(A) grabbed the horses(0)."

Instead, the ergative NP xinaq must first be promoted to be absolutive - becoming a primary NP - so it can then be fronted. This promotion from A > S is achieved by using the antipassive construction:

(20) xinaq x-a-kub' t-tzyuu-n t-e qa-cheej
man aspect-3pl-bar direction 3sger-grab pl-horse
"The man(A) grabbed the horses:"

In (20) we find the grammatical version of what (19) was unable to express. The former O argument of the transitive clause, qa-cheej 'horses', is demoted in (20): it is no longer an O in the Man sentence, but has become an absolutive NP, as is indicated by the oblique marker that precedes it (like a preposition). This means that xinaq 'the man', is now the single argument of an intransitive verb, an A, and so is marked as absolutive and can be focussed. Hence, the antipassive serves here to allow an NP to be focussed where it otherwise couldn't be.

Next, I illustrate a second construction requiring the antipassive to promote an NP from ergative to absolutive, from an Australian language, Dyirbal. This involves the coordination of clauses. First, I remind you of some facts from a typical accusative language, English. In Section 6.5.2, I introduced the idea that a subject can undergo ellipsis (= deletion) in the second of two conjoined clauses, as shown again in (21). I use the subscript index ; or ; to show which NP in the first clause the deleted NP refers back to:

(21) a. Chris woke up and (Chris) saw Lee.
b. Chris, disturbed Lee and ; complained bitterly.
c. *Chris disturbed Lee, and ; complained bitterly.
d. Chris greeted Lee and then ; kissed Mel.

e. *Chris greeted ; Lee, and then ; kissed Mel.

So for instance, (21b) can only mean that it was Chris who complained, and (21c) cannot mean that Lee complained. The grammatical sentences, (21a), (21b) and (21d), show that a subject can undergo ellipsis in the second clause, but only when it's co-referential with (= refers back to) the subject of the first clause. As for the ungrammatical sentences, (21c) shows that a deleted subject can't refer back to the object of the first clause - which is why (21c) can't mean that Lee complained; and (21e) shows that it's only a subject which deletes in English, and not an object, so that (21e) is ungrammatical whatever the deleted NP refers back to.

The examples in (21) show that in accusative languages like English, the ellipsis revolves around subjects. We can say that accusative languages have a subject pivot, comprising the two primary NPs - those with the grammatical relations S and A. First, both S and A noun phrases - that is, all subjects - undergo ellipsis, as we can see from the fact that both an intransitive verb like complain and a transitive verb like see or kiss allow their subject to be deleted. And second, both the S subject of an intransitive verb like woke up and the A subject of a transitive verb like disturb or greet can be the NP that controls a deleted subject in the second clause. Finally, if we want to indicate what (21c) attempts to do - namely that it was Lee who complained - we do it by passivizing the first clause, to give Lee, was disturbed by Chris and ; complained bitterly. This, of course, has the effect of promoting Lee to subject position, which makes it a primary grammatical relation, so that it can now control the deleted NP in the second clause.

In a language like Dyirbal which is syntactically ergative, however, ellipsis revolves around absolutive NPs. So Dyirbal has an absolutive pivot: this comprises the two absolutive grammatical relations, S and O, which together form the primary relation. This means that both the NP in the first clause which controls the ellipsis and the NP which undergoes ellipsis must be one of the absolutive NPs, either S or O. Let's see how this works first when ordinary active clauses are co-ordinated, starting with (22). Before you tackle the examples that follow, here are some hints to help you.

- Case is marked in Dyirbal via a suffix on the nouns, though the absolutive is in fact unmarked, whilst ergative and other cases such as dative each have a particular suffix.
- Read the glosses and translations carefully and try not to let the constituent order worry you: the absolutive NP is initial in each clause, whether it's an S or an O.
- Note also that there's no actual word for 'and' in Dyirbal co-ordination. In these examples I have put each co-ordinated clause in brackets, to help you see the start and end of the clauses.

(22) [nguma; yabu-nggu bura-ua] [θi; banaga-ni'ua] (Dyirbal)
father:ABS mother-ERG see-PAST | is return-PAST
"Mother(A) saw father(O) and [he]'(S) returned.'

The NP that's deleted in the second clause in (22) has to refer back to 'father', the absolutive O noun phrase - it can't refer back to 'mother', the ergative A noun phrase. In English, this is not a possible construction: Mother saw father and returned can't mean that it was the mother who returned.
in English is to use a pronoun he in the second clause, as I've shown in the translation of (22), but crucially, there is no pronoun in the corresponding Dyirbal sentence.

In (22), the two co-referential NPs are an O in the first clause and an S in the second clause. Both are, of course, absolutive. In (23), the first clause has an S and the second clause deletes an O which refers back to that S:

(23) [ngumaŋ, banaga-nŋu] [ŋ, yabu-nggu bura-n] father-ABS return-past | to mother-INGA see-past
Father(S) returned and mother(A) saw [him](O).

The English translation would again be impossible without the pronoun in the second clause: we don't get *Father returned and mother saw. But again, there is no pronoun in the corresponding Dyirbal: the O argument can delete when it is co-referential with the S of the first clause. Both (22) and (23) show that ellipsis in Dyirbal operates in terms of the absolutive NPs, S and O, rather than with a subject pivot as in English.

What happens, though, if a Dyirbal speaker wants to say something that means 'Mother saw father and (mother) returned'? Example (22) does not and could not mean this. Instead, the antipassive construction is used: this promotes the ergative NP meaning 'mother' in a sentence like (22) so that it becomes an absolutive, and as an absolutive NP it can then control the ellipsis of the S in the second clause. Example (24) illustrates; the first clause is the one that's antipassive:

(24) [yabuŋ, bural-nga-nŋu, ngumaŋ] [ŋ, banaga-nŋu] mother-ABS see-ANTIPASSIVE-past father-DATIVE | to return-past
Mother(S) saw father and (S) returned.

In the first clause of (24), what in an ordinary active clause such as (22) would be the O – the object of a transitive verb – has now been demoted: the 'father' NP is now dative, and the verb is de-transitivized by the antipassive suffix. The remaining NP, yabuŋ 'mother', is therefore the S argument of an intransitive verb meaning 'see'. As an S, it is absolutive, and so allows the deleted NP in the second clause to refer back to it. So the antipassive construction serves to make NP available as the controller of ellipsis.

Second, the antipassive can make an NP available to undergo ellipsis. This is shown in (25), where this time the second clause has become antipassive, in order to get the reading 'Father returned and saw mother'.

(25) [ngumaŋ, banaga-nŋu] [ŋ, bural-nga-nŋu, yabu-gu] father-ABS return-past | to see-ANTIPASSIVE-past mother-DATIVE
Father(S) returned and (S) saw mother.

In the second clause, the 'mother' NP is not a primary NP but has been demoted, as we can tell by its dative case. The antipassive verb 'see' is again de-transitivized: it has only one core argument, the S noun phrase – the single argument of an intransitive verb. As an S, this NP is allowed to undergo ellipsis when co-referential with another absolutive NP. So the empty S position in (25) refers back to 'father' in the first clause.

To summarize, the antipassive construction has the following characteristics cross-linguistically.

**The antipassive construction**

- Applies to a transitive clause (the active clause) and forms an intransitive clause.
- A argument (ergative) promoted > S argument (absolutive).
- O argument demoted > oblique, or is deleted.
- Changes in the morphology of the verb signal anti-passivization.

Both the passive and the antipassive constructions have in common the fact that they change basic grammatical relations by promoting some NPs and demoting others. In the following two sections I introduce two other constructions which also change grammatical relations: the applicative and the causative constructions. Like the passive and antipassive, these do not occur in all languages, but are widespread nonetheless.

### 7.3 THE APPLICATIVE CONSTRUCTION

In English we have an alternation between the (a) and (b) forms in sentences like (26) and (27). I take the (a) sentences to be the more basic, and the (b) sentences to be derived from them by processes of promotion and demotion.\(^2\)

(26) a. My brother sold his bike to Sue.
   b. My brother sold Sue his bike.

(27) a. I baked a cake for Kim.
   b. I baked Kim a cake.

This alternation occurs just with certain three argument verbs in English. In their basic form these verbs take a direct object NP (such as *his bike, a cake*) plus a PP headed by *to* or *for*, such as *to Sue*, *for Kim*. In the (b) sentences, the NPs Sue and Kim have been promoted to direct object position – immediately following the verb in English – and the original direct object is demoted to become a second object: there is no longer a PP in the (b) sentences. This construction in English is often known as dative movement (although English has no actual dative case marking) because in some languages indirect objects, such as 'to Sue', are marked dative (see Section 6.5.4).

Now compare the parallel construction found in the Austronesian language Indonesian and the Banto language Chichewa (the rather strange-sounding examples from this language are taken from Baker 1988). I will discuss below the applicative (standing for applicative) affixes shown in bold type on the verb in the (b) sentences.

\(^2\) One reason for taking the NP-PP constructions as in (26a) and (27a) to be the more basic is that not all verbs which take NP and PP affixes can undergo the alternation. You have more chance to explain this in terms of the theory of movement.
(28) a. Mereka mem-bawa [daging itu] [kepada dia]. (Indonesian)
    they TRANs-bring meat the to him
    'They brought the meat to him.'

b. Mereka mem-bawa-kan [daging itu].
    they TRANs-bring-APPLIC him meat the
    'They brought him the meat.'

(29) a. Mbidzi zi-na-perek-a msampha kwa nkhandwe. (Chichewa)
    zebras Su-PAST-hand-aspect trap to fox
    'The zebras handed the trap to the fox.'

b. Mbidzi zi-na-perek-er-a nkhandwe msampha.
    zebras Su-PAST-hand-APPLIC-ASPECT fox trap
    'The zebras handed the fox the trap.'

These constructions involve the same changes in grammatical relations as those found in English in (26) and (27). In (28), the NP dia 'him', which is originally part of a 'to'-PP kepada dia in (a), is promoted in (b) to become the direct object - as in English, this immediately follows the verb in Indonesian. The preposition disappears. The NP daging itu becomes a second object. In Indonesian, but not in English, there is also a special marker on the verb to indicate the promotion: the suffix -kan. I have glossed this as APPLICATIVE, a traditional grammatical term used both for the verbal marker of promotion and for the construction as a whole.

The Chichewa applicative in (29) is exactly parallel: the 'fox' NP nkhandwe was an indirect object within a PP in (29a), but is promoted to direct object position in (29b). The original direct object in (29a), msampha 'trap', is demoted in (29b), becoming a second object, and again there's an applicative marker on the verb, the suffix -er.

The general properties of the applicative construction, including English dative movement, can be summarized as follows.

The applicative construction

- Oblique NP or indirect object > promoted to object.
- Former object > demoted to second object or oblique.
- Changes may occur in the morphology of the verb to signal the applicative construction.

English is fairly restrictive in the type of oblique phrase that can undergo promotion, but cross-linguistically various kinds of oblique phrases can be promoted, including locative expressions (= those involving location, such as 'on the table', 'into the water'), goals (as in 'We sent the letter to Me'), beneficaries (as in 'I baked a cake for Kim') and instrumental phrases, such as 'with a stick', as in the Dyirbal example in (30):

(30) a. yabu nguma-nggu balga-ŋ yugu-nggu (Dyirbal)
    mother-ARG2 father-ARG3 hit-PAST stick-INSTRUMENTAL
    'Father hit mother(2) with a stick.'

b. yugu nguma-nggu balgal-ma-ŋ yabu-ŋ
    stick-ARG3 father-ARG2 hit-PAST mother-ATTRIVE
    'Father used a stick to hit mother.'

Example (30a) is an ordinary transitive clause in Dyirbal, with an ergative A noun phrase, meaning 'father', and an absolutive 0 noun phrase, meaning 'mother'. In the English translation, stick appears inside a PP headed by with - it's an oblique phrase; in Dyirbal, the 'stick' NP is also oblique, and this is marked by a special instrumental case. Instrumental NPs don't undergo dative movement in English, whereas in Dyirbal the 'stick' NP can indeed be promoted to object, as in (30b). This NP yugu now has absolutive case - the case of normal objects in ergative systems - whilst the former object, that meaning 'mother', has been demoted, as shown by its dative case marking.

Finally, an NP which has been promoted by the applicative construction to become a direct object can generally undergo a second promotion by the passive construction, thus becoming a subject. In fact, we have already seen an example of this in Section 1.1.1.1, in the discussion comparing English and Indonesian. The examples in (31) and (32) are from the Bantu language Chichewa (some speakers of English may not find the translation of (31b) acceptable):

(31) a. Kalulu a-na-gul-ir-a mbidzi nsapato. (Chichewa)
    hare Su-PAST-buy-APPLIC-ASPECT zebras shoes
    'The hare bought shoes for the zebras.'
    (i.e. 'The hare bought the zebras shoes.')

    zebras Su-PAST-buy-APPLIC-PASSIVE-ASPECT shoes by hare
    'The zebras were bought shoes by the hare.'

In (31a), mbidzi 'zebras' has already undergone promotion by the applicative construction, and has become the direct object: as in English, the direct object immediately follows the verb. Once promoted to direct object position, the NP mbidzi can undergo a further promotion in the passive construction, (31b): it becomes the subject. The former subject kalulu 'hare' is demoted to an optional 'by'-phrase. Crucially, the 'shoes' NP in (31a), nsapato, cannot undergo promotion to subject by the passive construction, because it's not the direct object but a second object. If we try to promote the second object, the result is ungrammatical, as in (32):

(32) *Nsapato zi-na-gul-ir-idw-a mbidzi (ndi kalulu).
    shoes Su-PAST-buy-APPLIC-PASSIVE-ASPECT zebras by hare
    'Shoes were bought the zebras by the hare.'
7.4 THE CAUSATIVE CONSTRUCTION

So far in this chapter we have examined constructions which change grammatical relations by promotion and demotion processes, but which don’t introduce any new NP arguments. The passive and antipassive either have the same number of arguments as their active counterparts, or they may reduce that number; the by phrases are optional in (1) through (3), for instance. And the applicative/causative movement construction doesn’t change the number of arguments in the construction, but simply promotes one and demotes another. In this section I introduce the last major construction type which changes grammatical relations: the causative. This differs from the constructions seen so far in that it always introduces a new argument – the causative agent – and often introduces an entire new causative predicate as well. I illustrate first from English.

In English, the main way of expressing the idea of someone causing someone else to do something is by using a verb such as make, let, cause or have. So we get pairs of sentences like those in (35) and (36):

(35) a. The students left.
    b. We made/let the students leave.

(36) a. The students read the book.
    b. We had the students read the book.

In both examples the (a) sentences are basic, simple clauses; (35a) is intransitive, (36a) transitive. The (b) examples in each case are causative constructions. In both, the students has been promoted from its original position as the subject of the simple clause, and a new subject, we, has been introduced. Note that this new subject hasn’t been promoted from anywhere, since it doesn’t exist in the (a) sentences; it arises from the causative construction. These two properties are common to causative constructions cross-linguistically: the original subject is demoted and a new subject is introduced.

The causative construction in English introduces a new subject and a new predicate – We made him read in (35) and (36) – so creating a whole new clause. This means that the causative construction turns the simple sentence (with just one clause) in (35a) and (36a) into complex sentences in (35b) and (36b).

This same kind of causative construction with a ‘make’ or ‘cause’ verb plus the basic verb also occurs in other languages. Consider (37) from Korean; (37a) is the basic clause and (37b) the causative, with the causative verb in bold. (The gloss now stands for intransitive, a ‘mood’ of the verb which is used to refer to real rather than hypothetical events.)

(37) a. cini-ka wus-ass-ta
    Jinee-nom smile-past-endic
    ‘Jinee smiled.’

b. kihy-ka cini-ka wus-ke ha-ass-ta
    Keeho-nom Jinee-nom smile-comp do-past-endic
    ‘He made Jinee smile.’

So cross-linguistically, we find a continuum which at one extreme allows no applicative constructions, as in French, and at the other extreme is very free in the kinds of propositional objects and other oblique NPs that can be promoted to subject position. Chichewa lies at the latter end of the spectrum, as does Dyirbal; see (30). English falls somewhere in the middle, having dative movement with a restricted set of verbs.
As in English, Korean causatives are complex sentences, containing two clauses. We can tell that (37b) is biclausal (= contains two clauses) first because the embedded clause has a complementizer, -ke, and second, because each clause has a nominative subject: literally, (37b) means 'Keecho [that Jinee smile] caused' (unlike that, the -ke is final in Korean, since the language is head-final). 'Jinee' is still a subject in (37b), but it's now the subject of the embedded clause, and no longer the subject of the matrix clause. The matrix clause is the 'cause' clause with the predicate ha 'do', and that has a newly introduced subject, the causative agent 'Keecho'.

French causatives also use 'a make' or 'do' predicate of causation, the verb faire. In (38), (a) is again the basic sentence and (b) the causative, with the causative verb in bold:

38. a. Jean a lu ce livre. (French)
   Jean has:3sg read:PARTICIPLE this book
   Jean has read this book.'

b. Nous avons fait lire ce livre à Jean.
   we have:1pl make:PARTICIPLE read:NONFIN this book to Jean
   'We made Jean read this book.'

However, in French, unlike in Korean or English, the causative does not produce a biclausal construction. Although (38b) does contain two independent lexical verbs, the 'make' verb of causation and the 'read' verb, in fact the two verbs behave generally as a single verbal unit and not as predicates in separate clauses. For instance, unlike in English, the two verbs can't be separated by the NP Jean, as (39) shows:

39. *Nous avons fait Jean lire ce livre.
   we have:1pl make:PARTICIPLE Jean read:NONFIN this book
   ('We made Jean read this book.')

So Jean doesn't behave like the subject of an embedded clause, as it would in English, or as 'Jinee' does in the Korean in (37b). In the French, the two lexical verbs are actually both inside a single clause, and share a single set of arguments rather than each having their own arguments as they do in English or in Korean; this should remind you of the verb serialization which we discussed in Section 3.3.5.

One kind of typological variation in causatives, then, concerns whether or not the addition of a causative verb gives rise to an additional clause. However, not all causatives are formed by using an actual causative verb. In Korean, the most usual type of causative is that shown in (37b), but there is another type known as a MORPHOLOGICAL CAUSATIVE, illustrated in (40):

40. kiho-ka cini-lil wus-i-ass-ta
   Keecho-nom JineeACG smile-CAUS-PAST-INDIC
   'Keecho caused Jinee to smile.'

The example in (40) only contains a single clause, and instead of a separate causative verb it has a causative affix -1 (glossed as cause) on the 'smile' verb. Note that 'Jinee' has been demoted to object in this clause; it has accusative case.

Many other languages (though not English) also have a causative affix on the verb rather than using a separate causative verb. This situation parallels the one discussed in Section 7.1.1 above, where we saw that some languages have a special passive affix - see (6) through (8) for instance. The exercise on Kambara at the end of Chapter 6 illustrated causative affixes in that language. Other examples of languages with a morphological causative are shown in (41) and (42): the basic sentence types are shown in each (a) example, the causatives in (b), and the causative affixes are in bold:

   waterpot Su-PAST-fall-ASPECT
   'The waterpot fell.'

   b. Mitsukana a-na-u-gw-ets-a
   girl Su-PAST-Obj-fall-CAUS-ASPECT waterpot
   'The girl made the waterpot fall.'

42. a. Mumiri mektub-u imzala-di.
   director-nom letter-ACC sign-PAST
   'The director signed the letter.'

   b. Disigi mektub-u mumiri-e imzala-t-ti.
   dentist-nom letter-ACC director-DATIVE sign-CAUS-PAST
   'The dentist made the director sign the letter.'

In the Chichewa examples, the causative (41b) differs from the basic sentence in various ways. Example (41a) is intransitive, whilst (41b) is transitive. The original subject, mitsuko, has been demoted to object in (41b); we can tell because there's an object agreement marker -a- on the verb, agreeing with mitsuko 'waterpot' (in gender, though this isn't shown by the gloss). Also, the verb has a new subject agreement marker -a- in (41b), and this agrees in gender with mitsukana 'girl' (rather than mitsuko). Finally, there's a CAUSATIVE suffix -ets on the verb in (41b).

In the Turkish examples, there's once again a new subject, disigi, introduced into the causative construction in (42b). The former subject, mumir, 'director' is demoted to the position of indirect object in (42b), marked by the dative case; since there's already a direct object, mektub 'the letter', it can't take that position.

So far in this section we have seen two types of causative: first, the 'cause'-verb plus 'effect'-verb type, and, second, the morphological causative, as in (41b) and (42b). Although English has no morphological causative (just as it has no morphological passive) it does illustrate a third type of causative construction, the lexical causative. For instance, some verbs can be used either intransitively, so that no causation is expressed, or transitively, so that they include a causer as their subject: The bottle broke/broke the bottle (also melt, sink, smash and many other verbs). A few intransitive verbs have a closely related causative transitive verb, such as sit/sit and
risé, as in *The wreck rose to the surface/We raised the wreck to the surface.* Another example of a lexical causative is shown from Greek in (43):

(43) a. pijéno  
    go:ce  
    'I go.'  

b. pijéno to pedís  
    go:ce the child to school  
    'I take the child to school.'

Example (43b) is causative, but there's no marker of this at all - the same verb meaning 'go' is used in both (43a) and (43b). Note that the English translation here also uses a lexical causative, but of a different kind, since go is replaced in English with a causative verb *take* (= 'cause to go').

As the examples in this section illustrate, causatives can generally be derived from either a basic intransitive verb or a basic transitive verb. The cross-linguistic properties of the construction are as follows.

The causative construction

- Ø > subject (i.e. a new subject is introduced).
- Former subject demoted > object; or to an oblique argument; or is deleted.
- Verb adding causation is introduced ('make', 'have', etc.), or else the main verb has causative morphology.

An example illustrating the deletion of the original subject in a causative construction is given in (44). Songhai (or Sonrai) is a Nilotic language spoken in Mali, Burkina Faso, and Niger: the basic sentence is in (44a), the causative in (44b), and the causative affix is in bold:

(44) a. Garba nga tasu di.  
    Garba eat rice the  
    'Garba ate the rice.'  

b. Ali nga ndi tasu di.  
    Ali eat-caus rice the  
    'Ali caused the rice to be eaten.'

The original subject of the basic clause, *Garba*, is simply deleted in (44b), whilst a new subject of the causative verb is added, *Ali*.

Finally, recall from Section 7.3 that the applicative construction can feed into the passive construction by creating new object NPs, and these new objects can then be further promoted to subject. Similarly, the causative construction can create new objects by demoting the former subject, and these new objects are then available to be passivized. So the causative often feeds into the passive, as well. By contrast, the applicative construction does not feed into the passive.

Exercises

1. In Section 7.3 we considered the type of applicative construction known in English as *dative movement*, an alternation which gives rise to pairs such as *Kim gave the book to Lee/ Kim gave Lee the book*. As noted earlier, not all verbs which take an NP and a to-PP complement can undergo the alternation. In this exercise, your task is to work out what factors condition the application of dative movement. I have given a few examples, but you will need to find others, to get a fuller picture. I have also suggested grammaticality judgements which accord with my own intuitions, but the exercise is open-ended. The task is to explain why the examples are as they are. Consider the following pairs:

(45) a. Buluza a-na-wa-sek-ets-a  
    lizard Su-PASS-Obj-laugh-caus-aspect children  
    'The lizard made the children laugh.'

b. Ana a-na-sek-ets-edw-a  
    children Su-PASS-laugh-caus-passive-aspect by lizard  
    'The children were made to laugh by the lizard.'

The NP *ana 'children'* in (45a) is a direct object; it triggers object agreement on the verb, so the object marker -wa- agrees with the ana NP (in gender, though again not directly shown by the gloss). In the passive, (45b), this former object ana has undergone promotion to the subject position of the whole verbal complex: as in English, subjects are initial in the clause. And the object marker, -wa-, has now disappeared from the verb, since passivized verbs are of course intransitive and hence have no object to agree with.

We can conclude, then, that it is quite general for processes that change the grammatical relations of noun phrases to interact with one another, creating further promotions and demotions.

FURTHER READING

Palmer (1994) will be very useful for many of the issues covered in this chapter, especially passives and antipassives, syntactic pivots, causatives and applicatives. See also Keenan (1985a), Foley and Van Valin (1985) on the passive and Comrie (1989: ch. 8; 1985b) and Song (1996) on the causative. Much of the data on processes that change grammatical relations comes from Baker (1988), a very advanced work which you should probably only tackle (as opposed to browsing for interesting data) after a course in theoretical syntax.
Processes that change grammatical relations

To support your case. Given that judgements may vary, the 'correct answer' here is a rather fluid concept!

1. a. Lee donated the prize money to her favourite charity.
   b. *Lee donated her favourite charity the prize money.

2. a. The shopkeeper refunded the money to me.
   b. The shopkeeper refunded me the money.

3. a. Kim passed the ball to Lee.
   b. Kim passed Lee the ball.

4. a. I transferred the money to Lee.
   b. *I transferred Lee the money.

5. a. We showed/sent/forwarded that message to all our friends.
   b. We showed/sent/forwarded all our friends that message.

6. a. Kim dispatched that letter to his lawyer.
   b. *Kim dispatched his lawyer that letter.

7. a. I faxed my answer to him straight away.
   b. I faxed him my answer straight away.

8. a. I handed/delivered the parcel to the publishers.
   b. I handed/delivered the publishers the parcel.

9. a. I awarded/presented fantastic prizes to the best students.
   b. I awarded/presented the best students fantastic prizes.

10. a. I recommended/introduced Knowledge of Language to the students.
    b. *I recommended/introduced the students Knowledge of Language.

2. The data in (1) through (3) below (taken from Nedjalkov 1997) are from the Tungusic language Evenki, spoken in eastern Siberia. Examine each pair, and figure out what is the function of the verbal suffix marked in bold in each (b) sentence I have glossed it simply as suffix, rather than showing its meaning.

Hints

a. Different verbs take different forms of the suffix in question, but the function of the suffix is the same in each instance.

b. It will help to consider what arguments the verbs have in each pair of examples.

c. You will need to concentrate especially on the glosses in each example, rather than on the English translations.

1. a. Asatkan suru-re-n.
    girl go.away-PAST-3SG
    'The girl went away.'

2. a. Beje ene-re-n.
    man come-PAST-3SG
    'The man came.'

3. a. Tyge d'alup-ta-n.
    cup become.full-PAST-3SG
    'The cup became full/The cup filled.'

b. Asatkan tyge-re d'alup-ki ra-n.
    girl cup-ACC become.full-PAST-3SG
    'The girl filled the cup.'

3. In Section 7.2, I introduced the idea that syntactically ergative languages have a pivot which operates in terms of the absolutive NPs, whilst syntactically accusative languages have a pivot which operates in terms of subject NPs. (You might like to revise Section 7.2 before tackling this exercise.) The data sets below are from two unrelated languages: (A) is from Bare, an extinct language of the North Arawak family, from Brazil and Venezuela (the data are from Alkemade 1995) and (B) is from Gunugu Yimithirr, a Pama-Nyungan language of Australia (the data are taken from Haviland 1979). Both data sets illustrate co-ordinate clauses with subject ellipsis in the second clause; each clause is bracketed, and neither language uses actual conjunctions such as 'and'. You will need to look at the index on each NP in order to see which NP in the first clause the deleted NP refers back to. Your task is to examine each data set, and figure out whether each language is syntactically ergative or syntactically accusative.

Hints

a. I haven't labelled the NPs with A, S and O so you will need to work out for yourself which NP is the A, the S and the O in these examples.

b. There is no actual case-marking on the NPs in Bare, so you won't be able to tell from the form of the noun phrases whether or not Bare is morphologically ergative.

c. A language which is morphologically ergative may or may not also be syntactically ergative.
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A. Bare
(1) a. [kwati-i-karuka tiinu] [0i i-baraka]
   jaguar 3PSS-bite dog 3PSS-run
   'The jaguar bit the dog and [it] ran.'

   b. [dakwati-i-d'bwika] [mawaya-a-kharaka 0i]
   the jaguar 3PSS-die snake INDEF-bite
   'The jaguar died (because) a snake bit [him].'

B. Guugu Yimidhirr
(2) a. [Nyulu yarrga-gada-y] [0i mayi buda-y]
   3SG boy-ABS come-PAST food-ABS eat-PAST
   'The boy came and [he] ate the food.'

   b. [Nyulu yarrga-a-mayi buda-y] [0i gada-y]
   3SG boy-NEG food-ABS eat-PAST COME-PAST
   'The boy, ate the food, and then [he] came.'

4. The data in this exercise (slightly adapted from Chung 1976) are from Indonesian, a syntactically accusative language. In (1) I illustrate the usual constituent order; please examine these data first and state what is the unmarked order of the verb, subject, object and indirect object or oblique NP.

(1) a. Monyet men-gigit saja.
   monkey TRANS-bite I
   'A monkey bit me.'

   b. Saja mem-bawa surat itu kepada Ali.
   I TRANS-bring letter the to Ali
   'I brought the letter to Ali.'

   c. Mereka ber-lijalar ke Amerika.
   they TRANS-sail to America
   'They sailed to America.'

The next set of data illustrate a fronting process in Indonesian. Examine the sentences in (2) and (3) and figure out what GRAMMATICAL RELATION the fronted constituent must bear. Your answer should account for both the grammatical data in (2) and the ungrammatical examples in (3). (The English translations are deliberately neutral here, so you will need to study the original Indonesian carefully.) Second, say what other grammatical changes occur when the constituent is fronted.

(2) a. Ikan merah itu dia sudah tangkap.
   fish red the he PERF catch
   'He already caught the red fish.'

   b. Itu dapat kita lihat pada mata-nja.
   that can we see in eye-its
   'We can see it in its eyes.'

b. *Polisi itu saja serahkan sendjata saja kepada.
   police the I surrender weapon I to
   ('I surrendered my gun to the police.')

   b. *Dana itu sedang mereka be-renang di.
   lake the pool they TRANS-swim in
   ('They were swimming in the lake.')

The next data set illustrates a construction in Indonesian which alters grammatical relations, changing a basic sentence such as (4a) into (4b). What syntactic processes does this involve? Discuss them in terms of PROMOTION and/or DE PROMOTION and state the effects of the construction on the grammatical relations.

(4) a. Saja meng-kirim surat itu kepada wanita itu.
   I TRANS-send letter the to woman the
   'I sent the letter to the woman.'

   b. Saja meng-kirim-i wanita itu surat itu.
   I TRANS-send-APPL woman the letter the
   'I sent the woman the letter.'

If the fronting construction you identified in connection with (2) and (3) applies to the examples in (4), the results are as follows: (5a) is ungrammatical but (5b) is grammatical. In light of your answers concerning (4), account for this difference in grammaticality. You will need to say why the constituent can be fronted in (5b) but not in (5a).

(5) a. *Wanita itu saja kirim surat itu (kepada).
   woman the I send letter the to
   (≠ 'I sent the woman the letter')

   b. Wanita itu saja kirim-i surat itu.
   woman the I send-APPL letter the
   'I sent the woman the letter.'

5. In each of the following three data sets, (A) to (C), the (b)/(c) sentences show a CAUSATIVE construction derived from the corresponding (a) sentences. State how the causative is formed in each of the three languages illustrated. Your answer should include:

i. an explicit statement of how the causative is expressed in each of the languages;

ii. an indication of and explanation for any additional grammatical changes in each example, especially in the verbal morphology, and in the position and morphology of any NP arguments of the verb;

iii. an attempt to explain the reason for the ungrammaticality in examples (8c) and (9c).
Hints

a. Don't worry about the actual form of the verbal morphology in these examples. In some cases there are alternations or irregularities in the morphology, but these need not concern us here.

b. You will find it helpful to consider at the start whether the language in each data set is nominative/accusative or ergative/absolutive in its morphology.

A. K'iche'
(Data from Campbell 2000.)

(1) a. š-e-kam-ik  
    *ASP-3PLABS-die-TRANS*  
    'They died.'

b. š-e-qa-kam-isa-x  
    *ASP-3PLABS-PLERG-die-COMPS-TRANS*  
    'We killed them.'

(2) a. š-o-atin-ik  
    *ASP-3SGABS-bathe-TRANS*  
    'He bathed.'

b. š-o-atin-isa-x  
    *ASP-3SGABS-3SGPLERG-bathe-COMPS-TRANS*  
    'She washed him.'

B. Amharic
(Data from Amberber 2000.)

(3) a. kibe-w  k'alla-t'a  
    *butter-DEF melt:PERF-3MSU*  
    'The butter melted.'

b. aster  kibe-w-in  a-kalla-t'at'čč  
    *Aster(female name) butter-DEF-ACC COMPS-melt:PERF-3CSU*  
    'Aster melted the butter.'

(4) a. lij-u  dabbo balla  
    *child-DEF bread eat:PERF-3MSU*  
    'The child ate some bread.'

b. aster  lij-u-n  dabbo a-balla ččiw  
    *Aster(female name) child-DEF-ACC bread COMPS-eat:PERF-3PSU-3M0IQ*  
    'Aster fed the child some bread.'

(5) a. aster  č'affor-a-čč  
    *Aster(female name) dance:PERF 3SPLABS*  
    'Aster danced.'

b. lamma  aster-in  as-č'affor-at  
    *Lemma(male name) Aster-ACC caus-dance:PERF-3MSU-3F0IQ*  
    'Lemma made Aster dance.'

C. Japanese
(Data from Dixon 2000 and Tsujimura 1996.)

(6) a. Taa-ra-ko kon-saato-e  it-ta  
    *Taro-nom concert-to go-PAST*  
    'Taro went to a concert.'

b. Ryooshin-ko Taa-roo-o kon-saato-e  ik-ase-ta  
    *Taro-nom parents-nom concert-to go-COMPS PAST*  
    'His parents made Taro go to a concert.'

(7) a. Hanak-ko aru-ita  
    *Hanako-nom walk-PAST*  
    'Hanako walked.'

b. Taa-roo-ko Hanako-o aru-ase-ita  
    *Taro-nom Hanako-ACC walk-COMPS-PAST*  
    'Taro made Hanako walk.'

(8) a. Hana-ko migoto-ni saita  
    *flower-nom beautifully bloom-PAST*  
    'The flowers bloomed beautifully.'

b. Taa-roo-ko han-o migoto-ni sak-ase-ta  
    *Taro-nom flower-ACC beautifully bloom-COMPS-PAST*  
    'Taro made the flowers bloom beautifully.'

(9) a. Hanako-ko kizet-sita  
    *Hanako-nom faint-PAST*  
    'Hanako fainted.'
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6. The data in this exercise are from a Chadic language called Hdi, spoken in 
Cameroon, and are taken (slightly adapted) from Frantzynong (2002). Examine 
all the data in (1) through (10), and work out what is the function of the 
morpheme *tə, which I have left unglossed where it occurs in these examples.

(1) ngatsa-f-ŋats-i ɗ līd-a lguṭ 
have-up-have-1sg tə new-gen cloth 
'I have new clothes.'

(2) tsgh-da-f xaxon tə sani 
put-away up they tə one 
'They sent up one (bag).' 

(3) ghwaaghwa-ghwaghwa kri 
bark-bark dog 
'A dog barked.' 

(4) sì midu- u 
past inside-1sgul 
'The two of us were inside.'

(5) skwa-skw-i tə plis nda ma na hla 
buy-buy-1sg tə horse and female dem cow 
'I bought a horse and a cow.'

(6) nda ngh-i tə pta 
see-1sg tə mat 
'I saw the mat.'

(7) tə skalu- lu tə skalu girvidik 
dance-dur tə dance night 
'They danced all night.'

(8) nda ngh-i tə pta 
see-1sg on mat 
'I saw (it) on the mat.'

(9) vra-kvr-i dzagha ka mbaz-i tə mbazə 
return-in-return-1sg home then wash-1sg tə wash(N) 
'I returned home and washed.'

(10) tə xanay tsa mmdu ya tə xani dagala 
sleep(V) the man dem tə sleep(N) large 
'That man sleeps a lot.'

8. Wh-constructions

Questions and relative clauses

In Chapter 7, I introduced processes of promotion and demotion: we looked at 
ways in which languages change the argument structure of verbs by changing their 
grmmatical relations. As we saw, this led to changes in the core arguments of verbs – 
we saw, for instance, that objects are sometimes promoted to become subjects, or that 
subjects sometimes get demoted to an oblique phrase, or even deleted. In this chapter 
we will see that languages also have ways of moving phrases around within the clause 
without changing their grammatical relations. I concentrate particularly on two types 
of construction: wh-questions and relative clauses.

8.1 Wh-QUESTIONS

8.1.1 Languages with wh-movement

Wh-questions are so called because in English they begin with a wh-word such as 
what, who, where, which, when, why and also how. (1) and (2) illustrate:

(1) a. Lee saw [that girl with the long scarf] at the bus-stop yesterday.
   b. [Who] did Lee see ___ at the bus-stop yesterday?

(2) a. Lee saw that girl with the long scarf [at the bus-stop] yesterday.
   b. [Where] did Lee see that girl with the long scarf ___ yesterday?

Note that the sequence of words which is being questioned must be a constituent – in fact, we used this in our tests for constituent structure in Chapter 5. I have indicated the 
candidate being questioned in square brackets in the (a) sentences, and as well 
as the wh-word which replaces it in the (b) sentences, since this is also a constituent. 
The gap shows the position that the questioned phrase formerly occupied.

One way of thinking about wh-questions is as follows. The phrase about which 
we're asking a question is first replaced by a suitable wh-word or wh-phrase. Then that 
wh-word or phrase moves to a special clause-initial position, leaving behind it a gap 
in its phrase.

Wh-questions are found in a wide range of languages, including English. In 
English, the wh-clause is typically (but not always) non-finite – it’s not a finite 
verb phrase, and so it’s not subject to the constraint on movement that finite 
verb phrases are subject to.
and properties of our original phrase. An NP such as that girl with the long scarf is replaced by who, or which girl; an NP headed by an inanimate noun, such as that wonderful hand-built bike, or a non-human noun, such as that dreadful dog, would be replaced by what, or which X. The Wh-phrase where replaces locative PPs— that is, PPs expressing location; and when replaces temporal PPs and NPs, such as at three o’clock, this morning, yesterday.

Note that the fronted Wh-phrase doesn’t get a new grammatical relation when it moves. Although it moves leftwards to the start of the clause in English, the Wh-phrase doesn’t, for instance, become the subject of the clause; so in (1) and (2), the subject is still Lee. Instead, the Wh-phrase replaces the phrase it stands for, so that in (1), who fulfills the requirement of the transitive verb see to have a direct object. And in (2), where replaces the adjunct at the bus-stop. The Wh-phrase also has the same syntactic category as the phrase it replaces; this means that who, what, and which girl are all NPs, whereas where is a PP. We can tell that the Wh-phrase replaces the phrase it stands for by the fact that we can’t put another phrase of the same type back into the gap. This particularly clear in (1), since the verb see can only have one direct object NP; when there’s a Wh-phrase fulfilling that function, as in (3), then trying to re-fill the gap where the object used to be is impossible:

(3) *Who did Lee see that girl with a scarf at the bus-stop yesterday?*

Before reading further, consider the example in (4):

(4) *When did Lee see that girl at two o’clock?*

This is fully grammatical, even though there’s a Wh-phrase when as well as the temporal PP at two o’clock, but (I maintain) it doesn’t constitute a counter-example to my claim that we can’t re-fill the gap left behind when a Wh-phrase is moved to clause-initial position. Why not?

A transitive verb can only have one direct object, so (3) is ungrammatical because both who and that girl with a scarf fulfill the function of direct object. But the same verb can have any number of adjunct PPs. Just because one of these phrases gets replaced by when doesn’t necessarily mean that there shouldn’t be other adjuncts in addition. So (4) could be derived from a statement such as (5):

(5) Lee saw that girl on April 1st at two o’clock.

This means that the structure of (4) is actually like this:

[When] did Lee see that girl [at two o’clock]? there’s a PP gap which is connected to when, as well as another overtly present PP, at two o’clock.

Many other languages, even those entirely unrelated to English, also move wh-words and Wh-phrases to a similar clause-initial position; this position seems to be just outside the main body of the clause, since it’s not a position associated with any grammatical relation. In other words, it’s not a property of obligatory position.

we’ve seen, or indeed an object position or any other position occupied by the arguments of a verb. Some further examples of Wh-phrases in the clause-initial position are shown in (6), from Koromfe, a Gur or Voltaic language of Burkina Faso:

(6) a. alama pa vaga ko a mōti
whpl-give dog the ART rice
‘Who (pl.) gave the dog rice?’

b. sefu da na a mane hēŋ
when he see ART money the
‘When did he find the money?’

c. ase a kéō ko ṣaŋe vaga ko a
what ART woman the give ART dog the
‘What did the woman give to the dog?’

d. nde da na ma sundu koŋ
where he see my horse the
‘Where did he see my horse?’

Note that in languages with Wh-movement to a clause-initial position, the Wh-expression will precede the material that normally occurs at the start of the clause. So for instance, in Welsh, the normal constituent order is VSO—that is, the finite verb or finite auxiliary is initial in the clause in a statement. But the Wh-expression precedes the finite element in a Wh-question. Examples (7) and (8) show some statements and the related Wh-questions, with the underlined gap corresponding to the original position of the moved expression. The finite element is in italics, and the Wh-phrase is in bold type:

(7) a. Gwelaï i drraig yn yr ardd.
saw:1sc:1 dragon in the garden
‘I saw a dragon in the garden.’

b. Beth welais ti — yn yr ardd?
what saw:2sc:2 you in the garden
‘What did you see in the garden?’

(8) a. Mae wyau’n dod o iei.
is eggs-prog come from hens
‘Eggs come from hens.’

b. O ba gredu mae wyau’n dod ?
from what creature is eggs-prog come
‘What creature do eggs come from?’

In fact, there seems to be evidence from a variety of languages that the clause-initial position to which the Wh-phrase moves is actually the position immediately before the clause-introducing element known as a complementizer (see Chapter 3, and also Section 4.1.6). Of course, not all languages have complementizers, or may choose other complementizers. Grammatically, it’s harder to have
complementizers in matrix clauses, for instance. But many other languages do, and when these languages also have wh-movement to a clause-initial position, then we can see that the wh-phrase comes immediately before the complementizer. The data in (9), taken from Radford (1988), illustrate the wh-expression in bold, and the complementizer is in italics:

(9) a. *Ma'mn li hdaughter?
   (Colloquial Moroccan Arabic)
   with whom that you spoke
   'Who did you speak to?'

b. Wat oft ik drinke woe?
   (Frisian)
   what whether I drink would
   'What would I drink?'

It seems, then, that there may be a special clause-initial position, immediately preceding the complementizer position, to which wh-phrases are moved in languages which, like English, have wh-movement.

Finally, note that wh-movement doesn’t just apply in matrix clauses, but also applies in embedded clauses too, as (10) illustrates:

(10) a. I wonder [who left the cake out in the rain].
    b. I enquired [which books the students had read over the vacation].
    c. We need to know [where the bus will stop].

Before reading further, please work out (a) what kind of phrase each wh-phrase in bold in (10) represents (i.e., NP, AP, PP or what?); (b) where is the gap in each embedded clause, and what is the function of this phrase in each clause; and (c) what is the major syntactic difference in English between embedded wh-questions like those in (10) and wh-questions in matrix clauses, such as those in (1) and (2).

Here are the answers:

(a) In (10a) and (10b), the wh-phrases are both NPs, and in (10c), where represents a PP.

(b) The gaps are shown here:

   a. I wonder [who left the cake out in the rain].
   b. I enquired [which books the students had read over the vacation].
   c. We need to know [where the bus will stop].

The gap in (10a) is the subject of the embedded clause – it’s parallel to a sentence like *Mel left the cake out in the rain*. The gap in (10b) is the object of the embedded clause – compare *The students had read all the books on the reading list over the vacation*. And the gap in (10c) is a PP adjunct to the verb stop, as in *The bus will stop at the market place*.

(c) The major syntactic difference in English between embedded wh-questions and wh-questions in matrix clauses is that subject/auxiliary inversion generally only applies in matrix clauses, as we saw first in Chapter 5. So in (1), we get *Who did Lee see?*, but in an embedded clause we’d normally get *He asked [who Lee saw]*, rather than *He asked [who did Lee see]*. However, as noted in Chapter 5, if the embedded clause is taken to be a quotation of direct speech, then inversion is typically acceptable.

8.1.2 Languages with wh-in-situ wh-questions

In Section 8.1.1 we saw that one common way of forming wh-questions cross-linguistically is to move a wh-expression to a special clause-initial position. However, not all languages form wh-questions by moving the wh-expression at all. Recall from Chapter 5 the *who question construction*, which I illustrate again in (11):

(11) a. Lee bought how many copies of that wonderful book?
    b. Kim took 300 pictures of which mountain range with her new camera?
    c. You’ve fallen in love with who?

The main characteristic of examples such as those in (11) is that the wh-phrase remains in the usual position occupied in the clause by the phrase that is being questioned. So for (11a), for instance, we find a related statement such as *Lee bought four copies of that wonderful book*. English generally has the option of asking a wh-question in this way; it typically conveys incredulity, or else is used when the addressee didn’t hear a portion of the statement.

In some languages, however, the counterparts to (11) form the only way of asking wh-questions. In such languages there is no wh-movement, but instead the wh-word simply replaces a constituent in its normal position without moving, just as in echo questions in English. The technical term for this construction when the wh-phrase does not move is *WH-IN-SITU* – the Latin phrase means that the phrase stays in position.

Chinese and Japanese are both good examples of wh-in-situ languages. The first example is from Chinese, with the statement in (12a), and the question, showing wh-in-situ, in (12b):

(12) a. Ni kanjian-le Zhangsan.
    you see-NOM Zhangsan
    'You saw Zhangsan.'

b. Ni kanjian-le shei?
   you see-NOM who
   'Who did you see ___?'

The Chinese statement in (12a) has SVO order (as in English), so when the direct object is questioned, (12b), the interrogative phrase remains immediately after the subject.
In (13) and (14) I illustrate from Japanese: (13) is a statement, and (14) shows two different wh-questions formed from it. The wh-phrases are again shown in bold:

(13) Hanako-ga kínó [tômodatî-to] [susi-o] tukurima'esita. (Japanese)  
Hanako-nom friend-with sushi-acc made  
'Hanako made sushi with her friends yesterday.'

(14) a. Hanako-ga kínó [dare-to] [susi-o] tukurima'esita ka?  
Hanako-nom yesterday who-with sushi-acc made qu  
'Who did Hanako make sushi with yesterday?'

b. Hanako-ga kínó [tômodatî-to] [nâni-o] tukurima'esita ka?  
Hanako-nom yesterday friend-with what-acc made qu  
'What did Hanako make with her friends yesterday?'

In (14a) the position questioned is the object of the postposition to 'with'—note that the NP object precedes the P in Japanese, since this is a head-final language. In (14b) the position questioned is the object of the verb tukurima'esita 'made', which again precedes the verb.

You should now be able to see that just as in an echo question in English, the wh-phrase does not move in these Chinese and Japanese examples, but always remains in the normal position of the phrase being questioned.

In some languages, ordinary questions (rather than echo questions) can be formed either by wh-movement or by wh-in-situ: in other words, it appears that such languages employ both of the available strategies. In (15) and (16) I illustrate from French: the statement is in (15), and the two methods of forming a question are shown in (16):

(15) Tu vois Pierre ce soir.  
you see:2sg Pierre this evening  
'You're seeing Pierre tonight.'

(16) a. Qui tu vois _ ce soir?  
you see:2sg this evening  
'Who are you seeing _ tonight?'

b. Tu vois qui _ ce soir?  
you see:2sg who this evening  
'Who are you seeing _ tonight?'

In (16a) we have wh-fronting, as in English, but in (16b), the wh-word qui 'who' is in exactly the same position - the object position - as the ordinary object NP, Pierre, in (15). It seems, then, that there may be languages which are 'mixed' in terms of their methods for forming wh-questions.

8.1.3 Multiple wh-questions

In Sections 8.1.1 and 8.1.2.1 have discussed the two main alternatives available cross-linguistically for forming wh-questions, and also shown that some languages were.

to employ both strategies. In this final section on questions, I illustrate the strategies which are employed when more than one constituent is questioned in a single clause.

English, of course, is a language with wh-fronting. However, if more than one constituent is questioned, then only one of the resulting wh-expressions can move to the clause-initial position, and the remaining wh-phrase(s) must remain in-situ:

(17) a. [Kim] saw [that stray dog] last night.
   b. [Who] saw [what] last night?
   c. *Who what saw last night?

In (17b) we see the only grammatical option for asking a multiple wh-question in English; (17c) shows that if we attempt to front all of the wh-phrases in such a question, the result is completely ungrammatical.

So what happens in other languages? In wh-in-situ languages, multiple wh-questions also occur, but since there is no wh-fronting, then all the questioned phrases must appear in-situ. Examples (18) and (19) illustrate from Japanese:

(18) Tarou-ga [Yos dik-o] [hon-o ni-satu] ageta.  
Tarou-nom Yosiko-nom book-acc two-classifier gave  
'Tarou gave two books to Yosiko.'

(19) Tarou-ga [dare-ni] [nâni-o] ageta no?  
Tarou-nom who-classifier what-acc made qu  
'Who did Tarou give what?'

In (18) we see a statement, and in (19) two of the constituents in that clause have been questioned: both the indirect object (the dative recipient NP, Yosiko-nom) and the direct object (the accusative theme NP, hon-o ni-satu 'two books'). The wh-phrases replacing these two constituents each remain in-situ, and as (19) shows, each bear the usual case-marking appropriate for the grammatical relations which they hold in the clause.

So far, then, we have seen that multiple wh-questions may be formed as in English, by fronting one wh-phrase and leaving any others in-situ, or as in Japanese, by leaving all wh-phrases in-situ. There is, however, a third option, namely to front all the wh-phrases in a multiple wh-question. This strategy, known as multiple wh-fronting, occurs for instance in some of the Slavic languages, such as Bulgarian and Serbo-Croatian. I illustrate first from Bulgarian: (20) through (23) show that all the wh-phrases are fronted in multiple wh-questions, even if this means fronting three wh-expressions:

(20) Kogo vížda John?  
who sees John  
'Who does John see?'

(21) Koj kogo vidjal?  
whom whom saw  
'Who saw whom?'

(22) Kogo kakvo e pital Ivan?  
whom what is asked Ivan  
'What did Ivan ask whom?'

(23) To je včera odliko lično.  
this was yesterday days' work  
'This was yesterday's work.'
8.2 Focus and Other Movements

Apart from fronting *wh*-phrases, many languages also use movements of constituents in order to focus on a particular phrase, perhaps in order to emphasize it, or else to contrast it with other parts of the clause. In many languages, focussed phrases also move to a clause-initial position. This occurs in English, as I first noted in Chapter 1, as in *Beans I like*, but *spinach I can't stand*. Again, the gap shows the position of the moved constituent; here, it's the direct object of the clause in both these co-ordinated clauses. We have already seen a number of examples of this kind of fronting from other languages. For instance, in the discussion of Mami in Section 7.2, I noted that although the basic constituent order is verb-initial, an absolute NP can be focussed through fronting. And in the exercises for Chapter 5, we saw that Welsh (also verb-initial in basic constituent order) uses fronting for the same purpose. I illustrate with some similar Welsh examples here: (28) shows the normal constituent order, (28a) has a fronted PP and (28b) a fronted VP. I have indicated the basic position of these fronted phrases with a gap:

(28a) Mae Caryl yn palu yn yr ardd heiddiwn. (Welsh)
Mae Caryl yn digon heiddiwn yno. (Welsh)

(28b) Mae Caryl yn palu heiddiwn.

In the garden is Caryl digging today.

(29a) [PP Yn yr ardd] Mae Caryl yn palu — heiddiwn.

'It's in the garden that Caryl is digging today.'

(29b) [VP Palu yn yr ardd] Mae Caryl — heiddiwn.

'digoniwn yno.'

'It's digging in the garden that Caryl is today.'

The English translation of (29b) sounds very odd (hence prefaced with two question marks) because in English a VP constituent can't be focussed in this way - it can't simply be fronted, nor can it occur in the cleft construction. As I noted in Chapter 5, this doesn't mean that there isn't a VP constituent in English, just that not all syntactic processes necessarily apply to all constituents in a language.

And in (30), (31) and (32) we see object-fronting for focus in three Oceanic languages which are normally subject-initial, i.e. SOV or OSV (data from Lynch 1998):

(30) [La paia taume], cau kama hilo-a.

The dog your I not see-it

'As for your dog, I haven't seen it.'

(31) [Borome] Moea e-e ala-ia.

Moea e-e he-kill-it

'The pig, Moea killed it.'

(32) [Nimwa aana n-imataq-asaauli] r-i m-atak-hi.

house that wind-big it-m-destroy

'The house which wind-big destroyed it.'
Focus constructions have a great deal in common with wh-frowning constructions, including the fact that they very often move the fronted phrase to a special clause-initial position, and also the fact that the movement leaves a gap in the clause corresponding to the moved XP (that is, a 'Something' Phrase). Although the clause-initial position is frequently used, cross-linguistically, for the focussing of a constituent, this is not the only option. For instance, in Hungarian and other languages, the position immediately preceding the verb is the position used for contrastive focus. The following illustrate: (33a) and (34a) each show a neutral sentence, i.e. one with no particular focus on any constituent, and the two (b) examples show a constituent moved to the pre-verbal position (shown in bold):

(33a) Péter olvasta a könyvet. (Hungarian)
Peter read the book
'Péter read was reading the book.'

(34a) Tegnap vendégek érkeztek a szállodába.
yesterday guests arrived the hotel-in
'Guests arrived at the hotel yesterday.'

In some languages, a remarkably free constituent order occurs - particularly in languages like Japanese and Korean, which have extensive case-marking; in such languages the variations in phrase order are unlikely to cause any ambiguity, because each of the nominal constituents has a marker showing its grammatical relation. The movements which result in this free phrase order are sometimes referred to as scrambling - constituents may be scrambled up in no particular order. Example (35) illustrates from Japanese, which is subject only to the restriction that the verb must be in final position:

(35a) Kinoo Tarō-ga Ginza-de susi-o tabeta.
yesterday Taro-nom Ginza-in sushi ACC eat-PAST
'Taro ate sushi in Ginza yesterday.'

There are two different verbal prefixes in (36). The first, ø (actually a zero marking, i.e. an absence of any morphology), indicates that the only overtly present NP in the sentence is an object; the subject is 'understood' in (36a), but not overtly present. So this ø marker is co-referential with the 'woman' phrase, to use a term I introduced in Section 7.2. In (36b), the verb has a different prefix, ye-. This is not co-referential with the overtly present NP, the 'man' phrase, hence the different subscripts in the gloss. The ye- prefix in fact indicates that the NP immediately preceding the verb is an agent, i.e. the subject of the verb rather than its object; this time, it's the object which is understood rather than overt. Given an SOV phrase order, the pre-verbal constituent would normally be the object; ye- indicates that the pre-verbal phrase is the subject, instead.

And in fact the same ye- prefix can be used to indicate that the clause has a marked constituent order: when the object is fronted to a position it doesn't normally occupy, this prefix again appears on the verb. Examine the sentences in (37). Here, there are indeed two NPs, i.e. both a subject and an object. Example (37a) represents the unmarked constituent order in the language, namely SOV as noted above:

(37a) dényu tsekui ø-nelpi?
mani womani ø-look
'The man is looking at the woman.'

b. tsékui dényu ye-nelpi?
womani mani ye-look
'The man is looking at her.'
In (37b), however, the object (the ‘woman’ NP) has been fronted, so does not appear in its normal pre-verbal position. How is the person hearing such a sentence to know that t’ekui woman?, is actually the object rather than the subject – despite its clause-initial position – since neither NP has case-marking? This is the function of the ye- prefix; it marks the fact that the immediately preceding NP is an agent (the subject of the clause) and therefore also unambiguously that t’ekui must be the object – the marked constituent order is shown by having this special prefix.

In this section we have seen a small sample of the variety of strategies used cross-linguistically when constituents are moved around within the clause. Of course, all of these movements differ from those discussed in Chapter 7, in that they specifically do not cause any change in the grammatical relations of the moved phrase. Although most languages exploit the possibility of at least some movements of this type, there is a great deal of variation in terms of the freedom or the immobility of phrases.

8.3 RELATIVE CLAUSES

8.3.1 Relative clauses in English

The final construction we look at in this chapter is the RELATIVE CLAUSE. This is a construction which probably occurs in all languages in one form or another. Some typical examples from English are given in (38), where the relative clauses are in brackets.

(38) a. She snarled at the students [who hadn’t read the book].
   b. The paper [which we discuss next week] looks really interesting.
   c. I expect the film [(that) we’re going to tonight] will be fantastic.
   d. They wrote a review of that concert [they heard in Newcastle].

First, you should note that we are dealing with COMPLEX SENTENCES here (see Section 3.2 for a reminder of these). We can tell that these examples are all complex sentences because they each contain more than one main verb: snarled and read in (38a), discuss and looks in (38b) and so on.

A relative clause is a type of embedded clause which modifies (says something about) a HEAD noun in the matrix clause: the head nouns are in bold type in (38). As you can see right away, these embedded clauses – who hadn’t read the book and so on – couldn’t be independent clauses of English, since they are all incomplete in some way, even if we take away the who, which and so on at the start of these clauses.

The function of the relative clause is to restrict the possible set of students, papers, films and concerts to just the subset that the speaker wants to talk about. For example, in (38a), she didn’t snarl at all the students, she snarled at a specific subset of students – only the ones who hadn’t read the book. Relative clauses in other languages may look very different syntactically to the English examples in (38), but they all have in common this property of restricting the set of possible items that the head noun refers to. Cross-linguistically, relative clauses often have other typical features too, as we will see.

Looking specifically at English relative clauses, there are two properties which should help you with their identification. First, we see from (38) that the relative clause in English may just follow straight after the head noun, as in (38d), or else it may begin with a word like who, which or that, as in (38a), (38b) and (38c) respectively. Although their appearance may help you to detect relative clauses, each of these words also has other roles in English, so you need to be careful in using them to identify relative clauses. For example, that is of course a complementizer, and so can also introduce an ordinary embedded clause selected by a verb, as in Lee believed that they’d be back soon. (We can tell that this is not a relative clause because it doesn’t modify a head noun, and doesn’t have the property – outlined above – of referring to a subset.) And the words who and which can occur in wh-questions, as we saw in Section 8.1.

The second property of relative clauses in English is that, like wh-questions, they always contain a gap, and that is why the embedded clauses could not be stand-alone clauses. More precisely, each relative clause in (38) has a ‘missing’ noun phrase, indicated with a dash in (39):

(39) a. __ hadn’t read the book
   b. we discuss __ next week
   c. we’re going to __ tonight
   d. they heard __ in Newcastle

We understand the gap to refer to the same entity as the head noun which is modified by the whole relative clause; for example, (39a) is clearly akin to the simple sentence The students hadn’t read the book, and (39b) to We discuss that paper next week. The gap within the relative clause is known as the RELATIVIZED position, and in English, this can be any position which could contain a noun phrase. So, in (39a) the relativized position is the subject position of the relative clause, in (39b) and (39d), it’s the direct object position, in (39c), the object of the preposition to.

It is also possible in English (though not common cross-linguistically) to have the relativized position as a POSSESSOR noun phrase. For instance, take the example in (40):

(40) This is the child [whose parents we met __ last night].

There is a gap in direct object position in (40): the verb met is transitive. However, the relativized position itself is indeed a possessor NP: the phrase in bold in We met that child’s parents last night. In standard English, though, relative clauses can’t simply leave a gap in the possessor position: this would give something like This is the child we met’s parents last night. This non-standard form is actually quite common in non-standard British English, along with forms like This is the child who met his parents...
But the strategy used in standard English is rather different. Instead of just having the NP gap in the possessor position, the possessed noun *parents* is taken out too; this leaves a gap where the entire NP *that child's parents* would have been. In (40), that position happens to be the direct object of *met*. Then in order to form the relative clause, the relativized position *that child's* is expressed by a special possessive form *who's*, rather than by a gap. And the whole phrase *parents who's* is moved to the dedicated position for *wh*-phrases which comes at the start of the clause, just as we saw in the case of *wh*-questions in Section 8.1.

In fact, even if relative clauses don't contain any overt *wh*-phrase at all, they are always able to do so. In (38c), for instance, we could have *I expect the film which we're going to tonight will be fantastic*. So all relative clauses in English can contain a *wh*-word like *which* or *who*; there are also other possibilities, such as *where* as in *in the place where we met*. Since relative clauses can always utilize a *wh*-word, and since they always contain a gap which indicates movement, linguists consider relative clauses to be one type of *wh*-construction. Indeed, cross-linguistically, relative clauses and *wh*-questions have a great deal in common.

8.3.2 Cross-linguistic variation in relative clauses

Although relative clause constructions in other languages always contain a head noun and a restricting *relative* clause that modifies it, they don't necessarily share any of the other syntactic properties of English relative clauses. For instance, although relative clauses in European languages commonly have a counterpart to the so-called relative pronouns *who* or *which*, introducing the clause, this is rare in other parts of the world.

One major typological distinction (— a distinction in type) is in the order of the relative clause and the head noun. In English, the relative clause follows the head noun. For example, in *the students [who had read the book]*, the relative clause *[who hadn't read the book]* follows *students*. This order is also found in a great many other languages. In (43) and (44) are two examples from languages unrelated to English; I've bracketed the relative clauses, and the head nouns are shown in bold (**which in (43) stands for *subject marker*):

(43) *wa mwi le rra [nrā sivēharru nrā toni] nrā trua numea* (Timrī)
   'the woman there **3sg** like **sm** Tony **3sg** stay Numea'
   'The woman that Tony likes lives in Numea.'

Just as in the English, this example from the Melanesian language Timrī has a gap in the direct object position within the relative clause — the object of the 'likes' verb. The relative clause is not introduced by any relative pronouns or other special markers.

In the Yimas language of Papua New Guinea, the verbal prefix *m-,* glossed as *rel-* for relative marker, functions much like the *wh-word* or *that* in English — to mark the whole relative clause as a definite referring expression (Foley 1991: 413). Note, however, that again this is not a relative pronoun, and does not come at the start of the relative clause — it's simply an affix on the verb:

(44) *ngaykum [īrut ma-nampa-ngi-um]* (Yimas)
   *women nat REL-weave-pres-3fr.*
   'the women who are weaving the mats'

Since it is so familiar to readers of English, it may seem natural that relative clauses follow the head noun. In many languages, though, the relative clause *precedes* the head noun, as in the Japanese examples in (45) and (46), where the head nouns are shown in bold type, and the position of the gap within the relative clause is shown with a dash:

(45) *[kimura-san-ga __ katte-iru] inu* (Japanese)
    *Kimura-Mr-nom keeps-nomdat dog*
    'the dog that Mr. Kimura keeps'

(46) *[kimura-san-ga __ inu-o ageta] kodomo* (Japanese)
    *Kimura-Mr-nom dog-acc give-nom dat child*
    'the child to whom Mr. Kimura gave a dog'

In (45), the relativized position is the direct object of the verb meaning 'keep'; recall that Japanese is an SOV language, so the 'missing' object NP immediately precedes the verb.
the verb in the bracketed relative clause. And in (46), the relativized position is the indirect object of the verb *atta gave*; the basic position for an indirect object in Japanese is before the direct object, hence the position of the gap shown here. Note that there is no equivalent to the English ‘relative pronouns’ *who* or *which* in Japanese, or indeed any other word introducing the relative clause, and that the relative clause simply comes right before the head noun.

The examples in (45) and (46) are not full sentences, of course, but noun phrases, consisting of a head noun modified by the relative clause; the same applies to their English translations, and indeed to all relative clause constructions. These are rather special NPs, though: a noun with a clausal modifier of any kind is known as a *complex NP*, so ‘head noun plus relative clause’ is one type of complex NP. As with the term ‘complex sentence’, this technical term doesn’t mean ‘complicated’, but simply indicates a construction with an embedded clause. If we put our complex NPs into a sentence, we can see that — just like any other noun phrases — they can slot into whatever position an NP can fill. For instance, both NPs (bracketed) can be subjects:

(47) [The dog that Mr. Kimura keeps] has a bad cough.  
[The child to whom Mr. Kimura gave a dog] has a bad cough.

Or alternatively, both NPs can be direct objects:

(48) I’ve never liked [the dog that Mr. Kimura keeps].  
I’ve never liked [the child to whom Mr. Kimura gave a dog].

In the Japanese example in (49), and in its English translation, we see the whole complex NP used as the subject of a clause: the head noun, meaning ‘book’, is again in bold:

(49) [Kinou Ziroo- ga & yondeita hon]-ga nakumatta. (Japanese)  
yesterday Ziroo- nom (ACC) was reading book-nom missing  
[The book that Ziro was reading yesterday] is missing.

In Japanese, the whole complex NP is marked as the subject of the clause by the fact that it bears nominative case, the case for subjects — the *-ga* marker at the end of the complex NP signals this. Note, though, that the gap within the relative clause itself is a direct object gap in (49), in both languages; the relativized position is the object of the ‘read’ verb. For that reason, I have marked the gap in the gloss as ‘accusative’, the case of direct objects in Japanese.

The constituent order ‘relative clause — head noun’ which we saw in Japanese is common in other verb-final — and thus generally head-final — languages. For instance, the relative clause construction which is native to Turkish (a language with SOV constituent order) is also head-final in this way (Kornfilt 1997), and the same applies to Korean. Hungarian, however, has both types of relative clauses — the English pattern ‘head noun — relative clause’ as well as the head-final pattern.

A third ordering possibility, which is much rarer cross-linguistically, is for the head noun to appear inside the relative clause itself. My example is from Bambara, a member of the African language family Mande. Consider first a simple sentence, where the constituent order is SOV (Subject—Object—Verb):

(50) tye ye so san  
man pasr horse buy  
'The man bought the horse.'

When a relative clause is formed on the object of this sentence, namely the word *so horse*, the head noun (shown in bold) is actually within the relative clause, bracketed in (51):

(51) tye ye [ne ye so min ye] san  
man pasr I pasr horse which see buy  
'The man bought the horse which I saw.'

So far, then, we have seen that relative clauses may follow the head noun, or may precede it, and that a third, less common, pattern is to have what are known as internally headed relative clauses, as in the Bambara example.

The other main distinction in the typology of relative clauses concerns whether or not there’s a gap in the relativized position. Although the gap strategy is standard in English, many other languages require the relativized position to contain a pronoun or a full noun phrase. Compare (52) with the English translation (the Hausa word *da* at the start of the relative clause is a relative marker):

(52) wuqad [da ya kashe ta da ita]  
knife rel he killed her with it  
‘the knife that he killed her with’.

The relativized position both in the Hausa and in the English translation is the object of the ‘with’ preposition. In English this position contains a gap, as shown, but in Hausa the relativized position contains a pronoun, shown in bold. Cross-linguistically, this is a common relativization strategy when the relativized position is the object of a preposition. English is unusual in that it allows prepositions to be ‘stranded’ at the end of the clause (left with no prepositional object) as in the translation of (52). The pronoun found in such a construction is known as a *resumptive pronoun*. In very informal English, we sometimes also allow a resumptive pronoun in the relativized position, as in *There’s that guy in the leather jacket that we saw him around a few times in the market*, where the resumptive element is shown in bold. In standard English, however, there would instead be a gap in this position.

The Bambara example in (51) does not contain a gap in the relativized position either, but nor does it contain a resumptive pronoun; instead, the head noun itself appears in the relativized position. In such cases, the relative clause is a full clause — it has a relative pronoun, for instance — just as in the English example (50).
8.4 SOME CONCLUSIONS

In this chapter we have seen a variety of what are known as wh-constructions. Although these do not all contain an actual wh-word or phrase — or its equivalent in other languages — there are various properties which are common to these constructions, and this leads linguists generally to regard them as a related family of constructions. In English, the potential presence of a wh-expression (as in *The animals (which) I was filming yesterday*), plus the existence of a gap within the clause, from which some phrase has moved, are two reliable signs of a wh-construction. This also applies to other constructions which we haven't illustrated so far in this chapter, such as those in (53) and (54):

(53) What a strong swimmer Kim is!
    How tired I feel these days!

(54) Kim is stronger than Lee is.
    Wrens are smaller than robins are.

The examples in (53) are known as **exclamatives** (something that you exclaim), and are reasonably transparently seen as wh-constructions with a fronted wh-phrase and a gap. Note that these are related to a statement such as *Kim is such a strong swimmer, or I feel so tired these days.*

The examples in (54), on the other hand, are less obviously wh-constructions, even though they do contain a gap. Note, though, that these **comparative** constructions may contain an overt wh-word in non-standard English, as in *Kim is stronger than what Lee is.* Such evidence is regarded as a legitimate sign of a wh-construction.

We have seen that not all languages have what is known as wh-movement, either in interrogative clauses, or within a relative clause. However, despite the existence of superficial differences cross-linguistically, all these constructions are nonetheless considered to be closely related to the more familiar wh-constructions which do display movement, including the ones seen in this short section.

**FURTHER READING**

On relative clauses, central readings are Keenan and Comrie (1977), Comrie (1989: ch. 7) and Keenan (1985b). On wh-questions and the idea that they leave a gap in the extraction site, see Radford (1988: ch. 9). A seminal reading on wh-constructions and their general properties, though one which you will almost certainly find very challenging, is Chomsky (1977).

**EXERCISES**

1. Consider the Turkish wh-questions illustrated in (1) through (6), taken from Kornfilt (1992). What is the generalization concerning the position of the wh-phrase? (In other words, what single statement can you make about its position which will account for all the examples shown?)

   **Hints**
   a. It may help you to recall that Turkish is an SOV language — its basic constituent order is subject—object—verb.
   b. Example (5) contains an embedded clause.

   (1) bu kitab-ı kim oku-du?
       this book-ACC who read-PAST
       "Who read this book?"

   (2) Hasan kitab-ı kim-e ver-di?
       Hasan book-ACC who-DATIVE read-PAST
       "To whom did Hasan give the book?"

   (3) Mehmet tarafından kim öl-dür-ül-dii?
       Mehmet by who die—PASSIVE-PAST
       "Who was killed by Mehmet?"

   (4) Hasan ne-yi oku-du?
       Hasan what-ACC read-PAST
       "What did Hasan read?"

   (5) Hasan [cinemaya kim git-ta] san-yor?
       Hasan cinema-DATIVE who go-PAST believe-PRET
       "Who does Hasan think went to the cinema?"

   (6) Hasan dün hangi kız-la dans-et-ti?
       Hasan yesterday which girl—with dance-do-PAST
       "Which girl did Hasan dance with yesterday?"

2. The data in this exercise are from Malayalam, a Dravidian language of India, and are taken from Asher and Kumar (1997). The examples show two kinds of data. There are eight examples that illustrate some basic, unmarked sentences, and the remaining seven are examples with various different constituents contrastively focused: the italics in the English translation enable you to work out which constituent in the Malayalam is being focussed. Your task is to indicate how this focus is achieved in Malayalam, and state which part of the clause is being focussed in each example that has it.

   **Hints**
   I have jumbled up the data illustrating unmarked sentences and the sentences with focus, but you will probably find it helpful to sort the sentences out into an A set (unmarked) and a B set (those with focus) before you start, and to group similar examples together. This will allow you to keep track of what you are doing.

   (1) kitab-ı kim oku-du?
       this book-ACC who read-PAST
       "Who read this book?"

   (2) Hasan kitab-ı kim-e ver-di?
       Hasan book-ACC who-DATIVE read-PAST
       "To whom did Hasan give the book?"

   (3) Mehmet tarafından kim öl-dür-ül-dii?
       Mehmet by who die—PASSIVE-PAST
       "Who was killed by Mehmet?"

   (4) Hasan ne-yi oku-du?
       Hasan what-ACC read-PAST
       "What did Hasan read?"

   (5) Hasan [cinemaya kim git-ta] san-yor?
       Hasan cinema-DATIVE who go-PAST believe-PRET
       "Who does Hasan think went to the cinema?"

   (6) Hasan dün hangi kız-la dans-et-ti?
       Hasan yesterday which girl—with dance-do-PAST
       "Which girl did Hasan dance with yesterday?"
examples. You have enough data here to work out the essential facts concerning how focus is achieved in Malagasy.

There are a few minor morphological (i.e. not syntactic) irregularities in the data; I have not ironed these out, but left them as examples of the natural, untidy nature of linguistic data. Comment on any that you find.

(1) naan ininla vanmu
    I yesterday come:PAST
    'I came yesterday.'

(2) nii poyee tiiru
    you go must
    'You really must go.'

(3) avan ato ceytilla
    he it come:PSTNEG
    'He didn't do it.'

(4) kuti viittil illa
    child at:home NEG
    'The child is not at home.'

(5) naane varuun
    I come:PSTFUT
    'I shall come.'

(6) avan varum
    he come:PSTFUT
    'He will come.'

(7) naan pagayaan maranmu
    I talk:PST forget:PAST
    'I forgot to say.'

(8) nii pookaane paatilla
    you go:PSTNEG prohibition
    'You should not go.'

(9) avan ezutanee pataanjuluu
    he write:PST NEG
    'He only told me to write.'

(10) avan pookaan paatilla
    he go:PST NEG prohibition
    'He mustn't go.'

(11) parayaanee paatilla
talk:PST NEG prohibition
    'You should not talk.'

(12) poostt saadharaana rani manjikko varunnu
    post usually two hour:DATIVE come:IMPER
    'The post usually comes at two o'clock.'

(13) avane varum
    he come:PSTFUT
    'He alone will come.'

(14) naale patta manjikko varunnu
    tomorrow ten hour:DATIVE come:IMPERATIVE
    'Come at ten o'clock tomorrow.'

(15) avan ato ceytceyilla
    he it come:PSTNEG
    'He didn't do it.'

3. In Kambera, certain verbs can take a nasal prefix (either m- or ng-), giving such pairs as: puta 'to break something' and mbata 'to be broken'; pana 'to heat up something' and mbana 'to be warm/hot'; kudang 'to move something' and nggodaang 'to be loose (e.g. a tooth'). Examine these pairs, along with the data in (1) and (2) below, (slightly adapted from Klamer 1994) and figure out what is the function of the nasal prefix.

Hints

a. Kambera doesn't have a distinct word class of adjectives, but uses verbs instead: see Section 2.2.3.3 for a discussion of languages of this type.

b. The example in (2a) is a relative clause with a gap in direct object position: see Section 8.3.

c. It will help to consider what NP arguments the verbs have in (1) and (2). Note that as a head-marking language, Kambera doesn't always have overt pronouns in argument positions - the markers on the verb can perform the same function. So in (1a), for instance, the subject - which I've translated as 'you' - is represented not by an independent pronoun in Kambera, but as a 2sc affix on the verb.

(1) a. Ka u-kungul-nya na ngohung!
    so 2scSp-roll-3sc:Ox the container
    'You roll the container away!'  

b. Nggungul-nanya na ngohung
    roll:3sc the container
    'The container is rolling away.'

(2) a. na kalembi na pa-baha-na __
    the clothes the rel-wash-3sg
    'I washed the clothes.'

(2) b. na kalembi na pa-baha-na __
    the clothes the rel-wash-3sg
    'I washed the clothes.'
b. Na-mbaha na kalembi-ngin nyungga
   3sc:Su-be.wet the clothes-my I
   'My clothes are wet.'

In light of your answer, why is the relative clause in (3) ungrammatical?

(3) *na kalembi na pa-mbaha-na
   the clothes the REL-be.wet-3sg
   ('the clothes that she washed')

4. Several examples in Chapter 4 introduced the idea that nouns can take clauses
   as complements: see for example (15c, d, e). The examples in (1) illustrate more noun
   complement clauses, whilst those in (2) all illustrate relative clauses. Each of these
   constructions is one kind of complex NP (see Section 8.3.2): in both sets of data
   the head noun is modified by a clause, but there are distinct differences between
   the complement clauses and the relative clauses. There are four major syntactic
   differences between the two constructions; list as many of these as you can,
   assuming the grammaticality judgements given. (The star outside the parentheses
   in (1c) means that the example is ungrammatical without the material inside the
   parentheses.)

(1) a. the belief that* which you stated something obvious
   b. the notion* sincerity that you were perceiving the earth to be flat
   c. the hypothesis *(that) the earth is flat

(2) a. the belief that which you stated
   b. the notion sincerity that you were perceiving
   c. the hypothesis (that) you heard yesterday

5. This exercise asks you to examine relative clause formation in four typologically
   distinct languages. Data set A is from Malayalam; set B is from Ndyuka; set C is
   from Romanian; set D is from Welsh. For each data set, identify:
   i. whether the relative clause precedes or follows the head noun in that language;
      you only need to do this once for each data set;
   ii. where possible, what the head noun is in each separate example;
   iii. whether the language utilizes a 'gap' in each relativized position, or whether
      this position instead contains a resumptive pronoun. You need to do this for each
      separate example. An example may contain more than one relative clause,
      each with different properties.

Hints

a. A few of the examples in the data sets that follow contain headless relative
   clauses. There don't have a head noun for instance in English sentences.

would be Who dares wins. Obviously, in these cases you will not be able to
identify any head noun.

b. Welsh (Set D) has inflected prepositions; see Section 4.3.2 for a reminder of this.

A. Malayalam (from Asher and Kumari 1997)

(1) o'rkkal kalava ceyta kalan tanne pinneyum kattu
   once theft did thief know later also stole
   'The same thief who committed one theft stole again later.'

(2) innale kallaal viina ilakal olde vaari kalajju
   yesterday wind in fell leaves all sweep up thrown away
   'All the leaves that fell in the wind yesterday were swept up and thrown away.'

(3) enikko kittunna pustakam paan taran
   know get book I giveup
   'I shall give (you) the book which I will get.'

(4) ri viittil viannittu[l]avar kunji en ne kanittilla
   house in comepref presnom/kaup on me see.prespass
   'Even those who have come to this house have not seen me.'

B. Ndyuka (from Huttar and Huttar 1994)

(5) a neti di a kisi a decen ya
   the night ra he catch the dream here
   'the night he had this dream'

(6) a basi di mi wooko gi
   the boss rel I work give
   'the boss that I worked for'

(7) a bofou, di mi feti anga en, di mi kii
   the tapir rel I struggle with 3sg rel I kill
   'the tapir which I struggled with, which I killed'

(8) di fi en di a be komoto anga en a bee
   that for 3sg rel he fast come.out with 3sg from stomach
   'the one that was his, the one with which he had come out of the womb'

C. Romanian (from Matras 2002)

(9) koi curly kaj ciomoni i matele
   this knife rel cut:sg the potatoes
   'the knife with which I cut the potatoes'

(10) jek torba kaj ikeravas la katro dumo
    a bag rel carry:sg it from:sg back
    'a bag which I carried back'