THE SYNTAX OF SENTENTIAL COMPLEMENTS
IN SHONA

by

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ABSTRACT

This study is concerned with embedded sentences in Shona which are not relative clauses. These complements seem to be of two types, namely, those dominated by NP which are referred to as noun phrase complements and those directly dominated by VP which are referred to as verb phrase complements. The case for each type is argued in the first chapter. The second chapter deals with the complementizing morphemes found in Shona (Zezuru dialect). A procedure is adopted by which complementizers are identified. This study also brings out the fact that infinitival complements and derived nominals should be treated differently. Evidence is adduced to show that the former are derived transformationally, but not the latter. Chapter Four discusses the insertion of complementizers into the underlying structure by analyzing first the transformational approach, then its inadequacy, and finally the phrase structure approach. The latter approach is preferred to the former on empirical evidence. The transformational rules which are mentioned in this study are described in the fifth chapter. Although some of the rules are dealt with fairly extensively, for others no more than an outline is given. The main purpose of this chapter was to provide only enough information about how these rules work in order to facilitate understanding of the thesis. The grammatical function of embedded sentences, that is, whether a given complement clause functions as a subject or an object etc, is the concern of Chapter Six.

I consider the main contribution of this thesis to be the chapters dealing with (a) the arguments for setting up the two types of sentence complements, (b) procedures for the discovery of complementizers, (c) the arguments showing how complementizers should be inserted into the underlying structure, and (d) the distribution in sentences of embedded clauses.
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BIBLIOGRAPHY
INTRODUCTION

This study is an attempt to describe complement or embedded sentences in Shona. In part it is a reaction to the treatment of complement sentences in the constituent structure model as reflected in Shona Grammatical Constructions. In that work there were some problems which were encountered and which remained unsolved. Some of them are outlined below.

In the work referred to above some complement sentences are treated as part of auxiliary verb phrases which are defined structurally as:

+ auxiliary verb radical + complement

This complement is in fact an embedded clause. What is implied in this structural definition is that the auxiliary verb radical and its complement are two immediate constituents of this intermediate structure. The auxiliary verb phrase is then said to be inflected for one or another of the moods in Shona. The inflected auxiliary verb phrase is defined as:

+ inflection + auxiliary verb phrase

implying that the inflection and the auxiliary verb phrase are two immediate constituents.

E.g. (1) Ndi-ri kutora mari (I am taking some money)

(2) Ha-ndi-na kutora mari (I did not take any money)

(1) G. Fortune in Shona Grammatical Constructions, Part II
   (forthcoming).

(2) These examples are taken from Shona Grammatical Constructions,
   p. 107.
Although this analysis correctly informs us that there are two verbs in each of these sentences above, it however fails to tell us what the grammatical subject of the verb kutora is in (1) and (2) and of kunge in (3), nor are we told what has happened to these subjects in the course of the derivation. If our grammar is going to be adequate all these facts must be described.

The ambiguity of some sentences which contain embedded clauses can hardly be accounted for in the constituent structure model. To this end consider the following sentences:

(4) Nguruve iyi yakurisa kudya.
This sentence may mean either that the pig is so old that it cannot eat or that the pig is so old that its meat is difficult to be eaten. That is, on one reading the noun phrase nguruve iyi is the subject of the verb kudya while on the other reading it is a direct object. The analysis of sentence (4) would be something like this:

(5) Nguruve iyi yakurisa kudya.

Whatever the correct analysis of this sentence may be according to the structuralists, the crucial point nevertheless is that there is no way of showing in the analysis itself that the sentence has two semantic readings. Yet it is essential to describe how this sentence came to be ambiguous.
A similar problem arises in analysing sentences which are structurally homonymous like those in (6) and (7).

(6) Huku yacho inoshupa kudya.
(The chicken is difficult to eat)

(7) Huku yacho inoda kudya.
(The chicken likes to feed.)

A constituent type of grammar would analyse these two sentences in the same way that (5) is analysed. That is, (6) and (7) would have an identical analysis. But our intuition as native speakers of Shona reveals that in (6) the noun phrase huku yacho is a direct object of the verb kudya, while in (7) the same noun phrase is a subject of kudya. Therefore if our grammar is to be descriptively adequate it must be reflected in the analysis that the grammatical relationship between huku yacho and kudya is different in the two sentences (6) and (7).

In any given sentence we would like our grammar to be able to describe the relationship that obtains between the various constituents. Now if we examine sentences (8) and (9) below we notice that the strings achifara and yakatengwa kwaGotora actually belong to the subject noun phrases murume and mombe iye respectively to which they refer.

(8) Murume akaita basa rakese achifara.
(The man did his work happily.)

(9) Mombe iye yakarumwa nebere, yakatengwa kwaGotora.
(That cow was killed by a hyena, which was bought from Gotora's kraal.)

In a constituent type of grammar it would be difficult to show that the complement clauses achifara and yakatengwa kwaGotora belong to the subject noun phrases of these sentences, or at least that they start off from these subject noun phrases.
Another process which a constituent structure type of grammar seems ill-equipped to handle is the transformation commonly referred to in the literature as raising. Towards this end consider the sentences in (10).

(10)  
a. Vanhu vanoziva kuti ndiwe wakaita zvinhu izvi.  
(The people know that it was you who did these things.)  
b. Vanhu vanokuziva kuti ndiwe wakaita zvinhu izvi.  
(The people know you to have done these things.)

The two sentences in (10) mean more or less the same thing. The direct object of the verb -ziva in (10a) is kuti ndiwe wakaita zvinhu izvi and the noun phrase iwe (you) is part of the embedded clause. But in (10b) the direct object of -ziva is iwe which is represented by its pronominal form -ku-. I do not know how a constituent type of grammar would cope with the analysis of these two sentences while at the same time accounting for their synonymity.

0.2. In part this study is a test of the theories, as applied to Shona, that have been propounded in the generative transformational grammar model concerning sentential complements. The study, though basically carried within the framework of Aspects of the Theory of Syntax, incorporates much of the modification which that work has undergone since its publication in 1965.

I.0 **SENTENTIAL COMPLEMENTS OF VERBS**

I.1 It is a generally accepted fact that the number of sentences in any language is potentially infinite. That this is true is easy to comprehend because sentences may be constructed with other sentences embedded in them. This process of recursion is one of the properties of language. Through recursion the phrase structure rules which generated the first sentence may be applied again to produce an embedded sentence, and the process can be repeated several times. The most commonly discussed processes of recursion are conjunction, relativization and sentential complementation (or predicate complementation, as it is sometimes called). This study will be concerned almost exclusively with sentential complementation. Sentential complementation may be divided into noun phrase complementation and verb phrase complementation.

I.2 **The Case For Noun Phrase Complementation**

In order to appreciate more fully the arguments which follow not only in this chapter, but in later chapters as well, it may be as well to discuss first how we can discover (a) noun phrases which are in a subject position and (b) those which are in an object position.

I.2.1 Tests for noun phrases in subject position

Although there may be many tests for discovering noun phrases in subject position only two will be discussed here. The quantity of tests by itself is inconsequential. What is important is to be able to recognize a noun phrase that is functioning as a subject.

1. See Appendix A for the phrase structure rules of Shona.
First, if there is concordial agreement between a noun phrase and a predicate, that noun phrase is functioning as a subject. In other words, if a noun phrase has its class feature copied on to the auxiliary in the structural change of the Gender Copying rule, that noun phrase is in a subject position. For instance, given the following sentence:

(1) Vakomana vanotambá nhabvu.

(Boys play football.)

it may be represented roughly by the following tree in (2). There is an obligatory rule in Shona which states that whenever there is a noun phrase which occurs before AUX, copy the class feature of that noun phrase on to AUX as in (3) below. The rule of Gender Copying will be presented formally in Chapter 5.

(2)

Here are more examples to illustrate what is meant by concordial agreement between a noun phrase in subject position and its predicate:

(4) a. Chingwa (7) chakaora².

(The bread is mouldy.)

2. The number placed after a noun phrase here and in the rest of this study indicates the noun class to which the noun phrase belongs.
b. Zvengo (8) zvawa.
(The walls fell down.)
c. Mazai (6) achapunziika.
(The eggs will get broken.)
d. Rufu (11) runuva kumunhu we se we se.
(Death comes to every person.)
e. Mumba (18) maitonhora.
(inside the house - it was cold =
it was cold inside the house.)

1.2.1.2 The second test involves the interrogative pro-forms ani and chii. The form ani is used for human noun phrases while chii is used for non-human noun phrases. In this case the interrogative pro-forms, in addition to substituting for a noun phrase, are stabilised, or in other words turned into a predicate, with the rest of the sentence becoming a relative clause. With regard to ani this is done by the use of the formative ndi. If, for instance, we wish to find out whether or not vakomana in (1) is a subject noun phrase, we first of all find out whether it has the feature /human/ or not. In this case we see that it has the feature /human/. As we saw earlier on the interrogative pro-form which we need in this case is ani. Applying what has been said above, (1) is transformed into (5).

(5) Ndiani anotamba nhabvu? (reply: vakomana)
(it is who - who plays - football =
Who plays football? (reply: boys))

Note that ani as such has singular reference and this explains why we have the class feature a rather than va before the tense sign no in (5). Notice also the difference in their tone pattern between vanotamba nhabvu in (1) and anotamba nhabvu in (5). The former is in the indicative mood while the latter is in the relative mood. However this is not to say that this is the only difference
there is between the indicative and relative constructions.

If we want to find out whether *chingwa* in (4a) is a subject noun phrase or not we proceed in the same way. Here we discover that *chingwa* has the feature $[^\text{human}]$. Therefore the interrogative pro-form which we are going to employ is *chii*. We transform the structure which underlies (4a) into that which underlies (6).

(6) Chii chakaora?   (reply: *chingwa*)
(lit. it is what - that is mouldy=
  What is mouldy?)   (reply: *bread*)

In this case the result of the stabilization or predication of *chii* consists of raising the tone on the class affix *chi* and lowering the tone on the following syllable. Here are further illustrative examples;

(7) a. (i) Mwana (1) akarara.
(The child is asleep.)
(ii) Ndiani akarara? (reply: *mwana*)
(lit. it is who - who is asleep =
  Who is asleep?) (reply: the child)

b. (i) Sara (1a) aenda kunochera mvura.
(Sara - went - to fetch - water =
Sara has gone to fetch some water.)
(ii) Ndiani aenda kunochera mvura? (reply: *Sara*)
(it is who - who went - to fetch - water =
Who has gone to fetch some water?) (reply: *Sara*)

c. (i) Harahwa (9) yaitonhorwa nechando.
(old man - was being cooled - by cold =
The old man was feeling cold.)
1.2.2 Tests for noun phrases in object position

For discovering noun phrases which are in object position, four procedural methods will be discussed in this subsection.

I.2.2.1 The Passive test

Let us consider the sentence below:

(8) Toni anoda Koni.

(Toni loves Koni.)

In this sentence there are two noun phrases, namely Toni and Koni. If this sentence is transformed into the passive it becomes

(9) Koni anodiwa naToni.

(Koni - is loved - by Toni =

Koni is loved by Toni.)

What the passive transformation did was to interchange the noun phrase Toni and Koni. Koni is now the grammatical subject. The claim made by passive test is that the string which is made the
subject by transformation is an object noun phrase. Now consider the following sentences:

(10) a. Mwana akuvara ruoko.
    (child - got hurt - arm =
    The child hurt its arm.)

    b. *Ruoko rwakuvarwa nemwana?
    (arm - was hurt - by child =
    *Its arm was hurt by the child.)

(11) a. Bonda akacheka vana nzara.
    (Bonda - cut - children - finger-nails =
    Bonda cut the children's finger-nails.)

    b. Vana vakachekwa nzara naBonda.
    (children - were cut - finger-nails - by Bonda =
    The children had their finger-nails cut by Bonda.)

    c. *Nzara dzakachekwa vana naBonda.
    (finger-nails - were cut - children - by Bonda =
    *Finger-nails were cut the children by Bonda.)

(12) a. Ambuya vakapa muzukuru doro kavin,
    (grandmother - gave - grandson - beer - twice =
    The grandmother gave her grandson some beer twice.)

    b. Muzukuru akaphwa doro kaviri naambuya.
    (grandson - was given - beer - twice - by grandmother =
    The grandson was given some beer twice by his grandmother)

    c. Doro rakaphwa muzukuru kaviri naambuya.
    (beer - was given - grandson - twice - by grandmother =
    Beer was offered to the grandson twice by his grandmother)

3. The asterisk (*) will be used throughout this work to signify an ungrammatical sentence.
d. *Kaviri kakapihwa muzukuru doro naambuya.

(*twice - was given - grandson - beer - by grandmother.)

By the passive transformation ruoko in (10b), vana and nzara in (11b) and (11c), and muzukuru, doro and kaviri in (12b), (12c) and (12d) respectively have become the new grammatical subjects. The ungrammaticality of (10b) indicates that ruoko in (10a) is not an object noun phrase. In (11a) only vana is an object noun phrase as is evidenced by the grammaticality of (11b), and the ungrammaticality of (11c). The well-formedness of the passive sentences in (12b) and (12c) shows that muzukuru and doro are object noun phrases. Kaviri, although it is a noun phrase of some kind, at least in form, is not an object noun phrase as the ungrammaticality of (12d) shows.

Locative noun phrases occurring after the verb can be transposed to the subject position by the passive transformation indicating that according to this test such locative noun phrases are to be regarded as object noun phrases.

(13) a. Jeke akaona nyoka kurukova.

(Jack - saw - a snake - at river -
Jack saw a snake at the river.)

b. Nyoka yakaonekwa kurukova najeke.

(snake - was seen - at river - by Jack -
A snake was seen at the river by Jack.)

c. Kurukova kwakaonekwa nyoka najeke.

(at river - was seen - a snake - by Jack -
A snake was seen at the river by Jack.)

(14) a. VekwaChari vanochera mvure patsime iri.

(Chari's people - fetch - water - at well - this -
Chari's people get their water supply from this well.)
b. N'vura inocherwa patsíme iri nevekwa Chari.

(water - is fetched - at well - this - by Chari's people =

Water is fetched from this well by Chari's people.)

c. Patsíme iri panocherwa mvura nevekwa Chari.

(at well - this - is fetched - water - by Chari's people =

Chari's people fetch their water from this well.)

(15) a. Sekai akakanda Toko bhora kuchikoro.

( Sekai - threw - Toko - ball - at school =

Sekai threw a ball to Toko at school.)

b. Toko akakandwa bhora kuchikoro na Sekai.

( Toko - was thrown - ball - at school - by Sekai =

Toko was thrown a ball at school by Sekai.)

c. Bhora rakakandwa Toko kuchikoro na Sekai.

( ball - was thrown - Toko - at school - by Sekai =

A ball was thrown to Toko at school by Sekai.)

d. Kuchikoro kwakakandwa Toko bhora na Sekai.

( at school - was thrown - Toko - ball - by Sekai =

Sekai threw a ball to Toko at school.)


(Zanza - told - Mafaro - story - that - at beer hall =

Zanza told Mafaro that story at the beer hall.)

b. Mafaro akaudzwa nyaya iye kubhawa na Zanza.

(Mafaro - was told - story - that - at beer hall -

by Zanza =

Mafaro was told that story at the beer hall by Zanza.)

c. Nyaya iye yakaudzwa Mafaro kubhawa na Zanza.

( story - that - was told - Mafaro - at beer hall -

by Zanza =

That story was related to Mafaro at the beer hall

by Zanza.)
d. Kubhawa kwakaudzwa Mafaro nyaya iye naZanza.
(at beer hall - was related - story - that -Mafaro -
by Zanza -
Mafaro had that story narrated to him at the beer hall
by Zanza.)

Although a locative noun phrase which occurs after the verb can
be transposed to the subject position by the passive transformation,
there seem to be degrees of acceptability of the resulting sentences
depending on the number of other noun phrases occurring before
it in the input sentence. For instance, in (13a) and (14a) the
locative noun phrases kurukova and patsime iri respectively each
constitutes the second object noun phrase. But in (15a) and (16a)
the locative noun phrases kuchikoro and kubhawa respectively each
forms the third object noun phrase. The locatives which are
mentioned above form the grammatical subjects of the passive
sentences in (13c), (14c), (15d) and (16d), respectively. Nevertheless,
we know intuitively that the sentences in (13c) and (14c) are more
acceptable than those in (15d) and (16d). Still all the four
sentences are grammatical. However since locative complements can
occur after almost any verb in Shona one wonders whether they
ought really to be looked upon as object noun phrases.

A noun phrase which expresses time does not appear to
be confirmed as an object noun phrase by the passive test as the
following examples will illustrate:

(17) a. Mukomana akabata mbeva nezuro.
   (boy - caught - mice - yesterday =
The boy caught some mice yesterday.)
(18) a. Mapurisa achasvi ka kumbo kwenyu mangwana.
(policemen - will arrive- at home - your - tomorrow =
The policemen will get to your house tomorrow.)
b. Kumbo kwenyu kuchasvikwa mangwana nemapurisa.
(at your home - will be arrived - tomorrow - by policemen =
The policemen will get to your house tomorrow.)
(* Tomorrow - will be arrived - at your house - by the policemen.)

1. 2. 2. The interrogative Pro-form test

This test involves substituting the interrogative pro-forms ani? and chi?? for the noun phrase which we suspect to be an object noun phrase. If the answer to the resulting question is a grammatical sentence, that noun phrase is an object noun phrase.

The examples in (19) - (22) show how this test works.

(19) a. Toni ánoda Koni. (see (8))
b. Toni ánoda ani? (reply: Koni)
   (Toni loves whom?) (reply: Koni)

(20) a. Mwana akakuvara ruoko. (see (10))
b. Mwana akakuvara chi?? (reply: ruoko)
   (child - was injured-what =
The child was injured where?) (reply: on the arm)

(21) a. Bondá ákachéka vaná nzara. (see (11))
b. Bondá ákachéka ani nzara? (reply: vaná)
   (Bondá - cut - whom - finger-nails =
Bondá cut whose finger-nails? (reply: the children's)
c. Bondá ákachéka vaná chi?? (reply: nzara)
(Bonda - cut - children - what =
Bonda cut the children's what? (reply: finger-nails)

(22) a. Ambuya vakapá múzukuru doro kaviri. (see 12)
b. Ambuya vakapá ani’ doro kaviri? (reply: múzukuru)
(grandmother - gave - whom - beer - twice =
Who did grandmother give beer twice? (reply: her grandson)
c. Ambuya vakapá múzukuru chii kaviri? (reply: doro)
(grandmother - gave - grandson - what - twice =
What did grandmother give to her grandson twice?
(reply: beer))
d. *Ambuya vakapá múzukuru doro chii? (reply: kaviri)
(*The grandmother - gave - her grandson - beer - what?)
(reply: twice))

Observe that this test will confirm ruoko and nzara in (20) and (21) respectively as object noun phrases. But in actual fact these cannot be said to be object noun phrases in the true sense. To say that ruoko here is an object noun phrase is counter-intuitive. In this respect it would appear that this test is less reliable than the passive test.

Nonetheless in view of the fact that the nature of the complements of the verbs of the type exemplified by -kuvara in (20) and -cheka in (21)\(^4\) is not clearly understood at this stage in Shona linguistic studies one cannot make a categorical statement as to which of these two tests is more reliable than the other.

Locative noun phrases occurring after the verb will be rejected as object noun phrases by the interrogative pro-form test.

(23) a. Jeke a'kaoná nyokó kurukova. (see 13)

\(^4\) For a comment on verb phrases featuring verbs of this type see p. 180 - 182.
(24) a. VekuChari vanochera mvura patsime iri. (see (14))
   b. *VekuChari vanochera mvura chii? (reply: patsime iri)
      (*Chari's people - fetch - water - what?)

(26) a. Mukomana akabata mbeva nezuro. (see (17))
   b. *Mukomana akabata mbeva chii? (reply: nezuro)
      (*The boy - caught - mice - what?)

(27) a. Mapurisa achasvika kumba kwenyu mangwana (see (18))
   b. *Mapurisa achasvika kumba kwenyu chii? (reply: mangwana)
      (*Policemen - will arrive - at home - your - what?)

1.2.2.3 The Object Anaphora test

The transformational rule of Object Anaphora is discussed in some detail in (5-13). What it is briefly is that in Shona some noun phrase complements of verbs may be represented by their pro-forms (or object prefixes as they are often referred to in Bantu linguistic studies) if the proper structural description for this rule is met. Such pro-forms are normally reflexes of the noun prefix. The claim that is made by this test is that a noun phrase complement which can be represented by its pro-form by this transformation is an object noun phrase. The application of this test to the sentences (8), (10), (11), (12), (13), (15) and (17) yields the sentences in (28) - (34) respectively.
(28) Toni's mother.
(Toni loves her.)

(29) *Mwana akarukuvura.
(*The child hurt it.)

(30) a. Bonda akavacheka nzara.
(Bonda - cut them - finger-nails =
Bonda cut their finger-nails.)
b. *Bonda akadzicheka vana.
(*Bonda cut them the children.)

(31) a. Ambuya vakamupa doro kaviri.
(grandmother - gave him - beer - twice
The grandmother gave him beer twice.)
b. Ambuya vakaripa muzukuru kaviri.
(grandmother - gave it - grandson - twice =
The grandmother gave it to her grandson twice.)
c. *Ambuya vakakapa muzukuru doro.
(*The grandmother - gave it - her grandson - some beer.)

(Jack - saw it - at river =
Jack saw it at the river.)
b. Jeke akakuona nyoka.
(Jack - saw at it - a snake =
Jack saw a snake there.)

(33) a. Sekai akamukanda bhora kuchikoro.
(Sekai - threw her - a ball - at school =
Sekai threw the ball at her at school.)
b. Sekai akarikanda Toko kuchikoro;
(Sekai - threw it - Toko - at school =
Sekai threw it to Toko at school.)
c. *Sekai akakukanda Toko bhora. (referring to kuchikoro)
   (*Sekai - threw at it - Toko - a ball -
   *Sekai threw the ball to Toko at school.)

(34) a. Mukomana akalubata nezuro. (referring to mbeva)
   (boy - caught it - yesterday =
   The boy caught it yesterday.)

   b. *Mukomana akamubata mbeva. (referring to mbeva)
      (*The boy - caught it - the mouse.)

Notice that according to this test, as according to the passive
test, both ruoko' and nzara' in (29) and (30) are not object noun
phrases. Sentence (33c) is very low on the scale of acceptability.
Most speakers would reject it as ill-formed, nevertheless it is
still grammatical. This seems to confirm the remark which was made
in (I.2.2.1) above concerning locatives. The passive test and
the object anaphora test seem to confirm object noun phrases of the
same type.

I.2.2.4 The Pseudo-cleft test

This test operates roughly as follows: the noun phrase
which is suspected to be an object noun phrase is taken out from
its position and placed at the beginning of the sentence. The new
position it now assumes in the sentence may be immediately before
or after the subject noun phrase. This is followed by the
stabilised form of its pro-form, which in turn is followed by the
rest of the sentence in the objective relative. This is shown in the
examples below. The noun phrases which are being tested are
underlined.

(35) a. Vana vakaba mango.
   (The children stole some mangoes.)

   b. Vana, mango ndidzo dzavakaba.
      (children - mango - it was they - which they stole -
      It was some mangoes which the children stole.)
(36)  

a. Amai vakaratidza mwanasikana wavó zvinhu zvekuita.  
(mother - showed - daughter - her - things - of doing =)  
The mother showed her daughter what to do.

b. Amai, mwanasikana wavó ndiye wvakaratidza zvinhu zvekuita.  
(Mother - daughter - her - it was she - whom she showed - things - of doing =)  
It was her daughter whom the mother showed what to do.

c. Amai, zvinhu zvekuita ndizvo zvakaratidza mwanasikana wavó.  
(mother - things of doing - it was they - which she showed - daughter - her =)  
It was what to do that the mother showed her daughter.

However this test by itself is unreliable because it will confirm as object noun phrases some noun phrases which will not be passed by the other tests as the following examples show:

(37)  

a. Mwana/akuvara ruoko. (see (10a))  
b. Mwana, ruoko ndirwa rwaakuvara.  
(child - arm - it is it - which she hurt =)  
It was the arm which the child hurt itself.

(38)  

a. Bonda'akacheka vana nzara. (see (11a))  
b. Bonda, vana ndivo vsakacheka nzara.  
(Bonda - children - it was they - whom he cut - finger-nails =)  
It was the children whom Bonda cut their finger-nails.

c. Bonda, nzara ndidzo dzaakacheka vana.  
(Bonda - finger-nails - it was they - whom he cut - children =)  
It was the children's finger-nails that Bonda cut.

This is however more of a test for discovering noun phrases in
a sentence than for discovering object noun phrases. It has been included here though as it will help establish that some sentential complements are actually under the direct domination of NP.

Of these tests the passive and the object anaphora appear to be the most reliable, with the pseudo-cleft as the least reliable. Maybe further investigation into the way object noun phrases behave in sentences will result in the discovery of a more rigorous test or tests. For the purpose of this study however identification of object noun phrases will be based on these four tests.

I.2.3 Noun Phrase Complements

Turning now to our discussion of noun phrase complements let us consider the following sentences:

(39) a. Nombe dzako dzadya chibage chamgu.

(cows - your - ate - maize crop - my =
Your cows ate up my maize crop.)

b. Chibage chamgu chadyiwa nemombe dzako.

(maize crop - my - was eaten - by cows - your =
My maize crop was eaten up by your cows.)

It is uncontroversial that these two sentences are related to each other structurally. One is an active and the other a passive sentence. Semantically they are synonymous. Now consider the following sentences:

(40) a. Mwoyo anoziva kuti Kondo akaba mari.

(Mwoyo - knows - that - Kondo - stole - money =
Mwoyo knows that Kondo stole some money.)

b. Kutu Kondo akaba mari zvinozivikanwa naMwoyo,

(that - Kondo - stole - money - is known - by Mwoyo =
That Kondo stole some money is known by Mwoyo.)
The two sentences in (40) are comparable to the two sentences in (39). That is, one is active and the other is passive. But whereas (39a) has as its direct object a noun phrase, (40a) has a sentence, namely, *kuti Kondo akaba mari*, as its verb complement. For convenience such sentences as the one underlined which are embedded in others will be referred to as complement sentences or complement clauses. The word *kuti* in this complement sentence cannot be regarded either as a noun or as noun phrase in its own right because it cannot occur by itself in either a subject or an object position as noun phrases normally do. Furthermore as we shall see later the word *kuti* has not the feature /i-class/ which every noun in Shona has. So what we have in (40a) is a verb which is accompanied by a sentence (S) as direct object. This being the case the passive rule, for instance, has to be altered in order to accommodate this S object. That this object is an S of some sort can be shown by, say, applying the passive rule within it. If this is done the result is sentence (41).

(41) *Mwoyo anoziva kuti mari yakibiwa naKondo.*  
(Mwoyo - knows - that - money - was stolen - by Kondo =  
Mwoyo knows that the money was stolen by Kondo.)

This is by no means the only way of showing that the string *kuti Kondo akaba mari* is an S of some kind. This string can undergo the transformational rules of pseudo-cleaving, interrogative pro-form and object anaphora as is shown in (42), (43) and (44) respectively. All these transformations apply within sentences.

(42) *Mwoyo anoziva kuti Kondo ndiye akaba mari.*  
(Mwoyo - knows - that - Kondo - it is he - who stole - money =  
Mwoyo knows that it was Kondo who stole the money.)
Let us assume that the passive rule in Shona operates as follows

(45) \( X - \text{Passive} - NP_1 - AUX - V - Y - NP_2 - Z \)

\[
\begin{array}{cccccccc}
SD: & 1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 \\
SC: & 1 & \emptyset & 7 & 4 & 5+w & 6 & \emptyset & 8 na + 3 \\
\end{array}
\]

Now if the direct object of a verb can be an S as well as an NP there is need to modify our formulation of the passive rule in order to accommodate cases of an object sentence. This is done in (46) below:

(46) \( X - \text{Passive} - NP_1 - AUX - V - Y - \{NP_2\} - Z \)

\[
\begin{array}{cccccccc}
SD: & 1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 \\
SC: & 1 & \emptyset & 7 & 4 & 5+w & 6 & \emptyset & 8 na + 3 \\
\end{array}
\]

But now examine the following two sentences:

(47) a. Kuti asvike kuno zvinoratidza kuti anoda mukadzi wake.

(That - he arrive - here - shows - that - he loves - wife - his =

For him to come here shows that he loves his wife.)

b. Kuti anoda mukadzi wake zvinoratidzwa nekuti asvike kuno.

(That - he loves - wife - his - is shown - by that -
he arrives - here =

That he loves his wife is shown by his coming here.)
The string *kuti asvike kuno* is the subject of the sentence in (47a). But this subject consists of an S. Sentence (47b) is the passive sentence of (47a). So if S can also function as a subject, this ought to be reflected in our formulation of the passive rule which is modified below as (48).

(48) \[ X - \text{Passive} \rightarrow \left\{ \begin{array}{c} \text{NP}_1 \vDash \text{AUX} \vDash \text{V} \vDash \text{Y} \vDash \text{NP}_2 \vDash Z \\ S \\ S \end{array} \right\} \]

SD: 1 2 3 4 5 6 7 8
SC: 1 ∅ 7 4 5+w 6 ∅ 8 na + 3

At this stage, although our grammar may be adequate from an observational viewpoint, it reveals that generality is very much diminished. This is brought about, not because a string like *kuti asvike kuno* is an S of some sort, but because of the assumption that such a phrase cannot be regarded as a noun phrase. If in our grammar NP is permitted to dominate S as well as N (noun), then the original formulation of the passive rule in (45) will effectively generate the sentences in (39b), (40b) and (47b).

Now let us see what phrase structure rules are required for noun phrase complementation. As for any sentence the following rules apply:

(49) a. \[ S \rightarrow \text{NP} + \text{AUX} + \text{PDP} \]

b. \[ \text{PDP} \rightarrow \text{VP (PP)(ADV)} \]

c. \[ \text{VP} \rightarrow \text{V (NP)} \]

Then in order to produce the structures which underlie complement sentences there is need for the following additional rule:

d. \[ \text{NP} \rightarrow \text{N(S)} \].
The expansion of NP in (49d) differs from another possible expansion of NP, namely, the one which produces relative clauses.

\[ \text{NP} \rightarrow \text{NP + S} \] ^5.

There are however instances in the language where phrases which look like those which have just been discussed (i.e. they are to be analysed as instances of S at some level) do not behave like noun phrases. Such are the complement sentences in (50) - (52).

(50) a. Sekuru ava kuti aende nhasi.
   (uncle - is now - to say - he goes - today =
   Uncle now says that he should go today.)

b. *Kuti aende nhasi zvaviva nasekuru.
   (*To say - he goes - today - is now being - by uncle)

c. *Sekuru ava chii? (reply: kuti aende nhasi)
   (*Uncle - is now - what?)

d. *Sekuru akuva. (referring to kuti aende nhasi)
   (*Uncle - is now it.)

(51) a. Ali akanyatsa kurova Foreman.
   (Ali - did well - to beat - Foreman =
   Ali clearly defeated Foreman.)

   (*To beat - Foreman - was done well - by Ali.)

c. *Ali akanyatsa chii? (reply: kurova Foreman)
   (*Ali - did well what?)

5. For a discussion of the various analyses of the relative construction see Major Syntactic Structures of English,
R.P. Stockwell, Paul Schachter and B. Hall Partee (eds).
d. *Ali akazvinyatsa. (referring to kurova Foreman)
   (*Ali did it well.)

(52)  
a. Garwe anofanira kuti auye mangwana.
   (Garwe - ought - that - he comes - tomorrow =
   Garwe must come tomorrow.)
b. *Kuti auye mangwana zvinofanirwa naGarwe.
   (*That - he comes - tomorrow - is ought - by Garwe.)
c. *Garwe anofanira chii? (reply: kuti auye mangwana)
   (*Garwe - ought - what?)
d. *Garwe anozvifanirwa. (referring to kuti auye mangwana)
   (*Garwe - ought it.)

In the sentences (50), (51) and (52) attention was centred on the
complement sentences kuti aende nhasi, kurova Foreman and kuti auye
mangwana respectively. The (b), (c) and (d) sentences in (50) - (52)
show the results of the passive, the interrogative pro-form and
the object anaphora transformations when applied to the deep
structures which underlie the (a) sentences. The sentences in
(b) - (d) are all ill-formed.

If these transformations are applied to the structure
which underlies (40) the sentences which result are those in (53)
below.

(53)  
a. Mwoyo anoziva kuti Kondo akaba mari. (see (40a))
b. Kuti Kondo akaba mari zvinozivikanwa naMwoyo.
   (That Kondo stole some money is known by Mwoyo.)
c. Mwoyo anoziva chii? (reply: kuti Kondo akaba mari)
   (Mwoyo knows what?)
d. Mwoyo anozviziva. (referring to kuti Kondo akaba mari)
   (Mwoyo knows it.)
Although the strings *kuti ände nhasi* and *kuti auye mangwana* in (50) and (52) respectively are similar to the string *kuti Kondó akabá mari* in (53) in their structure, they nevertheless differ from it in that they do not behave like noun phrases as it does.

It is observed that the string *kuti Kondó akabá mari* passes these three tests for object noun phrases as is shown in (53). So this string is an instance of an object noun phrase. That the string *kuti Kondó akabá mari* is functioning as a noun phrase in this sentence is further substantiated by the pseudo-cleft transformation as indicated in (54).

(54) Kuti Kondó akabá mari ndízvo zvaanoziva Mwoyo.

(that - Kondo - stole - money - it is it - what he knows - Mwoyo =

That Kondo stole some money is what Mwoyo knows.)

Notice that the three complement sentences from (50) to (52) inclusive all fail the tests for object noun phrases.

If, for argument's sake, it is still maintained that NP may not dominate S, then it means that, for instance, in our passive rule in (48), we have to add a caveat which states in a rather uncertain manner that only sentences such as are found in (40a) and (47a), and not those in (50), (51) and (52), may feature in a passive transformation.

However, if on the other hand we allow NP to dominate S as well as N, then the complement sentences in (40a) and (47a) will be regarded as instances of S which is dominated by NP, while those in (50), (51) and (52) will be instances of S under the direct domination of VP. That is, the complement sentences in (50) - (52) will not be dominated by NP, hence the passive and all the other transformations which are employed as tests for object noun phrases will block. That being the case, there will be no need to enter
S separately from NP in the passive rule as was done in (48). The original formulation of the passive rule in (45) will suffice. There will be no need to differentiate in the phrase structure rules which introduce the string chibage'changa in (39a) and kuti Kondo akaba mari in (40a) in the derivation of these two sentences. (Of course once both have been introduced as NP by the phrase structure rules, the two noun phrases may now be expanded differently.) Indeed to make this distinction would be an admission of failure to capture a linguistic generalization, and that would weaken the grammar considerably. On the other hand, not to recognize that the string kuti Kondo akaba mari is an instance of S at some stage in the derivational history of the noun phrase is equally a mistaken approach. If the approach suggested in this paragraph is adopted, the caveat which was mentioned above falls away as it becomes unnecessary. Furthermore, if NP dominates S in (40), but not in (50), (51) and (52), then our grammar automatically predicts that (40b) is grammatical, while (50b-d), (51b-d) and (52b-d) are not.

The approach which says that an NP can dominate an S will help to explain at least one phenomenon in Shona, namely, the behaviour of the kuti clauses. To this end consider the following sentences:

(55) a. Kutí údzokére kumusha zvinonetsa.
   (that- you return - home - is worrying =
   For you to go back home is difficult.)

b. Zvinonetsa kuti údzokére kumusha.
   (It is difficult for you to go back home.)
The sentences in (55) are structurally related to each other, and so are those in (56). The Kutí clauses in both (55) and (56) are instances of S under the domination of NP. It is an interesting observation that a Kutí clause in a subject position may optionally be postposed to the end of the sentence. In (55b) it is a Kutí clause in a subject position in an active sentence that has been postposed, and in (56a) it is a Kutí clause in a subject position but in a passive sentence that has been so postposed. This postpositioning of a subject Kutí clause, one might say, is not different from the postpositioning of an ordinary NP, for in Shona noun phrases in subject position are not infrequently placed at the end of their sentence as the following sentences show.

(57) a. Mombe dzíye dzaneta zvino.

(oxen - those - are tired - now = Those oxen are tired now.)

b. Dzaneta zvino mombe dzíye.

(they are tired - now - oxen - those = Those oxen are now tired.)

(58) a. Vana vadíki haváende kubíra.

(children - little - do not go - to bíra = Little children do not go to the bíra.)

b. Haváende kubíra vana vadíki.

(they do not go - to the bíra - children - little = Little children do not go to the bíra.)
There seems, nevertheless, to be a difference between the kuti clauses and the other noun phrases like mombe dziye in (57) and vanavadiki in (58) with respect to postpositioning. Whereas in the latter case postposing of the subject noun phrase occurs only after the gender copying rule has applied, this is not so with kuti clauses, since the kuti by itself has not the feature \( \text{class} \) which would make it possible for the gender copying rule to apply. In their surface structure (55b) and (56c) resemble (57b) and (58b) in respect of subject postpositioning. But it has already been pointed out that in some cases kuti clauses are under the domination of NP as in (40); whereas in others they are not, as in (50) - (52). It is also observed that the kuti clauses which are dominated by NP take the concord zvi when the gender copying rule is applied with them as subject as in (55a) and (56b). The question which immediately suggests itself is, how do some of the kuti clauses come to control the concord zvi, while others do not?

If it is maintained that NP may be expanded only into \( S \), (an approach which however has been proved already to result in a very weak grammar) in, say, the string kuti udzokere kumusha in (55), then it is admitted that we have a situation in which an \( S \) dictates and controls the concord zvi with the gender copying rule. What is curious in this case is that the element which signifies the class feature zvi is absent or, shall we say, is not overtly expressed. Elsewhere in the language noun phrases which take the concord zvi usually have themselves a zvi (or one of its allomorphs) which is overtly expressed as in the sentences in (59).

(59)a. Zvipunu zviye zvataika.
   (spoons - those - got lost =
    Those spoons got lost.)

b. Ndanzwa zvinhu zvinonakidza.
   (I heard things which were interesting.)
A notable exception, however, to this is a situation in which there is a combination of noun phrases which refer to non-human beings and which are in a subject or object position. Such a combination requires this *zvi* for concordial agreement as illustrated in the sentences below.

(60)a. Mombe (10) nemadhongi (6) *zvinofura* pamwe chete.

(cattle - and donkeys - graze - together =
Cattle and donkeys graze together.)

b. Bhuku rakô (5) népeni yakô (9) ndazviïisa patáfura.

(book - your - and pen - your - I put them - on table =
As for your book and your pen, I have put them on the table.)

A stronger argument is however the following: the *kuti* clause has a sentential base as has already been pointed out. The *kuti* clause itself is derived by applying to the underlying 8 some transformational rules. The result so obtained may be a *kuti* clause of the type in (40) which is dominated by NP, or in (50) which is dominated directly by VP. What we have here is then is a strange situation where actually one and the same *kuti* clause is a noun phrase in one case and is not a noun phrase in another as the following sentences illustrate.

(61)a. Ndinoda *kuti auye*.

(I want - that - he come = I want him to come.)

b. Ndinozvîda *kuti auye*.

(I want it - that - he come = I want it that he should come.)

(62)a. Deni anofanîra *kuti auye*.

(Deni - ought - that - he come = Deni ought to come.)

b. *Deni anozvifanîra kuti auye*.

(*Deni - ought it - that - he come.)

The grammaticality of (61b) shows that the underlying structure of (61a) meets the structural description for object anaphora, hence the claim that the string *kuti auye* is dominated by NP. Sentence (62b) indicates
that this transformation blocks, and hence its ungrammaticality and the 
fact that kuti auyé is outside the domination of NP.

It has already been said as well as demonstrated that the 
sentences in (53) and (55), for instance, contain embedded sentences. 
That this is so can be illustrated further by listing the two sentences 
which underlie each one of them. This can be seen in (63) and (64) re­ 
spectively.

(63)a. Mwoyo anozviziva.
   (Mwoyo knows it.)
  b. Kondo akabá mari.
   (Kondo stole some money.)

(64)a. Zvinonetsa.
   (It is difficult.)
  b. Unódzokera kumushá.
   (You will go back home.)

(It should be noted however that the pairs of sentences in (63) and 
(64) are only approximate representations of the sentences which under­ 
lie (53) and (55) respectively.)

It is observed that in these embedded sentences nowhere is 
there any constraint on the noun phrases which they may contain. Fur­
thermore we see that the element zvi is present only in the higher or matrix 
sentence in both cases. But these zvi concords, as we may call them, are 
clearly reflexes of some noun in class 8, and among the noun classes in 
Shona it is only class 8 which requires zvi as a concord. Therefore, in 
order to account for the presence of these zvi concords or agreements 
it is proposed here to postulate a noun of class 8 to be the head noun 
of such noun phrases as occur in the direct object position in (53) and 
in the subject position in (55). It should be borne in mind nevertheless 
that nowhere in these noun phrases with complement sentences do we ever 
get an actual noun of class 8 in the surface structure.
The structure which underlies (53) may therefore be represented by the tree diagram in (65a) below. (Details which are not crucial to the present discussion are omitted in this branching tree. This will also be the case in respect of the tree diagrams which will occur in the rest of this study.)

(65)a.

After complementizer placement has applied we then get the structure in (65b).6.

6. In this chapter complementizers are regarded as being introduced transformationally. The consequences of this approach are discussed in Chapter Four.
The structure which underlies (55) will have the representation in (66a).

(66)a.

As before, after complementizer placement has applied the structure in (66b) results.
Iwe is a second person singular pronoun which in (55) is deleted. However, its deletion is optional; sentence (67) in which it is not deleted is perfectly well-formed.

(67) Kuti iwe udzokere kumusha zvinonetsa.

(For you to go back home is difficult.)

1.3 The Case For Verb Phrase Complements

In the account which follows it is intended to deal with the complement sentences which are not covered by the expansion of NP into N + S. In this connection consider the following sets of sentences:

(68)a. Toni anoda kuti aende kumusha.

(Toni - wants - that - he go - to home =
Toni wants to go home.)

b. Kuti aende kumusha ndizvo zvaanoda Toni.

(that - he go - to home - it is it - that he wants - Toni =
That he goes home is what Toni wants.)

c. Kuti aende kumusha ndizvo zvinodiwa naToni.

(that - he go - to home - it is it - that is wanted - by
Toni = That he should go home is what is wanted by Toni.)
d. Toni àndoda chi? (reply: kuti àndedé kumushâ)
   (Toni wants what? (reply: that he should go home))

e. Toni ànozvída. (referring to kuti àndedé kumushâ)
   (Toni wants it. (namely, that he should go home))

(69)a. Toni ànofánírä kuti auye.
   (Toni- ought - that - he come = Toni ought to come.)

b. *Kuti auye Toni ndizvo zvaanofánírä.

c. *Kuti auye ndizvo zvinofánirwa naToni.

d. *Toni ãnofánírä chi? (reply: kuti auye)

e. *Toni ànozvífánírä. (referring to kuti auye)

(70)a. Ndège yakaramba ichîbhururuka.
   (aeroplane - kept on - while it is flying =
   The aeroplane kept on flying.)

b. *Ichîbhururuka ndège ndizvo zvayakaramba.

c. *Ichîbhururuka ndizvo zvakârâmbwa nèndege.

d. *Ndège yakaramba chi? (reply: ichîbhururuka)

e. *Ndège yakâzviramba. (referring to ichîbhururuka)

The complement clause kuti àndedé kumushâ in (68) exhibits the same properties as noun phrases. For instance, it can be focussed in a pseudo-cleft sentence as in (68b); it can appear as subject in a passive sentence as in (68c); it can be replaced by the interrogative pro-form chi? as in (68d); and it can undergo object anaphora as in (68e). These properties are not observed with the complement sentences kuti auye in (69) and ichîbhururuka in (70).

Although the complement clauses in (68) and (69) differ in respect of their grammatical function, their derivation is similar. That is, their derivational histories share the same set of transformational rules as was pointed out on p.37. The situation which we have here is that, although (69) differs from either (68) or (70) in some respects, it also resembles both of them in other respects. The trans-
formational rules which are required to generate ichibhururuka in (70) differ considerably from those which are required in order to obtain kuti ā'yē in (69).

According to the way in which transformational theory is currently formulated there are a number of ways of characterizing these three sentences. One way is to regard the three complement clauses in (68), (69) and (70) all as instances of an S which is under the domination of NP, but differing in the way the transformational rules which apply to this S are specified. For example, we could say that when the verbs -fanira (ought) and -ramba (keep on) are followed by an NP, that NP does not pass the tests for object noun phrases. There would have to be yet another restriction with the verb -ramba which prevents the insertion of kuti before its S complement. All these restrictions make this particular approach needlessly complicated, and in any case there seems to be very little, if any, advantage to be gained by adopting it.

Another way is to treat the complement clauses in (68) and (69) together and (70) by itself. That the complement clauses in (68) and (70) show more differences than similarities seems to be obvious enough not to require discussion. The differences between the complement clauses of the type in (68) and (69) were discussed at some length on p.30ff, and it was concluded there that our grammar becomes much simpler and achieves a larger measure of descriptive adequacy if we treat them separately.

The third alternative postulates that the complement clauses in (69) and (70) are not instances of noun phrase complementation, but rather that they are under the direct domination of VP. Our two verbs -fanira and -ramba, instead of being marked with restrictions which make the tests for object noun phrases fail, will be strictly subcategorized in a way which allows them to occur directly before S, and -da before NP. With this approach the ungrammaticality of some of the sen-
ences in (69) and (70) is automatically accounted for, because the tests for object noun phrases will only be relevant in the case of an S that is under the domination of NP.

The first and second alternatives are less acceptable as viable hypotheses. For one thing, both approaches require a strict subcategorization statement which is needlessly complex. For another, they require restrictions on the transformations which are permitted. Needless to say, a statement of these restrictions would be very cumbersome in some cases. So it is the third alternative which is adopted for the present.

The phrase structure rules which are required for verb phrase complementation are the same as in (49) above except that

\[
\text{VP} \longrightarrow \text{V(S)}.
\]

The structures which underlie the sentences in (69) and (70) may accordingly be represented by the tree diagrams in (71) and (72) respectively. The trees in (71a) and (72a) represent the deep structures of these sentences, while (71b) and (72b) are intermediate structures after complementizer placement has applied.

(71)a.

\[
\begin{align*}
S_0 & \quad \text{NP} \quad \text{AUX} \quad \text{PDP} \\
& \quad \text{Toni} \quad \text{Tns} \quad \text{VP} \\
& \quad \text{no} \quad \text{V} \\
S_1 & \quad \text{fanira} \quad \text{NP} \quad \text{AUX} \quad \text{PDP} \\
& \quad \text{Toni} \quad \text{Tns} \quad \text{VP} \\
& \quad \text{no} \quad \text{V} \\
& \quad \text{uya}
\end{align*}
\]
1.4 Sentential Complements and Selectional Restrictions

That not every verb can occur with any noun phrase, either in subject or in object position, in a sentence has been so often remarked in linguistic literature that a detailed discussion in this connection is superfluous. The noun phrases have to obey the selectional restrictions that are imposed by the verbs. These selectional restrictions equally apply to sentence complements which are dominated by NP. (For a detailed discussion on selectional restrictions between verbs and noun phrases, see Chomsky, 1965a.) These selectional restrictions form in a way part of the meaning of a verb. As an example, consider the verb -nwa' (drink). This verb takes as direct object a concrete noun phrase. If in the course of time it changed so that it could take as its direct object an abstract noun phrase, like rudo' (love), it would no longer express the meaning which it has now. According to the meaning which -nwa' expresses now, (73a) is well-formed but not (73b).

(73)a. Vaná vanonwá mukaka.

(Children drink milk.)

b. *Vaná vanonwá rudo.
(*Children drink love.)

Verbs which take direct object noun phrases will be marked as occurring in the environment NP, that is, they occur before an NP. If this environment is absent in the strict subcategorization statement of a given verb, that particular verb may not be followed by a direct object noun phrase. Besides, every verb will normally occur in the environment NP. That is, every verb must have a subject noun phrase in a sentence as is indicated by (49a) above. We need not mark the environment NP since there are no exceptions to it. However, in both the cases where the NP is in a direct object position and where it is in a subject position it is necessary to specify what features the NP may contain. As an illustration consider the sentences in (74).

(74)a. Hove dzino f e m a.

(Fish breathe.)

b. Mudzima i akapona mwa na wакe musikan i.

(woman - bore - a child - her - a girl =
A woman gave birth to a baby girl.)

c. Nyaya yakona.

(The plan has failed.)

d. Vanhu vazhinji v anotendera makuhwa.

(Many people believe gossip.)

The selectional restrictions of the verbs in these four sentences in respect of the selection of the subject NP and the object NP can be represented in the following manner:

(75)a. \[
\begin{array}{c}
\text{-fema} \\
+ V \\
+ \sqrt[ \text{animate} ]{ } \\
+ \text{FN}
\end{array}
\]

c. \[
\begin{array}{c}
\text{-kona} \\
+ V \\
+ \sqrt[ \text{abstract} ]{ } \\
+ \text{FN}
\end{array}
\]
The symbol $\mathcal{F}$ simply stands for the other features, syntactic or semantic, which may need to be specified. Notice that this is only a partial specification of the features of these verbs. Those features which are not relevant to the present discussion have been omitted.

In (74c) and (74d) we have verbs which must take, respectively, an abstract noun phrase as subject and an abstract noun phrase as direct object. With these abstract noun phrases there are only two possibilities in regard to their structure. The head noun of such a phrase may be a noun which signifies an abstract idea like the following noun: makuhwa (gossip), mafambiro (a manner of walking or travelling), hasha (anger), rudo (love), ruvenge (hatred), urombo (poverty). The other possibility is that the NP may have an embedded complement clause. In the latter case the head noun in Shona is not realized in the form of a noun as such in surface structure as has already been pointed out. Hence the following two sentences in (76) as well as those in (74c) and (74d) are possible.

(76)a. Kuti Toni atize zvakona.
   (that - Toni - he run away - it has failed -
    For Toni to run away it has become impossible.)

b. Vanhu vazhinji vanotendera kuti kuna Mwari.
   (people - many - they believe - that - there is - God -
    Many people believe that there is God.)
But neither of the following sentences which contain respectively the verbs *kon.a* and *tendera*, and where the subject noun phrase and the object noun phrase respectively are not abstract, is possible.

(77)a. *Mvúra yákon.a.*
   (*The water/rain has failed.*)

b. *Vanhu vazhínjí vanotendera zvigaro.*
   (*Many people believe chairs.*)

Although, as was stated above, there are no identity constraints on the noun phrase in the complement sentences, there are nonetheless restrictions on the nature of the verb of the higher S. Thus, while the sentences in (78) are all grammatical, those in (79) with the same superficial structure as the corresponding sentence in (78) are not because of the nature of the verbs in the higher sentences. The complement clauses are underlined in the sentences below.

(78)a. Kuti uóné chīva chichifamba zvinoshura.
   (that - you see - a puff-adder - it moving - it is ominous =
   For you to see a puff-adder moving is an ill omen.)

b. VaNzungu vakaramba kuti mwana wavo aroorwe naMberi.
   (Mr. Nzungu - refused - that - child - his - she married -
   by Mberi = Mr. Nzungu refused to allow his daughter to
   marry Mberi.)

c. Amai vabvunza kana Farái akauya.
   (Mother asked whether Farai came.)

d. Midzi àti, "Ndinóa ya mangwana."
   (Midzi said, "I will come tomorrow.")

(79)a. *Kuti uóné chīva chichifamba zvinorara.*
   (*For you to see a puff-adder in motion sleeps.*)

b. *VaNzungu vakabika kuti mwana wavo aroorwe naMberi.*
   (*Mr. Nzungu cooked that his daughter might marry Mberi.*)

c. *Amai vadya kana Farái akauya.*
(*Mother ate whether Farai came.

d. *Midzi ataura, "Ndinouyá mangwana."
(*Midzi spoke, "I will come tomorrow."

The verb must be one that can take an abstract noun phrase as either subject (for verbs which behave like -shura (serve as ill omen), -finha (get bored), -dzimaidza (confuse), -ora (be sacred, taboo), -fumura (put to shame), -ipa (be bad), -naka (be good) and many others) or object (for verbs which behave like -bvunza (ask), -bvuma (agree), -veuka (remember), -da (want, need), -ti (say), -edza (try), -fembera (guess) and many others).

What has been established in this chapter is that some complement clauses function as noun phrases, hence such complement clauses are said to be dominated by NP. As noun phrases they may appear in subject or object position. The complement clauses which do not function as noun phrases are directly dominated by VP. The complement clause (clauses) which may occur in any one sentence is governed by the verb in the higher sentence.
In this chapter I shall give a tentative scheme of the complementizers which are found in Shona. I say tentative because the issue is far from being settled. What seems to be clear however is that there is need to set up a grammatical category of complementizers. This chapter will be devoted to arguing the case for complementizers.

2.1 Kuti /$/$ indicative$/$ and Kuti /$/$ subjunctive$/$

Let us examine the underlined complement clauses in (40a) and (78b) in Chapter One which are repeated here as (1) and (2) for ease of reference.

(1) Mwoyo anoziya kuti Kondo akaba mari.
(2) VaNzungu vakaramba kuti mwana wavo aroorwe numaHeri.

We notice that the formative which is performing the function of subordinating the constituent clause to the matrix sentence is kuti. Nevertheless, kuti in (1) is followed by a clause in the indicative mood, while kuti in (2) is followed by a clause in the subjunctive mood. This difference in the mood of the clause which follows kuti is dependent to some extent on the verb in the containing S. As will be seen later the mood of the constituent clause forms part of the subcategorizational statement of the verb in the higher S. The two sentences given above provide us with two distinct complementizers, namely, (a) kuti /$/$ indicative$/$ and (b) kuti /$/$ subjunctive$/$. Further examples of sentences in which the constituent clauses are introduced by these two complementizers are given below.

Examples with kuti /$/$ indicative$/$

(3) Kuti Nixon an'epa zvakasvota vanhu veAmerica.

(4) Kuti murume nemukadzi vanombotukanu zvinozivikanzwa.

Examples with kuti /$/$ subjunctive$/$

(5) Mwoyo anoziya kuti Kondo akaba mari.
(6) VaNzungu vakaramba kuti mwana wavo aroorwe numaHeri.

(3) That Nixon lied it angered people of at America =
That Nixon told a lie angered the Americans.

(4) That a man and his wife sometimes quarrel is known.
(5) Ndinofunga kuti zvinhu zvichanaka munyika muno.
(I - think - that - things - will be all right - in country -
this = I think that the situation will improve in this country.)

(6) Podzorimwa ŕumbu kuti akatadźa.
(Podzorimwa admitted that he made a mistake.)

Examples with kuti / subjunctive/

(7) Kuti ambuya vanwe tii isina mukuca zvava kuramba.
(for - grandmother - she drink - tea - it not having - milk -
it is now - refusing = For grandmother to take tea without
milk is now difficult.)

(8) Kuti muroora asendo kunona amai vaké zvakarurama.
(for - daughter-in-law - she go - to see - mother - her - it
is all right = For the daughter-in-law to go and see her mother
is in order.)

(9) Vakomana avo varangana kuti vatize.
(boys - those - planned - that - they run away = Those boys
have planned to run away.)

2.2  Kuti / infinitive/

On p. 38 it was postulated that the head noun of noun phrases
with complement clauses is +CL8 and this works very well with the
complement clauses which we have seen so far and which are under the
domination of NP. Nonetheless not all complement clauses have [\[+N+CL8\]] as
their head noun. With some complement clauses there is need, it seems,
to postulate something like [\[+N+CL15+pro\]] as the head noun. An example of
this is the complement clause in (10) below.

(10) Vana vadiki vanoda kutamba bhora.
(Little children like to play football.)

To illustrate that there is need to postulate something other than [\[+N+CL8+pro\]]
for the head noun of the complement clause in (10) consider the applica-
tion to it of the following transformations in (11):
What these transformations tell us is that the string *kutamba bhora* is functioning as a direct object noun phrase. But clearly this noun phrase contains a verb phrase, namely, *-tamba bhora*. This suggests that the noun phrase has a complement clause embedded in it. That the string *-tamba bhora* is part of an embedded sentence is illustrated by the following transformations in (12).

(12)a. *Bhora rinodà kutambwa nevana vadiki.*

(football - wants - to be played - by children - little =

It is small children who should play football.)

b. *Vana vadiki vanoda kurtamba.*

(Small children like to play it.)

c. *Vana vadiki bhora ndiro ravanoda kutamba.*

(children - little - football - it is it - which they like-
to play = As for small children football is the game
which they like to play.)

In (12a) the complement clause has undergone passivization, in (12b) it has undergone object anaphora, and in (12c) it has undergone pseudo-cleaving. These transformations apply within a simplex sentence.

Now notice that the concordial agreements which are controlled by the string *kutamba bhora* in (11a) through (11c) are quite different
from those which we saw controlled by kuti Kondo akaba mari in (40b) in Chapter One. Whereas the complement clause in (40b) has the concordial agreement zvi, that in (10) has ku. The former is an affix of class 8, while the latter is an affix of class 15. It is worth noting also that the complement clauses which are dominated by NP in Shona control normally either class 8 or class 15 agreements. There are nevertheless instances of complement clauses which, though in subject position, do not control either class 8 or 15 concordial agreements, at least in surface structure. Such are the complement clauses in the sentences below.

(13) Kuti Jojo akabirwa mari hachisi chokwadi.
   (That George had his money stolen is not true.)

(14) Kuti murume anyatsogara nevakadzi vaviri haisi nyore.
   (For a man to live peacefully with two wives is not easy.)

(15) Kuti mwana asvike makore maviri asati afamba hachimbori chinhu chinotyisa.
   (For a child to go for two years before it walks is not something to worry about.)

Notice that in these sentences the subject concord is controlled, not by the subject of the sentence as one would expect, but by the complement noun phrase which is underlined. This is a feature which is characteristic of the verb "to be" in Shona.

It is also possible however for the subject complement clause in (13) - (15) to control the subject prefix in the usual manner as is illustrated in (16) - (18) respectively.

(16) Kuti Jojo akabirwa mari hazvisi chokwadi.

(17) Kuti murume anyatsogara nevakadzi vaviri hazvisi nyore.

(18) Kuti mwana asvike makore maviri asati afamba hazvimbori chinhu chinotyisa.

The connotative difference between the sentences in (13) - (15) on the one hand and those in (16) - (18) on the other seems to be that attention is focussed on the complement noun phrase in the former sentences, and on the subject NP in the latter sentences. Notice that (18) may
alternatively occur as (19) below but with the same semantic reading.

(19) Kuti mwana asvike makore maviri asati afamba hazvimbori
zvinhu zvinotyisa.

The change from the singular *chinhu chinotyisa* to the plural form *zvinhu zvinotyisa* is only in form, not in meaning. In this case it is not clear whether the subject concord is controlled by the subject complement clause or by the complement noun phrase *zvinhu zvinotyisa*.

The generation of (13) - (15) presents a difficulty which however is more apparent than real. Given the gender copying rule (see 5.7) the sentences in (16) - (18) are easily derived. That is, there is no problem in describing them. But in (13) - (15) there is need to describe how the complement, and not the subject, comes to control the subject prefix. Notice (a) that the control by the verb complement of the subject prefix is optional in these sentences and (b) that this phenomenon occurs in a structure of the type

\[ NP_1 - V - NP_2 \]

where \( V \) is the verb "to be". This apparent discrepancy can be obviated by setting up another rule of gender copying which is optional and which applies, not from left to right, but from right to left. This rule will apply just in case the verb is "to be".

Control of a subject prefix by a complement clause is not restricted to sentences with subjects which consist of embedded clauses only as is illustrated below.

(20) Gadheni rangu haisi kirechi.
(My garden is not a creche.)

(21) Mombe hachimbori chinhu chekutamba nacho.
(Cattle are not things to play with.)

Compare (20) - (21) with (22) - (23) in which the subject controls the subject concord. The meaning remains the same.

(22) Gadheni rangu harxsi kirechi.

(23) Mombe hadzimbori zvinhu zvekutamba nazvo.

Further examples of sentences in which the complement clauses in subject
position do not seem to control either class 8 or class 15 concords are:

(24) Kuti Jeso akatifira ichokwadi.
   (That Jesus died for us is true.)

(25) Kuti ungazvidziire nemazwi akadaró kutamba zvakó.
   (that - you can defend yourself - with words - like that -
   it is playing - yours = To think that you can defend yourself
   with those words is child's play.)

(26) Kuti haasiriye akaba mari'inhema.
   ((The denial) that he is not the one who stole the money is
false.)

In a very few cases complement clauses may also control class 16 concords. These will be discussed in 6.1.5.

Apart from showing that the head noun of a complement clause under the domination of NP need not always be a pronoun of class 8, the complement clause in (10) appears to offer us another complementizer, namely, ku. This ku is followed always by a verb in the infinitive mood. But since the complement clause kutamba bhora controls ku agreements, one might ask whether these ku agreements in (11) are not merely reflexes of the ku in kutamba. In other words, is ku not a noun class concord like zvi in zvipunu in (59a) in Chapter One? In that case the string kutamba bhora would be regarded as something like a derived nominal. However, the sentences in (12) above do not support this view. Derived nominals in Shona normally do not undergo the transformations which we see in (12). There will be more discussion concerning derived nominals in the next chapter.

Furthermore, we might want to examine the following sentence:

(27) Peni'ányatsa kuvhura gomhi.
   (Peni - did carefully - to open - door =
   Peni opened the door carefully.)

We observe that kuvhura gomhi is not a case of noun phrase complementation since the tests for object noun phrases fail here as is shown below in (28).
(28)a. pseudo-cleaving test;
   *Peni kuvhura gonhi ndiko kwaanyakatsa.
b. passive test;
   *Kuvhura gonhi kwanyakatsa naPeni.
c. interrogative pro-form test;
   *Peni anyatsa chii? (reply: kuvhura gonhi)
d. object anaphora test;
   *Peni akunyatsa. (referring to kuvhura gonhi)

This is a case of verb phrase complementation (cp. (69a) in Chapter I).
No adverbials between -nyatsa and kuvhura are possible. Although the string kuvhura gonhi is a sentence constituent which is directly dominated by VP in the containing sentence, its own VP consists of a verb accompanied by a direct object noun phrase, namely, gonhi. Notice also how similar in their surface structure (10) and (27) are. The configurations which underlie these two sentences are presented in (29) and (30) respectively.

(29)
Apart from lexical items and grammatical formatives these two underlying structures differ only in that in (29) the complement clause is dominated by NP, while in (30) it is dominated by VP. What is nevertheless more important to realize is that the set of transformational rules which map $S_1$ into *kutamba bhora* in (29) seems to be the same as the set of rules that are required to transform $S_1$ in (30) into *kuvhura gonhi*. If that is the case, then *ku* is merely a complementizer in both instances and consequently a pronoun of class 15 has to be postulated in the underlying structure in (29), but not in (30), in order to account for the *ku* concord agreements we see in (11).

Now, the realization of the class 15 concord shares the same phonological form with the complementizer *ku*. Just as $[+N, +CL13, +pro]$ does not receive phonological realization in surface structure when it appears as a head noun of a complement clause as was pointed out on p. 38, so also does $[+N, +CL15, +pro]$ never get realized phonologically in surface structure.
when it appears as a head noun of a complement clause. This view receives further support from a consideration of the sentences in (31).

(31)a. Mako anoda kufambá nevasíkaná.

(Mark - loves - to walk - with girls = Mark loves to be in the company of girls.)

b. Mako kufambá nevasíkaná ánokúda.

(Mark - to walk - with girls - he loves it = As for moving in the company of girls, Mark loves it.)

c. Mako kufambá nevasíkaná anozvida.

(Mark - to walk - with girls - he loves it = As for moving in the company of girls, Mark loves it.)

The underlined ku in (31b) is an anaphoric pronoun of the complement clause kufambá nevasíkaná. The element zvi in (31c) is also an anaphoric pronoun of the same complement clause kufambá nevasíkaná. But the sentences in (31b) and (31c) carry the same meaning. Therefore in this case the complement clause may take either ku or zvi agreements. If it is maintained that the ku in kufambá nevasíkaná is the feature which expresses the noun class, we are hard put to it to explain the presence of a zvi agreement in (31c). But if, on the other hand, we say that in its underlying structure kufambá nevasíkaná has a pronoun of class 15 as its head noun in (31b), and a pronoun of class 8 as its head noun in (31c), then this problem will not arise. The implication here is that there is a choice in this case with respect to the head noun of the complement clause. But clearly we have not this choice of head noun with regard to the complement clause in (40b) in Chapter One. There the concord which is controlled by the complement clause is zvi and none other. That being the case there is need to specify when this choice can be exercised and when it cannot. This choice may tentatively be stated in the following manner: when the complement clause is preceded by the complementizer ku the head noun may be a pronoun of either class 8 or class 15, with the latter being more often preferred to the former; but if the complement-
izer is any other than ku, then the head noun is restricted to class 8 only.

2.3 Kuti

For the present I would like to examine more closely the complementizer kuti. It would appear that in some cases the -ti in it is a verb, and moreover a verb which can take a direct object noun phrase. To this end consider the following sentences:

(32)a. Deni'anyakatsa kuti Toni'abve pano.

(Deni - did clearly - to tell - Toni - he go away from - here =Deni told Tony clearly to go away from here.)

b. Toni'anyakatsa kunzi naDeni'abve pano.

(Tony - did clearly - to be said - by Deni - he go away from - here = Tony was told clearly by Deni to go away from here.)

(33)a. Garwe'andoa kuti vanhu vamuite marabo.

(Garwe - wants - that - people - they make him - a chief = Garwe wants the people to make him their chief.)

b. Kunzi nevanhu aite mambo Garwe anozvida.

(to be said - by people - he become - a chief - Garwe likes it = Garwe likes it that the people make him their chief.)

The complement clauses in (32) and (33) are instances of complement clauses under the direct domination of VP and NP respectively. In (32b) and (33b) -ti has been changed to its passive form -nzi. Notice that although (32b) and (33b) contain the passive form of -ti, only (32b) is synonymous with its corresponding active sentence (32a). In both sentences in (32), because -nyatsa does not express an action or a state as verbs normally do, but is rather expressive of adverbiality, it is not a true verb semantically. It is a modal-like verb. This presumably explains why the pair of sentences in (32) are paraphrases. However, structurally these sentences seem not to be related. Although the passive readily applies in S₁ in (32b') the further movement of Toni to be the subject of S₀ is strictly speaking not part of the passive transformation.
In (33a) the verb of the higher S is a true verb -da. In this sentence it is Garwe himself who wants to bring it about that the people make him their chief. But in (33b) Garwe would welcome a move by the people to make him their chief, but he may not have the means to bring this about. To this extent (33a) and (33b) are not synonymous. The point to note however is that in both (32) and (33) -ti is a fully fledged verb and not a complementizer. Hereunder are the tree diagrams which show the structures which underlie the sentences in (32) and (33). These trees help to show the differences between the members of each pair which have been mentioned above.

(32a¹)

```
(32a¹)
S₀
  NP   VP
    Deni V   S₁
      nyatsa NP  VP
        Deni V   NP  ti  N  S₂
          [+N  +CL8  +pro]  NP  VP
                        Toni V  NP  bva  pano
```
In $S_1$ of (32b$^1$) first object raising applied to make Toni the direct object of the verb $-ti$, then the passive rule applied next and $\text{vani}$ lastly the rule of extraposition.

In $S_1$ of (32b$^1$) first object raising applied to make Toni the direct object of the verb $-ti$, then the passive rule applied next and $\text{vani}$ lastly the rule of extraposition.
The transformational rules applying to $S_1$ in (33b$^1$) are the same as those which applied to $S_1$ in (32b$^1$) above. Then in (33b$^1$) $S_0$ undergoes the rule of Object Focussing (see 5.14) which moves the direct object of $da$ to the left of the subject noun phrase leaving a pro-form in its place as in (33b$^{11}$). It is from this intermediate structure in (33b$^{11}$) that the sentence in (33b) is finally derived.
In the case of (32b) we observe that the complement clause kunzi naDeni' abve pano' continues to be under the direct domination of VP. This is evidenced by the fact that this embedded clause does not control concordial agreement anywhere in the sentence as would be expected of a complement clause which is functioning as a subject. Moreover if we apply the second test for subject noun phrases to (32b) we come up with Toni as the subject noun phrase of this sentence.

(34) Ndian' anyatsa kunzi naDeni' abve pano'? (reply: Toni)

(it was who - who did clearly - to be said - by Deni - he go away from - here = Who was clearly told by Deni to go away from here?)

We cannot use the second test in such a way as to elicit kunzi naDeni' abve pano' as the subject noun phrase of (32b) because of its position in the sentence, namely, that it is a verb phrase complement.

On the other hand, the string kunzi nevanhu aite mambo in (33b) controls the concordial agreement zvi in anozvida. This suggests that there is something like \( ^*N +CL8 \) as the head noun of this string. Besides, this complement clause passes the second test for object noun phrases.

(35) Garwe ano da chii? (reply: kunzi nevanhu aite mambo)

(What does Garwe like?)

What all this indicates is that the status or function of the complement clauses in (32b) and (33b) remains the same whether -ti is passivized or not. That is to say, these complement clauses continue to be dominated by VP and NP respectively. If -ti is a verb in these sentences it follows that kuti cannot be regarded as a mere complementizer always. It is more complex than that. The following sentences demonstrate further the complexity of kuti.

(36)a. Musikan' uyu ano da kuti, "Ndiiye mangwana here?"

(This girl wants to say, "Should I come tomorrow?")
b. Musikan' uyu ano da kuti ndiiye mangwana here?

(Does this girl want to bring it about that I come tomorrow?)
c. Musikaná uyu anódá kuti ndiuyé mangwána heré?

(Does this girl want me to come tomorrow?)

The meaning of -ti in these three sentences is not the same although these sentences are identical in their linear arrangement of the words. In (36a) -ti means "say, utter", in (36b) it has the reading "bring it about that, make, cause", and in (36c) it seems to be a mere complementizer and the emphasis in this sentence appears to be on "me". So it would appear that there are at least three different uses of kuti and I should like to discuss each one of them in some detail as they are crucial to the study of sentential complements in Shona.

2.3.1 Kuti (to say)

The instances where -ti means "say" seem to be quite clear and straightforward. I give a few examples of them in (37).

(37)a. Akanyara kuti aiva nemota muhapwa.

(he was ashamed - to say - he was - with an abscess - in armpit = He was shy of saying that he had an abscess in his armpit.)

b. Mashiri akabvotomoka kuti Keni akapusa.

(Mashiri - spoke unwisely - to say - Keni - he is foolish = Mashiri said without thinking about it that Keni was foolish.)

c. Mukomana anobvuma kuti shamwari yake yakatiza.

(the boy - admits - to say - friend - his - ran away = The boy admits that his friend ran away.)

d. Sani anoramba kuti nyika yakatendérera.

(Sani refuses to admit that the world is round.)

e. Tsuro akatangá kuti Bveni âne nungo.

(The hare began to say that the baboon was lazy.)

All these sentences in (37) are analyzable in a similar manner. Taking (37d) as an example, we can represent its underlying structure by the diagram in (38).
Applying $\emptyset$ complementizer\textsuperscript{1} insertion and gender copying in the second cycle, and ku $\leftarrow$ infinitive\textsuperscript{2} insertion and Equi-NP deletion in the third cycle in (38a), the result is the tree in (38b). (Most of the transformational rules which are being mentioned now will be discussed in greater detail in Chapter Five. Notice also that as in Chapter One the transformational hypothesis of complementizer insertion is adopted in this chapter.) From this derived phrase marker is eventually obtained the sentence in (37d).

But if after applying $\emptyset$ complementizer insertion and gender copying, object raising is then applied in the second cycle of the configuration in (38a) the result is the tree in (38c).

(38)c.

To this tree can be applied the object focussing rule in the second cycle, and then the same rules in the third cycle as were applied above. The structure obtained is something like (38d). After applying later rules

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\textsuperscript{1} This $\emptyset$ complementizer is discussed in 2.9 in this chapter.
and the rules of the phonological component we eventually come up with (39).

(39) Sani ánoramba nyika kuti yakatendererá.

(Sani refuses to accept that the earth is round.)

Notice that object focussing is a common phenomenon in Shona as the sentences in (40) illustrate.

(40)a.i. Ndadyá sadza kare.

(I have eaten sadza already.)

ii. Sadza ndadyá káre.

(Sadza - I have eaten - already = As for sadza I have already had it.)

b.i. Sekuru ánodá kuenda kumusha asi mari haana.

(uncle - wants - to go - to home - but - money - he has none = Uncle wants to go home but he has not the money.)
ii. Kuenda kumusha sekuru anoda asi mari haana.

(to go - home - uncle - wants - but - money - he has none =
As for going home uncle likes it but he has not the money.)

That nyika is still part of $S_1$ is shown by the fact that the string
nyika kuti can undergo anaphoric pronominalization as in (41).

(41) Sani anoramba kui ni yakatenderera.

(Sani refuses to admit that it is round.)

Since anaphoric pronouns of the type exemplified by i in (41) occur
almost always only before verbs in the language, it can safely be
concluded that -ti in (37) is a verb.

Similarly the underlying structure of (42a) below may be
transformed into the structure which eventually yields (42b). The
sequence of rule application is the same as for (41) except that, in
place of anaphoric pronominalization, reflexivization will apply for
its structural description will have been met.

(42a) Mujubheki akati ava murungu.

(Mujubheki said that he had become a white man.)

b. Mujubheki azviti ava murungu.

(Mujubheki said of himself that he had become a white man.)

Observe also that this -ti can be passivized as in (43b).

(See also (32) above.)

(43a) Toni aramba kuti Deni akapusa.

(Toni refused to say that Deni is foolish.)

b. Deni aramba kunzi na Toni akapusa.

(Deni refused to be said by Toni that he is foolish.)

In (43a) Toni, the subject noun phrase, is followed by an active verb
-ramba which in turn is followed by a complement clause containing an
active verb also -ti. The subject noun phrase Deni in (43b) is also fol-
lowed by the active verb -ramba which is itself followed by a complement
clause with a passive verb. In this case the mere fact that there are
two different subject noun phrases but the same active verb occupying the
same position in these two sentences indicates that these sentences cannot have the same semantic reading. Admittedly this may only be contingently true. Nonetheless, although these two sentences are not paraphrases of each other, it is clear that -ti has assumed a passive form in (43b), and passivization is one of the phenomena which are attributed to verbs. It seems evident from the foregoing discussion that -ti in (36a) is a fully fledged verb.

2.3.2 Kuti (to bring it about)

I would like now to examine the second kuti which appears in (36b). The -ti in kuti can also be demonstrated to be a verb. To this end consider the following sentence:

(44) Taka anoda kuti vanafunde.

(Taka - wants - to make - children - they learn =

Taka wants the children to learn.)

Sentence (44) is in itself ambiguous. On one reading the kuti has the meaning which it has in (36b), and on another it has the meaning which it has in (36c). Here I am concerned with the former reading. The underlying structure of (44) appears in (45a) below.

(45)a.
Applying kuti [subjunctive] insertion and gender copying in the second cycle, and ku [infinitive] insertion and Equi-NP deletion in the third cycle of the structure in (45a) the result is the configuration in (45b).

\[(45)b.\]

From this rough structure is finally obtained the sentence in (44).

But if, in addition to applying kuti [subjunctive] insertion and gender copying in the second cycle, object raising is also applied, the result is the structure in (45c).
As was done in the case of the other kuti above the object focussing rule can apply now but still in the second cycle. In the third cycle the same rules as before are applied, yielding the structure in (45d).
From this structure is eventually derived the sentence in (46).

(46) Taka' anoda vana' kuti va'funde.

(Taka - wants - children - to make it - they learn = Taka wants to make the children learn.)

Notice that when the complementizer formative kuti occurs after the verb -ti it is obligatorily deleted in surface structure. Since S in (45c) meets the structural description for the rule of anaphoric pronominalization this rule can be applied resulting ultimately in (47).

(47) Taka' anoda kuvati va'funde. (referring to vana)

(Taka wants to make them learn.)

We observe also that the -ti in this kuti can assume a passive form as shown in (48).

(48) Vana' vanoda' kunzi va'funde naTaka.

(the children - want - to be made - they learn - by Taka =

The children are wanted by Taka to learn.)

Once more all these transformations seem to confirm that the -ti in this second kuti is a verb. The structural descriptions of these transformations which have been discussed above normally require the presence of a verb. Hereunder are further examples of this use of kuti. The sentences in (i) - (iv) in each of (49a), (49b) and (49c) correspond to the sentences in (44), (46), (47) and (48) respectively.

(49)a. i. Mambo' abvuma kuti vanhu va'ke vaite' kanzuru.

ii. Mambo' abvuma vanhu va'ke kuti vaite' kanzuru.

(The chief has agreed to allow his people to form a local council.)

iii. Mambo' abvuma kuvati vaite' kanzuru.

(The chief has agreed to allow them to form a local council.)

iv. Vanhu abvuma kunzi vaite' kanzuru namambo.

(the people - agreed - to be made - they form - council - by the chief = The people have agreed to form a local council at the order of their chief.)
b.  

i. Ambuya vakaramba kuti mwanà àendè kuSínoía.

ii. Ambuya vakaramba mwanà kuti àendè kuSínoía.

(Grandmother refused to let the child go to Sinoia.)

iii. Ambuya vakaramba kumùti àendè kuSínoía.

(Grandmother refused to let him go to Sinoia.)

iv. Mwanà àkaràmba kunzi naambuya àendè kuSínoía.

(the child - refused - to be made - by grandmother - he
go - to Sinoia = The child refused to be ordered by his
grandmother to go to Sinoia.)

c.  

i. Mufudzi ànogona kuti mombe dzìuyè màsikàti.

ii. Mufudzi ànogona mombe kuti dzìuyè màsikàti.

(the herdsman - can make - the cows - they come - in
the afternoon = The herdsman can bring the cows in the
afternoon.)

iii. Mufudzi ànogona kudziti dzìuyè màsikàti.

(The herdsman can bring them in the afternoon.)

iv. Mombe dzìnogona kunzi dzìuyè màsikàti nemufudzi.

(The cows can be made to come in the afternoon by the
herdsman.)

From the discussion so far the following facts have emerged: (a) that
there are at least two different verbs both with the phonological shape
-ùtì, one has the meaning "say, declare" and the other has the meaning
"make, bring it about that, cause"; (b) that these two verbs differ also
in their rule feature specification. The former requires that its com­
plement clause be in the indicative mood as in (37) or a quotation as
in (36a), while the latter requires its complement clause to be in the
subjunctive mood.

2.3.3 Kuti (a complementizer)

I now turn to the kuti in (36c). I shall illustrate the syntac­
tic function of this kuti by taking the sentence in (44) which resembles
(36c) in its structure. The only syntactic difference between the two
is that whereas (36c) is a question (44) is a declarative sentence and therefore slightly less complex in its derivational history. It has already been pointed out that (44) is ambiguous. Here I am concerned with the second reading of this sentence (see p.70). I repeat this sentence below as (50) for convenience.

(50) Taka anoda kuti van’a vafunde.

(Taka wants the children to learn.)

Notice that although (50) and (51) differ from each other in their linear sequence, they are nevertheless paraphrases of each other.

(51) Taka anoda van’a kuti vafunde.

(Taka wants the children to learn.)

In (47) above we saw an anaphoric pronoun occurring before -ti. Anaphoric pronominalization in this case was conditioned by the verb -ti. The sentence in (50) can also appear with an anaphoric pronoun but this time in the position immediately before the verb -da as in (52).

(52) Taka anovada kuti vafunde.

(Taka wants them to learn.)

In this case anaphoric pronominalization is governed by the verb -da. Let us assume, for argument’s sake, that the structure which underlies (50) is the same as the one which is outlined in (45a) which is repeated here for convenience as (53).
Adopting this analysis for (50) raises a number of problems. Firstly, there does not seem to be any sound transformational machinery which can raise \textit{vana}, the subject noun phrase of \textit{S}_2, through \textit{S}_1 to become the direct object noun phrase of the verb \textit{-da} in \textit{S}_0. Notice that in (51) \textit{vana} is a direct object noun phrase of \textit{-da} in \textit{S}_0 otherwise anaphoric pronominalization would not have applied in (52). In the configuration in (45c) \textit{vana} was raised from a subject position in \textit{S}_2 to be a direct object noun phrase of \textit{-ti} in \textit{S}_1. Sentence (52) would require this same \textit{vana} to be raised again from this direct object position in \textit{S}_1 to be a direct object of \textit{-da} in the next higher sentence, namely, \textit{S}_0. Secondly, the two sentences, viz. (47) and (52), in which the raised NP \textit{vana} occurs as an anaphoric pronoun in each case have two different semantic interpretations. If both these sentences are derived from an underlying structure like that in (53) by applying a series of different transformational rules, it then follows that the difference in meaning between these two sentences is attributed to the transformational rules applied. The verb \textit{-ti} will be the same and it will impose kuti subjunctive insertion on the complement clause in both cases. (As was stated before complementizers are introduced transformationally in this chapter.) It is only the raising of \textit{vana} to two different positions in this structure to which the difference in meaning can be ascribed. This approach clearly admits that transformations are not meaning-preserving and this is contrary to one current theory in transformational grammar, and the one adopted in this study, namely, that transformations do not change the meaning of the structure to which they are applied.\footnote{If there could not be found an alternative way of accounting for such data within this current theory, then the theory itself would be open to question for there are quite a number of verbs in Shona which give us the same patterning. Further examples are given in (54) - (56).} If there could not be found an alternative way of accounting for such data within this current theory, then the theory itself would be open to question for there are quite a number of verbs in Shona which give us the same patterning. Further examples are given in (54) - (56).
(54)a. Ndagona kuti Shambare āgare āpasi.
(I managed to make Shambare sit down.)

b. Ndagona kumuti āgare āpasi. (referring to Shambare)
(I managed to make him sit down.)

c. Ndawugona kuti āgare āpasi. (referring to Shambare)
(I prevailed upon him to sit down.)

(55)a. Mudzimai uyu ākatadzā kuti murume wake ārege hwahwa.
(This woman failed to persuade her husband to stop drinking beer.)

b. Mudzimai uyu ākatadzā kumuti ārege hwahwa. (referring to murume wake)
(This woman failed to make him stop drinking beer.)

c. Mudzimai uyu ākatadzā kumuti ārege hwahwa. (referring to murume wake)
(This woman did not prevail upon him to make him stop drinking beer.)

(56)a. Murungu ākatendera kuti Goto āende kunoona amai vaké vairwara.
(The boss allowed Goto to go and see his mother who was ill.)

b. Murungu ākatendera kumuti āende kunoona amai vaké vairwara.
(referring to Goto)
(The boss agreed to make him go and see his mother who was ill.)

c. Murungu ākatendera kuti āende kunoona amai vaké vairwara.
(referring to Goto)
(The boss allowed him to go and see his mother who was ill.)

I believe that the structure which underlies (52) is different from that which underlies (47). In other words the diagram in (53) is not the underlying structure of (52). The claim made here is that kuti in (52) is a complementizer, not a verb, and that this complementizer may be followed by a clause in the subjunctive mood or in the indicative mood. It is proposed that the underlying structure of (52) is as
No transformational rules of interest to us in the present discussion apply in the first cycle. In the second cycle kuti subjunctive insertion applies resulting in the tree structure in (57b).

(57)b.
If we choose not to apply any of the transformations determined by the optional rule features which are governed by the verb -da, the resulting sentence will be (50).

But if, after applying kuti subjunctive insertion and gender copying as above, we choose to apply object raising, still in the second cycle, to the tree in (57b) we get the structure in (57c).

(57)c.

\[
\begin{array}{c}
\text{S}_0 \\
\text{NP} & \text{VP} \\
\text{Taka} & \text{V} & \text{NP} & \text{S}_1 \\
\text{da} & \text{vana} & \text{kuti} & \text{V} & \text{VP} \\
\end{array}
\]

If no other (optional) rule features of -da are applied we eventually obtain the sentence in (58).

(58) Taka'ānodā vanā' kuti vafunde.

(Taka wants the children to learn.)

In this sentence the focus is on vanā. Notice that sentence (58) is identical, in terms of linear sequence, with sentence (46). Nevertheless their transformational histories are different. In (58) vanā is a direct object noun phrase of -da whereas in (46) it is a direct object noun phrase of -ti which has been front-shifted in order to focus attention on it. Now if to the structure in (57c) we apply anaphoric pronominalization we get the sentence in (52). Here are further illustrative examples but with complementizer kuti indicative this time. The sentences (i) - (iii) in each case correspond to the sentences in (50), (58) and
(52) respectively.

(59) a.i. Mako akanzwa kuti Tembeni akatiziswa.

ii. Mako akanzwa Tembeni kuti akatiziswa.

(Mark heard that Tembeni eloped with someone.)

iii. Mako akamunzwa kuti akatiziswa.

(Mark heard that she eloped with someone.)

b. i. Ndinoziva kuti Maria na Kembo vanodana.

ii. Ndinoziva Maria na Kembo kuti vanodana.

(I know that Mary and Kembo love each other.)

iii. Ndinyaziva kuti vanodana.

(I know them that they love each other.)

c. i. Zuze ataura kuti nyaya yacho yapera.

ii. Zuze ataura nyaya yacho kuti yapera.

(Zuze said that the affair was over.)

iii. Zuze ataura kuti yapera.

(Zuze said that it was over.)

d. i. Tande acherechedza kuti Keni haana kubvisa mari.

ii. Tande acherechedza Keni kuti haana kubvisa mari.

(Tande noticed that Keni did not pay any money.)

iii. Tande amucherechedza kuti haana kubvisa mari.

(Tande noticed that his money was not paid.)

e. i. Baba aidaira kuti roora richabviswa.

ii. Baba aidaira roora kuti richabviswa.

(Father believed that the bride price would be paid.)

iii. Baba airidaira kuti richabviswa.

(Father believed that it would be paid.)

f. i. Tinotenda kuti mombe dzaita basa.

ii. Tinotenda mombe kuti dzaita basa.

(We are thankful for the work that the oxen have done.)

iii. Tinodzitenda kuti dzaita basa.

(We are thankful for the work they have done.)
One further observation with this use of *kuti* as a complementizer is that after object raising has applied the passive rule can be applied with the resulting sentence being synonymous with the active sentence. This presumably is due to the fact that passivization is operating in the topmost S. The following are the passives of the sentences in (58) and (59).

(60) a. Vana vanodiwa naTaka kuti vafunde. (cp. (58))
   (The children are required by Taka to learn.)

b. Tembeni åkanzwíkwa naMako kuti åkatíziswa. (cp. (59a))
   (Tembeni - was heard - by Mark - that - she eloped with someone = Mark heard that Tembeni eloped with someone.)

c. Maria naKembo vanozíwikana neni kuti vanodána. (cp. (59b))
   (Mary and Kembo are known by me to love each other.)

d. Nyaya yicho yátízurwa naZude kuti yapera. (cp. (59c))
   (The affair was said by Zuze to be over.)

e. Keni áchérechedzwa naTande kuti haáná kubvísa mari. (cp. (59d))
   (Keni was noticed by Tande not to have paid any money.)

f. Roora raídáirwa nababa kuti ričabhísva. (cp. (59e))
   (The bride price was believed by father to be about to be paid.)

g. Mombe dzinotendwa nesi kuti dzáita basa. (cp. (59f))
   (the oxen - are thanked - by us - that - they did work = We appreciate the service done by the oxen for us.)

But when *kuti* was turned into the passive in its other two uses which were discussed above, the active sentences and their seemingly corresponding passive sentences did not carry the same meaning. This was the case with the pair of sentences in (43), and the sentences in (44) and (48).

Notice also that this *kuti* does not seem to function as a verb anywhere. If it is insisted that -*ti* here is a verb, then this -*ti*, unlike the other two that have been seen, does not permit object raising
and anaphoric pronominalization as the sentences in (61) indicate. These sentences correspond to those in (59).

(61)a. *Mako akanzwa kumuti akatiziswa* (referring to Tembeni)
b. *Ndinoziva kuvati vanodana* (referring to Maria nakémbo)\(^3\)
c. *Ziže atáura kúti yapéra* (referring to nyaya yacho)
d. *Tande ácherechedza kumuti haana kubvisa mari* (referring to Keni)
o. *Bába ádairá kuríti ríchabvíswa* (referring to roora)
f. *Tinóntenda kudzíti dzáíta basa* (referring to mombe)

However, a verb which is followed by a noun phrase as part of its strict subcategorization need not allow object raising (if the NP is abstract and contains an embedded sentence) or anaphoric pronominalization. But in the case of this kuti if we maintain that it contains a verb -ti, we are hard put to it to describe in a convincing way how the subject noun phrase of its complement clause can move the whole way up to be a direct object noun phrase of the main verb of the sentence which dominates this kuti as was pointed out on p. 76.

But as we have already noticed with the verb -da, anaphoric pronominalization can apply in the VP that immediately dominates -da itself (see (52)) or in the VP that dominates -ti (see (47)). Nevertheless it has also been pointed out that the two sentences which we get have different semantic interpretations. So -da happens to be a verb which can allow both ku \([\downarrow]\) infinitive\(^7\) insertion and kuti \([\downarrow]\) subjunctive\(^7\) insertion. Most of the verbs in (61) on the other hand, while permitting kuti \([\downarrow]\) indicative\(^7\) insertion, do not allow ku \([\downarrow]\) infinitive\(^7\) insertion.

It is also observed that the passive sentences in (60) can all occur with kunzi substituted for kuti without effecting any further change either in the structure or in the meaning of these sentences.

\(^3\) Sentence (61b) would be acceptable if -ti meant "say".
This is shown in (62).

(62)a. Vana vanodiwa naticha kunzi vafundzi.
   b. Tembeni akanzvikva nako kunzi akatiziswa.
   c. Maria naKembo vanozivikanwa neni kunzi vanodana.
   d. Nyaya yacho yataurwa naZuze kunzi yapera.
   e. Kemi acherechedzwa naTande kunzi haana kubvisa mari.
   f. Roora raidairwa nababa kunzi richabviswa.
   g. Mombe dzinotendwa nesu kunzi dzaita basa.

It has already been stated above that *kunzi* is the passive form of *kuti* when *kuti* is a verb as in (43) and (48). Recall also that normally when a verb is turned into the passive form in a sentence, that sentence undergoes a structural change, the most noticeable change being that the object noun phrase becomes the grammatical subject of the passive sentence. In the sentences in (60) and (62) we have then a strange situation in which *kuti*, an active form of a verb, interchanges freely with its passive form *kunzi* without effecting any structural change in the sentence. We also have the strange situation in which *kunzi* in one case is a true passive which causes the normal structural change as in (43) and (48), and in another case is a passive which has no syntactic function.

2.3.4 *Kunzi*

There are strong indications that *kunzi* in (62) is not a true passive verb. For one thing it appears to be one of a very few verbs in Shona (Zezuru dialect) which behave in this curious fashion. Notice also that *kunzi* in (62) occurs only after a verb which itself is in the passive form in the higher sentence. But in (43b) and (48) the verb in the higher S is in the active form. This seems to be the crucial difference. I believe that this *kunzi* is a complementizer, just as *kuti* with which it appears as a free variant in such sentences is. Its passive form can be described as some form of assimilation which is conditioned by the preceding passive verb. This assimilation however does not seem
to go through more than one S. It is possible that diachronically the complementizer kuti/kunzi might have been the infinitive form of some active verb -ti (presumably a different -ti from the other two that were discussed earlier on) and its passive form -nzi, but that it lost its verbal character in the course of time. Synchronically, however, this kuti/kunzi is a mere complementizer. This phenomenon is by no means restricted to -ti only. There are other verbs in Shona which have either lost or are in the process of losing their verbal character and assuming a different categorial status. In this regard consider the following two verbs: -nyanga (although, even if) and -bva (go away, begin at, come from).

As a true verb -nyanga may be found in sentences like the following:

(63)a. Sara, nechirwe chake ichi, anyangoenda kuchipatara hazvichambombatsira.

(As for Sara's illness, even if she goes to the hospital it will not help.)

b. Kunyangendoako hayana chaunowana.

(Even if you go there there is nothing that you will get.)

In these sentences -nyanga is an intransitive verb which cannot passivize under any circumstances. Notice that in (63b) this verb is in the infinitive mood. But there is another infinitive form in which the final vowel is /e/ as in kunyange (although, even if). This second infinitive form can occur with the passive extension as in kunyangwe with exactly the same meaning and without causing any structural change in the S in which it appears. That the meaning of -nyanga and kunyange/kunyangwe is the same is obvious enough. But kunyange/kunyangwe is now functioning as a conjunction of some kind or possibly as a complementizer as shown in (64).

(64) Kunyangwe akauya nhasi hazvibatsire.

(Even if he comes today it won't help.)
Furthermore, although -nyanga as a true verb (synchronously at least) requires that its complement clause be a contracted infinitive, kunyange/kunyangwe on the other hand is followed, not by a contracted infinitive, but by a clause which is in the participial mood or consecutive mood as in (65) and (66) respectively.

(65) Nzou ínogona kusimudza dándá kunyange rakakura sei.
(An elephant can lift up a log no matter how big it may be.)

(66) Sara, nèchirwére cháke ichi, kunyange akaenda kuchipatara hazvimubátsire.
(Sara, as for her illness, even if she goes to the hospital it will not help her.)

In fact kunyange can be followed also by an NP or by a relative clause as in these two sentences:

(67) Handidi chínhu nhási kunyange tii zváyo.
(I do not want anything today, not even tea.)

(68) Nzou ínogona kusimudza dándá kunyange rakakura chaizvo.
(An elephant can lift up a log even one which is very big.)

Moreover the forms kunyange/kunyangwe can occur simply as nyange/nyangwe with the same meaning. Nyange/nyangwe cannot in any way be regarded as imperatives as one would expect. The infinitive and the imperative forms of this verb now perform the same function, namely, that of a conjunction of some sort.

The verb -bva would occur in a sentence like the following:

(69) Tande akabvá pánó svondo rakapera.
(Tande left this place last week.)

(70) Tande áida kubvá pánó svondo rakapera.
(Tande wanted to leave this place last week.)

In (70) this verb appears in the infinitive mood. But the infinitive form kubvá can also mean simply "since, from that time" which in a way

4. Contracted infinitives are discussed in 6.2.1.2.
is still related to the meaning of -bva given on p. 84. With the meaning "since" kubva is a conjunctive of some kind. Its syntactic behaviour is different from that in (70).

(71) Suzi’ārī kungorwā’ā kubva musī uye.

(SuZi has been ill since that day.)

That kubva in this case derives from a verb is shown by the fact that it can occur with the applied extension as in (72). The meaning of the sentence remains unaltered.

(72) Suzi’ārī kungorwā’ā kubvira musī uye.

(SuZi has been ill since that day.)

Extensions such as the applied, the passive and so forth are features which are normally associated only with verbs in Shona.

2.4 Kana /+ consecutive7

For the moment let us consider the embedded sentences in the following two sentences.

(73) Kana amai vaToko vakamutuka' hazvibatsire.

(Even if Toko's mother reprimand her it won't help.)

(74) Kana akasvika pano zvingashure.

(If ever he gets here it will be an ill omen.)

The embedded clauses which are underlined are NP complements in subject position. Both of them pass the tests for noun phrases in subject position. In the first place, both strings kana amai vaToko vakamutuka and kana akasvika pano control the concordial agreement zvi in their respective sentences. (This concord zvi is underlined.) Secondly, if the interrogative pro-form test is applied the questions which result are those in (75) and (76) respectively.

(75) Chii chisingabatsire?

(What won't help?)

(76) Chii chingashure?

(What would be ominous?)
The replies to these questions are kana amai vaToko vakamutuka (even if Toko's mother reprimand her) and kana akasvika pano (if ever he gets here) respectively.

Both of these NP complements are introduced by the word kana, while the clause so introduced is in the consecutive mood. (Notice that the word "consecutive" as used here serves only as a label referring to the tone pattern on the verb, and not necessarily to consecutive action semantically.) In the noun phrase complements of the type exemplified in (73) and (74) we are provided with another complementizer, namely, kana /+/ consecutive/.

2.5 Kana /+ participial/

There is yet another complementizer which is introduced by the word kana. In this case the clause following kana is in the participial mood as in (77) - (80).

(77) Kana Pedzi auya nemari yedoro zvanaka.

(If Pedzi has brought some money with which to buy beer it is all right.)

(78) Bomba haachayeuka kana makambosangana.

(Bomba no longer remembers whether you have met before.)

(79) Ndakanganwa kana ndakazviréva.

(I can't remember if I said it.)

(80) Feso akatanga kurangarira kana áizo nyika yáke zvakare.

(Feso began to wonder whether he would see his fatherland again.)

In (77) the complement clause is in subject position while in (78) - (80) the complemet clauses are in object position. It can be demonstrated easily that these complements are in effect noun phrases. In (77) the string kana Pedzi auya nemari yedoro controls the concordial agreement zv in zvanaka. Furthermore the interrogative pro-form test yields the string...
(81) Chi chamaka?
(What is all right?)
to which the answer is kana Pedzi'adya nemari yedoro (if Pedzi has
brought some money with which to buy beer). To illustrate that the com-
plements in (78) - (80) are object noun phrases I shall consider (78)
only. It passes all the tests for object noun phrases.

(82)a. pseudo-cleaving;
Kana makambosangana ndizvizaasisqyeuke Bomba.
(Whether you met before is what Bomba no longer remembers.)
b. passive;
Kana makambosangana hazvichayeukwa naBomba.
(whether - you met before - is not remembered - by Bomba =
Bomba does not remember whether you have met before.)
c. interrogative pro-form;
Bomba haachayeuka chi? reply: kana makambosangana
(Bomba does not remember what? (reply: whether you have
met before))
d. object anaphora;
Bomba haachazviyeuka. (referring to kana makambosangana)
(Bomba does not remember it.)

2.5.1 Among the clauses which are introduced by kana /+ participial/
are embedded or indirect questions such as those in (78) - (80). A brief
comment on non-embedded questions is in order here since it will help
us to understand the nature of embedded questions in Shona. The main
interrogative formatives in Shona are: heré (yes/no); -pi (which one?);
-i (what sort of?); ani (who?); rinhi (when?); sei (how, in what way?);
-ngani (how many?) and -su (expressing dissatisfaction). These are
underlined in the examples below.

(83) Vana vadya sadza here?
(Have the children had their meal already?)
(84) Mombe dzénda kúpi?
(Where have the cattle gone?)

(85) Waona chíkumunda?
(What did you see at the field?)

(86) Sara' ákarwa naani?
(Sara fought with who?)

(87) Chitíma chínosvika rinhi?
(When will the train arrive?)

(88) Jongwe ákaíta izvi sei?
(Why did Jongwe do this?)

These interrogative formatives are mutually exclusive in any one simple sentence. The interrogative formative in (83) however differs from the others. The question which it signals requires either a "yes" or a "no" for an answer, whereas the questions in (84) - (88) require much more information than just a "yes" or a "no". The answers to the questions in (84) - (87) are noun phrases of one kind or another. The interrogative formatives -pi, -i, ani, rinhi and ngani can in effect substitute for noun phrases. The question in which sei occurs requires an answer which states the way in which a given action (or state) is accomplished (or entered into). Question formation in Shona is a topic which is as yet to be investigated more fully. The brief comment above on this topic will nevertheless be adequate for the purpose at hand.

2.5.2 Now let us consider the question in (83) above differs from (89).

(89) Sara' abvúnza kana vana' vádyu sadza.
(Sara asked whether the children have had their meal.)

Notice that (89) resembles in structure the sentences in (78) - (80). Although compelling evidence is still scanty, it would seem that the string kana vana' vádyu sadza is in effect a question which requires a "yes" or a "no" for an answer in the same way that (83) does. In this
respect it is especially interesting that (89) may be paraphrased by (90) in which the "yes/no" question actually appears.

(90) Sara abvunza mubvunzo umoti, "Vana vadya sadza here?"

(Sara asked the question, "Have the children had their meal?")

Another point which has already been noted is that the string kana *vada*

vyadya sadza is a noun phrase complement.

It is observed also that the interrogative formative *here* occurs in non-embedded questions only, while kana in this particular case occurs in embedded questions. That is, the two are in complementary distribution. They seem to constitute one morpheme in this case. A string like the one in (91) is totally ungrammatical.

(91) *Sara abvunza kana vada* sadza here.

Another interesting observation is that kana introduces an indirect question of the *here* type only and none of the others as is shown by the ill-formedness of (92) - (96).

(92) *Sara abvunza kana mombe dzenda kupi.

(93) *Sara abvunza kana waona chi kutumunda.

(94) *Sekai abvunza kana Sara akarw naani.

(95) *Sara abvunza kana chitima chimwosvika rinhi.

(96) *Sara abvunza kana Jongwe akaita izvi sezi.

For these other questions *kuti [F indicative] is the introducing complementizer as shown by the grammaticality of (97) - (101).

(97) Sara abvunza kuti mombe dzenda kupi.

(Sara asked where the cattle went.)

(98) Sara abvunza kuti waona chi kutumunda.

(Sara asked what you saw at the field.)

(99) Sekai abvunza kuti Sara akarwa naani.

(Sekai asked who Sara fought with.)

(100) Sara abvunza kuti chitima chimwosvika rinhi.

(Sara asked when the train would arrive.)
(101) Sara abvunza kuti Jongwe akaita izvi sei.
(Sara asked why Jongwe did this.)

Notice that kuti / indicative/ can also introduce a here type of question but only if the formative here is retained in a position after the verb of the clause which it questions as in (102).

(102) Sara abvunza kuti vanu vadya sadza here.
(Sara asked whether the children have had their meal.)

Sentence (102) is synonymous with (89). Other examples of sentences like (102) are given below.

(103) Ndinoda kuziva kuti makama mombe kare here.
(I want to know whether you have already milked the cows.)

(104) Tichaona kuti Mberi anogona kutamba bhora here.
(We shall see whether Mberi knows how to play football.)

(105) Shamwari yangu ichandiudza kuti munhu uye akadzoka here.
(My friend will tell me whether that person came back.)

All the sentences in (103) - (105) may occur alternatively with kana / participial/ as complementizer for their embedded questions without effecting any semantic change.

(106) Ndinoda kuziva kana makama mombe kare.

(107) Tichaona kana Mberi achigona kutamba bhora.

(108) Shamwari yangu ichandiudza kana munhu uye akadzoka.

2.6 Deletion of kana

In this connection there are four occurrences of kana to be considered which differ according to their meaning. These are kana (time when), kana (if, expressing a condition), kana (although, even if), and kana (whether). The rest of this subsection will be devoted to describing when kana may be deleted and when it may not.

2.6.1 kana (time when)

This kana is invariably followed by a clause in the participial
mood. If the tense in the higher \( S \) is either a (recent past) or aka (remote past), kana is obligatorily deleted as shown by the ill-formedness of the (a) sentences and the well-formedness of the (b) sentences below.


b. Vasvika vakagara pasi.

(On arrival they sat down.)

(110)a. *Kana vavhimi vachipedza kudyakapinda munzira.

b. Vavhimi vachipedza kudyakapinda munzira.

(Having finished their meal the hunters set out on their journey.)

(111)a. *Kana mombe yaneta nekurima yakatanga kurara.

b. Mombe yaneta nekurima yakatanga kurara.

(When the ox was tired because of ploughing it began to lie down.)

(112)a. *Kana vachaenda havana kunzwa nzara asi pakudzoka.

b. Vachaenda havana kunzwa nzara asi pakudzoka.

(When they were still on their way there they didn't feel hungry, but on their way back (they did))

But if the tense indicator in the higher \( S \) is any other than a or aka, kana is optionally deleted without effecting any change in meaning.

(113)a. Kana vasvika vaigara pasi.

b. Vasvika vaigara pasi.

(Having arrived they used to sit down.)

(114)a. Kana mvura youya hapana chakanaka nekupisa kwakuri kuita.

b. Mvura youya hapana chakanaka nekupisa kwakuri kuita.

(When the rain comes it will be terrible because the weather is very hot.)

(115)a. Kana aguta hwahwa anotaurisa.

b. Aguta hwahwa anotaurisa.
(When he has had a lot of beer he talks too much.)

(116)a. Kana mdya mosimuka moita basa.
   b. Mdya mosimuka moita basa.

(When you have had your meal you stand up and do some work)

2.6.2 kana (if)

When kana introduces a conditional clause, that clause will be in either the consecutive mood or the participial mood. Kana followed by the consecutive mood may be substituted freely with kuti. This kuti seems to be different from the other forms of kuti which were discussed above.

(117) Kana/kuti akagona kugadzira midzimu yese iyi anganzi murume.
   (If he manages to propitiate all his ancestral spirits, he may be said to be a man.)

(118) Kana/kuti ukasvika pano ndinokurva.
   (If you come here I will beat you.)

(119) Kana/kuti Musarapasi akaita izvozvo imhosva yakе.
   (If Musarapasi does that it will be his fault.)

This kana/kuti introducing a clause in the consecutive mood may be deleted optionally without disturbing the meaning of the clause. Hereunder are the sentences (117) - (119) with kana/kuti deleted.

(120) Akagona kugadzira midzimu yakе yese iyi anganzi murume.
(121) Ukasvika kunо ndinokurva.
(122) Musarapasi akaita izvozvo imhosva yakе.

Examples of conditional clauses introduced by kana / partic. are provided below.

(123) Kana Mavis asina kuzosvika kunо akatadza.
   (If Mavis didn't get here she didn't do the right thing.)

(124) Kana akafа achizvisungirira pamusana pemazwi'enyu muchamuripachete.
   (If he died by hanging himself because of what you said you will eventually have to propitiate his spirit.)
(125) Kana takanganisa tiudzeiwo.
(If we have done wrong please tell us.)

In (123) - (125) kana may not be deleted as is shown by the ill-formedness of (126) - (128).

(126) *Mavis asina kuzosvika akatadza.*
(127) *Akafá achízvisungirirá pamusaná pémazwi ényu muchamurípa chete.*
(128) *Takanganisa tiudzeiwo.*

Notice that (125) could also mean "when we have made a mistake please tell us". With this meaning, that is, expressing "time when", kana is optionally deletable as was observed above, hence (128) would be a well-formed sentence in that case.

2.6.3 kana (although, even if)

With this meaning kana interchanges freely with kunyange and is normally accompanied by a clause in the consecutive mood. In this case kana may not be deleted.

(129) Kana/kunyange ukashupika seí handimbokubatsíra.
(No matter what difficulties you will get into I will not help you.)
(130) Kana/kunyange kukanaya tinototi tiendé chete nhási kumushá.
(Even if it rains we will have to go home today all the same.)

It would appear that kana/kunyange may be followed also by a clause in the subjunctive mood as (131) and (132) show.

(131) Kana/kunyange ušupíke seí handimbokubatsíra.
(132) Kana/kunyange kunáyé tinototi tiendé chete nhási kumushá.

The sentences in (131) and (132) have the same meaning as (129) and (130) respectively. In (131) and (132) however kana/kunyange seems to be optionally deletable.

(133) Ušupíke seí handimbokubatsíra.
(134) Kunayé tinototi tiendé chete nhási kumusha.
But in the following sentence kana/kunyange may not be deleted without either drastically altering its meaning or rendering the sentence ungrammatical.

(135) Kana/kunyange akauya nhási hazvíchatiyamura.
(Even if he comes today it is not going to help us.)
If kana/kunyange is deleted from (135) the result is (136).

(136) *Akauya nhási haxhaxhaxhax hazvíchatiyamura.
which as a paraphrase of (135) is ungrammatical. Sentence (136) can only be well-formed if it expresses, not a concession as in (135), but a condition as in (137). (cp the sentences in subsection 2.6.2)

(137) Akauya nhási hazvíchatiyamura.
(If he comes today it will no longer help us.)
It is not clear to me at the moment why (133) and (134) should be well-formed, while (136) is not, yet they have undergone the same deletion rule.

2.6.4 kana (whether)
When kana carries the meaning "whether" it introduces an embedded question (see 2.5.2 above.). In such sentences kana is not optionally deletable as the ungrammaticality of (138) - (140) which correspond to (106) - (108) respectively indicate.

(138) *Ndinoda kuziva makama mombe kare.
(139) *Tichaona Mberi achigona kutambá bhóra.
(140) *Shamwari yangu ichandiudzá munhu uye ákádzoka.

2.7 Zva / participial /
Zva appears to be one of the complementizer formatives in Shona. To this end consider the sentence in (141) below.

(141) Temba zvaauya nhási kudai zvinoratidza kuti basa ákapedzá.
(Because Temba has come today it means that he finished the work.)
The string **Temba zvaâyâya nhâsi kudâi** seems to be a noun phrase complement. This string is the subject of the predicate **zvinoratidza kuti basa ākapédzâ**. The **zvi** in **zvinoratidza** is dictated and controlled by this noun phrase complement. Up to now it would appear that I have only assumed without proving it that the string **Temba zvaâyâya nhâsi kudâi** is a noun phrase complement. In the first place, if the interrogative pro-form **chii** is substituted for this string in the sentence in (141) the result is the grammatical question

(142) Chii chinoratidza kuti basa ākapédzâ?

(What indicates that he finished the work?)

to which the answer is **Temba zvaâyâya nhâsi kudâi**. As was seen in 1.2.1.2 the answer to a question with interrogative **chii** is a noun phrase. Secondly, the pseudo-cleaving of (141) yields (143) which is perfectly grammatical.

(143) **Temba zvaâyâya nhâsi kudâi ndizvo zvinoratidza kuti basa ākapédzâ**.

(Temba's arrival today is what indicates that he finished the work.)

The **zvo** in **ndizvo** is clearly a reflex of the prefix of class 8 which in this case is referring to the string **Temba zvaâyâya nhâsi kudâi**. Further examples of sentences of this type are given below. The noun phrase complements in question are underlined.

(144) **Tâyi zvarapera zwíchâita kuti ndipinde mûchikwereti**.

(Since this tyre is worn out I shall be forced to enter into a debt.)

(145) **Zvawâtorâ mari yâké zwíchakukonzerâ kutaura**.

(Taking his money as you have done will lead you into a quarrel with him.)

(146) **Murumé uyu zvaâtevéra zvinorevâ kuti anodâ mukâdzî wâké**.

(By tracing his wife this man has shown that he loves her.)
(147) *Zvavakatenga seko zvakavabatsirá kurima.*

(Buying the plough helped them to till their land.)

(148) *Zyawáva kuchovha makasa zvíchakurunzirá kubá.*

(Since you are now gambling for money you will be led into stealing.)

Each of these noun phrase complements is introduced by *zva*. This *zva* is then invariably attached to the verb of the clause which it serves to introduce. The verb which follows it is always in the participial mood. Thus *zva* is another complementizer. The meaning carried by *zva* in this case is "since, as, because ---".

2.8 Deleted Complementizer Formatives

In Shona there are some sentences in which the complement clause is not introduced by an overt complementizer such as *kuti* or *kana* as was the case in the sentences which we have met so far in this chapter. In the sentences referred to presently the complement clause may be in the participial, indicative, subjunctive or consecutive mood. All these seem to be cases of verb phrase complements, not noun phrase complements.

Examples of sentences in which the complement clause is in the participial mood:

(149) *Mungadái máenda kumushá.*

(You should have gone home.)

(150) *Vanhu vakaramba vachitaura vanzi nyararai namambo.*

(The people kept on talking when they had been told to keep quiet by the chief.)

(151) *Baba akadzamárá ásvika zvese zvěkutambá zvápera.*

(As soon as father arrives all playing has got to stop.)

(152) *Tsitsi ndinogara ndichisangá na ye kutímes.*

(As for Tsitsi I always meet her at the well.)

(153) *Jáke haáchafa ákazviitá zvakáre zvékubá.*

(Jack will never steal again.)
An example of a sentence in which the complement clause is in the indicative mood:

(154) Ita pashoma nepashoma unodzamara wawana zvauri kuda.
(Do it little by little; in the end you will get what you want.)

Examples with complement clauses in the subjunctive mood:

(155) Amai vakadakara vadzoke kutsime Dambudzo asati amuka.
(Mother returned from the well only to find Dambudzo still in bed.)

(156) Zuze ndiye asaka tsuro ipunyuke.
(Zuze was the one who let the hare escape.)

An example with a complement clause in the consecutive mood:

(157) Midzi akasimbirira akadakara akawana fundo yaaida.
(Midzi persevered until he got the education he wanted.)

There are at least two possible ways of coping with the complement clauses in (149) - (157). One approach is to say that if these embedded clauses are introduced by any complementizers at all, then the complementizers in these sentences are: $\emptyset$ $^{\text{participial}}$ for (149) - (153), $\emptyset$ $^{\text{indicative}}$ for (154), $\emptyset$ $^{\text{subjunctive}}$ for (155) - (156), and $\emptyset$ $^{\text{consecutive}}$ for (157).

However it is also possible that diachronically there were overt complementizer formatives like kana, kuti and ku in these complementizers but that these were eroded in the course of time so that today only the mood with which they were associated remains. Since all these four moods have already appeared above with overt complementizer formatives one could postulate the following complementizers for these sentences:

kana $^{\text{participial}}$ for (149) - (153);
kuti $^{\text{indicative}}$ for (154);
kuti $^{\text{subjunctive}}$ for (155) - (156);
As has already been stated these complementizers will form part of the strict subcategorization of the verbs after which they occur. Just as some verbs, for instance, are marked for optional object deletion, the verbs in question here will be marked for obligatory complementizer formative deletion.

If the latter suggestion proves to be viable, it is to be preferred to the former which seems to proliferate the number of complementizers to be found in Shona. Nevertheless more investigation is required before a more positive statement can be made in this connection. For the purpose at hand the latter approach is adopted.

2.9 Verb -ti (say) and Complementizers

Direct speech following on the verb -ti (say) - the only verb in Shona privileged to introduce a quotation - requires comment. Such a quotation is to be regarded as a direct object of some kind. Here is an example of such a sentence.

(158) Sara ati, "Toko uri rombe."

(Sara said, "Toko, you are stupid."

Although the complement in this sentence is not introduced by an overt complementizer formative, this sentence differs from those in (149) - (157) in that the complement is a noun phrase complement. If this sentence is transformed into the passive, and extraposition applied subsequently, it will become apparent that the head noun of the quotation is a pronoun of class 8.

(159) Zvanzi naSara, "Toko, uri rombe."

(It was said by Sara, "Toko, you are stupid."

Zv- is clearly a subject concord of class 8.

Notice that -ti may also be complemented by an ideophone.

(160) Vana vakati zii kunyarara zvakapinda mudzidzisi.

(The children became very quiet when the teacher came in.)
In this case however -ti does not seem to mean "say, speak", but rather something like "become".

Since the quotation which may occur after -ti may be in almost any of the moods, we cannot postulate, it seems, a complementizer formative like kuti or kana before -ti it, because doing so would lead us to include among the complementizers such impossible complementizers as: kuti \(F\) imperative, kana \(F\) indicative or kana \(F\) subjunctive. In brief it would not be known in some cases which complementizer formative to postulate. In order to obviate this difficulty it is proposed here to set up tentatively a \(\emptyset\) complementizer which will form part of the strict subcategorization statement of -ti (say) only. This \(\emptyset\) complementizer will serve to introduce a quotation.

2.10 **List of Complementizers**

Among the complementizers which are found in Shona (Zezuru dialect) are the following:

- kuti \(F\) indicative
- kuti \(F\) subjunctive
- ku \(F\) infinitive
- \(\emptyset\) complementizer.

Although words like kubvira, dakara, dzamara and a few others introduce subordinate clauses, they nevertheless do not seem to subcategorize verbs. For this reason one hesitates to regard them as complementizer formatives. They may be mere conjunctives. I have not included them among my complementizers because their status is not clear to me at the moment.

It is proposed to regard each complementizer as being made up of two parts, namely, the introducing element and the mood. A complement clause must be in one or another of the moods in Shona. The complementizer in any complement clause is governed by the verb in the higher
Another observation worth noting is that complementizers are mutually exclusive. If one is inserted in any one cycle none of the others may be inserted subsequently in that same cycle. All these complementizers may feature in noun phrase complements.

Owing to the fact that ku as well as kuti is a complementizer formative, there is need to restate how the choice between the concords ku of class 15 and zvi of class 8 is determined. This could be done in the following way: with ku as complementizer formative there is a relatively free choice between the concords of class 8 and class 15, except that, if the complement clause has -ti as its verb, the concord employed is restricted to that of class 8. However there is a tendency on the whole to prefer the concord of class 15 to that of class 8. With the other complementizer formatives only the concord of class 8 may be selected.

2.11 kuti */ subjunctive* and ku */ infinitive*

The setting up of kuti */ subjunctive* as well as ku */ infinitive* as complementizers appears to help to account for yet another intriguing phenomenon with respect to the kuti clauses. For instance, consider the following pairs of sentences:

(161)a. Koni aida kuti adzoke.
   (Koni wanted to come back.)
   b. Koni aida kuazoka.
   (Koni wanted to come back.)

(162)a. Koni aida kuti Farai adzoke.
   (Koni wanted Farai to come back.)
   b. *Koni aida Farai kudzoka.
   (Koni wanted Farai to come back.)

The two sentences in (161) share the same meaning and they seem to be related structurally also. That is, it would appear that (161b) is derivable from the same structure which underlies (161a). But in the
other pair only (162a) is well-formed, the other is not, yet it is con­structed on the pattern as (161b). How is this discrepancy to be ac­counted for? Taking the underlying structure of (161a) and (161b) to be as in (163)

(163)

it would appear that (161a) is derived by inserting kuti subjunctive into $S_1$. This yields the structure in (164).

(164)
Applying the other rules which are not relevant to the discussion at hand we end up with (161a).

If to the structure in (163) we choose to insert ku $\sqrt[3]{\text{infin}}$ instead, we get the structure in (165) below.

(165)

From this structure (161b) is finally derived. Notice that in both (164) and (165) Equi-NP deletion has to apply.

The underlying structure of (162a) and (162b) is much similar to that of (161). It is given in (166) below.

(166)
Inserting *kuti* /F subjunctive/ as before into \( S_1 \) the result is the structure in (167). From this tree is eventually obtained (162a). Notice that there is no Equi-NP deletion applying in this case. Now if instead of *kuti* /F subjunctive/ we insert *ku* /F infinitive/ into \( S_1 \) in (166) the configuration we get is (168). From this derived phrase marker is eventually obtained the ungrammatical sentence (162b). What all this means is that *ku* /F infinitive/ cannot be inserted into a structure like that in (166). But the question is: why does this transformation block in this case? This cannot be attributed to the verb in the higher \( S \) because in (165) the same verb -da with the same meaning permits *ku* /F infinitive/ to be inserted into the complement clause. Notice that apart from the fact that the subject noun phrase of \( S_1 \) in (163) is *Koni* and that of \( S_1 \) in (166) is *Farai* these two tree diagrams are identical. In (165) NP3 is deleted under identity with NP1, but in (168) this is not possible. So the ungrammaticality of (162b) appears to stem from the fact that there is an identity constraint which accompanies *ku* /F infinitive/ insertion. Perhaps this may be stated as a condition on Equi-NP deletion, but at the moment I do not know how that condition could be formulated.

The subject noun phrase of the complement clause must be identical to either the subject noun phrase or the object noun phrase of the containing \( S \). The sentences in (169) and (170) are further illustrative examples of the type of sentences in (161) and (162) respectively.

(169)a.i. Mwana abvuma kuti āsare here?
   ii. Mwana abvuma kusara here?

(Has the child agreed to remain behind?)

b.i. Ndakâedza kuti ndimubatsiré asi zvakakona.
   ii. Ndakâedza kumubatsiré asi zvakakona.

(I tried to help him but it was all in vain.)

c.i. Mbombo akâédzesera kuti ārové nyôka ikabva yamusvipirâ.
   ii. Mbombo akâédzesera kurová nyôka ikabva yamusvipirâ.
(As Mbombo tried to hit the snake it spate at him.)

d.i. Muru kufungidzira kuti mudzoké rinhi?
ii. Muru kufungidzira kudzoka rinhi?

(When are you expecting to come back?)
e.i. Mudzidzisi akanganwa kuti āridzé dâre.
ii. Mudzidzisi akanganwa kuridza dâre.

(The teacher forgot to ring the bell.)
f.i. Vasekuru vábvúmidza Kembo kuti āende kumba.
ii. Vasekuru vábvúmidza Kembo kuenda kumba.

(Grandfather allowed Kembo to go home.)

(170)a.i. Wanatsa kuti vana váende kuchiri' kuchena.

(xi) (You did well to allow the children to go when it was still daylight.)

ii. *Wanatsa vana kuenda kuchiri' kuchena.

b.i. Tomu āka'édza kuti motokari yaké ifambé.

(Tom tried to make his car move.)

ii. *Tomu āka'édza motokari yaké kufambé.

c.i. Anyangadza kuti vatezvara vágare pasi.

(He made a mistake in letting his father-in-law sit on the ground.)

ii. *Anyangadza vatezvara kugara pasi.

d.i. Sani ākáramba kuti amai vake vátambudzike.

(Sani could not tolerate seeing his mother suffer.)

ii. *Sani ākáramba amai vake kutambudzika.

e.i. Suzi abvuma kuti Masango amutakure némota yake.

(Suзи agreed that Masango should give her a lift in his car.)

ii. *Suzi abvuma Masango kumutakura némota yake.

In the case of (170e) if the complement clause Masango amutakure némota yake is passivized we get (171).
(171) Suzi ābvuma kuti ātakurwe naMasango nēmōta yake.  
(Suzi agreed to be given a lift by Masango in his car.)

Now that the grammatical subject of this complement clause is identical with that of the containing S, *ku /+ infinitive/ insertion can apply without causing any difficulty. The resulting sentence is (172) below which is perfectly well-formed.

(172) Suzi ābvuma kutakurwa naMasango nēmōta yake.  
(Suzi agreed to be given a lift by Masango in his car.)

2.12 *kuti /+ indicative/ and *ku /+ infinitive/

The discussion immediately above involved the insertion of *kuti /+ subjunctive/ and *ku /+ infinitive/ into the complement clause and the relationship, both structural and semantic, of the sentences which result. A similar comparison obtains between *kuti /+ indicative/ and *ku /+ infinitive/. To this end consider the following sets of sentences.

(173)a. Mwoyo ākaoa ākutādza.  
(Mwoyo realized that he made a mistake.)

b. Mwoyo ākaoa ākatādza kwake.  
(Mwoyo saw his mistake.)

c. *Mwoyo ākaoa ākatādza.  
(*Mwoyo saw erring.)

(174)a. Zikomu ākafembera kuti Mushonga ānosvika nhāsi, iye achībva āsvikawo nhāsi.  
(Zikomu guessed that Mushonga would arrive today, and for sure he arrived today.)

b. Zikomu ākafembera kūsvika kwaMushonga nhāsi, iye achībva āsvikawo nhāsi.  
(Zikomu foretold Mushonga's arrival today, and indeed he did arrive today.)

c. *Zikomu ākafembera Mushonga kūsvika nhāsi, iye achībva
asvikawo nhasi.

(*Zikomu foretold Mushonga to arrive today, and for certain he arrived today.*)

The (a) and (b) sentences share the same meaning in each set. Observe that (173c) and (174c) which are identical to (173b) and (174b) except in one respect only, namely, the absence of the possessive kwake and kwamushonga respectively, are ill-formed. That the (a) and (b) sentences in each set are related somehow structurally as well as semantically seems obvious enough, and a linguistic description of Shona which does not capture this relatedness would be, to my mind, descriptively inadequate.

What is interesting to observe here is that when ku [\( \square \) infinitive] is inserted into complement structures governed by verbs like -ona and -fembera the subject of the complement clause is not deleted by Equi-NP as was the case in the subsection immediately above, but is turned into a possessive construction. In this case there is no identity constraint in respect of the insertion of ku [\( \square \) infinitive] as was the case in the preceding subsection, hence (173b) is well-formed and so is (174b). Here are further examples of the sentences in which ku [\( \square \) infinitive] insertion is accompanied by possessivization.

(175)a. Midzi ’à kutsutsumwa kuti nyaya iyi yakubuda pachena.

(Midzi is unhappy because this affair became known.)

b. Midzi ’à kutsutsumwa kubuda pachena kwenyaya iyi.

(Midzi is unhappy because this affair became known.)

c. *Midzi ’à kutsutsumwa nyaya iyi kubuda pachena.

(*Midzi is unhappy this affair to come into the open.)

(176)a. Ndaudza Nzira kuti zvinhu zvaipa.

(I told Nzira that things were bad.)

b. Ndaudza Nzira kuipa kwezvinhu.

(I told Nzira that things were bad.)
c. *Ndau'dza Nzira zvinhu kuipa.
 (*I told Nzira things to be bad.)

(177)a. Totama áivánzá kuti áne mwóyo wakaipa.
b. Totama áivánzá kuve kwake nemwóyo wakaipa.
(Totama used to hide his cruelty.)
c. *Totama áivánzó kuve nemwóyo wakaipa.
(*Totama used to hide cruelty.)

In some cases however possessivization accompanying ku /+ infinitive/ insertion seems to be optional as in (178) - (180).

(178)a. Mwana anotonderá kuti akanzi naamái vake auye mangwana.
b. Mwana anotonderá kunzi kwake naamái vake auye mangwana.
c. Mwana anotonderá kunzi naamái vake auye mangwana.
(The child remembers having been told by its mother to come tomorrow.)

(179)a. Akarówha akatsiiidza kuti haachazviita zvakáre.
b. Akarówha akatsiiidza kusazviita kwake zvakáre.
c. Akarówha akatsiiidza kusazviita zvakáre.
(He was beaten so hard that he promised not to do it again.)

The problems which I leave as open questions are (a) how this possessive construction is to be characterized, and (b) when is this possessivization obligatory and when is it optional?

2.13 Summary

The facts which have emerged so far in this chapter are (a) that complementizers exist in Shona and these are listed in subsection 2.10 above, (b) that the ku in kuti clauses dominated by NP is not a noun prefix but a complementizer formative whose phonological form happens to be identical to that of the noun prefix of the head noun of the NP in which it occurs, (c) that there exists a complementizer formative kuti as well as kuti an infinitive form of the verb -ti, and (d) that complement clauses which are dominated by NP may have as their
head noun a pronoun of class 8 or class 15 normally. (I say "normally" because there is a departure from this in a few cases as will be seen in 6.1.5.)
There are various types of nominal expressions which are found in Shona. In this chapter I should like to consider two of them which are of special significance to this study. Let us call them infinitival and derived nominals. To this end examine the following sentences:

(1) a. Madzitateguru edu aipfeka nhembé.
   (Our forefathers used to wear skin aprons.)

b. Ndapa vachati mari.
   (I gave the bride and bridegroom some money.)

c. Tendere akafá.
   (Tendere died.)

d. Vana vancoenda kumusha mangwana.
   (The children will go home tomorrow.)

(2) a. kupfeka nhembé kwamadzitéguru edu
   (the dressing in skin aprons of our forefathers)

b. kupa kwangu vachati mari
   (my giving the bride and bridegroom some money)

c. kufa kwaTendere
   (Tendere's death)

d. kuenda kwevana kumusha mangwana
   (the children's departure for home tomorrow)

(3) a. zvipfeko zvenhembe zvamadzitéguru edu
   (clothing - of skin aprons - of forefathers - our =
    the clothing which consisted of skin aprons which our
    forefathers had)

b. chipo changu chemari kuvachati
   (gift - my - of money - to the bride and bridegroom =
    my gift to the bride and bridegroom which was in the form
    of money)

c. rufú rwaTendere
Corresponding to the sentences in (1) are the infinitival nominals in (2) and the derived nominals in (3). There are many differences which have been noted between these two types of nominals in Shona linguistic studies. The differences that would strike one's attention most are those that pertain to the productivity of the transformation in question, the generality of the relationship between the nominal and the associated underlying structure, and the morphological structure of the nominal.

The constructions which are being discussed here have their approximate counterparts in English in the form of gerundives and derived nominals. But since infinitival nominals are not always equivalent to the gerundives in English this term has accordingly been avoided as it might be misleading in Shona. Chomsky discussed these gerundives and derived nominals at some length. In his discussion of these two types of nominal phrases he considers two positions, namely, what he labelled the "lexicalist position" and the "transformationalist position". In his conclusion he adopts the lexicalist position for the derived nominals and the transformationalist position for the gerundive nominals. Chomsky's conclusions here appear to be equally applicable to Shona in respect of the nominals which are under discussion. It seems to be the case that we shall achieve a large measure of descriptive adequacy if we adopt the transformationalist position for infinitival nominals and the lexicalist position for the derived nominals.

3.1 **Productivity**

Consider first the question of productivity. One thing which we notice clearly is that we can form infinitival nominals relatively freely from underlying structures of the form noun phrase plus verb phrase. In fact there are very few exceptions indeed to this transformation. An example of such exceptions is a proposition in which the verb is *fanira* (ought to). However as far as the formation of derived nominals is concerned there are many restrictions. The structures which underlie the sentences in (4), for instance, are easily transformed into infinitival nominals of (5), but not into the derived nominals of (6).

(4)a. Murume uye akatarisa rutivi.
   (That man looked sideways.)
   b. Musikana anyora tsamba.
      (The girl wrote a letter.)
   c. Ndege inobhururuka mudenga.
      (An aeroplane flies in the sky.)

(5)a. Kutarisa rutivi kwemurume uye
   (that man's looking sideways)
   b. Kunyora tsamba kwemusikana
      (the girl's writing of the letter)
   c. Kubhururuka mudenga kwendege
      (the aeroplanes flying in the sky)

(6)a. *mutariso (3) rutivi wemurume uye
   *chitariso (7) rutivi chemurume uye
   *------- (other classes)
   b. *munyoro (3) tsamba yemusikana
      *nyoro (5) tsamba remusikana
   c. *mabhururuko (6) mudenga endege
      *chibhururuko (7) mudenga chendege
      *------- (other noun classes) dege
      *------- (other noun classes)
Whereas the structures which underlie both the sentences in (1) and those in (4) can have the transformational rules which yield infinitival nominals applied to them, only those in (1) can be transformed into derived nominals. It seems quite clear that the transformation which gives rise to infinitival nominals is much more productive than that which would yield derived nominals were we to allow such a transformation in respect of derived nominals. There does not appear to be any rule by which we can predict the grammaticality of the phrases in (3) and the ungrammaticality of those in (6). Even where a proposition can be transformed into a derived nominal, on the whole there does not seem to be a way of predicting which noun class feature the derived nominal is going to have. The derived nominals in (3) clearly illustrate this point. The nominal *zvipfeko* in (3a) has class 8 feature but the nominal *rufu* in (3c) has a class 11 feature. If we assign a class 11 feature to the proposition underlying (3a) we come up with the ungrammatical nominal phrase in (7).

(7) *rupfeko rwénhembe rwémdzitáteguru édu*

Similarly if we assign a noun class 8 feature to the proposition which underlies (3c) or (3d) the result are the ill-formed phrases in (8).

(8)a. *zvífú zváTendere*

b. *zvendo zvekumushá zvamángwana zvěvaná*

There are nevertheless a few cases where a noun class feature can be assigned to a derived nominal in a way which is more or less predictable. Such are the agentive derived nominals in (9) and the abstract derived nominals in (10).

(9)a.i. murími (1) (a farmer)
   ii. varími (2) (farmers)

b.i. muvhími (1) (a hunter)
   ii. vavhími (2) (hunters)

c.i. mutongí (1) (a judge)
   ii. vatongí (2) (judges)

   cp -rima (plough)
   cp -vhimá (hunt)
   cp -tongo (judge, try)
d.i. mudzidzisí (1) (a teacher)  
ii. vadzidzisí (2) (teachers)  

e.i. murwi (1) (a soldier)  
ii. varwi (2) (soldiers)  

(10)a. uroyi (14) (witchcraft, wizardry)  
b. ugare (14) (peacefulness)  
c. urwere (14) (an illness)  
d. upfumi (14) (richness)  
e. uipi (14) (evil, badness)  
f. ufuro (14) (grazing area)  
g. ungwaru (14) (cleverness)  
h. uremu (14) (weight)  

But even then one does not go very far down any given list of verbs before one comes across counter-examples. The examples in (11) and (12) counter those in (9) and (10) respectively.

(11)a.i. *muendi (1) (a goer)  
ii. *vaendi (2) (goers)  
b.i. *mumuki (1) (one who wakes up)  
ii. *vamuki (2) (those who wake up)  
c.i. *muremi (1) (*one who weighs)  
ii. *varemi (2) (*those who weigh)  
d.i. *mukwani (1) (*one who is enough)  
ii. *vakwani (2) (*those who are enough)  

(12)a. *uendi (14)  
*uendo (14)  
*uenda (14)  
*uendu (14)  
*uende (14)
Furthermore in (10), for instance, the terminal vowel may be /a/ as in uroora, /e/ as in ugare, /i/ as in upfumi, /o/ as in ufuro, or /u/ as in ungwaru. There does not seem to be a way of predicting in these nominals what the terminal vowel is going to be. If in (10a) the terminal vowel /a/ is altered to /e/ or /o/ or /u/ we get the forms *uroore, *urooro and *urooru which are all ill-formed. In (12c), on the other hand, if the terminal vowel is changed to /o/ we get the well-formed derived nominal umiro (height; size). It could be argued that derived nominals of class 14 are themselves derivatives from derived nominals of other classes, notably classes 1 and 2. But the existence of such counter-examples as the following appears to weaken the argument.

(13)a. *uvengi (14) cp muvengi (1) (enemy)
b. *ubi (14) cp mubi (1) (one who steals)
c. *udzidzi (14) cp vadzidzi (2) (learners)

It is clear that if these derived nominals are going to be obtained transformationally a very complicated transformational apparatus will be required and it is doubtful whether this can be achieved without making the grammar look cumbersome and unwieldy.

3.2 Meaning

The second major difference between these two kinds of nominals relates to the semantically idiosyncratic nature of the relationship between the derived nominal and the associated verb. Often derived nominals bear individual shades of meaning which sometimes differ considerably from the verb from which they are said to derive. The following illustrative examples will bear this out.
Although there are a few subregularities, for example in (9) above, on the whole however the range of variation in meaning is typical of lexical structure. If it is accepted that it is the grammatical relationships in deep structure which determine the meaning of a sentence, it follows that in order to account, within the transformational approach, for the facts which have been mentioned above it would be necessary to resort to the device of specifying a range of meanings for the base form. It would have to be stated also that with certain semantic features a form must nominalise but with others it must not. The grammar that is suggested by this artifice will be ad hoc.

3.3 Internal Structure

Another observation which strikes one is the difference between derived nominals and infinitival nominals with regard to their internal structure. A derived nominal may have as one of its features a noun class affix of almost any class. Locative affixes are however
excluded in this case unless they are superimposed on other affixes.

Morphologically a typical noun in Shona consists of a class affix and a stem as is illustrated in (15) below.

(15)

(a) mu-rūmé (1) (a man)
(b) mi-kuyu (4) (fig-trees)
(c) ma-kuyu (6) (figs)
(d) chi-ngwa (7) (bread)
(e) pa-nzę (16) (outside (near by))
(f) ku-nzę (17) (outside (in general))

Some derived nominals have a morphological structure which consists of a class affix, a verb root and a terminal vowel, the latter being determined to some extent by the class affix. Such are the nominals in (16).

(16)

(a) mu-tadź-i (1) (a sinner) cp -tadźa (sin; fail)
(b) ru-tadź-o (11) (a sin)
(c) mu-sung-o (3) (a string) cp -sunga (tie)
(d) chi-sung-o (7) (a bond)
(e) rw-end-o (11) (a journey) cp -enda (go)
(f) va-roor-a (2) (daughters-in-law) cp -roora (marry)

There are subregularities that may be observed here as was mentioned earlier. For instance, the affixes mu- and va- of noun classes 1 and 2 respectively normally require that the unextended verb should have the terminal vowel /i/ as in (16a) and also in (9). The kind of derived nominals in (16) may not be expanded to include either object noun phrases or adverbials although the verbs themselves may occur with one verbal extension or more as illustrated in (17).

(17)

(a) mu-sung-w-a (1) (a captive) cp -sunga (tie)
(b) chi-zvár-ir-w-o (7) (since birth) cp -zvárá (beget)
(c) ma-bik-ir-o (6) (manner of cooking) cp -bika (cook)
(d) zvi-sak-is-o (8) (causes) cp -saka (cause)

It is however also possible to have a derived nominal whose morpho-
logical structure comprises a class affix and a verb phrase. In this case the terminal vowel is almost invariably limited to /a/. These nominals seem to share the meaning of relative clauses. Here are a few examples of such nominals.

(18)a. mu-tamb-a nengwe (la) (one who plays with a leopard)
   cp -tamba nengwe (play with a leopard)
   b. mu-komb-a choto (la) (one fond of warming oneself by the fireplace)
   cp -komba choto (encircle a fireplace)
   c. chi-nzveng-a mutsvairo (la) (one who godges the broom = a lazy person)
   cp -nzvenga mutsvairo (dodge the broom)
   d. chi-muts-a mapfihwa (la) (one who revives the hearth-stones = wife given to widower to replace the one who has died)
   cp -mutsa mapfihwa (raise the hearth-stones)

In (18b - d) the verb phrases consist each of a verb and a direct object noun phrase.

The infinitival nominals resemble in their morphological form the nominals in (18). That is, they always consist of the ku formative and a verb phrase as shown in the underlined strings in (19).

(19)a. Mufudzi anogona kuti mombe dzluye masikati. (see (49c.i) in Chapter 2)
   b. Mako anoda kufamba nevasikana. (see (51a) in Chapter 2)

This ku formative however as was seen earlier is not a class affix as such but a complementizer formative. Although the nominals in (18) and (19) both contain verb phrases, they nevertheless differ remarkably in other respects. The infinitival nominals are capable of much greater complexity than the derived nominals. This complexity is in the direction of that which is found in sentences. Thus the following transformations, which normally operate in sentences, may apply readily within infinitival nominals.
(20)a. anaphoric pronominalization;
   e.g. i. Jojo anoda kutenga mabhuku aya.
       (George wants to buy these books.)
   ii. Jojo anoda kuatenga (namely mabhuku aya)
       (George wants to buy them (namely, these books))

b. reflexive pronominalization;
   e.g. i. *Mbare akaramba kupira Mbare kuavengi vake.
       (*Mbare refused to give up Mbare to his enemies.)
   ii. Mbare akaramba kuzvipira kuavengi vake.
       (Mbare refused to give himself up to his enemies.)

c. negation;
   e.g. i. Mbare abvuma kuendako.
       (Mbare has agreed to go there.)
   ii. Mbare abvuma kusaendako.
       (Mbare has agreed not to go there.)

d. pseudo-cleaving;
   e.g. Mabhuku aya Jojo ndiwo anoda kutenga.
       (These books are the ones which George wants to buy.)

e. interrogative pro-form;
   e.g. Jojo anoda kutenga chii? (reply: mabhuku aya)
       (What does George want to buy?) (reply: these books)

Furthermore these infinitival nominals can contain aspect as in (21).

(21) Apedza kukanga nyama Muchaneta akatanga kuchibika sadza.
       (When Muchaneta had finished frying the meat she began to cook sadza.)

An infinitival nominal which is in a subject position in a sentence can still undergo any of the transformations listed in (20) as the sentences in (22) show.

(22)a. anaphoric pronominalization;
   e.g. Kumuona zvinonetsa.
(It is difficult to see him.)

b. reflexive pronominalization;
   e.g. Kuzvisungirira zvakaipa.
       (Hanging oneself is bad.)

c. negation;
   e.g. Kusabvakachirana nehama hazvinha kunaka.
       (It is not a good thing to keep away from one's relations.)

d. pseudo-cleaving;
   e.g. Jerusarema ndiro rino nakidza kutamba.
       (It is the Jerusarema dance which is interesting.)

   cp. Kutamba Jerusarema kunonakidza.
       (The Jerusarema dance is interesting.)

Anaphoric pronominalization has been attested in derived nominals whose morphological composition is as follows:

   class affix + verb + applied extension^ + /o/.

This is exemplified in (23) below.

   (23)a.i. Mabairo acho mombe iyi ane ngozi.
       (Slaughtering this cow is dangerous.)

   ii. Mabairo acho ane ngozi.
       (Slaughtering it is dangerous.)

   b.i. Maoneroro acho musikana iyeye anonetsa.
       (Seeing that girl is difficult.)

   ii. Mamosoneroro acho anonetsa.

2. For the approach adopted in this study in respect of the Applied extension see 6.1.4 and also Appendix A. For other treatments of this extension see N.C.Dembetembe in Verbal Constructions in Korekore, an M.Phil. Dissertation, London, (1969); also G.Fortune in Shona Grammatical Constructions, Part I, (forthcoming).
(Seeing her is difficult.)

1. Matakuriro acho mango dzacho ndiwo andisingazive.

(How to carry the mangoes is what I do not know.)

ii. Madzitakuriro acho ndiwo andisingazive.

(How to carry them is what I do not know.)

The class affix of the derived nominal in this case appears to be restricted to that of class 6. There exists also an isolated example of a derived nominal with a negative formative.

\[
\text{misikanzwa (4)} \quad \text{cp -nzwá (obey)} \\
\text{misakanzwa (4)}
\]

Apart from these examples which are rather rare we do not on the whole observe the transformations in (20) with derived nominals. These transformations block if applied to the structures underlying the nominals in (16) through (18). In the following sentence the nominal in (18b) appears as a direct object noun phrase.

(24) Garwe áona mukomba-choto.

(Garwe has seen the one who is fond of sitting by the fireplace.)

If, for instance, we apply anaphoric pronominalization, the negative and the pseudo-cleaving transformations to the structure underlying (24), we eventually get the following sentences in (25) which are however all ungrammatical.

(25) a. anaphoric pronominalization;

*Garwe áona muchikomba.

(Garwe has seen the one who is fond of sitting by it.)

b. negation;

*Garwe áona musakomba choto.

(Garwe has seen the one who is not fond of sitting by the fireplace.)

c. pseudo-cleaving;
A dare is a meeting place for men living in the same village. They have their meals there.
The strings which are underlined in (26) and (27) are derived nominals and infinitival nominals respectively. Both types of nominal are functioning as direct object noun phrases. All these nominals contain verb phrases each of which consists of a verb and a direct object noun phrase. But notice that whereas the infinitival nominals in (27) can undergo the passive transformation as shown in (29), the derived nominals in (26) cannot as (28) shows. The derived nominals in (26) form tight constructions whose morphology and word order cannot be disturbed without destroying the nominal. Infinitival nominals on the other hand are flexible. Some of their constituents can move around outside the nominal itself. For instance, in (29a) mbira has moved outside the infinitive kurohwa. In fact in (29a) the infinitive nominal is now kurohwa’ naTaka.

Although, for example, (26b) and (27b) look superficially similar in their linear structure, their derivation is remarkably different. Assuming for argument's sake that these two sentences have a similar underlying structure their deep structure representation would be as in (30) and (31) respectively.

(30)
In (31) after *ku infinitive* has been inserted into $S_1$, NP can be deleted under identity with NP. Then applying the other rules which are not essential to this discussion the result will be the sentence in (27b). But in (30) there is a problem in trying to derive the nominal *mudé-vanhu* transformationally. To begin with our intuition tells us that the subject noun phrase of $S_1$ cannot be *musikana* because she is not the one who loves the people. She is only being charmed by the one who loves the people. What is clear also is that what is loving the people is some human being. In order to accommodate this subject I have put down the subject noun phrase of $S_1$ with *pro* feature fill in this gap. The question for which a satisfactory answer is not immediately forthcoming is by what rule is this subject NP deleted as $S_1$ becomes nominalized? We cannot invoke Equi-NP deletion because its structural description will not have been met, that is, NP is not identical with NP. If this approach is maintained NP will have to be deleted in some ad hoc fashion and this obviously is unsatisfactory. Faced with this and other related problems which we saw above it is difficult to see how a transformational approach to derived nominals can be usefully adopted.
In this study the lexicalist approach will be adopted for derived nominals and the transformationalist approach for infinitival nominals. A derived nominal like ungwaru (see (10g)) would include the following among its feature specifications in the lexicon:

\[(32) \text{\[ngwara, +N, +CL14, +u \]}

The word ngwara will then be spelt out phonologically as ungwaru in this case. What (32) means is that the whole thing within the square brackets is a nominal because of the presence in the feature specification of the element \[+[N]\]. This nominal will have a noun affix of class 14 and the final vowel /a/ of ngwara will be replaced by the vowel /u/. Of course the feature specifications in (32) will have to include also the meaning of ngwara. Since derived nominals are not going to play a significant role in the rest of this study this discussion will not be pursued any further. Our concern will be with infinitival nominals and the other constructions in which complementizers are found.
4.0 COMPLEMENTIZERS AND THE UNDERLYING STRUCTURE

4.1 The Transformational Hypothesis

In my discussion so far I have assumed that complementizers are introduced transformationally into embedded complement sentences. Following Bresnan I shall refer to this approach as the transformationalist hypothesis. For the present I would like to discuss the extent to which this assumption can be validated.

It has already been noted that, although there are no identity constraints on the NP in the complement clauses, there are nevertheless restrictions that are imposed on the nature of a complement clause by the verb of the higher sentence. For instance, in (1) below the complement sentence is declarative but in (2) the complement sentence is a question.

(1) Ruzvidzo aida kuba mango.
   (Ruzvidzo wanted to steal some mangoes.)

(2) Sara abvunza kana Suzi akauya.
   (Sara asked whether Suzi had come.)

This is illustrated by the tree diagrams in (3) and (4) which represent roughly the structures which underlie (1) and (2) respectively. The complementizer which is introduced into the embedded sentence in (3) is ku _i+ infinitive_ but in (4) it is kana _i+ participial_. (The list of complementizers in Shona is given in 2.10.)

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1. For grammatical analyses which take this view see G. Lakoff (1968); Peter S. Rosenbaum (1967); J.R. Ross (1967); R. Lakoff (1968).
Tree diagrams (3a) and (4a) show ku [+ infinitive] and kana [+ partic] inserted into (3) and (4) respectively.
Note that when an embedded question is introduced by kana [+ participial] the question formative does not appear in an overt form as is further illustrated by (4b) and (4c) below.

(4b. Sara abvunza [\(\text{Suzi akauya here?}\)]

(Sara asked, did Suzi come?)

(4c. Sara abvunza kana Suzi akauya.

(Sara asked whether Suzi came.)
Here in (4b) is question formative which does not appear in (4c).

The insertion of ku [+ infinitive] and kana [+ participial] into (3a) and (4a) respectively is governed by the verbs in the containing sentences, namely, -da and -bvunza. If ku [+ infinitive] is inserted into the embedded sentence in (4), and kana [+ participial] into the embedded sentence in (3), the result are the ungrammatical sentences in (5) and (6) respectively. The complementizer formatives are underlined in these examples.

(5) *Sara abvunza Suzi kuuya.
(6) *Ruzvidzo aida kana aibá mango.

The point is that the verb -da may not be followed by a complement clause which is introduced by kana [+ participial]. The same applies to the verb -bvunza; it cannot be followed by a complement clause which is introduced by ku [+ infinitive]. Therefore it seems quite clear that the verb in the higher sentence is the one which determines which complementizer is to be inserted into an embedded sentence.

It is observed that ku and kana which are present in the sentences in (1) and (2) respectively are not present in the deep structures of these sentences as represented by the trees in (3) and (4). The fact is, according to this approach, complementizers are regarded as mere markers of subordination which are introduced into embedded sentences indicating that these embedded sentences were generated by the operation of the phrase structure rule:

\[ NP \rightarrow N(S). \]

Furthermore, given "meaning preservation" of transformational rules, this hypothesis claims that complementizers are devoid of semantic content per se. They are not generated in deep structure, but are rather introduced transformationally.

Some of these complementizers are grammatical in some sentences but not in others. Which complementizer is found in any given embedded
sentence is governed by the verb in the higher sentence. It seems to be the case also that most verbs can occur with only one complementizer. Some however are capable of occurring with more than one though not in one and the same complement clause, for complementizers are mutually exclusive. The following are examples of verbs which may occur with more than one complementizer:

(7)a. Masanjara agona kuti aend/ mvụră isati yanaya.  
(Msanjara - did well - that - he go - rain - it not having - it rained = Masanjara did well to go before it rained.)

b. Masanjara agona akaenda mvụră isati yanaya.  
(Masanjara did well to go before it rained.)

In (7a) the verb -gona is accompanied by the complement clause kuti aend which is introduced by kuti / subjunctive. But in (7b) the same verb -gona is followed by the complement clause akaenda which is introduced by kana / consecutive. These two sentences have the same deep structure and the same semantic interpretation. (Note that kana is then obligatorily deleted in this sentence (see 2.8)) The verb -gona in this case is subcategorized as occurring in the environment /" ______ S /. This S is not dominated by NP, but directly by VP. When the verb -gona is subcategorized in this way, then either kuti / subjunctive or kana / consecutive must be selected and inserted into the complement clause. The deep structure of the sentences in (7) is provided in (8) below.

(8)
Here are further examples of pairs of sentences in which the individual sentences in each pair have different complementizers but sharing the same meaning. The complement sentences are underlined and the complementizers are enclosed in square brackets after each sentence.

(9) a. Ngatitangei *tadya* ndokuzoenda kubhóra. [kana + participial]
   b. Ngatitangei *kudya* ndokuzoenda kubhóra. [ku + infinitive]
   (Let us have our meal first and then go to watch soccer afterwards.)

(10) a. Dambudzo *ásara* akasvika iwe *waenda*. [kana + consecutive]
    b. Dambudzo *ásara* ósvika iwe *waenda*. [kana + participial]
    (Dambudzo - remained - she arrive - you - having gone =
     Dambudzo arrived after you had gone.)

(11) a. Nezuro vakarará *vachitamba* ngoma. [kana + participial]
   (yesterday - they slept - they dancing - a drum =
    They spent last night dancing to the tune of a drum.)
   b. Nezuro vakararótamba ngoma. [ku + infinitive]
   (yesterday - they slept - dance - a drum =
    They slept last night dancing to the tune of a drum.)

(12) a. Sekai naJeni *vanogara* vachitukana. [kana + participial]
    (Sekai - and Jeni - stay always - they scolding each other =
     Sekai and Jeni are always scolding each other.)
    b. Sekai naJeni *vanogarotukana*. [ku + infinitive]
    (Sekai - and Jeni - stay always - scold each other =
     Sekai and Jeni are always scolding each other.)

It is not uncommon to find a verb which takes any two or more complementizers usually with some difference in semantic interpretation.

3. The forms *-tamba* in (11b) and *-tukana* in (12b) are contracted infinitives which are discussed in 6.2.1.2.
In such instances it seems to be the case that the deep structure in which that verb occurs with one complementizer will be different from that of the same verb with another complementizer. As an illustration consider the following pair of sentences.

(13)a. Piri' agona kuvhura gonhi.

(Piri managed to open the door.)

b. Piri' agona akavhura gonhi.

(Piri - did well - she opened - the door =
Piri did well by opening the door.)

The complement clause in (13a) is introduced by ku [+ infinitive] while that of (13b) is introduced by kana [+ consecutive]. The meaning of the verb -gonha is different in these two sentences. In (13a) it means "manage, succeed", whereas in (13b) it means something like "be wise, clever, do well". According to this approach the difference between these two sentences is attributed, not to the different complementizers, but rather to the different semantic readings of the verb -gonha. That there are two distinct verbs which happen to have the same phonological form -gonha is further confirmed by the parallel differences of meaning with the following sentences some of which do not contain complementizers.

(14)a. Tsitsi agona samu.

(Tsitsi got the sums right.)

b. Tsitsi agona akavhura gonhi.

(Tsitsi did well by opening the door.)

(15) Tsitsi agona akagona samu.

(Tsitsi did well by getting the sums right.)

With the meaning which it has in (14a) -gonha can occur with or without a complement clause, whereas -gonha in (14b) must always occur with a complement clause. In (15) the first -gonha is the same as the one in (14b), while the second -gonha is the same as the one in (14a). So they are definitely two different verbs which happen to share the same form.
One interesting observation is that verbs of "counselling" and of "asking" like: -udza (tell), -kumbira (ask), -komera (instruct forcefully), -raira (give advice, counsel), -tema (decide, decree), cannot normally have the subject noun phrases of the higher sentence and the lower sentence identical. The sentences in (16) are grammatical but not those in (17).

(16)a. Taka akakumbira Deni kuti abve mumba imomo.
(Taka asked Deni to move out of that house.)

b. Taka akamukumbira kuti abve mumba imomo.
(Taka asked him to move out of that house.)

(*Taka asked Taka to move out of that house.)

b. *Taka akazvikumbira kuti abve mumba imomo.
(*Taka asked himself to move out of that house.)

But verbs which refer to mental state and also those which relate to speaking can have the subject noun phrases of the higher sentences and lower sentences identical. These are verbs like: -ti (say), -funga (think), -rangarira (remember, ponder, meditate), -yeuka (remember), -fungidzira (suspect, expect), -karira (expect, think), -ona (see, realize). In the deep structure of the following sentences the subject noun phrases of the complement sentences are identical with those of the respective higher sentences. In the superficial structure however the subject noun phrase of the complement sentence does not appear because it is deleted obligatorily by the Equi-NP rule.

(18) Mwana afunga kuenda Joni.
(The young man has thought of going to Johannesburg.)

(19) Vasekuru vakati vanouya mangwana.
(Grandfather said that he would come on the following day.)

4. This sentence would be grammatical if the second Taka did not refer to the first Taka.
Therefore it would appear that there are restrictions that are found between the subject noun phrases of higher and lower sentences with some classes of verbs.

Consider further the strings which are underlined in the following pair of sentences.

(20a) Nhamo paapunziika, kuti asimuke zvaramba.

(Nhamo - when he fell - that - he stand up - it refused =
After Nhamo had fallen down he failed to get up on his feet.)

(20b) Nhamo paapunzikā, aramba kuti asimuke.

(Nhamo - when he fell - he refused - that - he get up =
When Nhamo fell down he refused to get up on his feet.)

In both these sentences the verb in the higher sentence is -ramba and the complement clause is kuti asimuke. But note that whereas in (20a) this complement clause is in a subject position, in (20b) it is in a direct object position. Besides, the meaning of the verb -ramba is different in the two sentences. In (20a) it means "fail, be unable" but in (20b) it means "refuse, be unwilling". It may also be observed that the complement clause in both cases is introduced by the same complementizer, namely, kuti / subjunctive /. What is striking here is that -ramba is intransitive in (20a) but transitive in (20b). When it is intransitive the subject noun phrase must be abstract in the sense that it must be expanded as: N(S), at some stage. But when it is transitive its direct object may or may not be an abstract noun phrase.

These observations suggest that the sentences in (13), and also those in (20), differ from each other in their deep structure. The verb -gona in (13a) and -gona in (13b) differ from each other in both their meaning and their rule feature specification, e.g. they have

5. For a discussion on rule features see G. Lakoff in Irregularity In Syntax, (1970).
different complementizers. In the case of (20) the two verbs with the
same phonological form -ramba differ in their meaning as well as in their
selectional restrictions. Nonetheless their rule feature specification
with respect to complementizers is the same as was pointed out above.

Since, according to this approach, complementizers are intro-
duced into embedded sentences by the operation of transformational rules,
the verbs which are subcategorized as having sentential complements will
be entered in the lexicon together with the complementizers which they
permit to be inserted into their complement clauses. The complementizers
will form part of the rule feature specification of these verbs, a rule
feature specification being considered as an instruction indicating
which rule or rules apply to the structure in question. This rule speci-
fication will form part of the complex symbol of the verb of the contain-
ing sentence. These rule features indicate which rule relating to comple-
mentizers may be inserted into a complement clause. The complement clause
may either be under the direct domination of VP or NP, and in the case
of the latter the complement clause may be in either the subject or the
object position in relation to the verb in the containing sentence. After
a complementizer has been inserted into an embedded sentence the struc-
ture which results is still not the final form of that sentence which
is under consideration. More often than not, other transformational rules,
some of which are obligatory and others optional, must be applied to
these complement-containing sentences before the surface structure is
reached.

To illustrate further the concept of rule feature in respect
of sentential complementation in Shona let us look at the sentences in
(1) and (2) more closely. The complementizers which we have seen in this
regard are: ku [+ infinitive] and kana [+ participial]. In that case
the verbs -da and -bunza would be marked in the lexicon (either directly
or by a redundancy rule) as respectively +ku [+ infinitive],
Since complementizer insertion is sensitive to the rule feature of the verb in the higher sentence, its operation is peculiar in that a complementizer cannot be inserted into a clause $S_1$ during the transformational cycle on that $S_1$. A complementizer can only be inserted into this $S_1$ during the cycle on the higher sentence $S_h$ which dominates $S_1$. The tree diagrams in (21) below show how (1) is derived following this transformational hypothesis. Diagram (21a) is the same as the one in (3) which is reproduced here for convenience.

(21)a.

```
S_0
   /\   \
NP  VP
   /  \
Ruzvidzo  V
       /\   \
      N  NP
          /\  \
         ku  infinit
    +N +CL15 +pro

S_1
   /\   \
NP  VP
   /  \
Ruzvidzo  V
       /\   \
      N  NP
          /\  \
         ku  infinit
    +N +CL15 +pro
```

(21)b.

```
S_0
   /\   \
NP  VP
   /  \
Ruzvidzo  V
       /\   \
      N  NP
          /\  \
         ku  infinit
    +N +CL15 +pro

S_1
   /\   \
NP  VP
   /  \
Ruzvidzo  V
       /\   \
      N  NP
          /\  \
         ku  infinit
    +N +CL15 +pro
```
It is observed that on the first cycle in (21a) no transformations apply in this case. On the second cycle, that is $S_0$, ku $\overline{\text{infinitive}}$ insertion applies because the verb $\overline{\text{da}}$ is marked for it. This is illustrated in (21b). In (21c) the subject-NP of $S_1$ has been deleted under identity with the subject-NP of $S_0$.

If we had a sentence like the one in (22) its derivational history would be as shown in (23).

(22) Jeke aida kuti mota ityairwe nabeni.

(Jack wanted the car to be driven by Ben.)

Because there is a passive marker in $S_1$ in (23a) the passive transformation is applied on $S_1$. The configuration which results is (23b). This can be done because the passive transformational rule is not sensitive to the verb in the higher $S$ for its application. After this application

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of the passive rule we cannot tell what rule to apply next on $S_1$. Since $S_1$ is an embedded sentence, we look up to the verb in the higher $S$ to see what rule feature(s) it has. In the case at hand our attention centres on the verb $da$. Since it is marked for kuti $\downarrow$ subj, the next step is to insert kuti $\downarrow$ subjunctive into $S_1$ as in (23c). After applying later rules we finally come up with sentence (22).

In both (21) and (23) the crucial point is that no complementizer insertion rule could apply on the first cycle, $S_1$, because the
transformation would not 'know' which complementizer(s) is permitted by the verb *da* until the next higher S (i.e. $S_0$) is cycled. In other words, as Bresnan says$^7$, the structural description of any complementizer insertion transformation cannot be limited to a complement clause, but must include the verb which that clause complements. This transformational hypothesis has the advantage that it ensures that non-embedded sentences can never appear with complementizers, e.g.

(24) *Kuti mota ityairwe naBeni.*

(*That the car be driven by Ben.*)

4.2 **Inadequacies of the Transformational Hypothesis**

While it is true that the transformational hypothesis guarantees that no non-embedded sentences will ever appear with complementizers, it nevertheless undermines an otherwise well-motivated universal which was put forward by Chomsky, namely, that while transformations may re-

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$^7$ op. cit. p.299
move material from embedded sentences, no morphological material can be
introduced into a structure which is dominated by S once the cycle of
transformational rules has already completed its application to this
structure.\(^8\) For instance, as we saw in (21a) and (23b) complementizer
insertion could not apply when \(S_1\) was cycled because at that stage it
would not be known which complementizer was the appropriate one to be
inserted. Complementizers were inserted only in the next higher cycle,
namely, \(S_0\) in both cases. Complementizer insertion usually introduces
new morphological material into the S to which it applies as was seen in
the examples cited above.

One claim made by the transformational hypothesis is that
complementizers are semantically empty. While this may appear to be
ture with respect to the pairs of sentences in (7) - (12), it is cer-
tainly not true of the pair of sentences in (25).

\[(25)a. \text{Midzi } \acute{a}kany\text{á}r\acute{a} \ k\text{út}i \ \acute{a}k\text{á}t\text{á}ura \ nh\text{ém}\acute{a} \ \text{padare}.\]

(Midzi - was ashamed - that - he told - lies - at court =
Midzi was ashamed of himself because he lied at the court.)

\[(25)b. \text{Midzi } \acute{a}kany\text{á}r\acute{a} \ k\text{út}i \ \acute{a}t\text{á}uire \ nh\text{ém}\acute{a} \ \text{padare}.\]

(Midzi - was ashamed - that - he tell - lies - at court =
Midzi was too ashamed to tell lies at the court.)

These two sentences in (25) are different in meaning although they
would derive from the same underlying structure according to the trans-
formational hypothesis. Their underlying structure is provided in (26a)
below. Sentence (25a) is derived by selecting and inserting \text{kut\text{i}}
\(\text{\(\square^+\) indicative}\), and sentence (25b) by inserting \text{kut\text{i}} \(\text{\(\square^+\) subjunctive}\),
into \(S_1\). This yields the derived underlying structures in (26b) and
(26c) respectively. It is entailed in (25a) that Midzi actually told
lies before the court,

\[8. \text{ op. cit. p,146}\]
while in (25b) he definitely refrained from telling lies before the court. It seems evident then that the difference in meaning between these two sentences is attributed to the different complementizers. These sentences differ only in the complementizers inserted into their complement clauses. Further examples of pairs of sentences which differ in meaning by virtue of the complementizers inserted into their embedded sentences are given below.

(27)a.i. Ndinotya kuti nyaya iyi inobuda pachena ndisati ndawana mari yokuripisa.

(I fear that this affair will come into the open before I have the money with which to pay the fine.)

ii. Ndinotya kuti nyaya iyi ibude pachena ndisati ndawana mari yokuripisa.

(I am frightened in case this affair comes into the open before I have the money with which to pay the fine.)

b.i. Makanganwa kuti tsamba dzenda mangwanani.

(You have forgotten that the letters were taken in the morning.)

ii. Makanganwa kuti tsamba dzendé mangwanani.

(You forgot to post the letters in the morning.)

c.i. Tiri kumufungira kuti anouya mangwana.

(We are expecting him to come tomorrow.)

ii. Tiri kumufungira kuti auyé mangwana.

(We are thinking of bringing him tomorrow.)

d.i. Tendai anosema kuti vana vanodyira pane nhunzi.

(Tendai is disgusted by the fact that the children have their meal at a place where there are flies.)

ii. Tendai anosema kuti vana vádyíre pane nhunzi.

(Tendai is disgusted that the children should have their meal at a place where there are flies.)
It was mentioned above that complementizers could be regarded as constituting part of the rule features on verbs. But this line of approach poses a problem in the case of some verbs. To this end consider the following data. Notice that in (28a) the complementizer in the complement clause following the verb -konzera is kuti (subjunctive).

(28)a.i. Kuti murume nemukadzi vagare vachirwa zvinokonzera kuti varambane.
(For a man and his wife to be always fighting will cause them to divorce each other.)

ii. Kana murume nemukadzi vakagara vachirwa zvinokonzera kuti varambane.
(If a man and his wife are always fighting it will cause them to divorce each other.)

iii. Murume nemukadzi kugara vachirwa zvinokonzera kuti varambane.
(For a man and his wife to be always fighting will cause them to divorce each other.)

iv. *Kuti murume nemukadzi vagare vachirwa zvinokonzera kuti varambane.
(*That a man and his wife are always fighting will
cause them to divorce each other.)

v. *Kana murume nemukadzi vagara vachirwa zvinokonzera kuti varambanap.

(If a man and his wife are always fighting it will cause them to divorce each other.)

The following sentences are the same as those in (28a) above save that the object complement clause of the verb -konzera is introduced by kuti [+ indicative] in place of kuti [+ subjunctive].

(28)b.i. *Kuti murume nemukadzi vagare vachirwa zvinokonzera kuti varambanap.

ii. *Kana murume nemukadzi vakagara vachirwa zvinokonzera kuti varambanap.

iii. *Murume nemukadzi kugara vachirwa zvinokonzera kuti varambanap.


v. *Kana murume nemukadzi vagara vachirwa zvinokonzera kuti varambanap.

As above, the following sentences are the same as those in (28a) except that the object complement clause of the verb -konzera is introduced by kana [+ consecutive] in place of kuti [+ subjunctive].

(28)c.i. *Kuti murume nemukadzi vagara vachirwa zvinokonzera kana vakarambana.

ii. *Kana murume nemukadzi vakagara vachirwa zvinokonzera kana vakarambana.

iii. *Murume nemukadzi kugara vachirwa zvinokonzera kana vakarambana.


v. *Kana murume nemukadzi vagara vachirwa zvinokonzera kana vakarambana.
In the following sentences the object complement clause of -konzera has
different forms in place of kuti (+ subjunctive).

(28)a. Kuti murume nemukadzi vagarva vachirwa zvinokonzera
kurambana.
(For a man and his wife to be always fighting will cause
their marriage to break down.)
ii. Kana murume nemukadzi vakagara vachirwa zvinokonzera
kurambana.
(If a man and his wife are always fighting it will cause
their marriage to break down.)
iii. Murume nemukadzi kugara vachirwa zvinokonzera kurambana.
(same meaning as in (i) above)
iv. *Kuti murume nemukadzi vagarva vachirwa zvinokonzera
kurambana.
v. Kana murume nemukadzi vagarva vachirwa zvinokonzera
kurambana.
(same meaning as in (ii) above)

The sentences which follow differ from those in (28a) in only one res­
pect, namely, kana (+ participial) replaces kuti (+ subjunctive) in the
object complement clause of the verb -konzera.

(28)e.i. *Kuti murume nemukadzi vagarva vachirwa zvinokonzera kana
varambana.
ii. *Kana murume nemukadzi vakagara vachirwa zvinokonzera
kana varambana.
iii. *Murume nemukadzi kugara vachirwa zvinokonzera kana
varambana.
iv. *Kuti murume nemukadzi vagarva vachirwa zvinokonzera kana
varambana.
v. *Kana murume nemukadzi vagarva vachirwa zvinokonzera kana
varambana.
The rough underlying structure of the sentences in (28) is something like (29) below.

(29)

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Now let us see how, for instance, (28a,i) is derived. No transformational rules apply when $S_1$ (or $S_2$) is cycled because at that stage it is not known which complementizer is to be inserted into it. In the second cycle, that is $S_0$, kuti $\langle+$ subjunctive$\rangle$ is inserted into $S_1$, and also into $S_2$. After this complementizer insertion and applying the other rules, the details of which do not concern us here, we eventually obtain sentence (28a,i). Now in order to derive the sentences in (28a,ii, iii, v) kana $\langle+$ consecutive$\rangle$, ku $\langle+$ infinitive$\rangle$, and kana $\langle+$ participial$\rangle$ respectively are inserted into $S_1$, but not into $S_2$ which continues to have kuti $\langle+$ subjunctive$\rangle$ inserted into it.

As it has already been mentioned above the sets of sentences in (28b), (28c), (28d) and (28e) are the same as the set of sentences in (28a) except that kuti $\langle+$ indicative$\rangle$, kana $\langle+$ consecutive$\rangle$, ku $\langle+$ infinit$\rangle$ and kana $\langle+$ participial$\rangle$ respectively have been inserted in place of kuti $\langle+$ subjunctive$\rangle$ into $S_2$. The paradigms in (28) indicate (a) that
the verb -konzera may have in one and the same sentence both an abstract subject-NP and an abstract direct object-NP; (b) that the complement clause of the subject-NP of this verb may have inserted into it either ku ↓ infinitive↑, or kana ↓ participial↑, or kana ↓ consecutive↑, or kuti ↓ subjunctive↑; and (c) that the complement clause of the object-NP of this verb may have inserted into it either kuti ↓ subjunctive↑ or ku ↓ infinitive↑ only. These observations are borne out by (a) the ungrammaticality of all the sentences in (28b), (28c) and (28e) in which incorrect complementizers are inserted into S₂; and (b) the ungrammaticality of the (iv) sentences in all these five sets (i.e., 28a - e) because an incorrect complementizer is inserted into S₁.

If it is insisted that complementizer insertion constitutes part of the rule feature specification of a verb, then it has to be reflected in the complex symbol of verbs like -konzera that while ku ↓ infinitive↑ or kuti ↓ subjunctive↑ may be inserted into a complement clause which is in the subject NP position, as well as into a complement clause in the object NP position, kana ↓ participial↑ and kana ↓ consecutive↑ may be inserted only into a complement clause which is in the subject NP position of such verbs. I do not know how such rule features could be formulated in any current model. It is for this reason that kana ↓ consecutive↑ and kana ↓ participial↑ in the tree diagram in (29) appear with question marks. These two can only be inserted into S₁, while kuti ↓ subjunctive↑ and ku ↓ infinitive↑ can be inserted into both S₁ and S₂.

We have a more or less similar situation in the sentences in (30). In (30a) the complement clause of the direct object of the verb -ratidza has kuti ↓ indicative↑ as complementizer.

(30)a.i. Kuti Deni'ā'atakure tsāga iri zvinoratidza kuti ākāsīmba.
    (For Deni to carry this bag shows that he is strong.)
    ii. Kana Deni'ā'akatakura tsāga iri zvinoratidza kuti ākāsīmba.
    (If Deni carries this bag it will show that he is strong.)
iii. Deni' kutakura tsaga iri zvinoratidza kuti akasimba.
   (same meaning as in (i) above)
iv. Kuti Deni' atakura tsaga iri zvinoratidza kuti akasimba.
   (That Deni carried this bag shows that he is strong.)
v. Kana Deni' atakura tsaga iri zvinoratidza kuti akasimba.
   (If Deni carried this bag it shows that he is strong.)

In the following sentences the complement clause of the object of
-ratidza have each kuti /+ subjunctive/.

(30)b.i. *Kuti Deni atakure tsaga iri zvinoratidza kuti asimbé.
   ii. *Kana Deni akatakura tsaga iri zvinoratidza kuti asimbé.
   iii. *Deni kutakura tsaga iri zvinoratidza kuti asimbé.
   iv. *Kuti Deni atakura tsaga iri zvinoratidza kuti asimbé.
   v. *Kana Deni atakura tsaga iri zvinoratidza kuti asimbé.

In the sentences which follow kana /+ consecutive/ is substituted for
kuti /+ indicative/ in the complement clause of the object NP.

(30)c.i. *Kuti Deni atakure tsaga iri zvinoratidza kana akasimba.
   ii. *Kana Deni akatakura tsaga iri zvinoratidza kana akasimba.
   iii. *Deni kutakura tsaga iri zvinoratidza kana akasimba.
   iv. *Kuti Deni atakura tsaga iri zvinoratidza kana akasimba.
   v. *Kana Deni atakura tsaga iri zvinoratidza kana akasimba.

Ku /+ infinitive/ substitutes for kuti /+ indicative/ in the complement
clause of the object NP in the following sentences.

(30)d.i. *Kuti Deni atakure tsaga iri zvinoratidza kusimba.
   ii. *Kana Deni akatakura tsaga iri zvinoratidza kusimba.
   iii. *Deni kutakura tsaga iri zvinoratidza kusimba.
   v. *Kana Deni atakura tsaga iri zvinoratidza kusimba.

In the following sentences kana /+ participial/ replaces kuti /+ indic./
in the complement clause of the object noun phrase.

(30)e.i. *Kuti Deni atakure tsaga iri zvinoratidza kana akasimba.
ii. *Kana Deni' akatakura tsaga iri zvinoratidza kana akasimba.

iii. *Deni' kutakura tsaga iri zvinoratidza kana akasimba.

iv. *Kuti Deni' atakura tsaga iri zvinoratidza kana akasimba.

v. *Kana Deni' atakura tsaga iri zvinoratidza kana akasimba.

The rough underlying structure of all these sentences is shown in (31).

(31)

If *kuti (indicative)* is selected and inserted into both *S*₁ and *S*₂ we eventually come up with sentence (30a.iv). But as can be seen in (30a.i - iii and v) *kuti (subjunctive)*, *kana (consecutive)*, *ku (infinitive)* and *kana (participial)* respectively may also be inserted into *S*₁, while only *kuti (indicative)* may be inserted into *S*₂. The ungrammaticality of the sentences in (30b - e) bears this out. So, as was stated above, in specifying the rule features of the verb -ratidza it has to be stated somehow that while *kuti (indicative)* may be selected for the complement *S* in both the subject NP and the object NP, *kuti (subjunctive)*, *kana (consecutive)*, *ku (infinitive)* or *kana (participial)* may be inserted only into a complement *S* of the subject NP with this verb.

The discussion in this section has brought into the open the
following problems with respect to the transformational hypothesis: (a) complementizers are after all not devoid of semantic content as they have often been claimed to be; (b) the structural description of any complementizer insertion transformation cannot not be limited to a complement clause, but must include the verb which that clause complements; (c) a verb may have as its selectional restriction both an abstract subject NP with a complement S and an abstract object NP also with a complement S. In some cases these complement sentences may have different complementizers as in (30a.i); (d) it is not uncommon to find that when two complementizers occur in one and the same sentence one complementizer will be limited to one complement clause while the other will not be so limited. This is the case in (28a.ii - iii) for instance. The question which cries out for an answer is how are these facts to be incorporated into rule features? All these shortcomings are a natural consequence of the transformational hypothesis. It is clear therefore that the distribution of complementizers in Shona cannot be adequately described under the transformational hypothesis of complementizer insertion.

4.3 The Phrase Structure Hypothesis

From the discussion in 4.2 it is evident that complementizer selection is the kind of phenomenon which is characteristic of subcategorization and that in fact some aspects of complementizer choice cannot be described within the framework of the transformational hypothesis without extending it in undesirable ways.

In an attempt to overcome the problems which arise from adopting the transformational hypothesis as discussed above it is proposed here to adopt Bresnan's approach and regard complementizers as specified in deep structure, Bresnan called it the "phrase structure hypothesis".

9. op. cit. p. 300
She claims that there exists a phrase structure rule in every language having complementizers which permits complement types to be distinguished in deep structure. She set up the following rule for English:

\[(32) \bar{S} \rightarrow \text{COMP} + S\]

This rule seems to work equally well for Shona. According to this approach the individual sentences in each of the pairs in (7) - (12) would have each its own underlying structure. For example, (7a) and (7b) would have roughly the following underlying structures in (33) and (34) respectively.

\[(33)\]

\[
\begin{array}{c}
\text{Masanjara} \quad \text{V} \\
\text{gona} \quad \text{COMP} \\
\text{kuti} \quad \text{NP} \\
\text{subj} \quad \text{VP} \\
\text{Masanjara} \quad \text{V} \\
\text{enda} \quad \text{NP} \\
\text{mvura isati yanaya} \\
\end{array}
\]

\[(34)\]

\[
\begin{array}{c}
\text{Masanjara} \quad \text{V} \\
\text{gona} \quad \text{COMP} \\
\text{kana} \quad \text{NP} \\
\text{consec} \quad \text{VP} \\
\text{Masanjara} \quad \text{V} \\
\text{enda} \quad \text{NP} \\
\text{mvura isati yanaya} \\
\end{array}
\]
With this approach rule features become an unnecessary artifice with regard to complementizers. The point to note here is that since the phrase-structure hypothesis specifies that complementizers exist in deep structure, verbs may be subcategorized for the type of complementizer which they permit in their complement clauses. For instance, in the case of the verb -*gona* in (7a) above we can say that it takes a complement clause which is introduced by *kuti* \( \rightarrow \) subjunctive, and in the case of (7b) the same verb takes a complement clause which is introduced by *kana* \( \rightarrow \) consecutive.

When I discussed the data presented in (28) and (30) certain facts emerged which the transformational approach could not adequately handle. For instance, there was the fact that in (28) the complement clause of the subject NP may have either *ku* \( \rightarrow \) infinitive, or *kana* \( \rightarrow \) participial, or *kana* \( \rightarrow \) consecutive, or *kuti* \( \rightarrow \) subjunctive, while the complement clause of the object NP is restricted to either *ku* \( \rightarrow \) infinitive or *kuti* \( \rightarrow \) subjunctive only. If we do not set up a node like COMP in deep structure, we would not be able to describe these facts by the use of the usual rule features or by any other known transformational device. The point is, if a complementizer insertion transformational rule operated in (28a - e), it would have to be sensitive, not only to the rule feature on the verb, but also to the subcategorization of the verb *-konzerar*. That is, *ku* \( \rightarrow \) infinitive and *kuti* \( \rightarrow \) subjunctive may be inserted into a complement clause which is in either the subject or object position, while *kana* \( \rightarrow \) participial and *kana* \( \rightarrow \) consecutive may only be inserted into a complement clause which is in a subject position. If complementizers are going to subcategorize verbs, the question is how is this to be formalized?\(^{10}\) For the moment it seems to be an open

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\(^{10}\) One way, I suppose, might be to adopt the approach which is presented in rough below. Taking (7) and (13) as illustrative examples, the
question.

Let us examine more closely the sentences in (28a.i and iv) and (30a.i and iv) which are repeated here as (35) and (36) for convenience.

(35)a. Kuti murume nemukadzi vagare vachirwa zvinokonzerá kuti varambane.

b. *Kuti murume nemukadzi vagára vachirwa zvinokonzerá kuti varambane.

(36)a. Kuti Deni' atakure tsága iri zvinoratidza kuti ákasimba.

b. Kuti Deni' atakura tsága iri zvinoratidza kuti ákasimba.

These sentences present a problem. Notice that (35b) is ungrammatical. In this sentence the complement clause of the subject NP has kuti \(+ ir\) indicative\) while the complement clause of the object NP has kuti \(+ subjunctive\). But (36a) in which these two complementizers are reversed is perfectly well-formed. In (35a) the complement clauses of both the subject and verb \(-gona\) in (7a -b) and (13b) will be regarded as one verb and that in (13a) as another. This sounds perfectly sensible since the two differ in their meanings. The former may be entered in the lexicon as:

\[-gona \langle+V, +___S; \langle+ kuti + subjunctive\rangle; \langle+ kana +consecutive\rangle\]

and the latter as:

\[-gona \langle+V, +___NP; \langle+ ku + infinitive\rangle S\]

In the case of the first \(-gona\) this is to be interpreted as follows: this verb is followed by a complement S. This complement S must have either kuti \(+ subjunctive\) or kana \(+ consecutive\), but not both.

There should be no problem here because in the grammar it will be specified that complementizers are mutually exclusive as has already been stated. As for the second \(-gona\), it occurs in the environment before NP. Concerning what follows NP, namely, \(\langle ku \langle+ infinitive\rangle S\rangle\), this is to be interpreted as follows: the complement of this verb is an abstract NP which contains a complement clause.
the object have the same complementizer, namely, kuti [+ subjunctive]. The same applies to (36b); both complements have kuti [+ indicative].

The problem centres on (35b) and (36a). It would appear that there are interdependencies between complements which have an effect on the selection of a complementizer. With regard to these two sentences (i.e. 35b and 36a) it seems to be the case that when kuti [+ indicative] occurs in the subject, kuti [+ subjunctive] cannot occur in the object. However, the reverse is not true as is indicated by the grammaticality of (36a) in which the subject complement clause has kuti [+ subjunctive] while the object complement clause has kuti [+ indicative]. Below are further examples of sentences which illustrate this point. The sentences in (37) and (38) correspond to those in (35) and (36) respectively.

(37)a.i. Kuti mūswera mākāgarā zvinoiita kuti basa rīregē kuenderera mberi.
   (If you spend the day loafing there will be no progress in the work.)
ii. *Kuti maswera makagarakvinoiita kuti basa rirege kuenderera mberi.
   b.i. Kuti vaendē kumba iye zvinó zvinovabatsira kuti vasaniwe.
   (If they go home now it will save them from the rain.)
ii. *Kuti vanoenda kumba iye zvino zvinovabatsira kuti vasaniwe.
c.i. Kuti úchovhē mákasa zvinokurunzirā kuti uite ubhinya.
   (If you gamble with playing cards it will lead you into being a savage.)
ii. *Kuti unochovha makasa zvinokurunzira kuti uite ubhinya.
d.i. Kuti unyarare zvinokundā kuti utukane naye.
   (For you to keep quiet will be much better than quarrelling with him.)
ii. *Kuti unonyaraara zvinokundara kuti utukane naye.

(38)a.i. Kuti auye kūnō zvinoreva kuti anoda mukadzi wake.
(For him to come here means that he loves his wife.)

ii. Kuti akauya kuno zvinoreva kuti anoda mukadzi wake.
(That he came here means that he loves his wife.)

b.i. Kuti vasiye imba yedu isina munhu zvinotaura kuti havatende.
(For them to leave our house unattended shows that they are ungrateful.)

ii. Kuti vakasiya imba yedu isina munhu zvinotaura kuti havatende.
(The fact that they left our house unattended shows that they are ungrateful.)

If a node like COMP is not set up, then verbs cannot be subcategorized for complementizers. As has already been pointed out this would necessitate an extension of the transformational theory in undesirable ways.

For instance, a complementizer insertion transformation would have to refer first to the verb in the higher S. But in some cases it would have to refer also to a complementizer already placed on another complement of the verb during the same cycle as was the case in (29) and (31) above.

Such interdependencies are however typical of subcategorization.

To this end consider a few sentences in which the verb -ita (make) occurs.

(39)a. Kuti mugare chete zvinoita kuti muve nenungo.
(that - you sit - only - it makes - that - you have - laziness = For you to be idle will make you lazy.)

b. Semeni akaita vana vake.
(Semeni - begot - children - her =
Semeni had her children.)

c. Semeni akaita kuti vana vake vafunde.
(Semeni - made - that - children - her - they learn=
Semeni educated her children.)

d. *Kuti Semeni afunde zvakaita vana vake.
("That Semeni should learn made her children.")
(that - Semeni - she learn - it made - that - father - her-
he sell - cattle = For Semeni to be educated her father
had to sell his cattle.)

We note that in (a) and (e) both the subject and the object are noun
phrases of the type (N + S), in (b) both the subject and the object are
human noun phrases, in (c) the subject NP is human while the object is
an abstract NP of the type (N + S), and in (d), which is ungrammatical,
the subject is an abstract NP of the type (N + S) while the object NP
is human. What this signifies is that with certain verbs object noun
phrases other than those of the type (N + S) are not permitted when they
(i.e. the verbs) have subject noun phrases with an embedded complement
clause. This is illustrated in (39d) and (39e).

Those verbs which have multiple sentential complements offer
compelling evidence for setting up a COMP node in deep structure, for
they appear to be subcategorized for types of complements as was demon­
strated above. There is yet another strong argument for setting up COMP
as a node in deep structure. This argument relates to the interaction
of complementizers with other transformations.

One transformation which clearly interacts with complementizers
is Conjunction Reduction. As an illustration of how this rule operates
consider (40) and (41).

(40) Badza naMatenzeni vaenda Harare.
(Badza and Matenzeni went to Harare.)

(41) Badza vaenda Harare na Matenzeni vaenda Harare.
(Badza went to Harare and Matenzeni went to Harare.)

Through Conjunction Reduction (40) is derived from (41). This rule, which
is cyclic, must precede on each cycle the cyclic transformation of gender
copying. The sentences in (40) and (41) clearly illustrate this point.

Note that (41) is a paraphrase of (40). In (41) Badza and Matenzeni each
controls a singular concord, namely, the underlined a. But in (40), because the two noun phrases have now been joined together, they control as one entity the plural concord va which is also underlined.

The crucial argument here is that if complementizers were not distinguished in deep structure, but rather treated as being inserted transformationally, some grammatical conjoined sentences would not be generated. But if complementizers are specified in deep structure, then these sentences are generated with ease using familiar rules.

Assuming that complementizers are introduced transformationally, the way complementizer insertion and conjunction reduction interact depends largely on the tree configuration to which they are applied. One possible such structure is the one in (42).

(42)

With the transformational hypothesis the earliest point at which complementizer insertion can apply in the configuration above is $S_1$ (or $S_2$) since it must be sensitive to the rule feature on the V in VP$_1$ (or VP$_2$).

Now notice that conjunction reduction cannot apply before the $S_0$ cycle.

Let us illustrate this with an actual sentence.

(43) Kana Beni akatuka baba uye kana akarova sekuru zvinonyadza.

(If Ben scolded his father and if he beat his uncle it was a disgrace.)

The underlying structure of this sentence is something like (44a).
(44a).

\[
S_0 \quad \rightarrow \quad S_1 \rightarrow \quad \text{uye} \quad \rightarrow \quad S_2
\]

\[
S_1 \rightarrow \quad \text{NP}_1 \rightarrow \quad \text{VP} \rightarrow \quad \text{V} \rightarrow \quad \text{NP}
\]

\[
\text{N} \quad \rightarrow \quad S_3 \rightarrow \quad \text{nyadza} \rightarrow \quad \text{[+kana] [+partic]}
\]

\[
\text{[+N] [+CL8] [+pro]} \rightarrow \quad \text{NP} \rightarrow \quad \text{VP} \rightarrow \quad \text{V} \rightarrow \quad \text{NP}
\]

\[
\text{Beni} \rightarrow \quad \text{tuka} \rightarrow \quad \text{baba}
\]

(44b).

\[
S_0 \quad \rightarrow \quad S_1 \rightarrow \quad \text{uye} \quad \rightarrow \quad S_2
\]

\[
S_1 \rightarrow \quad \text{NP}_1 \rightarrow \quad \text{VP} \rightarrow \quad \text{V} \rightarrow \quad \text{NP}
\]

\[
\text{N} \quad \rightarrow \quad S_3 \rightarrow \quad \text{nyadza} \rightarrow \quad \text{[+kana] [+partic]}
\]

\[
\text{[+N] [+CL8] [+pro]} \rightarrow \quad \text{NP} \rightarrow \quad \text{VP} \rightarrow \quad \text{V} \rightarrow \quad \text{NP}
\]

\[
\text{Beni} \rightarrow \quad \text{tuka} \rightarrow \quad \text{baba}
\]
No transformational rules apply when $S_3$ and $S_4$ are cycled. As we move on to $S_1$ (and also $S_2$) kana participial is inserted into $S_3$ (and also
S_{2}^{' } \text{ kana } \left[+ \text{ participial}\right] \text{ is inserted into } S_{3} \text{ (and also } S_{4} \text{). This is shown in (44b). Now that it is known that } S_{3} \text{ (and also } S_{4} \text{) will be in the participial mood, gender copying can apply to } S_{3} \text{ and also } S_{4}. \text{ Notice that the VP constituent in } S_{1} \text{ is identical to that in } S_{2}. \text{ At this stage conjunction reduction applies, yielding the configuration in (44c). The subject NP of } S_{4} \text{ is then deleted under identity with the subject NP of } S_{2}. \text{ The head noun of NP}_{1} \text{ and that of NP}_{2} \text{ then together control the plural concord } zvi \text{ as gender copying applies to } S_{1}. \text{ Note that apart from NP}_{2} \text{ the rest of the } S_{2} \text{ node disappears as a direct consequence of the conjunction reduction rule. Since, after conjunction reduction has applied, } S_{0} \text{ no longer branches, it is deleted by the convention which delete any } S \text{ node which does not branch.}^{11} \text{ This results in (44d). After applying later rules which are not crucial to the present discussion we eventually obtain sentence (43).}

In the case which has just been considered above complementizer insertion preceded conjunction reduction. However, there are instances in Shona when conjunction reduction precedes complementizer insertion in a derivation, as for example in the structure like that sketched in (45) below.

\[ (45) \]

\[ \begin{array}{c}
\text{S}_{0} \\
\text{NP} \\
\text{VP} \\
\text{V} \\
\text{NP} \\
\text{N} \\
\text{S}_{2} \\
\text{S}_{3} \\
\end{array} \]

11. For a discussion on S-pruning see John R. Ross in "A Proposed Rule of Tree-pruning" in Modern Studies in English, David A. Reibel and Sanford A. Schane (editors).
In this diagram the structural description of conjunction reduction is met at $S_1$, but the structural description of complementizer insertion reduction is not met until $S_0$ is cycled. Here then is a situation where conjunction $\wedge$ will obviously have to apply before complementizer insertion in a derivation.

As an illustration consider the derivation of (46).

(46) Jeni anoda kuziva kana sadza uye kana maburo zvabikwa nevaroora.

(Jeni wants to know whether the sadza and whether the sweet beer have been prepared by the daughters-in-law.)

The structure which underlies this sentence would look something like (47a) below.

(47a)
When $S_3$ and $S_4$ are cycled the passive rule is applied yielding (47b).

We notice that complementizer insertion cannot apply on $S_3$ or $S_4$ because of the nature of the next higher node, namely, $S_2$. However in the second cycle, i.e. $S_2$, the structural description of conjunction reduction is met. Applying this rule the result is the intermediate structure in (47c). The $S_2$ node then disappears by the pruning convention mentioned above. At this point complementizer insertion can apply and the tree which results after its application is (47d). After applying later rules the sentence which ultimately results is (48).

(48) Jeni anoda kuziva kana sadza uye maburo zvakawanda nevaroora.

(Jeni wants to know whether the sadza and the sweet beer have been prepared by the daughters-in-law.)

Notice that this sentence, though grammatical, is not the same as the one in (46) above. There is some difference in connotative meaning between (46) and (48). In (46) the sadza and the maburo seem to be more
focused than they are in (48). The point however is that there is no way in which complementizer insertion can produce (46) from the structure in (45) and (47). If we cling to the transformational hypothesis we could, I suppose, allow complementizer insertion to apply when $S_1$ is cycled as in (47d) and set up a later rule which optionally distributes a complementizer preceding a conjoined structure over the conjoined noun phrases. Such a rule would allow us to derive (49) from (47d).

This distribution of the complementizer over the co-ordinate structure in (47d) would eventually result in the derivation of (46). Allowing such a rule creates problems elsewhere. For one thing it cannot be said to be optional because, as has already been pointed out, (46) and (48) have different pragmatic interpretations. If we allow it to be an obligatory rule such a solution would permit (50) to be transformed into
(51) which is an ungrammatical sentence.

(50) *Ndinoziva kuti Deni nekuti Fani vakasangana.

(*I know that Deni and that Fani met.)

(51) *Ndinoziva kuti Deni nekuti Fani vakasangana.

(*I know that Deni and Fani met.)

In (50) we have a reciprocal predicate which cannot be derived through conjunction reduction. Thus (50) cannot be said to derive from (52).

(52) *Ndinoziva kuti Deni akasangana nekuti Fani akasangana.

(*I know that Deni met and that Fani met.)

The conclusion to be drawn from this is that this ad hoc complementizer distribution rule would have to apply only in those cases where conjunction reduction will have applied. But the drawback is that after conjunction reduction has applied the conjoined noun phrases can hardly be distinguished, if at all, from the non-reduced cases of NP conjunction.¹²

The crucial point here is that if the complementizers in (46) are present before conjunction reduction applies, their derivation is accounted for without any difficulty. But with the transformational hypothesis there does not seem to be a satisfactory way in which (46) could be derived. The argument concerning the interaction of complementizers with conjunction reduction appears to prove beyond doubt that complementizers ought to be specified in deep structure rather than introduced transformationally.

Questions in Shona may be embedded in higher sentences just as in many other languages. The following are examples of some common types of simple unembedded questions in Shona. The interrogative formatives are underlined in each question. (For embedded and non-embedded questions

¹² For a discussion on conjuncts see G.Lakoff and S.Peters in "Phrasal Conjunction and Symmetric Predicates" in Modern Studies in English, David A.Reibel and Sanford A.Schane (editors). p.113 - 142.
see also 2.5.1 and 2.5.2)

(53)a. Beni akadzaka here?

(Beni - he came back - question = Did Ben come back?)

b. Changufu anobva kúpi?

(Changufu - comes - from where = Where does Changufu come from?)

c. Hazvina akaenda Harare neyi?

(Hazvina - went - Harare - with what = With what did Hazvina go to Harare?)

d. Nzou yakaita séyi?

(an elephant - be - like what = What does an elephant look like?)

e. Séyi wakatiza?

(why - you ran away = Why did you run away?)

f. Swiza inodya chiyi?

(a giraffe - eats - what = What does a giraffe eat?)

g. Sara arova ani?

(Sara beat whom = Whom did Sara beat?)

When these sentences occur as indirect questions, that is when they occur as embedded questions, the complementizer employed is usually kuti

+ indicative as the sentences in (54) show.

(54)a. Ndinoda kuziva kuti Beni akadzoka here.

(I want to know whether Ben came back.)

b. Ndinoda kuziva kuti Changufu anobva kúpi.

(I want to know where Changufu comes from.)

c. Ndinoda kuziva kuti Hazvina akaenda Harare neyi.

(I want to know what means Hazvina used to go to Harare.)

d. Ndinoda kuziva kuti nzou yakaita séyi.

(I want to know what an elephant looks like.)

e. Ndinoda kuziva kuti séyi wakatiza.

(I want to know why you ran away.)
Although there are many verbs which permit a complement clause which has kuti $\sqrt{+}$ indicative, not every one of them will allow an embedded question.

(55)a.i. *Tichaona anodaira kuti zvinhu zvose zvichanaka here.*

(*Tichaona believes whether everything will be all right.*)

ii. *Baba anofungidzira kuti mwana wake anosvika nhasi here.*

(*The father expects whether his child will arrive today.*)

iii. *Mwana akanganisa kuti atuka amai here.*

(*The child made a mistake whether she scolded her mother.*)

iv. *Taka ari kushora kuti VaMago vakatiza mhuri yavo here.*

(*Taka is blaming whether Mr. Mago deserted his family.*)

In the sentences in (55a) the interrogative formative here is questioning the embedded clause. But if this interrogative formative is made to question the whole sentence, these sentences become fully well-formed.

(55)b.i. Tichaona anodaira kuti zvinhu zvose zvichanaka here?

(Does Tichaona believe that everything will be all right?)

ii. Baba anofungidzira kuti mwana wake anosvika nhasi here?

(Does the father expect his child to arrive today?)

iii. Mwana akanganisa kuti atuka amai wake here?

(Did the child make a mistake by scolding her mother?)

iv. Taka ari kushora kuti VaMago vakatiza mhuri yavo here?

(Is Taka deploiring the fact that Mr. Mago deserted his family?)

That verbs can be subcategorized according to whether they can permit indirect questions or not is a well known phenomenon.

As was pointed out earlier one thing peculiar to complementizers is that they are mutually exclusive. The following sentences contain
two complementizers each, and these are underlined.

(56)a. *Handizive kuti kana akauya.
   (*I do not know that whether he came.*)

b. *Vanoda kuti kuenda kumusha.
   (*They want that to go home.*)

c. *Jojo akati kana aizotora ush/ nesimba.
   (*George said whether that he would seize the chieftainship by force.*)

But the sentence in (57) below appears to be a counter-example to this claim.

(57) Handizive kana kuti achasvxka panô herê nhâsi.
   (I do not know whether (that) he will arrive here today =
    I do not know whether he will arrive here today.)

In this sentence we have kana and kuti immediately following each other. As was stated earlier kana as a complementizer is followed by a clause in either the participial mood or the consecutive mood, while kuti is followed by one in either the indicative mood or the subjunctive mood. In (57) the complement clause is in the indicative mood, clearly indicating that the complementizer here is kuti /+ indicative/. That being the case what then is the status of kana in this sentence? Note that kana here can be left out without altering the meaning of this sentence.

(58) Handizive kuti achâsvika panô herê nhâsi.
   (I do not know whether he will arrive here today.)

Here are further examples of sentences of this type. The (i) sentences below correspond to (57) and the (ii) sentences to (58).

(59)a.i. Paakasangana neshumba akashaya kana kuti oita seyi.
   i. Paakasangana neshumba akashaya kana kuti oita seyi.
      (When he came face to face with a lion he was at a loss as to know what to do.)

b.i. Hameno kana kuti Kondo akadyei; aonda chaizvo.
ii. Hamenó kuti Kondo akadyei; zonda chaizvo.
(I do not know what Kondo ate; he has lost a great deal of weight.)
c.i. Zvandakanzwa nyaya iyi ndakabva ndashayá kana kuti ndóitei.
(ii. Zvandakanzwa nyaya iyi ndakabva ndashayá kuti ndóitei.
(When I heard this story I did not know what to do.)
In the following sentence (60) the second kana does not seem to be a complementizer but is rather a conjunction of some kind.

(60) Handizive kana kuti áchasvika panó here nhási kana kuti haáchasvika.
(I do not know whether that he will arrive here today or that he will not arrive =
I do not know whether or not he will arrive here today.)
While the first kana in this sentence is optional as we saw above, the second one is obligatory.

(61) a. Handizive kuti áchasvika panó here nhási kana kuti haáchasvika.
b. *Handizive (kana) kuti áchasvika panó here nhási kuti haáchasvika.
It seems quite evident that the second kana is serving to co-ordinate the two embedded complement clauses. The status or function of the first kana however still remains unclear. If the argument that complementizers in Shona normally have moods associated with them is valid, this kana then is not a complementizer formative since none of the moods associated with it is reflected in the complement clause. Moreover, the fact that its occurrence in such sentences is optional strongly suggests that it is not a complementizer, as normally complementizer formatives are

13. I say "normally" because there are a few cases when a complementizer seems to be deleted from an embedded sentence (see 6.1.1.4).
either obligatorily present in the case of embedded sentences or obliga-
torily deleted in the case of non-embedded sentences. Notice also that kana as a lexical item has a multiplicity of meanings; among them are: when; if; although; even if; or; whether or. In the absence of any compelling evidence that it is a complementizer formative in the case under discussion, I take the view that it is not a complementizer here although the question is probably an open one. In this case the claim made on p. 168, namely, that complementizers are mutually exclusive, holds.

We observe also that where complementizers consist of an overt formative and a mood, with the exception of ku and zva, the formative may occur in either a clause-initial position or a position immediately after the subject NP. It seems that the occurrence of the subject NP of the complement clause before the complementizer formative can be accounted for by an optional transformational rule which interchanges them. The examples in (62) and (63) illustrate the occurrence of complementizer formatives in clause-initial position while those in (64) and (65) illustrate their occurrence in a non-clause-initial position. The complementizer formatives are underlined in each case.

(62) subject complementation;

a. Kana madzimai akatukana pamberi pamambo zvakanyadza.

(If the women scolded each other in front of the chief it was a disgrace.)

b. Kana sekuru akasvika kunze kwaenda hazvichabatsira nokuti basa racho rinofanira kuitwa kuchiri kuchena.

(If uncle arrives late in the night it will not help us because the ritual has to be done before it is dark.)

14. This applies if one goes on the assumption that every sentence has a complementizer in its deep structure. (see also 4.4 below.)
c. Kuti nyika yakatenderera zvinozivikanwa.
   (That the world is round is known.)

d. Kuti mwana’ache zvinofadza vabereki.
   (For a son/daughter to wed pleases his/her parents.)

(63) object complementation;

   a. Ndabvunza kana Farai akadzoka kuWedza.
      (I asked whether Farai came back from Wedza.)

   b. N’anga iye ichazvibata chete kana Gondwe akasaidzira mudzimu
      wacho kwatiri.
      (That witch-doctor will be able to detect it even if Gondwe
      incites the spirit to turn against us.)

   c. Tinoziva kuti nyika yakatenderera.
      (We know that the world is round.)

   d. Mubereki wose anoda kuti mwana wa’ache.
      (Every parent wants his/her son/daughter to wed.)

The meanings of the sentences in (64) and (65) below are the same as
those of the corresponding sentences in (62) and (63) above.

(64) subject complementation with complementizer formative in a
      non-clause-initial position;

   a. Madzimai kana akatukana pamberi pamambo zvakanyadza.

   b. Sekuru kana akasvika kunze kwaendu hazvichabatsira nokuti
      basa racho rinofanira kuitwa kuchiri kuchena.

   c. Nyika kuti yakatenderera zvinozivikanwa.

   d. Mwana kuti achatelzvinofadza vabereki.

(65) object complementation with complementizer formative in a non-
      clause-initial position;

   a. Ndabvunza Farai kana akadzoka Wedza.15

---

15. This sentence is ambiguous. Farai can be the direct object of the
   verb -bvunza or it can be the subject of the predicate akadzoka Wedza.
   Here we are concerned with the latter reading.
b. N'anga iye iheazvibata chete Gondwe kana akasaidzira mudzimu wacho kwatiri.
c. Tinoziwa nyika kuti yakatenderera.
d. Muberekwose anoda mwana wake kuti achate.

In the case of the complementizer formatives $ku$ and $zva$, if the subject NP of the complement clause is overtly expressed, they will always occur after it (i.e. subject NP).

(66) Ndyire chaiye kuuya kuzotiona zvinotishura.
(For Ndyire to pay us a visit is an ill omen for us.)

(67) Mapondera zvaadzoka akaisa uso pasi zvinoreva kuti sekuru varwara chaitivo.
(Since Mapondera's face was downcast when he returned it means that uncle is seriously ill.)

Note that complementizer formative $ku$ preceded by a subject NP does not seem to occur in a complement clause which is in an object position, as is indicated by the ungrammaticality of (68).

(68) "Ndinoda mwana kuenda.
(I want the child to go.)

See also the (ii) examples in (170) in Chapter Two.

Notice also that the complementizer formative $kana$ in $kana$ $+$ consecutive may be optionally deleted without effecting any semantic change.

(69)a. Sekuru akasvika kunze kwaenda hazvichabatsira nokuti basa racho rinofanira kuitwa kuchiri kuchena. (cp 62b and 64b)
b. N'anga iye iheazvibata chete Gondwe akasaidzira mudzimu wacho kwatiri. (cp 63b and 65b)

In the case of the other complementizer formatives this optional deletion rule may not apply.

(70)a. *Madzimai akatukana pamberi pamambo zvakanyadza. (cp 62a)
b. *Nyika yakatenderera zvinozivikanwa. (cp 62c)
Although (70f) is unacceptable, at least in my idiolect, (71) below, which has a linear sequence of words similar to that of (70f), appears to be acceptable, though marginally.

(71) Ndinoda Keri avise pano mangwana
(I want Keri to arrive here tomorrow.)

How is this discrepancy to be accounted for? The answer seems to lie in the fact that while (63d), from which (70f) would derive, expresses a mere wish, (72) on the other hand, from which (71) derives, signifies much more than a wish; it is almost a command. There may be another reason which is not immediately apparent.

4.4 Complementizers and Non-embedded sentences

It is claimed in this study that every sentence, embedded or non-embedded, starts off as $S$ in Shona. The implication is that every sentence in Shona has a complementizer which serves to introduce it thus:

```
    S
   / \  
COMP   S
```

The important thing to observe is that in the case of the topmost $S$ the complementizer formative will be deleted obligatorily by a convention. This convention may be tentatively stated as follows: delete the complementizer formative from $S_1$ just in case $S_1$ is the topmost $S$ in the derivation. It must be borne in mind that this convention will only be invoked after mood incorporation has applied otherwise the predicate will be left without a mood. That such an approach is necessary becomes obvious if we bear in mind that even the topmost $S$ in a complex sentence
must be in one mood or another. Besides, if mood appears in deep structure under COMP, as has already been stated above, it follows that there must be COMP also to introduce mood into the topmost sentence. The alternative is to say that mood is introduced into the topmost sentence, not by COMP, but by some other rule or process. If the latter alternative (irrespective of its formulation) is adopted, then we shall have a strange situation in which mood is introduced by COMP in some cases but by something other than COMP in other cases. It is clear that by adopting the second alternative our grammar will fail to capture a linguistic generalization, namely, that mood is being introduced into the predicate phrase in either case. Consequently the second alternative will result in a weaker grammar. With the first alternative this linguistic generalization is captured. It may well be that the occurrence of COMP in the topmost sentence as well as the convention suggested above is universal.

4.5 Summary

In this chapter I have tried to show that in Shona (a) complementizers have semantic content and therefore they should be specified in deep structure; (b) complementizers subcategorize verbs although it is not clear how this is to be done; (c) these complementizers are mutually exclusive, that is, they are incompatible within the same minimal clause; and (d) complementizers are basically clause-initial, but nonetheless in most cases by a transformation the complementizer formative may permute with the subject NP of the complement clause.
5.0 TRANSFORMATIONAL RULES

In this chapter I should like to discuss the following transformational rules which were mentioned in previous chapters:

Rule (1) Passive
Rule (2) Pseudo-passive
Rule (3) Agent Deletion
Rule (4) Reflexive
Rule (5) Mood Incorporation
Rule (6) Complementizer Placement
Rule (7) Gender Copying
Rule (8) Object Raising
Rule (9) Subject Raising
Rule (10) Equi-NP Deletion
Rule (11) Extraposition
Rule (12) Pro Deletion
Rule (13) Object Anaphora
Rule (14) Object Focussing
Rule (15) Object Copying
Rule (16) Noun prefix (segment) rule
Rule (17) Subject Postposing

A detailed account of these transformations would be such an enormous undertaking that it would run to a volume by itself. Such a treatment falls outside the purview of the present study; for the purpose in hand, a sketch of each of these transformations will suffice. This study has been carried out within the framework of a cyclic grammar. The concept of a cyclic grammar is discussed in subsection 5.18 in this chapter.

5.1 Passive (cyclic)

Like many other languages Shona has among its various types of sentence passive as well as active sentences. That these two types of sentence are somehow related is well known. Almost every Shona grammar
that has been produced to date describes the passive construction in one way or another. What is unclear however is precisely what the nature of the relation between passive sentences and their corresponding active sentences is. To this end consider the following sentences:

(1)a. Mapfeni akaurayay mbada.
    (Baboons killed a leopard.)

b. Mbada yakaurayiwana nemapfeni.
    (A leopard was killed by baboons.)

(2)a. Kutivakwiré bhásikoro zvakanetsa Zuze.
    (that - he ride - a bicycle - troubled - Zuze =
    It was a bother for Zuze to ride a bicycle.)

b. Zuze akanetswa nekuti akwiré bhásikoro.
    (Zuze - was bothered - by that - he ride - a bicycle =
    It was a bother for Zuze to ride a bicycle.)

As can be observed in these sentences, roughly what the passive transformation does is first to interchange the subject noun phrase with the object noun phrase, secondly to introduce the passive element /w/ into the verb, and thirdly to introduce the agent formative /NA/.

The passive transformation will operate on a structure of the type given below:

\[ NP_1 - AUX - V - NP_2. \]

The following conditions however must also be satisfied. First, \( NP_1 \) and \( NP_2 \) must not be referentially identical. In (3a) below the object NP Tsitsi is formally and referentially identical with the subject NP Tsitsi, hence (3b) is ill-formed.\(^1\)

(3)a. *Tsitsi akarova Tsitsi.
    (**Tsitsi beat Tsitsi.)


---

1. For more discussion on referential identity see P.M. Postal in Cross-over Phenomena, Chapters 1 and 2.
(*Tsitsi₁ was beaten by Tsitsi₁.*)

Nevertheless it is possible for NP₁ and NP₂ to be identical in form while not being co-referential. In such a case the passive rule can apply readily as is illustrated in (4b) below.

(4)a. Tsitsi₁ akaróva Tsitsi₂.
    (Tsitsi₁ beat Tsitsi₂ i.e. the two are different persons)

b. Tsitsi₁ akaróhwá naTsitsi₂.
    (Tsitsi₁ was beaten by Tsitsi₂.)

Secondly, the verb phrase in the structural description of this rule must be of the type that allows the passive to operate. There are certain verb phrases in Shona which, though they contain noun phrases as complements, do not permit this rule to operate. Examples of such verb phrases can be seen in the following sentences:

(5)a. Mwana uyu anenge réma.
    (This child seems to be a fool.)

b. Tsaga iri rinorema zana remapàunzi.
    (This bag weighs 100 pounds.)

If the sentences in (5) are put into the passive the results are the sentences in (6).


b. *Zana remapàunzi rinoremwa nètsaga iri.

Since there are very few such verbs in Shona, they can be marked in the lexicon as not permitting the passive rule to operate. Those which allow this rule to operate will then appear unmarked.

There is yet another type of verb phrase which will not permit

2. cp behaviour of middle verbs in English.
3. See G. Lakoff in *Irregularity in Syntax* for rule specification in the lexicon.
the passive to apply even though it appears to consist of a verb and a noun phrase. Such is the verb phrase in which the object noun phrase constitutes an inalienable part of the nearest noun phrase on its left as is shown by the sentences in (7) - (10).

(7) *Ngoro yakva vhiri.

(a wagon - came off - a wheel = The wagon lost a wheel.)

(8) Mombe yakatyoka gumbo.

(a cow - broke - a leg = The cow had its leg broken.)

(9) Muvhimi akaphura nzou dundundu.

(a hunter - shot - an elephant - a chest =
   The hunter shot an elephant in the chest.)

(10) Fani akacheka Sara nzara.

(Fani - cut - Sara - finger-nails =
   Fani cut Sara's finger-nails.)

The verb phrases in both (7) and (8) each consist of a verb and a noun phrase, while in both (9) and (10) they each consist of a verb and two object noun phrases. Vhiri in (7) and gumbo in (8) constitute inalienable parts of the subject noun phrases ngoro and mombe respectively. In this case the passive rule will not apply.

(11) *Vhiri rabyiwa nengoro.

(12) *Gumbo ratyokwa nemombe.

The sentences in (9) and (10) can be turned into the passive by interchanging the first object noun phrase with the subject noun phrase. This will result in the following sentences which are well-formed:

(13) Nzou yakafurwa dundundu nemuvhimi.

(An elephant was shot in the chest by the hunter.)

(14) Sara akachekwa nzara naFani.

(Sara's finger-nails were cut by Fani.)

On the other hand, because the second object noun phrase in (9) and (10) forms an inalienable part of the first object noun phrase, these two sentences cannot be passivized by interchanging the second object noun
phrase with the subject noun phrase as is shown by the ungrammaticality of the sentences below.

(15) *Dundundu' rākapfurwā nzōu nēmuvhimi.'
(16) *Nzarā dzākhēwā Sarā naFani.'

In (7) and (10) it is assumed that their rough deep structures are respectively (a) and (b) below:

(a)

S
  NP1
    V
    VP
    NP2

(b)

S
  NP1
    V
    VP
    NP2
    NP3

However this assumption seems to be counter-intuitive, especially when we see that in (7), for instance, it was only the vhiri which came off and not the whole ngoro as such. Accordingly the logical subject of the verb -bva here is vhiri and not ngoro. In (10) what was cut were the finger-nails only and not the whole of Sarā as such. The logical object noun phrase of the verb -chēkā is in this sentence nzarā and not Sarā.

If the logical subject noun phrases in (7) and (8) are made the grammatical subjects also, and if the logical object noun phrases in (9) and (10) are also made the grammatical objects, the following sentences which are grammatical will result:

(17) Vhiri rēngoro' rābva.

(The wagon's wheel came off.)

(18) Gumbo remombe rākathy'okā.

(The cow's leg got broken.)

(19) Muvhimi' ākaphūrā dundundu' renzōu.

(The hunter shot an elephant's chest.)

(20) Fani' ākachēkā nzarā' dzaSarā.

(Fani cut Sara's finger-nails.)

Note that the subject noun phrases in (7) and (8) and the first object
noun phrases in (9) and (10) have become possessives in the process. It is possible to regard the phrase-markers of the sentences in (17) - (20) as the structures which underlie the sentences in (7) - (10) respectively. This appears to be a logical and natural thing to do. Nonetheless there is a problem in adopting this approach. The sentences in (7) - (10) can be derived from the corresponding structures which underlie those in (17) - (20) only when the head nouns of the subject noun phrases in (17) and (18) and the head nouns of the object noun phrases in (19) and (20) exhibit an inalienable relationship with the accompanying possessor in that subject or object noun phrase. If this relationship does not obtain, this transformation will block as illustrated in the sentences which follow.

(The child's pencil got broken.)

(*The child got broken a pencil.)

(22)a. Madomasi asekuru akatsvuka.
(Uncle's tomatoes have become red.)

b. *Sekuru akatsvuka madomasi.
(*Uncle became red tomatoes.)

In the noun phrases penzura yemwana and madomasi asekuru the head nouns penzura and madomasi do not constitute an inalienable part of mwana and sekuru respectively, hence the ungrammaticality of (21b) and (22b).

If this analysis is correct, as I believe it is, the feature must then be built in somehow in the subcategorization statement of such verbs as -tyoka and -tsvuka. Since this presentation follows the generative transformational model and the standard theory in this model as currently formulated does not seem to permit this extension this presents a difficulty. Owing to the complexities involved here I leave it as an open question as to which is the more viable of
the two suggested analyses. In this study I have adopted the former analysis although it appears to be counter-intuitive.

Now note that in each of the sentences in (23) and (24) below there are also two object noun phrases just as in each of the sentences in (9) and (10). These object noun phrases do not however exhibit the part-and-whole relationship that was seen in respect of the object noun phrases in (9) and (10).

(23) Ambuya vapa muzukuru mabhanzi.
(The grandmother gave her grandchild some buns.)

(24) Rowesai akakanda Chipó bhóra.
(= Rowesai - threw - Chipo - a ball = Rowesai threw a ball to Chipo.)

Each of the sentences in (23) and (24) can be passivized by interchanging either of the two object noun phrases with the subject noun phrase. The resultant strings will be perfectly acceptable Shona sentences.

(The grandchild was given some buns by its grandmother.)
b. Mabhanzi apihwa muzukuru naambuya.
(Some buns were given to the grandchild by its grandmother.)

(26)a. Chipó akakandwa bhóra naRowesai.
(= Chipo had a ball thrown to her by Rowesai.)
b. Bhóra rakakandwa Chipó naRowesai.
(A ball was thrown to Chipo by Rowesai.)

Notice that it is possible for the two noun phrases to be distinct in form but to be fully or partially co-referential. In such cases the passive will not apply. To this end consider the sentences which follow:

(27)a. Posáni akabata' bhóra.
(= Posani caught the ball.)
b. Bhóra rakabatwę naPosáni.
(= The ball was caught by Posani.)
(28a) *Shumba yakauraya mhondoro
   (*A lion killed a lion.)

b. *Mhondoro yakaurayiwa neshumba.
   (*A lion was killed by a lion.)

(29a) Sará anórówá vaná váké.
   (Sara beats up her children.)

b. *Vana váké vanoróhwá naSara.
   (*Her children (i.e. Sara's) are beaten up by Sara.)

The two noun phrases which are to interchange in (27a) are different both in form and in reference, hence the passive is permitted as (27b) shows. In (28a) the two noun phrases to interchange, though distinct in form, are nonetheless co-referential, hence (28b) is ill-formed. Note that whenever the subject and the object in a sentence are referentially identical the latter is obligatorily reflexivized. This accounts for the ungrammaticality of (28a). Now in (29a), even though the subject noun phrase and the object noun phrase are distinct from each other in form, there is however an element in the object noun phrase which refers to the subject noun phrase Sará. This element is -ke in váké (her). For this reason the two noun phrases in (29a) cannot be said to be strictly non-co-referential, hence the passive will not operate as is shown in (29b). If, however, váké in (29a) does not refer back to Sará, the sentence will passivize since the two noun phrases in question will then be strictly non-co-referential.

Having discussed the structure which underlies the passive construction we can now proceed to formalize it.

Rule (1) Passive

\[
X \text{ - passive - } NP_1 \text{ - AUX - } V \text{ - (NP}_2\text{) - } NP_3 \text{ - Y}
\]

\[
1 \quad 2 \quad 3 \quad 4 \quad 5 \quad 6 \quad 7 \quad 8
\]

\[
1 \quad \emptyset \quad 7 \quad 4 \quad 5 \text{ +w } 6 \quad \emptyset \quad 8 \text{ NA } + 3
\]

This formulation of the passive requires comment. Its structural descrip-
tion has been formulated with two object noun phrases. Notice that $NP_2$
is bracketed. This is meant to accommodate the derivation of (27b) and
(30b - c). In deriving (27b) and (30b) term 6 will be null, while in
order to get (30c) term 6 will be the noun phrase nyoka.

(30)a. Vana vaouraya nyoka kudanga.

(The children killed a snake at the cattle-pen.)

b. Nyoka yaouryiwa kudanga nevana.

(A snake was killed at the cattle-pen by the children.)

c. Kudanga kwauryiwa nyoka nevana. 4

(At the cattle-pen was killed a snake by the children.)

In sentences like those in (31a) and (32a) in which an adverbial occurs
between the verb and its object noun phrase the adverbial is considered
to be outside the verb phrase at the time when the passive rule applies.

(31)a. VaMatenzeni vakabika kuchiri kuchena sadza revana vemukuwasha.

(Matzeneni prepared before it was dark the sadza for the
children of her son-in-law.)

b. Sadza revana vemukuwasha rakabikwa kuchiri kuchena naVaMaten-
zeni.

(The sadza for the children of her son-in-law was prepared
before it was dark by Matzeneni.)

(32)a. Mombe idzi dzichadya chete nhasi mumunda uyu.

(These cattle will surely lay waste today this field.)

b. Mumunda uyu muchadyiwa chete nhasi nemombe idzi.

(This field will surely be laid waste today by these cattle.)

Nevertheless, the passive rule as it has been formulated does
not solve all the problems related to it. The rule would be more ade-
quate if it could be so formulated that given the structures which under-
lie the sentences in (9) and (10) and those in (23) and (24) it would

4. This sentence could also mean "At the cattle-pen were killed a snake
and some children." In this discussion however this second reading is
inconsequential.
be predicted that two passives are possible with the latter as shown in (25) and (26), but that only one passive sentence is permitted with the former as shown in (13) and (14) respectively. As it is there does not seem to be a way of blocking the rule from producing the ill-formed sentences in (11) and (12). In the absence of a satisfactory way of specifying the correct deep structures which underlie sentences like those in (7) - (10) the passive rule as formulated on p. 183 will suffice.

5.2 **Pseudo-passive** (cyclic)

The application of the pseudo-passive rule is much the same as that of the passive in 5.1. It will operate on a structure of the

5. It may be argued that by assuming that, for instance, *Sara nzara* in (10) has the structure \[ \text{NP} / \text{NP} / \text{NP} / \text{NP} / \text{NP} \] and allowing the A-over-A principle to apply, the ill-formed sentences in (15) and (16) are accounted for. (For the A-over-A principle see Chomsky: 1964a; Ross: 1967a) This solution however is unsatisfactory for three reasons: (a) according to this structure none of the noun phrases *Sara* and *nzara* is exhaustively dominating the other, a condition necessary for the A-over-A principle, so that strictly speaking this principle cannot be said to apply here; (b) this structure does little, if anything at all, to capture the inalienable relationship which exists between *Sara* and *nzara*; and (c) given this compound noun phrase \[ \text{NP} / \text{NP} / \text{NP} / \text{NP} / \text{NP} \] there will be a difficulty with the passive rule. Applying the passive then to the structure underlying (10) will yield the ungrammatical sentence

\[ \text{NP} / \text{NP} / \text{NP} / \text{NP} / \text{NP} \] 'achekwa naFani.'

(*Sara finger-nails was cut by Fani.)

This same sequence of words would be a grammatical sentence if *Sara* and *nzara* are taken to be independent noun phrases, with *Sara* as subject NP, and *nzara* as object NP which has been front-shifted in this sentence.
following type:

\[ NP_1 - AUX - V - NP_2. \]

Like the passive it will interchange the subject NP with the object NP; it will introduce the pseudo-passive formative /ik/ into the verb; and it will also introduce the agent formative /NA/.

However, the pseudo-passive, which is triggered off by an element in deep structure, differs significantly in meaning from the ordinary passive. The meaning of the pseudo-passive is roughly that the deep structure object has the potentiality to undergo the action or state expressed by the simple verb. Note that the pseudo-passive process is very productive. The (b) sentences in the examples which follow have undergone the pseudo-passive transformation.

(33)a. Vanhu vánodyá sádza.
   (People eat sadza.)

b. Sādza rínodyíká nevanhu.
   (Sadza is edible as far as people are concerned.)

(34)a. Basa rábaya varumé ava.
   (Work has worn out these men.)

b. Varumé ava vábayika nebása.
   (These men have become worn out with work.)

The type of verb phrases which allow this rule to operate is the same as that which allows the simple passive to apply.

The pseudo-passive rule may be represented in formal terms as follows:

Rule (2) Pseudo-passive

\[
X - \text{pseudo-pass.} - NP_1 - AUX - V - (NP_2) - NP_3 - Y
\]

\[ 1 \ 2 \ 3 \ 4 \ 5 \ 6 \ 7 \ 8 \]

\[ 1 \ \Ø \ 7 \ 4 \ 5+ik \ 6 \ \Ø \ 8 \text{NA} + 3 \]

condition: 3 and 7 must not be referentially identical.

Another difference with the simple passive rule is that, more often than
not, after the pseudo-passive has operated, Agent Deletion applies. (For the rule of Agent Deletion see subsection 5.3 below.) In the sentences which follow, though both the (b) and (c) sentences may be grammatical, the (c) sentences are more acceptable than the (b) sentences.  

(35)a. Maticha anonyórá pabhódhí.  

(Teachers write on the blackboard.)  

b. ?Pabhódhí pánonyóréka nématicha.  

(on the board - it can be written - by teachers =  
Blackboards can be written on by teachers.)  

c. Pabhódhí pánonyóréka.  

(on the board - it can be written on =  
Blackboards can be written on.)

(36)a. VaCharwe vanonyíma VaSaru dóró.  

(Charwe refuses to give Saru some beer.)  

b. ?VaSaru vánonyímika dóró naVaCharwe.  

(Saru can be refused some beer by Charwe.)  

c. VaSaru vánonyímika dóró.  

(Saru can be refused some beer.)

(37)a. Vanhu vanzwa zvamataura.  

(The people have understood what you said.)  

b. ?Zvamataura zvánzwika nevanhu.  

(What you said has been understood by the people.)  

c. Zvamataura zvánzwika.  

(What you said has been understood.)

The passive rule and the pseudo-passive rule are normally mutually exclusive in any simple sentence.

6. The notation ( ?) signifies that the sentence is marginally acceptable to some Shona speakers, but is rejected altogether by others.

7. I say "normally" because with a few verbs both the pseudo-passive
5.3 Agent Deletion (cyclic)

The rule of Agent Deletion is meant to account for the absence of the agent in sentences like the following:

(38) Imba yedu yakapiswa makei.

(Our house was burnt last year.)

(39) Pahwahwa hapabvike.

(at beer - not get away from = It is difficult to get away from a place where there is beer.)

it is quite clear that in (38) the grammatical subject is not the same as the logical subject. Somebody or something must have been the gramm-

and the simple passive formatives may found occurring together in that order, e.g. 

-\text{On-ek-w-a} (be seen) \quad \text{cp -\text{Ona} (see)}

-\text{Nzw-ik-w-a} (be heard) \quad \text{cp -\text{Nzwa} (hear, understand)}

-\text{Wan-ik-w-a} (be found) \quad \text{cp -\text{Wana} (find)}

Worse still, in some cases, the pseudo-passive, the reciprocal and the simple passive formatives may occur together, e.g.

-\text{Ziv-ik-an-w-a} (be known) \quad \text{cp -\text{Ziva} (know)}

-\text{D-ik-an-w-a} (be loved, wanted) \quad \text{cp -\text{Da} (love, want)}

No doubt these verbs present some difficulty. Normally the presence of the formative /\text{ik}/ (or /\text{w}/) in a sentence signifies that the pseudo-passive (or simple passive) has applied. Taking the verb -\text{Wana} as an example, we see that it is usually followed by an object noun phrase.

\text{Jeke anowana makuponi.}  

(Jack gets (petrol) coupons.)

The underlying structure of this sentence meets the structural description for either the pseudo-passive only as in:

\text{Makuponi anowanika naJeke.}  

((Petrol) coupons can be obtained by Jack.)

or the simple passive as in:

\text{Makuponi anowaniwa naJeke.}  

((Petrol) coupons are obtained by Jack.)

After the pseudo-passive has applied the structural description for the simple passive is no longer met, and vice versa. It would appear then that the occurrence of the formatives /\text{ik}/ and /\text{w}/ in \text{anowanikwa} is not a result of the successive application of the pseudo-passive and the simple passive transformations. It follows, therefore, that, as transformational processes, the pseudo-passive and the simple passive are mutually exclusive in any simple sentence.
matical agent responsible for burning the house. But then this somebody or something is not overtly expressed in the sentence. The same applies to the sentence in (39). It has got to be some person who can perform the action of moving away from a beer party. In each of these two sentences the agent has been left out. The rule which deletes the agent in this way may be represented as shown below.

Rule (3) Agent Deletion

\[
X - na + NP - Y
\]

\[
\begin{array}{ccc}
1 & 2 & 3 \\
1 & \emptyset & 3
\end{array}
\]

It must be emphasized though that the phrase \( na + NP \) ought to be one which has resulted from a previous application of either the simple passive or the pseudo-passive transformation. Notice that in Shona \( na + NP \) can signify other ideas also that have nothing to do with agency at all. For instance,

(a) \( na + NP \) may indicate instrumentality as in (40);

(40)a. Baba' vauraya mombe nedemo.

(Father killed a cow with an axe.)

b. Mombe yaurayiwa nedemo nababa.'

(A cow was killed with an axe by father.)

c. Mombe yaurayiwa nedemo.

(A cow was killed with an axe.)

Agent deletion cannot apply to (40a) to delete the phrase \( nedemo \). It only applies to (40b) and the result is (40c). Note however that strictly speaking agent deletion only applies to unspecified agents (e.g. munhu (a person), chinhu (a thing), zvinhu (things)), not babá, because of the condition on the recoverability of deleted material. 8

8. For some discussion on the recoverability of deleted elements see J.J. Katz and P.M. Postal in An Integrated Theory of Linguistic Description
(b) Co-ordination is another idea which is expressed by na + NP.

(41)a. Tafa naPeni vakarowa ticha gore rakapera.

(Tafa and Peni beat up a teacher last year.)

b. Ticha akarohwa gore rakapera naTafa naPeni.

(A teacher was beaten up last year by Tafa and Peni.)

c. Ticha akarohwa gore rakapera.

(A teacher was beaten up last year.)

Because Tafa naPeni constitutes a conjoined structure Agent Deletion cannot apply to it to delete naPeni without destroying the conjoined structure. This rule can, however, apply to (41b) to delete naTafa naPeni and resulting sentence is (41c).

Agent deletion is ordered after both the simple passive and the pseudo-passive rules.

5.4 Reflexive (cyclic)

In Shona, just as in many other languages, whenever the object noun phrase is identical with the subject noun phrase and the two are in the same simple sentence, the former constituent is obligatorily reflexivized as the sentences below illustrate.

(42)a. *Mombe iye yakuwashva /mombe iye/.

(*That cow hurt that cow.

b. Mombe iye yakuwadza.

(That cow hurt itself.)

(43)a. *Mwana acharuma /mwana/ a /furimba/.

(*The child will bite the child.

b. Mwana achazviruma /furimi/.

(The child will bite itself on the tongue.)

This rule may be represented formally as follows:

\[ \text{Rule (4) Reflexive} \]

\[
X - \text{NP}_1 - \text{AUX} - V - \text{NP}_2 - Y
\]

\[
1 \quad 2 \quad 3 \quad 4 \quad 5 \quad 6
\]

\[1 \quad 2 \quad 3 \quad \left[ \begin{array}{c}
5 \\
+\text{reflex.}
\end{array} \right] \quad +4 \emptyset \quad 6 \]

Now \[\text{NP} +\text{reflex.}\] will always be spelt out as zvi (or dzi in some forms of the Manyika dialect) irrespective of the class to which the head noun of the noun phrase belongs.

The word "identity" requires comment. Just as during the discussion of the passive rule partial co-referentiality between the subject NP and the object NP was enough to block the sentence from passivizing, so also will partial co-referentiality block reflexivization. For an object NP to be reflexivized it must be strictly referentially identical with the subject NP in that sentence. To this end consider again (16a) which is repeated here for convenience as (44).

\[(44) \text{Sara' anorova' vana' vaké.}\]

If the possessive pronoun -ke in this sentence refers to Sara', then the structure which underlies this sentence is roughly that in (45).

\[(45) \text{Sara' anorova' vana' Sara' ane vana' S NP.}\]

\[
(\text{Sara beats up children Sara has children})
\]

The possessive construction here is assumed to derive from an embedded sentence. It is clear that the object NP in (45), namely, \(\text{vana'} S\) \(\text{Sara' ane vana'} S\) \(\text{NP}\) is not altogether referentially identical with the subject NP, namely, \(\text{Sara'}.\) In this case reflexivization blocks as shown in (46).

\[(46) \text{Sara' anozvíro'va'.}\]

The sentence in (46) cannot be said to be the reflexive sentence of (44).
This does not however imply that (46) is ungrammatical per se. It can be grammatical but only if it is deemed to derive from (47).

(47) Sara₁ anorová Saral.
   (Sara₁ beats Sara₁.)

This sentence, that is (47), meets the structural description for the reflexive rule, but not the sentence in (45).

5.5 Mood Incorporation

Complementizers have been taken to consist each of two elements, namely, a complementizer formative and a mood, e.g.

(48) a. kuti [+ indicative]
    b. kana [+ participial]

(For the full list of complementizers see subsection 2.10.) These complementizers serve to introduce embedded sentences as has already been stated above. The embedded sentence which is introduced by complementizers has the following tree structure:

(49) o

The symbol $\overline{S}$ signifies that this is an embedded sentence, while the symbol $S$ signifies a sentence similar in all relevant respects to the $S$ which is taken as the initial symbol of the grammar. The rough diagrammatic representation of the deep structure of the sentence in (50), which contains an embedded sentence, is found in (51).

(50) Rudo anozívá kuti vaná vánoshereketa.
   (Rudo knows that children are mischievous.)
In any sentence in Shona the nucleus of the predicate, by which is meant in this case the subject concord, the tense and the verb proper as forming one word, must appear in one or another of the moods that exist in the language. Assuming that the diagram in (51) is correct, we notice that mood is dominated by the node COMP which lies outside $S_2$. In the surface structure of this sentence it is not the complementizer formative *kuti*, but rather the nucleus of the predicate of $S_2$, which carries the indicative mood. Nevertheless, it is *kuti* which determines that the predicate of $S_2$ should be in the indicative mood. If another complementizer formative is substituted for *kuti*, e.g. *kana*, the predicate of $S_2$ will be in the participial or consecutive mood, but certainly not in the indicative mood.

In order to characterize what happens in the derivation of such sentences as the one in (50), it is proposed to set up a rule which will move the feature *mood* from under the domination of COMP and place it somewhere in the auxiliary, maybe as a sister node of Tense. (Tense is suggested here because, given a mood, there will be variations of tone patterns within that mood which are occasioned by Tense.) Let
us label this rule the Mood Incorporation rule. It may be formalized as follows:

Rule (5) Mood Incorporation

\[ X \frac{S}{S} \text{Complementizer} \frac{\text{formative}}{S} \frac{\text{mood}}{S} \frac{\text{NP} - \text{AUX} - \text{Y}}{S} \frac{Z}{S} \]

\[
\begin{array}{ccccccc}
1 & 2 & 3 & 4 & 5 & 6 \\
1 & 2 & \emptyset & 4 & 3+5 & 6 \\
\end{array}
\]

This rule is meant to capture the idea that the embedded sentence will be in a mood the choice of which is determined by the complementizer.

5.6 Complementizer Placement (cyclic)

After the Mood Incorporation rule has applied there is need for another rule which will take the complementizer formatives from their position before the subject NP to a position immediately after this subject NP. That such a rule is desirable is evident from an examination of the following pairs of sentences.

(52)a. Pita anofunga kuti Kondo anodzoka mangwana.

b. Pita anofunga Kondo kuti anodzoka mangwana.

(Peter thinks that Kondo will return tomorrow.)

(53)a. Fani a kafembéra kuti sekurú vanosvika nhási.

b. Fani a kafembéra sekurú kuti vanosvika nhási.

(Fani calculated that uncle would arrive today.)

(54)a. Rwodzi akanganwa kana Motsi akataura mazwi iwayo.

b. Rwodzi akanganwa Motsi kana akataura mazwi iwayo.

(Rwodzi has forgotten whether Motsi said those words.)

(55)a. Kana Roda akapasa zvingashamise.

b. Roda kana akapasa zvingashamise.

(If Roda passes it will be surprising.)

(56)a. *Zva mvurá yapera mutsimu zvichanëtsa.

(since - water - it has finished - in well - it will be hard)
b. Mvura zvayapera mutsime zvihanetsa.
(water - since it is finished - in well - it will be hard
= Since there is now no water in the well there will be
a problem.)

(57)a. *Ku Matinyadza chaiye anosvika pano zvinoshura.
(for to - Matinyadza - she arrives - here - is an ill-omen)

b. Matinyadza chaiye kusvika pano zvinoshura.
(For Matinyadza to come here is an ill-omen (for us))

Both sentences in each of the pairs in (52) - (55) are well-formed, but
only the (b) sentences in (56) and (57) are grammatical. The sentences
in each pair have the same semantic content. Note that in the (a) sen­t­
tences the complementizer formatives lie outside the embedded sentence,
while in the (b) sentences they occupy a position immediately after the
subject NP. This is the only structural difference between the sentences
in each pair. It can be seen from these sentences that while the placing
of the complementizer formatives after the subject NP of the embedded
sentence is optional in (52) - (55), it is obligatory in (56) and (57).
I shall refer to this process as complementizer placement.

Rule (6) Complementizer Placement

\[
\begin{align*}
X & \rightarrow [\underbrace{\text{kutikana}}_{S}] - [\overbrace{\text{NP - AUX - } & \overset{Y}{S}}_{S}] Z \\
1 & 2 & 3 & 4 & 5 \\
& \emptyset & 3+2 & 4 & 5 \quad \text{oorthy with ku and zva otherwise it is optional}
\end{align*}
\]

Note that this rule is considered to apply only after Mood Incorporation
has applied.

It might be suggested that the (b) sentences in (52) - (55)
show instances of object raising (discussed in 5.7 below) rather than
complementizer placement. That such a suggestion is fallacious is easily
demonstrable. Let us consider (52b) as an example. If Kondo occurs before the complementizer formative kuti by virtue of the rule of object raising, then it follows that it is now a direct object NP of the verb -funga for this is what the rule of object raising does. That being so, the object anaphora and the passive rules, for instance, should be able to apply, but they do not, as the ungrammaticality of (58a) and (58b) indicate respectively.

(58)a. *Pita anomufunga kuti anodzoka mangwana.
   b. *Kondo anofungwa naPita kuti anodzoka mangwana.

These same transformational rules will yield negative results in respect of the (b) sentences in (53) and (54) as shown in (59) and (60) respectively.

(59)a. *Fani akavafembera kuti vanosvika nhasi.
   b. *Sekuru vakafemberwa naFani kuti vanosvika nhasi.

(60)a. *Rwodzi amukanganwa kana akataura mazwi iwayo.
   b. *Motsi akanganwiwa naRwodzi kana akataura mazwi iwayo.

In (55b) object raising could not have applied by virtue of the position occupied by the complement clause in this sentence. Since this is an embedded sentence functioning as a subject it might be suggested that subject raising (see 5.8) has occurred instead. This suggestion too is easily discounted because if subject raising has occurred in (55b), then Roda is now the grammatical subject of the containing sentence and consequently it should now control the concordial agreement in this higher sentence, but it does not. The concord zvi in zvingashamise is neither dictated nor controlled by the class prefix of Roda. If Roda controlled the concord in the higher sentence we would have the following sentence which however is also grammatical.

(61) Roda kana akapasa angashamise.

(If Roda passes she could surprise (us).)

It is quite clear therefore that Roda occurs before kana in (55b), not
through the rule of subject raising, but by some other process. It is claimed here that this change in word order is occasioned by the process which I have called complementizer placement.

Here is a further illustration of the operation of this rule. The deep structure representation of the sentence in (56) would be something like the tree in (62).

(62)

After applying Mood Incorporation and then Complementizer Placement to the structure in (62) the result is the tree in (63). The complementizer
formative zva now occurs after the noun phrase mvurur. Further examples showing how the rule of complementizer placement operates can be seen in the sentences in (62) - (65) in Chapter Four.

5.7 Gender Copying (cyclic)

Each of the following strings of words is a noun phrase.

(64)a. chipunu chősé (the whole spoon)
b. zvipunu zvősé (all the spoons)
c. tupadza twősé (all the little hoes)
d. kamba kősé (the whole little house)

In each noun phrase there is concordial agreement between the head noun and the quantifier -ősé (all, whole). The concords are underlined in these noun phrases. If the concords on the quantifier are mixed up the resulting strings will be ungrammatical noun phrases as is shown in (65).

(65)a. *chipunu zvősé
b. *chipunu twősé
c. *zvipunu twősé
d. *kamba kősé

When making up lexical entries for the quantifiers, and any other noun qualifiers for that matter, it is not necessary, and indeed it would be grossly uneconomical, to list the quantifier together with the quantifier concords as in (66).

(66)a. chősé (all, whole)
b. twősé (all, whole)

The quantifier concords are predictable once we know the gender or class to which the head noun belongs. Thus, if we are given a head noun with \( \overline{7} \) as one of its cluster of features we can predict without any difficulty that the quantifier is also going to have obligatorily the feature \( \overline{7} \). When the noun chipunu appears in the lexicon it will include among its features the following:
while the quantifier chose will appear something like this:

(68)

The noun phrase chipunu chose would then be derived by invoking an agreement transformational rule which copies the gender or class feature of the head noun on to the quantifier. Later rules, including the noun prefix segment rule which will be discussed briefly in 5.16, will then apply to give us the noun phrase chipunu chose.

Concordial agreement is not only found within a noun phrase, but also between the subject noun phrase and the predicate.

(69)a. Chingwa chinonaka.
   (Bread tastes nice.)
   b. Kamba aka kanotonhora.
      (This little house is cold.)
   c. Varume vanonwa hwahwa.
      (Men drink beer.)

As before, if the concords are interchanged the results will be ungrammatical sentences as in (70).

(70)a. *Chingwa kanonaka.
       b. *Chingwa vanonaka.
       c. *Varume chinonwa hwahwa.

It is observed here that the feature \( \overline{\text{CL}_{1}} \) of the head noun of the subject noun phrase is copied on to the predicate in order to effect
concordial agreement.

The formulation of the agreement rule, or gender copying as it will be referred to in this study, in Bantu languages is a subject of debate in current linguistic studies. One solution is to set up two separate rules, one to cope with agreement within a noun phrase, and the other to account for agreement between the subject noun phrase and the predicate. Such rules would be roughly as follows:

(7) a. agreement within a noun phrase

\[
X - \left[ \begin{array}{c} +N \\ +CL_1 \end{array} \right] - \left( \begin{array}{c} \text{Adj.} \\ \text{Demonstr.} \\ \text{Selector} \\ \text{Quantit.} \\ \text{Possessive} \end{array} \right) - Y
\]

\[
1 \quad 2 \quad 3 \quad 4 \rightarrow 1, 2, [3, 3 +CL_1], 4
\]

b. agreement between the subject NP and the predicate

\[
X \left[ \begin{array}{c} +N \\ +CL_1 \end{array} \right] - Y - AUX - Z
\]

\[
\text{NP} \left[ \begin{array}{c} \vdots \end{array} \right] \quad \text{NP}
\]

\[
1 \quad 2 \quad 3 \quad 4 \rightarrow 1, 2, [3, 3 +CL_1], 4
\]

However desirable these two rules may seem to be, they make a misleading claim, namely, that the \(+CL_1\) feature is copied on to the qualifier as one operation and on to the predicate as another, independent operation. Our grammar would be more adequate if this feature-copying opera-

tation were performed simultaneously on both the qualifiers and the predicate.

Givon has proposed a rule which he put in the form of a schema and which goes quite a long way towards resolving concordial agreement in Bantu languages. Following Givon let us first define the categories of lexical item which are concordable in Shona. Let X be such a category.

\[
X \rightarrow (-\text{Adjective}) \text{ (Demonstrative) (Selector) (Quantifier)} \text{ (Possessive) (AUX)}
\]

Concordial features will then be spread on to all such items in the relevant positions. The rule then works like this:

Rule (7) Gender Copying

\[
\begin{array}{c}
X \\
\text{[stem]} \\
\text{[+CL]} \\
\hline
X \text{ N X} \\
\hline
\text{subject} \\
\text{NP} \\
\hline
S
\end{array}
\]

This rule is to be interpreted as follows:

(a) agreement between noun and qualifier (s)

The constituents to which the class affix is copied may occupy a position before or after the controlling noun as illustrated above. (For examples see the noun phrases in (64) above.)

10. op. cit. p. 75 - 109
(b) agreement between the subject NP and the predicate

```
(b) agreement between the subject NP and the predicate

[Diagram of syntactic tree:]

S
   /  \
NP   AUX  VP
   /  /  /
X   N  X  Tns
 +  +  +
    COP

{ Adjective
 { Demonstrative
   { Selector
   { Possessive
   { Quantifier

E.g. (i) Chingwa chaiva chishoma.
(The bread was not enough.)

(ii) Tuhikwana tunokwana tuna.
(The chickens add up to four.)

(iii) Zvinhu zvichava zvemwanakomana wake.
(things will be of son his =

The property will be inherited by his son.)
```

The first case of this rule schema spreads the class feature on to every constituent in the noun phrase in which a given head noun occurs. However I have not found a genuine case of the application of this subpart in Shona. The view adopted in this study is that all the concordable categories are somewhere in the predicate at the time that this rule operates. These categories will therefore acquire the class feature from the application of the second subpart of this rule.

The foregoing discussion does not pretend to have described exhaustively the phenomenon of gender copying in Shona. Far from it. Assumptions were made without justifying them. For the purpose of this study, however, it was sufficient to show in broad outline how gender copying operates in Shona without going into minute details.

5.8 Object Raising (cyclic)

The next rule to be discussed is one whose existence is not so apparent from a casual examination of surface structures as are the
others which we have seen. This transformation helps to explain the synonymy in the following sets of sentences:

(72)a. Ticha anoda kuti vaná vatámbe bhora.
   (The teacher wants the children to play football.)

b. Ticha anoda vaná kuti vatámbe bhora.
   (The teacher wants the children to play football.)

c. Vaná vanodiwa naticha kuti vatámbe bhora.
   (The children are required by the teacher to play football.)

(73)a. Vanhu vazhinji vanoziva kuti Ruzvidzo anodada.
   (Many people know that Ruzvidzo is conceited.)

b. Vanhu vazhinji vanoziva Ruzvidzo kuti anodada.
   (Many people know Ruzvidzo to be conceited.)

c. Ruzvidzo anozivikanwa nevanhu vazhinji kuti anodada.
   (Ruzvidzo is known by many people to be conceited.)

(74)a. Zuze áchaona kana basa rácho rakánaka.
   (Zuze will see whether the job is suitable.)

b. Zuze áchaona basa rácho kana rakánaka.
   (Zuze will see whether the job is suitable.)

c. Basa rácho ríchaomékwá naZuze kana rakánaka.
   (The job will be seen by Zuze whether it is suitable.)

Since in each set the lexical items in each sentence are the same and the meaning is also the same we would expect these sentences (i.e. the sentences in each set) to have identical deep structures. In (72) for instance, (72b) differs from (72a) in that the noun phrase vaná occurs before the complementizer formative kuti; and (72c) differs from (72b) in that it is in the passive. While it is relatively easy to establish the relationship between (72b) and (72c), that is, one is active and the other passive, it is not as easy to relate (72a) and (72b); yet it is the relationship between these two sentences which is crucial here.

Sentence (72a) clearly has as its object noun phrase a comple-
ment clause, namely, kuti vaná vatambé bhóra. That this clause is functioning as a noun phrase is easily demonstrated. This complement clause passes the tests for object noun phrases as shown below.

(75)a. pseudo-cleft;
    Kutí vaná vatambé bhóra ndizvo zvaanodá ticha.
    (That the children play football is what the teacher wants.)

b. object anaphora;
    Ticha anozvida. (i.e. kuti vaná vatambé bhóra)
    (The teacher wants it. (i.e. that the children play football.)

c. interrogative pro-form;
    Ticha ṣnodá chi? (reply: kutí vaná vatambé bhóra)
    (The teacher wants what? (reply: that the children play football)

d. passive;
    Kutí vaná vatambé bhóra zvinodiwa naticha.
    (That the children play football is wanted by the teacher.)

Now if (72b) shares the same deep structure with (72a) it must be the case that it too contains a sentence as its object noun phrase. But here our tests produce negative results.

(76)a. pseudo-cleft;
    *Kuti vatambé bhóra ndizvo zvaanodá vaná ticha.

b. object anaphora;
    *Ticha anozvida vaná. (i.e. kutí vatambé bhóra)

c. interrogative pro-form;
    *Ticha ṣnodá vaná chi? (reply: kutí vatambé bhóra)

d. passive;
    *Kuti vatambé bhóra zvinodiwa vaná naticha.

The ungrammaticality of the sentences in (76) shows that the string kuti vatambé bhóra is not a noun phrase in (72b). This observation seemingly reduces the chances of demonstrating that both (72a) and (72b)
have the same deep structure.

In order to show that these two sentences have the same deep structure, it must be shown that some process has operated on the noun phrase complement in (72b) which destroys its structure as a noun phrase and which creates a new structure which is incapable of passing the tests for object noun phrases. The crucial clue here is to be found in (72c), namely, the existence of the passive transformation. Let us briefly look at the passive transformation again. The structure to which it applies must meet two basic conditions. First, there should be a subject noun phrase and an object noun phrase and these two must not be referentially identical. It is these two noun phrases that the rule will interchange. Second, and for the moment more important, it is necessary for these two noun phrases to be in the same simple sentence as illustrated in the sentences below.

(77)a. Vanhu vanoziva Keni.

(People know Keni.)

b. Keni anozivikanwa nevanhu.

(Keni is known by people.)

(78)a. Vanhu vanoziva kuti Ruzvidzo akaponza Keni.

(People know that Ruzvidzo murdered Keni.)

b. Kuti Ruzvidzo akaponza Keni zvinozivikanwa nevanhu.

(That Ruzvidzo murdered Keni is known by people.)

c. *Keni anozivikanwa nevanhu kuti Ruzvidzo akaponza.

(*Keni is known by people that Ruzvidzo murdered.)

d. Vanhu vanoziva kuti Keni akapondwa naRuzvidzo.

(People know that Keni was murdered by Ruzvidzo.)

Let us compare the rough deep structures of the sentences in (77b) and (78d) which appear below as (79) and (80) respectively.
In (79) the two noun phrases which are to be interchanged by the passive are in the same simple sentence. This equally applies to the noun phrases Ruzvidzo and Keni in (80): the passive can apply and interchange them because they are dominated by the same S, namely, S_2. Sentence (78c) is ill-formed because the noun phrase Keni, dominated by S_2, is made to interchange with vanhu which is dominated by another S-node, namely, S_1. The same applies also to Ruzvidzo in (80): it cannot be interchanged with vanhu while it (i.e. Ruzvidzo) is still under the domination of S_2. The passive rule cannot apply in such a case.

In order to show that (72a) and (72b) share the same deep structure, the applicability of the passive transformation in (72c) requires some explanation. In particular it must be described how vanhu,
if it originates in the complement clause, comes to be dominated by the higher S. At this stage let us examine the deep structure representation of (72a). This is provided in (81).

Although ticha and vana, and also ticha and bhora, are not co-referential, none of the noun phrases in either pair can be interchanged by the application of the passive since none is in the same simple S. But in (72c) at some point in the derivation vana must be in the higher sentence otherwise the passive would not apply. The deep structure of (72c) appears below.

Although ticha and vana, and also ticha and bhora, are not co-referential, none of the noun phrases in either pair can be interchanged by the application of the passive since none is in the same simple S. But in (72c) at some point in the derivation vana must be in the higher sentence otherwise the passive would not apply. The deep structure of (72c) appears below.
In order to resolve this difficulty it is proposed to set up a rule to be called Object Raising. This seems to do two things. First, it detaches the noun phrase complement which has one of the following complementizers: *kuti [+ subjunctive]*, *kuti [+ indicative]*, *kana [+ participial]*, from under the NP-node which dominates it and attaches it under the domination of VP of the next higher S. Applied to the structure in (82) this first stage results in the tree structure in (83).

(83)

```
(83)
S₁
  /\       \       /
\     \     /\    /\      /
NP  VP  NP  S  S₂
  /\ \  /\ \ /\ \ /\ /\ /\ /
passive ticha V da N COMP
  /\ \ \ \ \ \ \ \ \ \ \ \ \ \ /\ /
+kuti +CL8 +pro [ ]
  /\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ /\ /
+subj
```

(84)

```
(84)
S₁
  /\       \       /
\     \     /\    /\      /
NP  VP  NP  S  S₂
  /\ \  /\ \ /\ \ /\ /\ /\ /
passive ticha V da N COMP
  /\ \ \ \ \ \ \ \ \ \ \ \ \ \ /\ /
+vana +N  +PFO
  /\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ /\ /
\  +subj
```

11. *cp "it" replacement:* (Rosenbaum: 1967a); it-substitution (R. Lakoff: 1968); raising rule (Grinder and Elgin: 1973); raising object (Stockwell et al: 1973).

12. No cases involving this rule have been attested with the other complementizers.
In the second stage this rule substitutes the pronoun head $[+N]_{-CL^8} [+pro]$ of the noun phrase which contained the transported complement clause with the subject noun phrase of the complement sentence. This results in the structure in (84) above. If we did not have passive in the deep structure, the structure in (84) would then lead to the derivation of (72b).

But now we can consider the passive in the higher sentence in (72c). What we observe here is that the object raising transformation has created a structure in the higher S to which the passive can be applied, interchanging the noun phrases tica and vana. This is now possible because the subject of the complement clause has been moved into the higher S, and the condition for the passive rule, namely, that the interchanging noun phrases should be in the same simple $S$, is now met. The substituted noun phrase becomes syntactically independent of the embedded sentence to which it belonged in the deep structure, and behaves as if it were the direct object of the higher verb. It is for this reason that the sentences of (76) are ill-formed. The direct object is now vana and not the embedded clause. The embedded clause ceases to be the object noun phrase.

In this case the passive applies after object raising has applied. If in the embedded clause the passive had been present, there would have been a situation in which the passive applied first, then object raising, and then passive again (but in the second cycle this time). Object raising itself is ordered after gender copying otherwise $S_2$ would be left without a subject concord and this would render the sentence ungrammatical. Applying the passive to the structure in (84) the resulting structure is (85).
This rule may be formalized as follows:

Rule (8)  Object Raising

\[
X \rightarrow V \quad \underline{\text{obj.rais.}} \quad \begin{cases} 
+\text{N} \\
+\text{CL8} \\
+\text{pro} \\
\text{kuti + indic.} \\
\text{kuti + subj.} \\
\text{kana + partic.} \\
\text{(Pres) - NP - Y} \\
\end{cases} \quad Z
\]

\[
\begin{array}{ccccccc}
1 & 2 & 3 & 4 & 5 & 6 \\
1 & 2+5 & \emptyset & 4 & \emptyset & 6 \\
\end{array}
\]

The constituent \( S_4, \emptyset, S_6 \) in the structural change is now attached as a daughter mode to the VP of the higher S.

By setting up the rule of object raising we are able to account for a number of facts in respect of the sets of sentences in (72) - (74). First, this analysis explains that the (a) and (b) sentences in these sets have the same meaning because they have the same deep structure. The only difference between the (c) sentences and the others is that the former, but not the latter, have the passive specified in their deep deep structure. Secondly, this analysis explains passivization in the higher S in the (c) sentences by showing how the subject of the embedded
sentence is brought into the higher sentence so that it is in the same simple sentence as the noun phrase with which it interchanges positions. Thirdly, it explains why the sentences in (75) are well-formed while those in (76) are not.

Here are further examples to show how the rule of object raising operates.

(86)a. Taka akacherechedza kuti Dhongeri yakanga isipo.
b. Taka akacherechedza Dhongeri kuti yakanga isipo.
(Taka noticed that Dhongeri was not there.)
c. Dhongeri yakacherechedzwa naTaka kuti yakanga isipo.
(Dhongeri was noticed by Taka that it was not there.)

(87)a. Takawira anofungidzira kuti Mombe ndiye akaba mari.
b. Takawira anofungidzira Mombe kuti ndiye akaba mari.
(Takawira suspects that it was Mombe who stole the money.)
c. Mombe anofungidzirwa kuti ndiye akaba mari naTakawira.
(Mombe is suspected to have stolen the money by Takawira.)

(88)a. Vamwene vakaona kuti muroora ane usimbe.
b. Vamwene vakaona muroora kuti ane usimbe.
(mother-in-law - saw - that - daughter-in-law - was lazy = The mother-in-law saw that the daughter-in-law was lazy.)
c. Muroora akaonekwa kuti ane usimbe navamwene.
(The daughter-in-law was seen to be lazy by the mother-in-law.)

(89)a. Vanhu vazhinji vanotendera kuti Mwari ariko.
b. Vanhu vazhinji vanotendera Mwari kuti ariko.
(Many people believe that God exists.)
c. Mwari anotenderwa kuti ariko nevanhu vazhinji.
(God is believed to exist by many people.)

5.9 Subject Raising (cyclic)

while object raising replaces the pronoun head of an object noun phrase by the subject noun phrase of the complement clause, there
is another similar operation which is illustrated in the sentences in (90) - (93).

(90)a. Nyaya iyitavyadai zvinoreva kuti tetoenda kudare.
   (Since this case has taken this turn it means that we have
to go to court.)

b. Nyaya iyinoreva kudare zvayadai.
   (This case forces us to go to court since it has taken this
turn.)

(91)a. Kuti Podzorimwa adye sadza nemuriwo zvinoratidza kutianga
       ava nenza ra.
   (For Podzorimwa to take his sadza with vegetables indicates
    that he was hungry.)

b. Podzorimwa anoratidza kuti anga ava nenza ra kuti adye sadza
   nemuriwo.
   (Podzorimwa showed that he was hungry by taking his sadza
    with vegetables.)

(92)a. Zvaita kuti vatezvara vauya.
   (It is a good thing that the father-in-law has come.)

b. Vatezvara vaita kuti vauya.
   (The father-in-law has done a good thing by coming.)

(93)a. Iwe zvawatora mari yake zvichakukonzera kuta u ra.
   (Taking his money as you have done will cause you some
    trouble.)

b. Iwe uchazvikonzera kuta u ra zvawatora mari yake.
   (You will cause yourself some trouble by taking his money
    as you have done.)

The sentences in each pair have the same meaning. In the (a) sentences
above the underlined noun phrases are the subject noun phrases of the
embedded sentences. These same noun phrases, by substituting for the
pronoun head, have become the subject noun phrases of the higher S. In
other words the subject noun phrases of the embedded sentences in the (a) sentences have been raised to become the subjects of the higher sentences in the (b) sentences. We shall call this operation Subject Raising. This rule may be represented as follows:

Rule (9) Subject Raising

Let us now consider how this rule applies in the derivation of (92b). The deep structure representation of the sentences in (92) is provided in (94).

(94)

With the verb -ita a complement clause in subject position seems to be extraposed obligatorily to the end of the sentence. Applying the rule of extraposition (see 5.11 for a treatment of this rule) to the structure in (94) the result is the tree in (95). From this structure is eventually derived (92a).
If to the structure in (94) is applied the subject raising rule the resultant structure is (96) below.

(96)
After applying later rules (92b) is derived.

But extraposition after subject raising is on the whole optional as is evidenced by the fact that alongside (90b), (91b) and (93b) there are also such sentences as (98), (99) and (100) respectively in which the embedded sentences in question are underlined.

(98) Nyaya iyi, zvayadai, inoreva kiti totoenda kudare.

(This case, since it has taken this turn, forces us to go to court.)

(99) Podzorimwa, kuti adye sadza nemiriwo, anoratidza kuti anga avana nenziro.

(For Podzorimwa to have his sadza with vegetables shows that he was hungry.)

(100) Iwe, zvawatora mari yake, uchazvikonzeri kutaura.

(By taking his money as you have done you will cause yourself some trouble.)

In these sentences subject raising has applied but not extraposition.

A comparison of the sentences in (93a) and (93b) reveals something which strengthens the view that the rule of subject raising exists in Shona. In (93a) the subject, namely, the pronoun head, and the object, namely, iwe (represented here by the object prefix ku) of the main verb konzeri are different. In (93b) however the subject is now iwe but the
object is still *iwe*. These two noun phrases are now clause-mates, hence reflexivization operates and this is represented by *zvi* in the sentence. It is quite clear that the subject of the embedded sentence, i.e. *iwe*, has been raised to become the subject of the containing sentence, thus creating the structure for the reflexive rule to apply.

The rule of subject raising helps to explain why the pairs of sentences in (90) - (93) have the same meaning in spite of their difference in surface structure.

5.10 **Equi-NP Deletion** (cyclic)

The application of this rule is responsible for the contrast which exists in the following sentences:

(101) Tukomana utwu tunoda kiti zvipfuwo zvidye pizi dzangu.

(These small boys want the domestic animals to destroy (lit. eat) my pea crop.)

(102) Tukomana utwu tunoda kiti tudye pizi dzangu.

(These small boys want to eat my peas.)

(103) Zvipfuwo zvinoda kiti zvidye pizi dzangu.

(The domestic animals want to destroy my pea crop.)

In (101) the subject of the embedded sentence, namely *zvipfuwo*, is present in the surface structure. But in (102) and (103) the subjects of the verbs *tudye* and *zvidye* are not overtly expressed. Nevertheless the subjects of these predicates can be supplied from the higher sentence. It is quite evident that these subjects are *tukomana utwu* and *zvipfuwo* respectively. What has happened in (102) and (103) may be explained in this way: the subjects of these embedded sentences were present in the deep structure but were subsequently deleted by a transformational rule. The result is that they do not appear in the surface structure.

It is possible to adduce syntactic evidence to show that, for instance, *tukomana utwu* is present at some point in the derivation of (102). This is clearly shown by the concord *tu* in *tudye* which is
evidently a reflex of *tu in *tukomana*. In *zvidye* the concord *zvi* is also clearly a reflex of the *zvi* in *zvipfuwo*. Whereas (102) and (103) are grammatical, (104) and (105) are not, precisely because the concord *zvi* in (104) does not agree with the noun prefix *tu* in *tukomana*, and the concord *tu* in (105) does not agree with the noun prefix *zvi* in *zvipfuwo*.

(104) *Tukomana utwu tunoda kuti zvidye pizi dzangu.*

(105) *Zvipfuwo zvinoda kuti tu'dye pizi dzangu.*

(These sentences are however grammatical if the concords *zvi* and *tu* in the embedded sentences refer to some noun phrases already mentioned elsewhere in the discourse. The noun phrases to which they refer will have been deleted by Equi-NP deletion in any case.) In (102) the noun phrase *tukomana utwu* must have been present in the embedded sentence at some point in the derivation so that gender copying could operate. The same applies to the noun phrase *zvipfuwo* in (103).

The rule which deletes the subject of the embedded sentence, commonly referred to in the literature as Equi-NP Deletion (Equivalent noun phrase deletion), applies only when the subject of the lower sentence is identical with some noun phrase in the containing sentence, so that the former, when deleted, can be supplied. This rule may be stated as follows:

**Rule (10) Equi-NP Deletion**

\[
X - (NP) - X - \left[ \begin{array}{c}
\text{kana} \\
\text{kuti} \\
\text{ku} \\
\text{zva}
\end{array} \right] \left( \begin{array}{c}
\text{PreS} \\
\text{NP} \\
\text{AUX} \end{array} \right) - X - \frac{X}{S} - X \]

\[
\begin{array}{cccccccccc}
1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 & 9
\end{array}
\]

condition: \( 5 = 2 \)

or \( 5 = 8 \)

where 2 or 8 is the NP nearest to 5 in the S which is being processed.
As an example of how this rule operates consider the derivation of the sentence in (106) whose underlying structure is given in (107).

(106) Vakomana vánozíva kuti vakatádzá.
(The boys know that they made a mistake.)

(107)

Equi-NP deletion can apply to this structure (taking its proper place in the cycle) since the subjects of the two sentences, namely $S_1$ and $S_2$, are identical. This results in the tree structure in (108).

(108)

Later rules will then convert (108) into the superficial form in (106).
5.11 **Extraposition** (non-cyclic)

Consider the structural relationship that exists between the sentences (109) below.

That these two sentences are semantically equivalent is uncontroversial.

The main difference between them is structural, that is, in (109a) the complement clause occurs before the main verb while in (109b) it occurs after the main verb. The deep structure of (109a) is (110a) which is highly abbreviated.

(109) a. Kuti mwana aite nungo zvakaipah.
(For a child to be lazy is bad.)

b. Zvakaipah kuti mwana aite nungo.)

(110) a.

The diagram which represents the sentence in (109b) is (110b) below.
It is quite common in Shona for the complement clause of a subject noun phrase to be optionally transported, or extraposed, to the extreme right end of the whole sentence. This extraposition of the complement clause might appear to be the same as Subject Postposing (this rule is discussed in 5.17 below). But it is not the same process. To this end consider the following sentences:

(111)a. *Kuti vatezvara vauya zvaita.
(That the father-in-law has come is good.)

b. Zvaita kuti vatezvara vaunya.
(It is a good thing that the father-in-law has come.)

As was noted in subsection 5.9, with *-ita as the main verb the complement clause in (111a) seems to be obligatorily extraposed to the end of the higher sentence in order to obtain the well-formed sentence in (111b). Another example where extraposition applies obligatorily can be seen in (112).

(112)a. Vasekuru vati Pita akaenda kumusha.
(Grandfather said that Peter went home.)

b. Zvanzi navasekuru Pita akaenda kumusha.
(It was said by grandfather that Peter went home.)

c. Pita anzi navasekuru akaenda kumusha.
(Peter was reported by grandfather to have gone home.)
The underlined string in each sentence is the complement clause. In (112b) and (112c) this complement clause has been extraposed. In (112b), first, the passive applies, interchanging the complement clause *Pita akaenda kumusha* with the subject NP *vasekuru*, then extraposition applies obligatorily taking the embedded clause to the extreme right end of the whole sentence. In (112c), first, the passive applies as in (112b); second, object raising replaces the pronoun head of the subject NP with *Pita*; then extraposition applies obligatorily. Judging from the examples above it is clear that extraposition is not altogether optional. But subject postposing on the other hand is wholly optional. Besides, the string that is extraposed ceases to behave like a noun phrase in its new position. None of our tests, either for noun phrases in subject position or for noun phrases in object position, will confirm, say, the extraposed complement clauses in (112b) and (112c) as noun phrases.

We might suggest the extraposition rule in (113) as a first approximation of the transformation that relates the sentences in (109) above.

\[
X \rightarrow \left[ \begin{array}{c}
S \\
\frac{\text{S COMP}}{S} \\
\frac{\text{S NP}}{S}
\end{array} \right] = X
\]

The tree in (110a) which represents the structure that underlies (109a) is properly analysable in regard to the structural description of the extraposition rule and the resulting tree in (110b) is of the form that is specified by the structural change of this rule. The trees in (112a) and (112b) are repeated here as (114a) and (114b) respectively in order to illustrate how this rule operates.
(114)a. 

The formulation of the rule of extraposition as given above in (113) is adequate to account for the relation between the sentences in (109). But now let us see what the effect of this rule, as presently formulated, would be on a string like the following: 

(114)b.
The deep structure for (115) is something like (116a). Applying the extraposition rule to (116a) will result in (116b).

(116a).
After applying later rules the resulting sentence is (117) which is ungrammatical.

(117) *Kuti zvakatambudza Bango zvakafadza mapurisa kuti shamwari yake itiza.

(*That it worried Bango pleased the police that his friend should escape.)

The ungrammaticality of (117) indicates clearly that our formulation of the extraposition rule in (113) was incorrect. Now let us modify a little the application of this rule to the structure in (116a). Instead of moving term 3 to the extreme right end of $S_1$ as was done in (116b), let us move it only to the extreme right end of $S_2$. The tree configuration which results is (118).
After applying other rules the details of which are not crucial here the sentence we get is (119) which is well-formed:

(119) Kuti zvakatambudza Bango kuti shamwari yake itize zvakafadza mapurisa.

(That it worried Bango that his friend escaped pleased: the police.)

From what we observe in (118) and (119) it is obvious that when extraposition applies correctly, transporting a complement clause in subject position, it is sensitive to the constituents over which the complement clause moves. Stated in more precise terms, it can be said that it is sensitive to the structural distance that the complement clause may move. If we compare the structural difference between the grammatical sentence in (119) which is derived from (118) and the ungrammatical sentence in (117) which is derived from (116b) we are provided with the information necessary for a proper formulation of the
rule of extraposition. In formulating this rule there is need to state that the complement clause, which is moved by extraposition, may move only to the end of the clause in which it originates. The rule of extraposition is then reformulated properly in the following way:

\[
\text{Rule (11) Extraposition}
\]

\[
X \rightarrow \left[ \begin{array}{c}
N_1 \text{[NP] + CL} & S_1 \text{[NP] + COMP} & S_2 \text{[NP] - X} \end{array} \right] - X
\]

\[1 \ 2 \ 3 \ 4 \ 5\]

\[1 \ 2 \ \emptyset \ 4+3 \ 5\]

If we compare this rule with the one in (113) above we will see that they differ only in the presence of the fifth term on the right hand, which serves to place a right boundary on the term that is moved, namely, term 3. The extraposition rule as reformulated derives the grammatical sentence in (119), but not the ill-formed sentence in (117).

If however Ross's rather persuasive argument, namely, that all rules that move constituents to the right cannot move elements farther than the end of the clause which contains those elements, turns out to be universal, the extraposition rule as formulated in (113) will be adequate.\(^{13}\) There will be no need to include the refinement above as it will be true of all right-ward movement transformations. This particular feature of right-ward movement transformations will need to be stated but only once in the general theory of language and will apply equally to all right-ward movement transformations.

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\(^{13}\) J.R. Ross (1967) Constraints on Variables in Syntax.
5.12 **Pro Deletion** (non-cyclic)

The pronoun head, namely \[+N^{+CL8} +CL8/15\], of noun phrases with complement clauses is never manifest in the surface structure, but is always deleted. Nevertheless the case for its existence in deep structure was argued in Chapter One. In the following sentences the pronoun head, though present in deep structure, does not show. Its trace can be seen in the concord zvi which is underlined.

(120)a. Kuti munhu āngamhāre pamwedzi zvinonetsa kunzwisisā.

(That a person can land on the moon is difficult to comprehend.)

b. Zvinonetsa kunzwisisā kūti munhu āngamhāre pamwedzi.

(It is difficult to comprehend that a person can land on the moon.)

(121)a. Kana mwana āchingochemā-chemā zvinorevā kūti haāsi kunzwā zvakana āka.

(If a child keeps on crying it means that it is not feeling well.)

b. Zvinorevā kūti haāsi kunzwā zvakana āka kana mwana āchingochemā-chemā.

(It means that it is not feeling well if a child keeps on crying.)

Notice that in (120b) and (121b) extraposition has also applied. We may formulate the rule which deletes the pronoun head of complement clauses as follows:

**Rule (12) Pro Deletion**

\[X - \left[+N^{+CL8/15} +CL8/15\right] - \left\{S \emptyset\right\} - X\]

\[\text{NP} \quad \text{NP}\]

\[1 \quad 2 \quad 3 \quad 4\]

\[1 \emptyset \quad 3 \quad 4\]
This rule, which applies obligatorily, is ordered after extraposition and gender copying. Term 3 in the structural description is given as either $S$ or $\emptyset$. If extraposition, which we said was optional in the majority of cases, has not applied, term 3 will be $S$, and this will be the case with (120a) and (121a); but if extraposition has applied then term 3 will be $\emptyset$, and this is the case with (120b) and (121b). That this rule must apply after gender copying is obvious enough. If this ordering is not followed the predicate of the containing sentence will be left without a subject concord and this will render the sentence ungrammatical.

5.13 Object Anaphora (non-cyclic)

If in a sentence there are two identical noun phrases which are not dominated by the same simple S-node and it is the case that not both of them are in subject position, one of the two noun phrases is reduced so that only a pro-form remains. This may occur either within one complex sentence as in (122) and (123) or across sentence boundaries as in (124) below. The noun phrases which are identical as well as their pro-forms are underlined.

(122)a. *Vana\textsubscript{1} vanoziva kuti ticha anoda kurova\textsubscript{1} van\textsubscript{1}.

(*The children\textsubscript{1} know that the teacher wants to beat the children\textsubscript{1}.*)

b. Vana\textsubscript{1} vanoziva kuti ticha anoda kuvan\textsubscript{1}.

(The children know that the teacher wants to beat them.)

(123)a. *Kana chibage\textsubscript{1} chacho\textsubscript{1} chakanaka vanhu vanotenga chibage\textsubscript{1} chacho\textsubscript{1}.

(*If the corn\textsubscript{1} is good people will buy the corn\textsubscript{1}.*)

b. Kana chibage\textsubscript{1} chacho\textsubscript{1} chakanaka vanhu vanochitenga\textsubscript{1}.

(If the corn is good people will buy it.)

(124)a.i. Mwoyo\textsubscript{1} adya chingwa ch\textsubscript{1}ye.

(Mwoyo ate that bread.)
ii. Sei Mwoyo adya chingwa chiye?
(Why did Mwoyo eat that bread?)
b.i. Mwoyo adya chingwa chiye.
ii. Sei Mwoyo achidya?
(Why did Mwoyo eat it?)

In these sentences it is the second of the two identical noun phrases which is reduced to a pro-form. Note also that this operation is obligatory in (122) and (123), that is, when it occurs in one complex sentence, but optional in (124), presumably because it occurs across a sentence boundary. This operation can be put into a formal rule as follows:

Rule (A) \[ X - NP_1 - X - NP_2 - X \]

1 2 3 4 5
1 2 3 4

condition: \[ 2 = 4 \] but these two noun phrases should not be dominated by the same S.

14. The concept of sentence boundary here appears to apply at the levels of (a) separate sentences as belonging to two different speakers as in (124) above, and (b) complex sentences which contain such conjunctions as: asi, nokuti, as illustrated in the sentences below.

(a)i. Sara anoda Mdzì asi Sekai achívenga Mdzì chaizvo.
(Sara loves Mdzì but Sekai hates Mdzì very much.)

ii. Sara anoda Mdzì asi Sekai achimuvenga chaizvo.
(Sara loves Mdzì but Sekai hates him very much.)

(b)i. Chimbumu anovhímá tsoko nokuti anodya tsoko.
(Chimbumu hunts monkeys because he eats monkeys.)

ii. Chimbumu anovhímá tsoko nokuti ŋodzidyá.
(Chimbumu hunts monkeys because he eats them.)
Now consider the following sentences:

(125) a. Kama ndaiwandan'dichápa marí ya'kö kuná Taka'.
    When I get it I shall give your money to Taka.

    b. Kama ndáwaná marí ya'kö ndicha'ipá kuná Taka'.
    (When I have got your money I shall give it to Taka.)

(126) a. Zvawarísvíbísa chígeza bhasikoro ra'chio.
    (Since you have soiled it, you wash the bicycle now.)

    b. Zvawásívbísa bhasikoro ra'chio chírígeza.
    (Since you have soiled the bicycle, you wash it now.)

In (125a) and (126a) it is the first of the two identical noun phrases which is reduced to a proform, but in (125b) and (126b) it is the second noun phrase which is reduced. In (125a) and (126a) rule (A) above applies in reverse. The operation in (125a) and (126a) may be represented in the form of a rule thus:

Rule (B) \[
\begin{array}{cccc}
X & - & NP_1 & - & X & - & NP_2 & - & X \\
1 & 2 & 3 & 4 & 5 \\
\end{array}
\]

In (125a) and (126a) rule (B) has applied to an embedded sentence, and one is tempted to conclude that rule (B) operates only when an object noun phrase in an embedded sentence is reduced. But the following sentences reveal that such a conclusion is fallacious.

(127) Vanhu vanochitenga kana chibage cha'cho chakanaka.
    (People will buy it if the corn is good.)

(128) Chírígeza zvawásívbísa bhasikoro ra'chio.
    (You wash it now since you have soiled the bicycle.)

Note that these embedded sentences are functionally adverbials they appear in a position after the main verb in deep structure by convention. In the two sentences immediately above rule (B) has applied to the noun phrase in the matrix clause. It would appear therefore that in Shona
the constraint found in English, namely, that if the first of the two identical noun phrases is reduced, it must be dominated by an embedded clause which does not dominate the second noun phrase, does not apply.

We can reformulate this rule in a slightly different way in anticipation of conflating it with rule (A).

\[ X - NP_1 - X - NP_2 - X \]

\[ 5 \quad 4 \quad 3 \quad 2 \quad 1 \]

\[ 5 \quad \left[ \frac{4}{+pro} \right] \quad 3 \quad 2 \quad 1 \]

It can be seen that this rule is a mirror image of rule (A) above. That is, it applies in the opposite direction, from right to left. Our grammar is simplified if these two rules, which are identical save that they apply in opposite directions, can be conflated. This is possible if we invoke one of the provisions of Langacker's mirror image convention, which says that two rules can be collapsed if they contain exactly the same terms in their structural descriptions and output sequences. \(^{15}\) I shall adopt his notation of marking the structural description of a mirror image rule with an asterisk. Thus, rule (13) collapses rules (A) and (B) above.

Rule (13) Object Anaphora

\[ *X - NP_1 - X - NP_2 - X \]

\[ 1 \quad 2 \quad 3 \quad 4 \quad 5 \]

\[ 1 \quad 2 \quad 3 \quad \left[ \frac{4}{+pro} \right] \quad 5 \]

condition: \(2 = 4\) but the two noun phrases should not be dominated by the same simple \(S\).

What this rule says is that, when this structure index is met, either

---

term 2 or term 4, but not both, is reduced to a pro-form. As was mentioned elsewhere above this rule is on the whole obligatory. It is optional only across sentence boundaries. Note that, however, across sentence boundaries it applies only from left to right but not in the other direction. 16

5.14 **Object Focussing** (non-cyclic)

When it is intended to focus attention on the object noun phrase this is achieved by moving the object noun phrase out from its position and placing it at the end of the sentence, then substituting a pro-form in its place. This is illustrated below.

(129)a. Kuba kwakatayisa vakomana ava pfungwa chaizvo.

(Stealing really made these boys lose their mind.)

b. *Kuba kwakatayisa pfungwa vakomana ava chaizvo.*

(*Stealing caused the mind to lose these boys very much.)

c. Kuba kwakavatayisa pfungwa chaizvo vakomana ava.

(Stealing really made these boys lose their mind.)

(130)a. Ndaratidza mwana uye vatete vake.

(I showed that child his aunt.)

b. *Ndaratidza vatete vake mwana uye.*

(*I showed his aunt that child.)

c. Ndamuratidza vatete vake mwana uye.

(I showed that child his aunt.)

16. In place of Rule (13) the following schema may be adopted with the same results: X - NP₁ - X - NP₂ - X

SD: 1 2 3 4 5

SC: (a) 1 2 3 [4 +pro] 5

(b) 1 [2 +pro] 3 4 5

For an argument against mirror image rules see Jorge Hankamer in "On the Noneexistence of Mirror Image Rules in Syntax" in Syntax and Semantics, vol. 1, John P. Kimball (editor)
In (129a) the object noun phrases, vakomana' ava and pfungwa', have a fixed linear order. That is, they must follow each other in that sequence, the latter constituting a part or a fraction of the former. The sequence of the two object noun phrases in (130a), though not exhibiting the inalienable relationship, is fixed also, that is, mwana' uye preceding vatete' vake'. If the order of these object noun phrases is reversed the resulting strings are ungrammatical as (129b) and (130b) show. But in (129c), and also in (130c), because there are pro-forms, namely, va and mu respectively, which have been left behind, the first object NP in each sequence can be moved comfortably to the end of the sentence yielding a grammatical sentence. The object NP so moved, or focussed, appears to be set apart from the rest of its clause. Besides being transported from its position this object NP seems to be marked by a potential slight pause or "comma intonation". This comma intonation sets off this transported noun phrase from the rest of the clause.

The transformation which gives rise to object focussing applies to structures which have the phrase marker in (131) and derives from them structures of the form in (132).

\[
\begin{align*}
(131) & \quad S \\
& \quad X \quad NP \quad Y \\
(132) & \quad S \\
& \quad X \quad \text{pro-form} \quad Y
\end{align*}
\]

The rule which is needed to derive (129c) from (129a), and (130c) from (130a), is roughly as follows:

Rule (A) \[ \frac{S}{\chi} \rightarrow \frac{\text{NP}}{Y} \frac{\sqrt{\chi}}{S} \]
\[ S \quad 1 \quad 2 \quad 3 \quad \frac{\# 2}{S} \]

where NP is an object complement.

This rule applies to a structure that is exhaustively dominated by S, adjoins a copy of the noun phrase in question within that structure as a sister to S, and marks the original NP as a pro-form. \(^{18}\)

Object focussing does not always consist of taking out a noun phrase and moving it to the extreme right end of its clause as in the sentences in (129c) and (130c). Object focussing can also optionally transport an object noun phrase to the left end of its clause. In the examples which follow the sentences in (129c) and (130c) above appear with the focussed noun phrase transported to the left end as in (133) and (134) respectively.

(133) Vakomana ava, kuba kwakatayisa pfungwa, chaizvo.

(As for these boys stealing has really made them lose their mind.)

(134) Mwana uye, ndamiratidza vatete vake.

(As for that child I have shown him his aunt.)

In (133) and (134) the comma intonation is even more pronounced than previously, suggesting strongly that vakomana ava and mwana uye are set off from the rest of their respective clauses. In order to characterize the process that has taken place in (133) and (134) it would appear that there is need of a transformational rule of the following form:

18. For more information on dislocation transformations see Langacker ibid. p.589.
Note that rule (B) has been formulated with a view to collapsing it with rule (A) later. Notice also that the meaning of (129c) and (133) is the same, so is that of (130c) and (134). Evidently rules (A) and (B) are similar in a significant manner. There is need, it seems, of establishing some notational device which will allow these two rules to be conflated so that their similarity can be captured. Owing to the bidirectional character of object focussing the mirror image convention suggests itself. Notice that these two rules satisfy one of the provisions of this convention (see p. 231). In this case the output sequences are taken to consist of four terms, and not three. The fourth term is term 2 which as pointed earlier is set off from the rest of the clause. Allowing for this extension these two rules can be collapsed into one rule.

Rule (14) Object Focussing

\[
S \rightarrow \text{NP} - \frac{X}{S} \\
1 \quad 2 \quad 3
\]

This rule is to be interpreted as follows: it takes out of S the second term and places it by Chomsky adjunction either to the right end or to the left end of S, leaving a pro-form behind.

5.15 Object Copying (non-cyclic)

The object copying rule is a simple rule which applies only after the rules of object anaphora and object focussing. What it does
is to copy the class feature $+_\text{CL}_1\gamma$ and the pro feature $+_\text{pro}\gamma$ of an object noun phrase on to the verb. It is an obligatory rule. The rule may be represented formally as follows:

**Rule (15) Object Copying**

\[
X \rightarrow V - \left[ \begin{array}{c} \text{NP} \\ +\text{CL} \\ +\text{pro} \end{array} \right] - Y \\
1 \ 2 \ 3 \ 4 \\
1 \ \left[ +\text{CL} \right] \ \emptyset \ 4
\]

The application of this rule is very similar to that of the second subpart of the gender copying rule discussed in 5.7 above. While the latter copies the class feature on to the auxiliary, the former copies it on to the verb.

5.16 **Noun Prefix (segment) rule (non-cyclic)**

This rule, which is obligatory, applies only after gender copying and object copying. What it says is that whenever there is a term with a class feature $+_\text{CL}_1\gamma$, realize $+_\text{CL}_1\gamma$ as a noun prefix before the term from which it is copied. If we have, for instance, a noun with these features $\text{punu} + _\text{CL}_7$, $\text{spoon}_1$, this rule says that the feature $+_\text{CL}_7\gamma$ must be realized as a prefix thus:

\[
\left[ \begin{array}{c} \text{punu} \\ +\text{N} \\ +\text{CL}_7 \\ \vdots \\ \text{spoon} \end{array} \right] \rightarrow \left[ \begin{array}{c} \text{prefix} \\ +\text{CL}_7 \end{array} \right] + \left[ \begin{array}{c} \text{punu} \\ +\text{N} \\ +\text{CL}_7 \\ \vdots \\ \text{spoon} \end{array} \right]
\]

When formalized this rule is:

**Rule (16) Noun Prefix (segment)**

\[
X \rightarrow Y - \left[ +\text{CL}_1 \right] - Z \\
1 \ 2 \ 3 \\
1 \ \left[ \text{prefix} \right] + 2 \ 3
\]
After applying later rules, including the one which spells $\mathcal{C}^\mathcal{C}L\mathcal{C}\mathcal{L} \mathcal{L}^\mathcal{L}$ as the prefix chi, the result is the noun chipunu (a spoon). This rule places the concords in their proper positions, that is, to the immediate left of the terms from which they will have been copied.

5.17 **Subject Postposing** (non-cyclic)

It is not uncommon in Shona to find the subject noun phrase transposed from its underlying position, which is before the auxiliary, to the end of the sentence. This transformation, it would appear, has the effect of focussing attention on the predicate. The (b) sentences in the following pairs have their subjects placed at the extreme right end.

(135)a. Hope dzabata amai vaye zvino.
(Sleep has overwhelmed that woman now.)

b. Dzabata amai vaye zvino hope.
(Sleep has now overwhelmed that woman.)

(136)a. Chita inomhanya chaizvo.
(lit. A cheetah runs indeed = A cheetah is a fast animal.)

b. Inomhanya chaizvo chita.
(It is a fast animal, a cheetah.)

(137)a. Mudzimai uyu haana mwana anorohwa nomudzidzisi.
(This woman has no child who can be beaten by a teacher.)

b. Haana mwana anorohwa nomudzidzisi mudzimai uyu.
(Shell has no child who can be beaten by a teacher, this woman.)

We can formalize this rule in this manner:

**Rule (17) Subject Postposing**

$X \rightarrow \bar{\bar{NP}} \bar{\bar{Y}} \bar{\bar{Z}}$

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>\Ø</td>
<td>3+2</td>
<td>4</td>
</tr>
</tbody>
</table>
Rule Ordering and the Notion of the Cycle

Two types of rule ordering may be distinguished, namely, intrinsic and extrinsic ordering of rules. While the former is generally accepted without much difficulty, the latter is a very controversial topic. For some discussion on this matter, see Chomsky: 1965a; Postal: 1968b; G. Lakoff: 1968a; Ringen: 1972; and Koutsoudas: 1972. I shall not pursue the topic of extrinsic rule ordering at any length as it is not really crucial to my main study. For the purpose in hand I have however assumed partial extrinsic rule ordering. What requires comment though is the notion of the cycle. I labelled some of the rules discussed in this chapter cyclic and others non-cyclic implying preference for a cyclic grammar. May I point out that this preference is to a large extent arbitrary for there is as yet no compelling evidence to make one choose the cyclic grammar to, say, a linear grammar on empirical grounds. All that can be shown however with the evidence at hand is that a cyclic grammar is as viable as a linear grammar. Another reason, though less cogent, for preferring a cyclic grammar is that most of the study in the generative transformational model has been carried out within its framework.

In a cyclic grammar the rules (i.e. those that are cyclic) apply first to the most deeply embedded S, then to the next higher S, and so on until the highest S in the configuration is processed. The primary motivation for the cyclic principle of rule application requires basically that some rule $R_i$ apply both before and after some other rule $R_k$. Schematically, in terms of a derivation, this is illustrated in (138).

20. See John Grinder in "On the Cycle in Syntax" in *Syntax and Semantics* for the motivation of the notion of the cycle in a grammar. Refer also to foot-note 6 p.138.
(138) Underlying Structure

Intermediate Structure₁ by rule R₁
Intermediate Structure₂ by rule Rₖ
Intermediate Structure₃ by rule Rᵢ
...

Surface Structure by rule Rᵣ

This derivation involves two applications of R₁ and a single application of Rₖ. There is no intermediate string in the derivation which meets the structural description for Rₖ except the string created by the first application of R₁. After this first application of R₁ there is no intermediate string which is properly analysable with respect to Rᵢ except the output string of Rₖ. What we have then are two applications of R₁ which are made possible only if Rₖ applies between them. The transformational rules which apply in a cycle are partially ordered extrinsically among themselves. For illustration I shall consider the interaction of (a) the passive and object raising rules; (b) the reflexive and subject raising rules; and (c) gender copying and subject raising rules.

5.18.1 Passive and Object Raising rules

Consider the sentence in (139) and also compare it with (72a).

(139) Bhora rinodiwa naticha kuti ritambwe m'evana.

(a ball - is wanted - by the teacher - that - it is played - by children = The teacher wants the football to be played by the children.)

The structure which underlies (139) is provided in (140).
After applying the passive to $S_2$ we get the structure in (141).

Then object raising applies to give us the tree in (142).
Note that bhora is now a direct object in $S_1$. By applying the passive in $S_1$ the configuration we get is (143).

After extraposition of $S$ the result is then (144).
In deriving (139) from (140) first the passive was applied. Its output created the structural description for the object raising rule, the output of which in turn produced a structure which was properly analysable for a second application of the passive rule. The interaction of these two rules describes how the noun phrase bhora which is at the right end of the sentence in (72a) has moved up the tree to be the subject of the topmost S in (139). The interaction of these two rules is quite consistent with the notion of the cycle as described above.

Nevertheless, by adopting the linear grammar approach which dispenses with the notion of cycle we can still derive (139) from (140). Transformational rules are ordered as in a cyclic grammar. According to this approach a transformational rule is applied first to the most deeply embedded S, then to the next higher S which meets its structural description until the highest S is reached. A rule is constrained to apply with an upward orientation in a given configuration. Then the next rule is applied in the same fashion until all the rules relevant to a given structure have been applied.

Now let us see how this works with respect to the structure in (140). I shall assume that the order of application of these rules is passive and then object raising. The first application of the passive (i.e. to $S_2$) results in the same tree structure as in (141) above. The
second application of the passive yields the structure in (145).

(145)

Allowing for its reformulation (the details of which are not essential here), the rule of object raising is considered next. Its application to the tree above will result in the structure in (146).

(146)

Extraposition applies next.
The configuration in (147) is the same as that in (144) from which we said (139) derived. Notice however that the notion of an upward orientation on a structure is independent of the cyclic - non-cyclic principle.

5.18.2 Reflexive and Subject Raising rules

The interaction of the rules of reflexivization and subject raising helps to motivate the notion of the cycle. To this end consider the sentence in (148).

(148) Zuze zvaazvicheka pamupimbiri aqvikonzera kunetswa nenhuzechvi.

(Zuze, because he cut his shin, has caused himself to be bothered by flies.)

Hereunder is the rough underlying structure of this sentence.

(149)
The structure in $S_2$ is properly analysable for reflexivization. We also notice that the verb -konzerá belongs to a class of verbs which allow subject raising to apply on their abstract subject NP. Application of this rule to $S_2$ yields the result (150).

(150)

Note that after the application of subject raising there are now two occurrences of Zuze in $S_1$, which paves the way for a second application of the reflexive rule. Thus the two applications of the reflexive and the one of subject raising which comes in between them strongly support the notion of the cycle as described above.

Adopting the linear grammar and assuming that the order of application of these two rules is reflexive and then subject raising, it will be seen that reflexivization will apply to $S_2$ only, but not to $S_1$. In $S_1$ its structural description will not be met. So this ordering of these two rules will not help. Possibly in a linear grammar the ordering of these two rules is subject raising and then reflexivization. Applying subject raising first, we obtain the structure in (151).
We then apply the reflexive rule. The problem we encounter immediately is that $S_2$ is no longer properly analysable for the reflexive rule although $S_1$ now is. This reordering of these two rules does not help us either to derive (148) from (149). From this it may be deduced that a linear grammar is weaker than a cyclic grammar.

Nevertheless, if raising (subject or object) is regarded as a copying rule which copies the subject NP of the embedded clause into the next higher clause, the argument above which is in favour of the cyclic principle, is easily countered. Copying rules are common in a generative transformational grammar (cf. gender copying and object copying). Allowing raising to be a copying rule and assuming the ordering of these rules to be raising and then reflexive, (148) would then be derived in the following manner:

(a) apply raising to NP$_2$ by copying that term from $S_2$ into $S_1$. 

\begin{center}
(151)
\end{center}
(b) we then apply the reflexive rule to \( S_2 \), marking \( NP_3 \) for reduction to the reflexive form.

\[
(153)
\]

(c) next apply the reflexive rule again, this time marking \( NP_1 \) for reduction to the reflexive form.
The only other rule of concern to us here is Equi-NP deletion which deletes \( NP_2 \) from \( S_2 \) as in (155).

(155)

In this way sentence (148) is correctly generated. Note that in this derivation there is one application of the rule of raising followed by two applications of the reflexive rule. The latter are contiguous. The application of these rules in this derivation is therefore non-cyclic.
5.18.3 Gender Copying and Subject Raising rules

The interaction of these two rules yields similar results. To this end consider and compare the sentences in (156) whose underlying structure appears in (157).

(156)
a. Nyaya zvayadai zvichametsa.
b. Nyaya zvayadai ichanetsa.

(Since the affair has taken this turn there will be a difficulty.)

(157)

Let us consider the cyclic principle first. Gender copying is applied first to $S_2$. This will eventually result in the concord $\gamma$ in zvayadai. Next, since the structural description for subject raising is met, we choose to apply it and the configuration which results is (158).

(158)
The head noun of the subject NP of the higher S is no longer \( +N \), \( +\text{CL8} \), but \( \text{nyaya} \) which has among its features \( +\text{CL9} \). Now gender copying is applied, but in the higher S this time. This will eventually result in the concord \( \text{im ichanetsa} \). In this way (156b) is generated. If subject raising had not been applied, but only gender copying, the final result would be (156a). Note that in order to derive (156b) from (157) it is essential that the application of these two rules follow this order: gender copying, subject raising and gender copying. Applying, for instance, subject raising first in the series will leave \( S_2 \) without a subject NP, and consequently the rule of gender copying will block.

Now let us consider the linear grammar principle. Let us also first assume that these two rules are ordered this way: gender copying, subject raising. If gender copying is applied to both \( S_2 \) and \( S_1 \) first and then subject raising after, we finally come up with (159).

(159) \( \text{Nyaya zvayadai zvichanetsa} \).

This sentence by itself is grammatical, but is ungrammatical if considered as having been derived from (157) by two successive applications of gender copying followed by one of subject raising. The drawback is that after applying these rules in this order we end up with a situation in which the raised subject and its new predicate are not in concordial agreement. The grammaticality of (159) is a result, not of subject raising, but of complementizer placement.

Let us now consider the other ordering of these two rules: subject raising, gender copying. Applying subject raising first immediately raises a problem since it leaves \( S_2 \) without a subject, and consequently gender copying is effectively blocked in \( S_2 \). However if subject raising is considered as a copying rule as was the case in 5.18.2 above, (156b) can be derived from (157) without difficulty. The order of application of these rules will be: subject raising, gender copying. Subject raising will apply followed by two applications of the gender copying rule.
What has been shown in this subsection is that there are at least two different ways of looking at how transformational rules apply to configurations which contain embedded sentences. The privilege which the cyclic principle has enjoyed over the years is after all not unassailable. Judging from the foregoing discussion in this subsection, neither the cyclic principle nor the linear principle is preferred over the other on empirical grounds.

5.18.4 Summary

Apart from establishing that the cyclic principle is no less powerful than the linear principle, the account in 5.18.1-3 has shown that some rules are ordered, at least partially, among themselves. Of the rules discussed in this chapter the following have been shown to be cyclic: passive, reflexive, gender copying, object raising and subject raising. Others which appear to be cyclic are: pseudo-passive, agent deletion and Equi-NP deletion. Since the pseudo-passive operates on the same structural description as the simple passive, its cyclic application is obvious enough not to require demonstration. Agent deletion is a rule whose application depends on a previous application of either the passive or the pseudo-passive rule, and since the latter are cyclic, it would appear that it too is cyclic.

The passive, the pseudo-passive and the reflexive rules are mutually exclusive, while agent deletion will apply only after either of the first two rules have applied. Gender copying is ordered after the passive and the pseudo-passive. Object raising, subject raising and Equi-NP deletion can only apply after the gender copying rule, but among themselves they are mutually exclusive. Below is a tentative ordering of these rules within a given cycle.

21. For the occurrence of the passive and pseudo-passive formatives with one and the same verb see foot-note 7 p. 187
The linear ordering within the cycle follows the direction of the arrows. None of the other rules, it would appear, is cyclic. For none of the non-cyclic rules is ordered before any of those that are cyclic. Some of the non-cyclic rules are nonetheless ordered among themselves. For instance, extraposition applies before pro deletion; object copying must apply after either object anaphora or object focussing; however object copying as well as gender copying applies before the noun prefix rule.
6.0 THE GRAMMATICAL FUNCTION OF COMPLEMENT CLAUSES

In Chapter One it was shown that sentences may be embedded in other sentences. These embedded sentences or complement structures are introduced by complementizing morphemes which are listed in subsection 2.10. The occurrence of these complementizing morphemes is specified by the phrase structure rule in (32) in Chapter Four. It was also shown that these complement structures are of two types, namely, those that are dominated by NP (see 1.1.0) and those that are dominated directly by VP (see 1.2.0). In this chapter I would like to show the grammatical function of these complement structures to the extent that this is possible. I shall consider first noun phrase complementation and then verb phrase complementation.

6.1 Noun Phrase Complements

Noun phrase complements, as we saw, are structures with properties which are characterized by the phrase structure rule

\[
\text{NP} \rightarrow \text{N(S)}
\]

which was given in (49a) in Chapter One. These sentential complements may function grammatically as subject and as direct object of verbs. Just as noun phrases may be objects of prepositions in, say, Latin or English, in Shona noun phrases may also be objects of elements like /ik/ and /ma/. I shall now illustrate each of these grammatical roles which complement clauses may assume.

6.1.1 Complement structures in subject position

A complement clause in a subject position is represented by the following structure:
Occurring in this position, a complement clause may be introduced by any of the six complementizing morphemes which are listed in 2.10. Hereunder are examples of complement clauses in subject position. The complement clauses in question are underlined.

A. Complement clauses introduced by kuti / indicative /
   (1) Kuti umorara zvakó kusvika masikati pamba pavatezvara zvinonyadza.
      (That you sleep until midday at your father-in-law's home is shameful.)
   (2) Kuti Podzorimwa achasvika mangwana zvinondifadza.
      (That Podzorimwa will arrive tomorrow pleases me.)
   (3) Zvakaita hazvo kuti Murungweni akabva asvikawo panguva iyoyo.
      (lit. It happened by itself that Murungweni arrived at that time = Luckily enough Murungweni arrived at that time.)
      Note that in (3) the subject complement clause is extraposed to the end of the sentence.

   Complement clauses may also occur as subject in sentences in which the subject concord either does not appear at all or is controlled by a verb complement NP. ¹
   (4) Kuti Mwedzi akasvika nezuro kuneupya.
      (That Mwedzi arrived yesterday is false.)
   (5) Kuti akarovha hasa nokuti airwara hachisi chokwadi.
      (That he did not come to work because he was ill is not the truth.)

B. Complement clauses introduced by kuti / subjunctive /
   (6) Kuti ndidzokere kudongo kwandakambobva zvapata muhaná mangu.
      (For me to go back to my former village site won't be acceptable to me.)
   (7) Kuti tipóte tichinocha vábereki kumusha zvakanaka chaizvo.

¹ For more information in this connection see p.54 - 56.
(For us to go home regularly and see our parents is a good thing.)

(8) Kuti ambuya vanwe tii isina mukaka zvava kuramba.
(For grandmother to drink black tea is now difficult.)

(9) Kuti Tongai auye mangwana zvinongondivadza.
(For Tongai to come tomorrow will still please me.)

The comment made above in (A) with regard to the control of subject concords equally applies to complement clauses introduced by kuti / subj. /.

(10) Kuti titize umbwende.
(For us to run away would be cowardice.)

(11) Kuti Roda aviké pamusha pababa waké iye akambotiza mukumbo haisi nyore.
(For Roda to go to her father's home after she had eloped is not an easy matter.)

C. Complement clauses introduced by kana / participial / or kuti / participial /

(12) Kana mombe dzako dzarara mudoro maké zvichamusvotá chaizvo.
(If your cows were in his garden the whole night it is going to worry him very much.)

(13) Kana Tembeni apunza ndiro imwe chete hazvina mhósva.
(If Tembeni has broken only one plate it does not matter.)

(14) Kana Gordo akaroyha bása kwesvondo resé zvichamuomera.
(If Gordo absconded from work the whole week things will be difficult for him.)

(15) Kuti wakatengera amai rokwe zvakánaka.
(If you bought your mother a dress it is fine.)

D. Complement clauses introduced by kana / consecutive /

(16) Kana ukaona chiva chichifamba zvinoshura.
(If you see a puff-adder in motion it implies ill luck.)

(17) Kana ukabatwa muhapwa zvinonyeredza.
(If some one touches your arm-pit it tickles.)
(18) Kana mwana akatuka amai vaké zvinoera.
    (It is shocking for a child to scold his/her mother.)
(19) Kana ukagara uchidya nyama chete zvinofinha.
    (If you eat meat only every day it will get monotonous.)
(20) Kama ukapota uchibata-bata tubasa zvinoyamura.
    (If you undertake small pieces of work it will help (you))

The complementizing morpheme kana in the sentences (16) - (20) may be deleted optionally without effecting any semantic change.

(21) Ukaona chiva chichifamba zvimoshura. (see 16)
(22) Ukabatwa muhapwa zvinonyeredza. (see 17)
(23) Mwana akatuka amai zvinoera. (see 18)
(24) Ukagara uchidya nyama chete zvinofinha. (see 19)
(25) Ukapota uchibata-bata tubasa zvinoyamura. (see 20)

(E) Complement clauses introduced by ku /+ infinitive

(26) Kufadza munhu hazvisi nyore.
    (To please a person is not easy.)
(27) Kuona tsuro ichiomerera zvinoomesa mate mukanwa.
    (To see a rabbit clapping is breath-taking. (lit. it dries the saliva in the mouth.))
(28) Kupopotedzana mevadiki zvinofumura.
    (To quarrel with youngsters is degrading.)
(29) Kunamata hedzi hakuna kukwana.
    (Praying alone is not sufficient.)

It is not infrequent for the subject of the complement clause in this case to be deleted. One other observation worth pointing out here is that the sentences in which complement clauses introduced by ku /+ infinitive are subjects tend to express generalizations, and in consequence the complement clauses have indefinite subjects, hence these are usually deleted. In the sentences (26) - (29) the subjects of the complement clauses are deleted. But in (30) and (31) below the subjects are present.
(30) Mwana kutuka amai zvakaiipa.
(For a child to scold its mother is deplorable.)

(31) Mbudzi kudya mufenje hufana nyina.
(For a goat to eat the cabbage-tree shows resemblance to the mother.)

The last example is a proverb. Notice that when an infinitive is turned into a predicate ku sometimes becomes hu.

(F) Complement clauses introduced by zva participial

(32) Zvawatora mari yaké zvichakukonzera kutaura.
(Taking his money as you have done will get you into trouble with him (lit. will cause you to speak).)

(33) Feso zvaavá kuchovha makasa zvichamurunzira kuba.
(This gambling for money which Feso is now practising will tempt him to steal.)

(34) Matai zvaapera zvichandipinza muchikwereti.
(The fact that my tyres are worn out will lead me into debt.)

(35) Zvaauya nhasi kudai zvinoreva kuti basa akapedza.
(Coming today as he has done indicates that he finished the work.)

6.1.2 Complement clauses as direct object

In this position in a sentence complement clauses, like non-clausal noun phrases, may occur by themselves or alongside indirect objects. This is illustrated in the tree structures in (a) and (b) respectively below.

(a)  
\[
\begin{array}{c}
S \\
NP \\
\text{VP}  \\
V \\
NP \\
N \\
S \\
\end{array}
\]

(b)  
\[
\begin{array}{c}
S \\
NP \\
\text{VP}  \\
V \\
NP \\
N \\
\tilde{S} \\
\end{array}
\]
Indirect objects in Shona are marked by **ku/kuna** and, to a lesser extent, by **pa/pana**. In deep structure these indirect objects are considered in this study to occupy a position after the direct object. Note that the occurrence of indirect objects, but not that of direct objects, is optional in such sentences. This is exemplified below where the indirect objects are underlined.

(36)a. Kuda akapira bhora **kuna Yoyo**.
(Kuda passed the ball to Yoyo.)

b. Kuda akapira bhora.
(Kuda passed the ball.)

c. **Kuda akapira kuna Yoyo**.
(*Kuda passed on to Yoyo.)

(37)a. Ndakwereta mari iyi **kumukoma wangu**.
(I borrowed this money from my brother.)

b. Ndakwereta mari iyi.
(I borrowed this money.)

c. **Ndakwereta kumukoma wangu**.
(*I borrowed from my brother.)

Generally, the tests for indirect objects are the same as for direct objects which were provided in subsection 1.2.2.

More often than not, however, by an optional transformational rule which I shall refer to as the Indirect Object Movement rule, the indirect object sheds the formative **ku/kuna** or **pa/pana** and moves to a position immediately before the direct object as shown in (38) and (39).

(38) Kuda akapira **Yoyo** bhora.
(Kuda passed Yoyo the ball.)

(39) Ndakwereta **mukoma wangu mari iyi**.
(I borrowed from my brother this money.)

In sentences in which the direct object is a complement clause this indirect object movement rule applies almost always in Shona.
Embedded sentences serving as direct objects may be introduced by *kuti* [+] indicative, *kuti* [+] subjunctive, *kana* [+] participial or *ku* [+] infinitive.

6.1.2.1 The sentences in this section contain direct objects, but no indirect objects.

A. Complement clauses introduced by *kuti* [+] indicative

(40) Joko akafembera kuti achahwina mari kumahachi.
   (Joko guessed well that he would win some money on the horse races.)

(41) Siyaso akabvumia kuti akatadza.
   (Siyaso admitted that he made a mistake.)

(42) Taka anodaira kuti zvinhu zvseo zvichanaka kumusha.
   (Taka believes that everything will be all right at home.)

(43) Peni aramba kuti akazvitaura.
   (Peni denied that he said it.)

B. Complement clauses introduced by *kuti* [+] subjunctive

(44) Rwizi anzvenga kuti aende kumombe.
   (Rwizi has got out of looking after the cattle.)

(45) Churu akaedza kuti abope mombe akabva atungwa.
   (Churu tried to inspan the oxen and was in consequence gored.)

(46) Vanatsa kuti vaende mvura isati yanaya.
   (They did well to go before it rained.)

(47) Mutongwa akatsika-tsika kuti ataure chokwadi.
   (The accused was hesitating as to whether or not to tell the truth.)

(48) Dare rakasungu kuti varoyi vatandirwe mhiri kwaMasikandoro.
   (The court ruled that the witch-doctors should be expelled across the Masikandoro river.)

C. Complement clauses introduced by *kana* [+] participial

(49) Tete vari kuda kuziva kana vana vauya.
(Aunt wants to know whether the children have come.)

(50) Gogo' abvunza kana muhari muchine döro.

(Grandmother has asked whether there is still some beer in the pot.)

(51) Handichayeuka kana takambosangana kare.

(I don't remember whether we have met before.)

(52) Marimo ari kuedza kufunga kana zvataurwa namudzviti zvingaitika.

(Marimo is trying to figure out whether what the district commissioner said can be done.)

D. Complement clauses introduced by ku [+ infinitive] /

(53) Mukomana ari' kudziidza / kutyaira motokari.

(The boy is learning to drive a car.)

(54) Chirau ajaira kunwa hwahwa / hwepachema.

(Chirau is used to drinking free beer.)

(55) Koni a'akanonoka kunotora vana kukirechi.

(Koni was late in going to fetch the children from the creche.)

(56) Zvakapinda murairidzi muchikoro vaná vakabva vanyarara kutsaura.

(As soon as the teacher entered into the classroom the children stopped talking.)

E. I have discovered only one example so far of a complement clause in object position which is introduced by kana [+ consecutive].

(57) Tichaona hasi' kana Pesi' akasvikako nhasi.

(Tichaona does not know whether Pesi will get there today.)

Even then the status of the complement clause as an object is doubtful since all the tests for object noun phrases, except one, yield results the acceptability of which is questionable.

(a) pseudo-cleft test;

(58) ?Kana Pesi' akasvikako nhasi ndizvo zvaasing'zive Tichaona.

(Whether Pesi will get there today is what Tichaona does not know.)
(b) passive test;

(59) ?Kana Pesi'akasvikako nhazi hazvizivikanwe naTichaona.

(Whether Pesi will get there today is not known by Tichaona.)

(c) object anaphora test;

(60) ?Tichaona haazvizive. (i.e. kana Pesi'akasvikako nhazi)

(Tichaona does not know it. (i.e. whether Pesi will get there today.))

But the interrogative pro-form test produces a positive result.

(61) Tichaona haazive chi? (reply: kana Pesi'akasvikako nhazi)

(Tichaona does not know what? (reply: whether Pesi will get there today))

The fact that the complement clause in (57) is unclear, coupled with the paucity of examples, tends to suggest that complement clauses which are introduced by kana [+] consecutive do not feature as direct objects.

No example was attested of a complement clause introduced by zwa [+] participial in direct object position.

6.1.2.2 Examples of sentences with both direct and indirect objects

A. Complement clauses introduced by kuti [+] indicative

(62) Ndaudza Sara' kuti Taka akauya.

(I told Sara that Taka had come.)

(63) Ticha akamyévera Matenzeni' kuti akapasa.

(The teacher hinted to Matenzeni that she had passed.)

(64) Posani abvunza Charwe' kuti mukoma' waké anodzoka rinhí.

(Posani asked Charwe when her elder sister would return.)

(65) Baba' vakaraira sekuru kuti amai vari kurwara.

(Father sent word through uncle that mother was ill.)

B. Complement clauses introduced by kuti [+] subjunctive

(66) VaChiutsi' vaida' kumanikidza mwaná' kuti aité kósí vaasingáde.

(Mr. Chiutsi wanted to force his child to take a course which she did not want.)
(67) Amai vakatsindidza mwanasikana wavo kuti asataurire munhu zvechikomba chavo.
(The mother entreated her daughter not to tell anyone about her (mother's) boy-friend.)

(68) Mubatwa akaraira murnwe mukomana kuti vabereki vaké vauye kuzomutsikimura.
(The accused sent word to his parents through a certain young man to the effect that they should come to bail him out.)

C. Complement clauses introduced by kana [ particiopal]
These have been difficult to come by.

(69) Toni abvunza Sekesai kana Chipo adzoka.
(Toni enquired from Sekesai whether Chipo was back.)

(70) Ndichakuyechidza kana nguva yeKudya yasvika.
(I shall remind you when it is meal time.)

D. Complement clauses introduced by ku [ iminfinitive]

(71) VaGondo vakamanikidza Toko kurcorwa nemukomana waakanga asi-ngade.
(Mr. Gondo forced Toko to get married to a boy she did not love.)

(72) Tete atuma Magi kunotora badza kumunda.
(Aunt sent Maggie to go and fetch a hoe from the field.)

(73) Mari akabatsirá Nyika kutakura mbatya dzake.
(Mari assisted Nyika to transport his goods.)

(74) Eega kufurira mwana kuba.
(Do not lead the child into stealing.)

(75) Musikana uye akakonzera Zuze kuruhwa nematsotsi.
(That girl caused Zuze to be beaten up by hooligans.)

6.1.3 Complement Clauses as object of /ir/

In Shona almost every verb may be accompanied by a phrase of the type marked by the element /ir/. (For this type of phrase see also Appendix A.) This phrase occurs immediately after the verb in (76),
immediately after the direct object in (77), and immediately after the second object in (78). The /ir/ phrases are underlined in these sentences.

(76) Jesi 'muyira mari yake.
(Jesi has come for her money.)

(77) Makoni ʻatyorera rura yaSani nharo.
(Makoni broke Sani's ruler out of sheer cantankerousness.)

(78) Sara anyimira vana chekudya misikanzwa yavo.
(Sara refused to give the children any food because of their mischief.)

The rough deep structures of these three sentences are given in (79) - (81) respectively.

(79)

```
S_o
  NP
  VP
    Jesi
    V
      uya
    PP
      P
      ir
      mari yake
```

(80)

```
S_o
  NP
  VP
    Makoni
    V
      tyora
    NP
      rura yaSani
    PP
      P
      ir
      nharo
```
In all these three structures the Applied transformational rule will then insert obligatorily /ir/ before the terminal vowel of the verb to give us the verbs -uyira, -tyorera and -nyimira. The morpheme /ir/ is distributed in accordance with the rules of vowel harmony in Bantu languages. That is, /ir/ occurs if the penultimate vowel of the verb stem, simple or extended, is /i, a, u/, and /er/ occurs if the penultimate vowel is /e, o/.

These purposive phrases, as I propose to call the phrases which are marked by /ir/, may express purpose or the reason for which the action (or state) of the verb is accomplished (or entered into) as in (76) - (78). This type of phrase may also signify the person or thing for which the action (or state) of the verb is done (or entered into) as in (82) - (84).

(82) Ndatengera Rumbidzai bhora iri.
(I bought this ball for Rumbidzai.)

(83) Kugara pano zvakakanakira iwe, kwete inii.
(For us to stay here is all right for you, not for me.)

(84) Walpisira shamwari yakoyako nyaya yaké.
(You have spoiled your friend's case for him.)

When the /ir/ phrase has this connotation it is necessarily moved from its position to a position immediately after the verb as in (82) - (84).

In view of this difference in connotation, perhaps the two occurrences
of /ir/ should not be equated.

The tests for a noun phrase which is object of /ir/ are the same as for direct objects which were outlined in subsection 1.2.2. Taking (85) as an illustration, it can be shown that kuroya is a noun phrase object of /ir/.

(85) Tarúvinga akarambira mukadzi kuroya.

(Taruvinga divorced his wife because of her witchcraft.)

(a) pseudo-cleft;

Kuroya ndiko kwaakarambira mukadzi Tarúvinga.

(It was witchcraft which made Taruvinga divorce his wife.)

(b) passive;

Kuroya kwakarambirwa mukadzi naTarúvinga.

(witchcraft - was divorced for - a woman - by Taruvinga =
Taruvinga's wife was divorced by him because of witchcraft.)

(c) interrogative pro-form;

Tarúvinga akarambira mukadzi chi? (reply: kuroya)

(Why did Taruvinga divorce his wife? (reply: because of witchcraft))

(d) object anaphora;

Tarúvinga akazvirambira mukadzi. (i.e. kuroya)

(Taruvinga divorced his wife because of that. (i.e. witchcraft))

Since one cannot perform an action on behalf of or to the advantage or detriment of an object noun phrase of the type (N + S), noun phrase complement clauses will not be found in /ir/ phrases with the latter connotation. It is therefore with the former connotative expression of the /ir/ phrases that we shall be concerned here. The noun phrase complement clauses which have the privilege of occurring in these /ir/ phrases are mainly those introduced by kuti [+] subjunctive] and ku [+] infinitive].

A. Complement clauses introduced by kuti [+] subjunctive]

(86) Vamwe vakaenda kumunda, asi Toko aakañira kuti achengete ambuya
vairvairara.
(The rest of the family went to the field, but Toko remained
behind in order to look after grandmother who was ill.)

(87) Baba vakarimira pizi kuti vatengese.
(Father grew the peas in order to sell.)

(88) Vamwe varumé vanorôra vakadzi venzhenji kuti vawané vanôva-
batsira basa chete.
(Some men marry many wives just in order to get people to
help them do their work.)

(89) Joko aida kukandira VaMhesvu chibhakera kuti vapore kuvhaira
kwavaita.
(Joko wanted to give Mr. Mhesvu a blow in order to stop him
boasting.)

The /ir/ phrase occurs immediately after the verb in (86); after the
direct object in (87) and (88); and after the second object in (89).

B. Complement clauses introduced by ku [+ infinitive]

(90) Vana vairira kunzi chiendai naticha.
(The children are waiting for a word from the teacher to the
effect that they may now go.)

(91) Reni naFombo vanofairira kudya myama yehuku.
(Reni and Fombo feel happy when they are having chicken.)

(92) Muvira iri kuponjera kuzorara ichinaya.
(There is so much lightning that it will rain during the night.)

(93) Murairidzi akatandira mwanâ kurovha chikoro.
(The teacher expelled the child because of his/her irregular
attendance.)

(94) Posani akaratidzira ambuya musikana wake kusvotesa Rozi.
(Posani introduced his girl-friend to his grandmother in order
to annoy Rose.)

As above, the /ir/ phrase occurs immediately after the verb in (90) -
(92); after the direct object in (93); and after the second object in (94).

C. A few examples have been attested also in which the complement clause is introduced by kuti $+$ indicative.

(95) Feso ndakamurovèra kuti amotuka vakuru.
(I beat up Feso because of being rude to his elders.)

(96) Zuze ndakâmûzvondera kuti haâdi kutêngâwo hwahwa kana tîri kubhâwa.
(I detest Zuze for his reluctance to buy beer when we are at the beer hall.)

I have not found examples of /ir/ phrases in which the complement clauses are introduced by either kana $+$ participial, or kana $+$ consecutive, or zva $+$ participial.

The /ir/ in these phrases is not infrequently deleted optionally. In the examples which follow /ir/ is deleted.

(97) Vamwe vakaenda cumunuda asi Toko akasârá kuti achengete ambuyà vairwâra. (see 86)

(98) Baba vakarîma pîzi kuti vatêngese. (see 87)

(99) Vamwe varumé vanoroorâ vakâdzî vazhînjî kuti vawane vanovâ-batsîrà basa chête.. (see 88)

(100) Joko aîdâ kukanda Vâhêsvu chibhâkera kuti vâporé kuvhâira kwâvalita. (see 89)

(101) Posani akâratîdza ambuyâ musîkana wâke kuvôtesa Rosi. (see 94)

But applied to (85), (90) and (93) this deletion transformation produces negative results as shown by the ungrammaticality of (102) - (104).

(102) *Taruvinga akâramba mukâdzî kûroya.

(103) *Vana vakamîra kumzi chiendai natîcha.

(104) *Murairidzi âkatânda mwana kûrovha chikóro.

In some cases the sentences in which /ir/ appears are less acceptable than those from which it is deleted. The (a) sentences in the pairs below are less acceptable than the (b) sentences.
(105)a. Murwere akabudira panze kuti afurwe nemhepo.
   b. Murwere akabuda panze kuti afurwe nemhepo.
   (The patient went out of the house in order to get some fresh air.)

(106)a. Sani ari kuuyira nyama kuti akore.
   b. Sani ari kudya nyama kuti akore.
   (Sani is eating meat in order to gain weight.)

(107)a. Mutyairi akacheukira kuti some kana mapurisa aitevera iye.
   b. Mutyairi akacheuka kuti some kana mapurisa aitevera iye.
   (The driver looked back in order to see whether the police were trailing him.)

Further investigation is needed here in order to ascertain more precisely when this deletion transformation applies and when it does not.

That /ir/ has been deleted in (97) - (101) and also in (105b), (106b) and (107b) receives further confirmation from the pseudo-cleft test. I shall illustrate this point using the sentences in (97), (99) and (101). The (b) sentences are ungrammatical because /ir/ does not appear.

(108)a. Vamwe vakaenda kumunda asi Toko, kuti achengete ambuya,
   ndizvo zvaakasarira.
   (lit. The rest of the family went to the field but Toko in order that she might look after the grandmother is why she remained behind = The rest of the family went to the field but Toko remained behind in order to look after the grandmother.)
   b. *Vamwe vakaenda kumunda asi Toko, kuti achengete ambuya,
   ndizvo zvaakasara.

(109)a. Vamwe varume, kuti wawané vanovabatsira basa chete, ndizvo
   zvavamoroore ra vakadzi vazhinji.
   (lit. Someone in order that they may get people to
help them in doing their work that is the reason why they marry many wives = Some men marry many wives in order that they may get people to help them do their work.)

b. *Vamwe varume, kuti vawane vanovabatsira basa che, ndizvo zvavanororo vakadzi vazhinji.

(110)a. Posani, kusvotesa Rozi, ndiko kwaakaratidzira ambuya musikana wake.

(lit. Posani, in order that he might annoy Rose, that was the reason why he showed his grandmother his girl-friend = Posani showed his grandmother his girl-friend in order to annoy Rose.)

b. *Posani, kusvotesa Rozi, ndiko kwaakaratidza ambuya musikana wake.

In the sentences immediately above the concord zvo in ndizvo is clearly a reflex of the noun prefix of class 8, indicating that these clauses which are underlined have a noun of class 8 as their head noun. That there are /ir/ phrases in (97), (99) and (101) is shown by the presence of /ir/ in zvakanasarira in (108a), /er/ in zvavanororera in (109a) and /ir/ in kwaakaratidzira in (110a). The pseudo-cleft transformation is very reliable for discovering prepositional phrases with deleted prepositions in Shona.

Another test which will confirm the strings underlined in (97) - (101) as well as those in (105b), (106b) and (107b) as prepositional phrases with /ir/ deleted is the interrogative pro-form transformation. In order to elicit as answers the strings which are underlined, /ir/ must be present in the questions being asked. I shall take (98), (100), (105b), (106b) and (107b) for illustration. As above the (b) questions are ungrammatical because /ir/ is absent.

(111)a. Baba vakarimira khii pizi? (reply: kuti vatengese)

(Why did father grow the peas? (reply: in order to sell))

b. *Baba vakarimira pizi khii?
(112)a. Joko aida kükandira VaMhesvu chibhakera chill? (reply: kuti vapôre kuvhaira kwavâlita)
(Why did Joko want to give Mr.Mhesvu a blow? (reply: in order to stop him boasting))
b. *Joko aida kükanda VaMhesvu chibhakera chill?

(113)a. Murwere akabudîra panze chill? (reply: kuti afurwe nemhepo)
(Why did the patient go out of the house? (reply: in order to get some fresh air))
b. *Murwere akabudá panze chill?

(114)a. Sami ari kudyira nyama chill? (reply: kuti akore)
(Why is Sani eating meat? (reply: so that he may put on weight))
b. *Sani ari kudya nyama chill?

(115)a. Mutyairi akacheukira chill? (reply: kuti aone kana mapurisa aitevera iye)
(Why did the driver look back? (reply: in order to see whether the police were trailing him))
b. *Mutyairi akacheuka chill?

Notice that these purposive objects may also occur after other complement structures.

(116) Rwizi amzvenga kuenda kumunda kuti agoswera ari kutaundishipi.
(Rwizi avoided going to the field so that he might then spend the day at the township.)

That the strings kuenda kumunda and kuti agoswera ari kutaundishipi are direct object and purposive object respectively is confirmed by the tests for object noun phrases.

(a) pseudo-cleft;

(117)a. Rwizi kuenda kumunda ndiko kwaamzvenga kuti agoswera ari kutaundishipi.
(To go to the field is what Rwizi avoided so that he might
them spend the day at the township.)

b. Kuti agoswera əri kuláundishipi ndízvo zvaanzvengerwa kuenda kumunda Rwizi.

(That he might spend the day at the township is the reason why Rwizi avoided going to the field.)

(b) pseudo-cleft and passive combined;

(118)a. Kuenda kumunda ndíko kwanzvengwa naRwizi kuti agoswera əri kutaundishipi.

(Going to the field is what has been avoided by Rwizi so that he might then spend the day at the township.)

b. Kuti agoswera əri kuláundishipi ndízvo zvaanzvengerwa kuenda kumunda naRwizi.

(lit. That he might spend the day at the township it is it what was avoided for to go to the field by Rwizi =
That he might spend the day at the township is the reason why Rwizi avoided going to the field.)

(c) interrogative pro-form;

(119)a. Rwizi amzvengerwa chii kuti agoswera əri kutaundishipi? (reply: kuenda kumunda)

(Rwizi avoided what in order that he might then spend the day at the township? (reply: going to the field))

b. Rwizi amzvengerwa kuenda kumunda? (reply: kuti agoswera əri kutaundishipi)

(Why did Rwizi avoid going to the field? (reply: in order that he might then spend the day at the township))

Further examples of sentences like the one in (116) appear below.

(120) Akařégera kunwa hwawha kuti achenge tedze mari.

(He stopped beer drinking in order to save money.)

(121) Ndakabatsira Mashiri kudyara mbëu dzake kuti iye agozondiba-teirawo.
(I helped Mashiri to plant his seeds in order that he might help me in turn.)

(122) Magi'akaróvha kuenda kuchikóro kuti agomoona bhaisikopo.
(Maggie absented herself from school in order to go to the cinema.)

6.1.4 Complement Clauses as Object of /na/ (i.e. instrumental phrases)

Like purposive objects, instrumental objects occur in the form of prepositional phrases. Whereas the preposition was /ir/ in purposive phrases, with instrumental phrases it is /na/. For noun phrases which are objects of /na/ only two of the tests for object noun phrases as outlined in 1.2.2 are applicable. These two tests are the pseudo-cleft and the interrogative pro-form. For illustration consider the sentences in (123).

(123) Tembeni aneta nekuti auya adzokera.
(Tembeni is tired with this coming and going.)

(a) pseudo-cleft;
Kuti auya adzokera ndi'vo zva'netá ndi'vo Tembeni.
(This coming and going is what Tembeni is tired with.)

(b) interrogative pro-form;
Tembeni aneta nechii? (reply: nekuti auya adzokera)
(Tembeni is tired with what? (reply: with this coming and going))

Note that in the case of the pseudo-cleft transformation, as the object noun phrase of /na/ is moved to the beginning of the sentence, it leaves behind a pro-form. In the case at hand the pro-form is zvo.

Only complement structures introduced by kuti [+ indicative], kuti [+ subjunctive] and ku [+ infinitive] have been attested in instrumental phrases. These phrases indicate the instrument by which the action (or state) of the verb in the containing sentence is accomplished.
(or entered into). In the sentences below the instrumental phrases are underlined.

A. Instrumental clauses introduced by *kuti* [+] indicative

(124) Sekuru vachafara nekuti wauya.
(Uncle will feel happy that you have come.)

(125) Monika ari kuyaura nekuti akatukwa majo.
(Monica is upset at Jo's having scolded her.)

(126) Chipo aizvirumbidza nekuti anogona muchikoro asi akazokundikana.
(Chipo used to indulge in self praise saying that she was bright in class but she finally failed.)

B. Instrumental clauses introduced by *kuti* [+] subjunctive

(127) Ndine urombo nekuti usvik pano nhasi pasina chekubata.
(I regret it very much that you have come today when I have nothing to eat.)

(128) Ambuya vanofara nekuti ndiende ndi ndi e muuuna kujeri kwaari.
(Grandmother is happy for me to go and visit my young cousin in prison where he is.)

C. Instrumental clauses introduced by *ku* [+] infinitive

(129) Mazuva atatamira muGota mombe dzakapera nekufa.
(When we moved into Gota area many cattle died.)

(130) Jeneti aneta nekukuya.
   a. (Jeneti is tired because of grinding.) or
   b. (Jeneti is fed up with grinding.)

(131) Vana vakarasa mombe nekutamba.
(The children lost track of the cattle through playing.)

(132) Kunyangwe zvairambidzwa Dehwe akapa vapanduki zvokudy nekutya.
(Although it was unlawful Dehwe gave the outlaws some food through fear.)
In some cases /na/ can be left out readily without prejudice to the meaning of the sentences as in the sentences below.

(133) Tembeni aneta kuti auya adzokerera, (see 123)
(134) Sekuru vachafara kuti wauya. (see 124)
(135) Ndine urombo kuti usvike pano nhasi pasina chekubata. (see 127)
(136) Maziva atatamira muGota mombe dzakaperera kufa. (see 129)
(137)a. Roni akapara mhaka nekurova mupurisa.
   b. Roni akapara mhaka kurova mupurisa.

(Roni committed a crime by assaulting a policeman.)

(138)a. Murume akakahadzika mekuona mbatya dzake dzabiwa.
   b. Murume akakahadzika kuona mbatya dzake dzabiwa.

(The man was struck dumb to find his property stolen.)

That the strings kuti auya adzokerera in (133), kuti wauya in (134), kuti usvike pano nhasi pasina chekubata in (135), kufa in (136), kurova mupurisa in (137b) and kuona mbatya dzake dzabiwa in (138b) are /ma/ phrases from which /ma/ has been deleted is further confirmed by the pseudo-cleft and the interrogative pro-form tests. For illustration I shall consider (133) - (135) only.

(a) pseudo-cleft;

(139) Kutu auya adzokerera ndizvo zvaaneta nazo Tembeni.
   (Coming and going is what Tembeni is tired with.)

(140) Kutu wauya ndizvo zvavachafara nazo sekuru.
   (That you have come is what uncle will be happy about.)

(141) Kutu usvike pano nhasi pasina chekubata ndizvo zvandine urombo nazo.
   (That you have come here today when I have nothing to eat is what I regret very much.)

(b) interrogative pro-form;

(142)a. Tembeni aneta nechii? (reply: kutu auya adzokerera)
   (Tembeni is tired with what? (reply: of coming and going))
b. *Tembeni aneta chii?

(143)a. Sekuru vachafara nechii? (reply: kuti wadya)

(What will please uncle? (reply: that you have come))

b. *Sekuru vachafara chii?

(144)a. Ume urombo nechii? (reply: kuti usviké pano nhasi pasina chekubata)

(What are you sorry for? (reply: that you have come here today when I have nothing to eat))

b. *Ume urombo chii?

In other cases this deletion transformation will be blocked.

Applied to (131), (132) and (147a) it results in the ungrammatical sentences in (145), (146) and (147b) respectively.

(145) *Vana vakarasa mombe kutamba.

(146) *Kunyange zvairambidzwa Dehwe akapa vapanduki zvokudyá kutya.

(147)a. Aona shumba akadonhedza pfumo nekudedera.

(On seeing the lion he dropped the spear because of trembling.)

b. *Aona shumba akadonhedza pfumo kudedera.

In the examples which follow the (b) sentences in which /na/ has been deleted are preferred to the (a) sentences in which it appears.

(148)a. Ndakashama nekunzwa kuti musha wakatsva.

b. Ndakashama kunzwa kuti musha wakatsva.

(I was surprised to hear that the village had got burnt.)

(149)a. Sekuru vanofara nekuti upote uchisvika pano.

b. Sekuru vanofara kuti upote uchisvika pano.

(Uncle will be happy if you come here often.)

(150)a. Tine urombo nekuti wakashurwa zvakadaro.

b. Tine urombo kuti wakashurwa zvakadaro.

(We are sorry that you suffered such a mishap.)

Now consider the following pairs of sentences.
(151)a. Jëneti anëta nekukuya.
   (i. Jeneti is fed up with grinding.) or
   (ii. Jeneti is tired because of grinding.)

b. Jëneti anëta kukuja.
   (Jeneti is fed up with grinding.)

(152)a. Mombe iyil yapera nekurumwa nezvikwekwe.
   (i. This cow is covered all over with ticks (but not necessarily emaciated)) or
   (ii. This cow is emaciated by ticks.)

b. Mombe iyil yapera kurumwa nezvikwekwe.
   (This cow is covered all over with ticks (but not necessarily emaciated))

Note that (151a) and (152a) are ambiguous as the English translation shows, but (151b) and (152b) are not. Notice also that it is the first reading of sentence (a) in each pair which tallies with that of the corresponding (b) sentence. To the extent that they are semantically equivalent, the sentences in the pairs in (151) as well as (152) are transformationally related. This relationship may be described in terms of the optional deletion rule mentioned above.

If, on the other hand, it is the second reading of the (a) sentences that is considered, then the (a) and (b) sentences in (151) as well as those in (152) are not related transformationally. The ambiguity in (151a) and (152a) is attributable to the verbs -nëta and -pera which carry each at least two different meanings. Another interesting pair is the one in (153) in which, on the face of it, the sentences appear to be related structurally by the deletion transformation already referred to above.

(153)a. Ndanzwa nekuteemwa nemusoro.
   (I have a severe headache.)

b. Ndanzwa kuteemwa nemusoro.
(I felt a headache for a while (but not necessarily a severe one).)

Apart from their difference in meaning the pseudo-cleft transformation also shows that these sentences are not transformationally related. This is illustrated in (154) and (155) respectively.

(154) Kutemwa nemusoro ndiko kwandanzwa nako. (cp 153a)

(It is a headache that I am suffering from very much.)

(155) "Kutemwa nemusoro ndiko kwandanzwa nako. (cp 153b)

but Kutemwa nemusoro ndiko kwandanzwa. (cp 153b)

(It was a bit of a headache that I had.)

In (153b) the complement clause kutemwa nemusoro is a direct object of the verb -nzwa, and not a /ma/ phrase. The difference in meaning between the sentences in (153), once more, is attributed to the different meanings which the verb -nzwa carries. In other words this difference in meaning is attributed to the subcategorizational statement of the verb -nzwa. That is, in (153a) -nzwa requires a /ma/ phrase complement, but in (153b) it requires a direct object noun phrase.

Notice that it is possible to have two /ma/ phrases of the instrumental type in one and the same sentence.

(156) Mombe dzapera nekufa mekurumwa nemhesvi.

(The cattle have dwindled very much in number through death caused by the bite of the tsetse-fly.)

(157) Vanhu vanzwa nekurwara mekurumwa neumhutu.

(Many people are suffering because of an illness caused by the bite of mosquitoes.)

(158) Temba apenga nekuti Ruzvidzo naPasi vakaba mari yake nekuvaona vachimwa hwahwa hwendhari iyo vasingashande.

(Temba alleges strongly that Ruzvidzo and Pasi stole his money because he saw them drinking beer which they had bought, but they are not working.)
6.1.5 Complement clauses introduced by kana $\langle + participial$ and zva $\langle + participial$ may also serve as time adverbials of a sort. The complement clauses in question are underlined in the examples which follow.

(159) Mungaende zvenyu kumba kana mapedza basa ramuri kuita.

(You may go home when you have finished the work you are doing.)

(160) Kana ndapedza G.C.E. yangu ndinoda kuzaita ukoti.

(After I have gone through my G.C.E. I would like to do a nursing course.)

(161) Wadzanai ndamuona zvaasuya.

(I saw Wadzanai when she came.)

(162) Tembo zvaabatwa vanhu vombofurwa nemhepo.

(Now that Tembo has been arrested people will breathe freely.)

These strings which are underlined seem to be noun phrases functioning as adverbials. As time adverbials, complement clauses introduced by either kana $\langle + participial$ or zva $\langle + participial$ tend to control agreements of class 16 rather than those of either class 8 or class 15 as the pseudo-cleft transformation will show. The sentences in (163) - (165) correspond to those in (159), (161) and (162) respectively.

(163)a. Kana mapedza basa ramuri kuita ndipo pamungaende zvenyu kumba.

(Only when you have finished the work you are doing may you go home.)

b. *Kana mapedza basa ramuri kuita ndizvo zvamungaende zvenyu kumba.

(164)a. Wadzanai zvaasuya ndipo pandamuona.

(When Wadzanai came is when I saw her.)


(165)a. Tembo zvaabatwa vanhu ndipo povombofurwa nemhepo.

(Now that Tembo has been arrested is the time people will breathe freely.)
b. *Tembo zvaabatwa vanhu ndizvo zvovombofurwa nemhepo.

If the interrogative pro-form transformation with rinhi (when), which is used in place of chii with time adverbials, is applied, these underlined strings will be confirmed as noun phrases. As an illustration consider (159) and (161).

(166) Tingaende zvedu kumba rinhi? (reply: kana mapedza basa ramurikuita)

(When are we free to go home? (reply: when you have finished the work you are doing))

(167) Wadzanai wamuona rinhi? (reply: zvaauya)

(When did you see Wadzanai? (reply: when she came))

It seems clear therefore that the strings underlined in (159) - (162) are noun phrases.

In addition to functioning as subject, complement clauses introduced by kana consecutive may also serve as concessive adverbials.

(168) Kana mapurisa akapatarika zvawo sei Kongo havambomuentha.

(No matter how the police search for Kongo they will never find him.)

(169) Tichavaona chete kana vakapfuura nekuno.

(We shall certainly see them if they pass through here.)

That the adverbials in (168) and (169) are noun phrases is supported by the pseudo-cleft test. As was the case with the time adverbials mentioned above the complement clauses here control the concords of class 16 rather than that of either class 8 or class 15.

(170) Kana mapurisa akapatarika zvawo sei Kongo ndipo pavasingambo-

(No matter how much the police search for Kongo they will not get him.)

(171) Kana vakapfuura nekuno ndipo chete patichavaona.

(If they pass through here it is only then that we shall
6.1.6 Complement Clauses in both subject and object positions

In Chapter Five we saw that complement clauses could occur in both subject and object positions in one and the same sentence. In this section I should like to pursue this question further, and show the interdependence of the complementizers. My investigation in this regard seems to indicate that there is need to group the verbs, which have the privilege of occurring with such multiple noun phrase complements, into two, viz. those represented by -revá (mean; say), -taura (speak, talk), and -ratidza (show) which I will label as verbs of "meaning", and those which are represented by -ita (do, cause), -konzerá (cause, be result of) and -runzira (cause), which I shall call verbs of "causation". Since the occurrence of complement clauses in positions other than subject and direct object is relatively little understood at the moment I shall confine my study in this section to complement structures that may occur in subject and direct object positions only.

6.1.6.1 Verbs of "meaning"

With verbs of "meaning" the complement clause in subject position may be introduced by any of the complementizers save kuti /+ indicative/, but the object complement clause may be introduced by kuti /+ indicative/ or ku /+ infinitive/, the latter being accompanied by possessivization (for this possessive see subection 2.12). Below are illustrative sentences with verbs of "meaning".

A. kuti /+ subjunctive/ in subject position

(1) kuti /+ subjunctive/ ---- verb ---- kuti /+ indicative/ -----

(172) Temba kuti ásvike pamushá pátezvára wake zvinoreva kuti akabvisa chimánda.

(For Temba to set foot at his father-in-law's home implies that he has paid out the chimánda beast in the marriage negotiations.)
(173) Kuti Masawi abvumé kubhadhara imwe mari'yaari' kunzi akabá zvinoratidza kuti ndiye akaitora.
(For Masawi to agree to pay some of the money which he is alleged to have stolen shows that he is the one who took it.)

(174) Kuti asvike nguva ino asati asvika zvinotaura kuti haachasvika nokuti mabhazi osé apera.
(That he has not yet arrived until now means that he will not longer come since all the buses have gone.)

(ii) kuti /+ subjunctive/ ---- verb ---- ku /+ infinitive/ ----

(175) Kuti Pesi atakure tsaga rechibage zvinoratidza kugwinya kwake.
(For Pesi to lift a bag of mealie meal shows his strength.)

B. kana /+ participial/ in subject position

(1) kana /+ participial/ ---- verb ---- kuti /+ indicative/ ----

(176) Kana usina kumuona zvinoreva kuti atiza.
(If you did not see him it means that he has run away.)

(177) Kana Jurú akariga mussasa uye zvinoratidza kuti murume ane simba.
(If Juru felled that mussasa tree it shows that he is a strong man.)

(178) Kana wagogodza Rozi akarega kudaira zvinoreva kuti ane chikomba mumba imomo.
(If you knocked at the door and Rose did not answer it means that she is with her boy-friend in that room.)

(ii) kana /+ participial/ ---- verb ---- ku /+ infinitive/ ----

(179) Kana Jurú akariga muussasa uye zvinoratidza kuve kwake murume ane simba. (see 177)

(180) Kana wagogodza Rozi akarega kudaira zvinoreva kuve kwake nechikomba mumba imomo. (see 178)

In (176) - (180) kuti can be used readily in place of kana.

C. kana /+ consecutive/ in subject position
(i) kana [+ consecutive] — verb — kuti [+ indicative] — — — — —

(181) (Kana) akasauya nhasi zvakare zvinoreva kuti pame zvakasara zvoitika kumusha.

(If he does not come again today it will mean that there is something that happened at home after my departure.)

(182) (Kana) ambuya vakonorarako zvinotaura kuti Magorimbo arwara chaizvo.

(If grandmother spends the night there it will imply that Magorimbo is seriously ill.)

(ii) kana [+ consecutive] — verb — ku [+ infinitive] — — — — — —

(183) (Kana) ukaenda kumba kwaMashiri zvakare xwe wakambotukwako zvakadaro zvingaraitidze kuve rombe kwako.

(If you go to Mashiri's house again after you have been scolded that much it would show your stupidity.)

(184) (Kana) vavakidzani wakapota vachiyamurana zvinopangidza kunzwana kwavo.

(If neighbours help one another from time to time it is a sign that they are on good terms.)

In (181) - (184) kana is optional as was pointed out in subsection 2.6.

D. ku [+ infinitive] in subject position

(i) ku [+ infinitive] — verb — kuti [+ indicative] — — — — —

(185) Ramudzo kusvika nhasi zvinoreva kuti akapedza basa.

(For Ramudzo to come today means that he finished his work.)

(186) Ndoro kusvipa kumese' kudaro zvinoratidza kuti ari kunwa chikokiyana.

(For Ndoro to have such a dark face implies that he is taking skokiaan beer.)

(ii) ku [+ infinitive] — verb — ku [+ infinitive] — — — — —

(187) Kuzadza kwake' dura kunoratidza kushandza kwake' nesimbé.

(His filling the barn with grain shows how hardworking he is.)
The infinitive serving as subject may be a free infinitive as in (188) or an infinitive which is necessarily accompanied by a possessive as in (187).

E. zva /+ participial/ in subject position

(1) zva /+ participial/ ----- verb ----- kuti /+ indicative/ -----

(189) Zvaasina kudairā kugogodza kwaita zvinotaura kuti ane chikomba mumbamo.

(Since she did not answer your knock it means that she is with her boy-friend in the room.)

(190) Tembeni zvaari kungorutsa-rutsa zvinoratidza kuti ava nepamuviri.

(Since Tembeni is vomiting from time to time it shows that she is pregnant.)

(ii) zva /+ participial/ ----- verb ----- ku /+ infinitive/ -----

(191) Zvaasina kudairā kugogodza kwaita zvinotaura kuve kwake nechikomba mumbamo. (see 189)

(192) Tembeni zvaari kungorutsa-rutsa zvinoratidza kuve nepamuviri kwake. (see 190)

6.1.6.2 Verbs of "causation"

With verbs of "causation" the complement clause in subject position may be introduced by any of the complementizers except kuti /+ indicative/, but the object complement clause may be introduced by kuti /+ subjunctive/ or ku /+ infinitive/ only. The infinitive may be free or accompanied by a possessive.

A. kuti /+ subjunctive/ in subject position

(1) kuti /+ subjunctive/ ----- verb ----- kuti /+ subjunctive/ -----

(193) Kuti mugare muchirwa zvinokonzera kuti murumbane.
(For you to be always fighting will eventually lead you into divorce.)

(194) Kuti ndidzokere kuchikoro zvinokunda kuti ndiramba ndichiita basa reumabharani.

(For me to go back to school is better than continuing as a clerk.)

(195) Kuti uitewo rako gejo zvinobatsira kuti urego kunetsana nababa pakurima.

(For you to have your own plough will help you avoid trouble with your father at ploughing time.)

(ii) kuti [+ subjunctive] ---- verb ---- [+ infinitive] ----

(196) Kuti mugare muchirwa zvinokonzera kurambana. (see 193)

(197) Kuti ndidzokere kuchikoro zvinokunda kuramba ndichiita basa reumabharani. (see 194)

B. kana [+ participial] in subject position

(i) kana [+ participial] ---- verb ---- kuti [+ subjunctive] ----

(198) Kana Nyasha anga esingateré makore öse aya zvíchaita kuti anyimwe munda.

(If Nyasha has not been paying his tax all these years this will cause him to be denied a plot of land.)

(199) Kana mombe dzaSoko dzadya mumunda maGavi zvíchakonzera kuti vavengané.

(If Soko's cattle have laid waste Gavi's crop this will make them enemies.)

(ii) kana [+ participial] ---- verb ---- ku [+ infinitive] ----

(200) Kana Mago achipotá achienđa kunonwa hwahwa mumisha zvichamu-runzirá kudzingwa chikoro.

(If Mago is in the habit of going out to drink beer in the villages this will cause him to be expelled from school.)
(201) Kana Mushonga achita baisa rekuranda vanhu mariyavo zvichambakunzera kugara achiteverwa nemapiriswa.
(If Mushonga is fond of robbing people of their money this will result in his being closely watched by the police.)

C. kana [+ consecutive] in subject position

(i) kana [+ consecutive] ----- verb ----- kuti [+ subjunctive] -----
(202) (Kana) ukagara uchirwa nemukadzi zvinokonzera kuti murambane.
(If you fight with your wife often this will bring about your divorce.)

(203) (Kana) munhu ukavá muranda wekachasu zvinoita kuti chitaka chako chioré pakugumisira.
(If you become a slave of kachasu spirit this will cause you to have cancer of the liver in the end.)

(ii) kana [+ consecutive] ----- verb ----- ku [+ infinitive] -----
(204) (Kana) murume nemukadzi vakagara vachirwa zvinokonzera kurambana.
(If a man and his wife are always fighting this will lead to their divorce.)

(205) (Kana) ukajaira kuchovha makasa zvinorunzira kufa uchibaiwa nēbanga.
(If you develop the habit of gambling for money this will lead to your death by stabbing.)

Notice that in (202) - (205) kana is optional.

D. ku [+ infinitive] in subject position

(i) ku [+ infinitive] ----- verb ----- kuti [+ subjunctive] -----
(206) Kugara chete kunoita kuti muviri urukutike.
(Idleness makes the body weak.)

(207) Kushanda nezimba kunobatsirá kuti munhu ubudirire.
(Working hard helps one to be successful.)
(208) Kuchovha makasa kunorunzira kuti munhu uite ubhinya.
   (Gambling for money will lead one to become a thug.)

(ii) ku $+\text{ infinitive}$ —— verb —— ku $+\text{ infinitive}$ ——

(209) Kuyarara kunokunda kurwa.
   (Keeping quiet is better than fighting.)

(210) Kusanzwa kunokonzeri kutumbudzika pashure.
   (Lack of understanding is the forerunner of troubles.)

E. zva $+\text{ participial}$ in subject position

(i) zva $+\text{ participial}$ —— verb —— kuti $+\text{ subjunctive}$ ——

(211) Mukoma zvaakona kuenda kumusha zvichaita kuti ini ndiendeko.
   (Since my elder brother has failed to go home this will make me go there instead.)

(212) Zvawaramba uchitamba nemuramu wako nemutowo iwoyo zvichakukonzera kuti utaudzana nemukadzi izvi.
   (Since you continue to play about with your sister-in-law in that way, this will bring about misunderstanding between you and your wife.)

(ii) zva $+\text{ participial}$ —— verb —— ku $+\text{ infinitive}$ ——

(213) Zvawaramba uchitamba nemuramu wako nemutowo iwoyo zvichakukonzera kutaudzana nemukadzi izvi. (see 212)

6.1.6.3 Distributional Chart of Complementizers

The distribution of complementizers in multiple complement clauses is summarized below. The sign $+/+$ in the table below indicates a combination that is allowable.
A distributional Chart of Complementizers in object position

<table>
<thead>
<tr>
<th></th>
<th>KUTI (+indic)</th>
<th>KUTI (+subj)</th>
<th>KANA (+partic)</th>
<th>KANA (+consec)</th>
<th>KU (+infin)</th>
<th>ZVA (+partic)</th>
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<tbody>
<tr>
<td>KUTI (+indic)</td>
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6.2 Verb Phrase Complements

The case for verb phrase complements was argued in Chapter One. In that chapter it was stated that the complement clauses which do not come under the domination of NP, that is, those which do not pass the tests for noun phrases, are considered to be directly dominated by VP. In this section I should like to look at the different types of VP of which these complements are constituents. I must point out at the outset that the position with regard to verb phrase complements does not appear to be as clearly defined as it is with the NP complements dis-
cussed in 6.1 above. While it is normal to talk of the grammatical function of a noun phrase complement in various positions, it is not clear what the grammatical function of a verb phrase complement is.

Broadly speaking, complement clauses of the type under discussion can complement two types of verbs. First, they can occur as complements of verbs which are expressive of modality or adverbiality. Secondly, there are those which show the extent to which the action (or state) of the higher verb is carried out (or entered into). I discuss each of these two types in turn.

6.2.1 Verb Phrase Complements of the first type

These occur in a structure of the type shown below in which \( S \) is the complement in question.

\[
\begin{array}{c}
\text{NP} \\
\text{V} \\
\text{S} \\
\end{array}
\]

In the examples below, a complement clause in question (216) Chibage chinofanira kuśwa fetereza yepamusoro mazuva ano. (see 214) sekuru ačhangunó kudya. (217) Sekuru ačhangunó kudya.

A. Complement clauses introduced by kuti / subjunctive/

(214) Chibage chinofanira kuti chiiswe fetereza yepamusoro mazuva ano.

(The maize crop should be top-dressed with fertilizer these days.)

(215) Rosa ndiye akasaka kuti niende kudhorobha.

(Rosa was the one who made me go to town.)

B. Complement clauses introduced by ku / infinitive/

(216) Chibage chinofanira kuśwa fetereza yepamusoro mazuva ano.

(see 214)

(217) Sekuru ačhangunó kudya.
In the following sets of examples the complementizer formative is obli­gatorily deleted (see also 2.8).

C. Complement clauses introduced by kana /+ participial/

(220) Vana vakaramba vachitaura vanzi naticha nyararai.

(The children kept on talking after they had been told by the teacher to keep quiet.)

(221) Ndinogara ndichienda kumusha mwedzi yose kunoona amai.

(I go home every month to see my mother.)

(222) Tuli akachitemwa chomatesenganzungu akabva aparuma pasi.

(Tuli was given a hard blow on the cheek and fell down (lit. bite the ground))

D. Complement clauses introduced by kana /+ consecutive/

(223) Wagona ukabva wasvika, tanga toshupika.

(You did well to arrive now, we were getting worried.)

(224) Vana vaita vakarega kuyambuka mhiri nhasi vainge vazizvirirwako nemvura.

(It's a mercy the children didn't go over the river, otherwise today they would have been cut off by the floods.)

6.2.1.1 Modal-like verbs

With the meaning that the verbs in the higher sentences express in these sentences, the verbs in (214) - (224) must occur with a complement clause. Another pertinent observation is that these verbs do not seem to be true verbs semantically. Some of them indicate modality as in (214) -fanira (must, ought) and -gona (can) in (219). Semantically
these compare very well with the English modals can, must, shall, have etc. Others express an adverbial idea of one kind or another as in (217) -nguno (do to this time, still); (218) -fuma (do early in the morning); (220) -ramba (do continuously); (221) -gara (do often, always); (222) -bva (do then); and (223) -gona (do well, it is a good thing that ——). Nevertheless, structurally they behave like any other verb. These adverbial-like verbs require embedded sentences as their complements. Normally no material is permitted to intervene between them and their complement clauses. Adverbial enclitics like -su (expressing dissatisfaction), -wo (also) and -ka (form of emphasis) may however occur with the higher verb in these sentences.

(225) Chibage chinofanirasu kuiswa feterenza yepamusoro mazuva ano?
(Shall the maize crop really be top-dressed with fertilizer these days?)

(226) Chibage chinofanirawo kuiswa feterenza yepamusoro mazuva ano.
(The maize crop should also be top-dressed with fertilizer these days.)

(227) Chibage chinofaniraka kuiswa feterenza yepamusoro mazuva ano.
(The maize crop should certainly be top-dressed with fertilizer these days.)

6.2.1.2 Contracted Infinitives

Included in this type of verbs are those which may be accompanied by contracted infinitives. In (228) - (231) the verbs are followed by full infinitives. But in (232) - (235) these same verbs are accompanied by contracted infinitives. The meaning of the sentences in (232) - (235) is the same as that of the corresponding sentences in (228) - (231).

(228) Kunze kwanyanya kupisei kukadai?
(Why is it so hot?)

(229) Jeke afuma kuenda kunotema mapango.
(Jack went to cut poles early in the morning.)

(230) Nyatsa kudya zvako, pachine nguva.

(Take your time to have your meal, there is still time.)

(231) Kana waenda kuchitoro uchimbidze kudzoka.

(When you go to the store, do come back early.)

(232) Kunze kwanyanyopisei kukadai?

(233) Jeke afumoenda kunotema mapango.

(234) Nyatsodya zvakö, pachine nguva.

(235) Kana waenda kuchitoro uchimbidzakadzoka.

With the verb -nguno (do still) the terminal vowel never changes.

(236) Usamudaidze achagunô kuita basa randamutuma.

(237) Usamudaidze achagumoita basa randamutuma.

(Don't call him, he is still doing the piece of work which
I asked him to do.)

In the sentences above the infinitive contraction transformation is optional. With other verbs however this transformation is obligatory as in the following sentences:

(238a) *Arara kuchêma nêmanyoka.

b. Ararochêma nêmanyoka.

(239a) *Mashiri anogara kuregerera mombe dzakê dzichidya chibage chaSaru.

b. Mashiri anogaroregerera mombe dzakê dzichidya chibage chaSaru.

(Mashiri often lets his cattle destroy Saru's maize crop.)

(240a) *Sei muchiswera kutamba vamwe vachitta basa?

b. Sei muchiswerotamba vamwe vachitta basa?

(Why do you spend the day playing while others are busy
working?)

In the following pairs of sentences the uncontracted forms are even
more bizarre than those in (238a), (239a) and (240a). However the embedded clauses in the (b) sentences are no less contracted infinitives than those in (232) - (235) above.

\[(241)a. *Wamba' kuona Sara here pano?\]
\[b. Wamboona Sara here pano?\]

(Have you seen Sara here at all?)

\[(242)a. *Zvaasina kuuya ndota kuenda kumusha ini.\]
\[b. Zvaasima kuuya ndotoenda kumusha ini.\]

(Since he didn't come, I shall have to go home myself.)

\[(243)a. *Ndinonda kutenga chi'kuchitoro?\]
\[b. Ndinondotenga chi'kuchitoro?\]

(What shall I go and buy from the store?)

6.2.2 Verb Phrase Complements of the second type:

In the second type the verb in the higher sentence is not necessarily accompanied by a complement clause in the same sense as was the case with the first type. The sets of sentences (244) - (247) and (248) - (251) illustrate this.

\[(244) Ti' yacho yaiva yatonhora kuti vanhu vainwe.\]

(The tea was too cold for people to drink it.)

\[(245) Pasi paorna kuti murirae mumda uyu iye zvino.\]

(The ground is too dry for you to plough this field now.)

\[(246) Ndakwana nenzara kuti ndipuritse ndima iyi.\]

(I am too hungry to finish this piece of work.)

\[(247) Sabhuku uyu atonga mhosva dzakawanda kuti atadze yako iyi.\]

(This headman has tried so many cases that he cannot fail to try yours.)

The verbs in the higher sentences in (244) - (247) appear below without complement clauses.

\[(248) Ti' yacho yaiva yatonhora.\]
Admittedly there is a slight difference in connotation between the verbs in the higher sentences in (244) - (247) and the corresponding verbs in (248) - (251). It is quite clear though that the verbs in these pairs of sentences are related to one another in the same manner. In (244) - (247) it is implied that the action (or state) of the verb in the higher sentence is carried out (or entered into) to such an extent that something happens or fails to happen. The complement clause fills in this latter part. The verbs in (248) - (251) on the other hand merely express the action (or state) without indicating the extent to which that action (or state) is done (or entered into).

One other noteworthy point is that the verb in the higher sentence may be stative or non-stative. By stative here is meant inchoative, that is, verbs which are capable of expressing a present meaning although they may be in the past form. With stative verbs (and adjectives also) the complement clause follows immediately as in (252) - (256) as well as in (244) - (245). The element which signals the presence of the complement clause is not overtly expressed with these verbs.

(252) Zviyo izvi zvawanda kuti zvikwané mudura umu.
(253) Pesí akura kuti āve mubhuku rechína.

(The tea was cold.)
(249) Pasi paoma.
(The ground has become dry.)
(250) Ndakwana nenzara.
(I am very hungry.)
(251) Sabhuku uyu atonga mhósva dzakawanda.
(This headman has tried many cases.)

(252) Zviyo izvi zvawanda kuti zvikwané mudura umu.
(253) Pesí akura kuti āve mubhuku rechína.
(293) Zviyo izvi zvawanda kuti zvikwané mudura umu.
(Pesi is too old to be in Grade Four.)
(254) Imba yedu idiki kuti ilirwe bira.
(Our house is too small for the bira to be performed in it.)
(255) Ndafa nenyota yedor’ kuti ndimbosvika kumba ndigozodzokera kubhawa.
(I am too thirsty for beer for me to go home and then come back to the beer hall.)
(256) Aguta hwahwa kuti atyaire motokari.
(He is too drunk to drive a car.)

But with non-stative verbs it is necessary to insert into the object noun phrase an adjective or a relative clause which expresses quantity before the complement clause in question is supplied. And if the non-stative verb is not followed by an object noun phrase, an adverbial of frequency is added before the complement clause is supplied. Sometimes even if there is an object noun phrase the adverbial of frequency replaces the adjective or relative clause of quantity.

(257) Mari aona zvakawanda kuti atorwe mwoyo nevasikana vakaita saSekai.
(Mari has seen too many things to be attracted to such girls as Sekai.)
(258) Ndanzwa zvinhu zviharirwa mupenyu hwangu kuti nditirimuke zvauri kutaura.
(I have heard too many things in my life to be affected by what you are saying.)
(259) Sekuru vakauya kuno kuDomboshava kuzhinji chaizvo kuti vataike.
(Uncle came here to Domboshava so many times that he won't get lost.)
(260) Mvura yapenyu chaizvo manheru ano kuti iRege kuNaya usiku.
(There was so much lightning this evening that it can't fail to rain during the night.)

If the element which expresses quantity or frequency is left out from
(257) - (260) the resulting sentences are either ungrammatical or bear a different meaning altogether.

(261) *Mari aona zvinhu kuti atôrwê mwôyo nevasikana vakaita saSekai. (*Mari has seen things for him to be attracted to such girls as Sekai.)

(262) *Ndanzwa zvinhu muupenyu hwangu kuti ndîrirîmu ke zvâuri kutaura. (*I have heard things in my life to be affected by what you are saying.)

(263) *Sekuru vakauya kuno kuDomboshava kuti vâtalke. (*Uncle came here to Domboshava to get lost.)

(264) *Mvura yapenya manheru anô kuti irege kunaya usiku. (*There was lightning this evening that it can't fail to rain during the night.)

These sentences are ungrammatical if in place of the adjective or relative clause of quantity we put in any other qualifiers.

(265) *Mari aona zvinhu zvikûrû kuti atôrwê mwôyo nevasikana vakaita saSekai.

(*Mari has seen great things to be attracted to such girls as Sekai.)

(266) *Ndanzwa zvinhu zvinônadzika muupenyu hwangu kuti ndîrirîmu ke zvâuri kutaura.

(*I have heard interesting things in my life to be affected by what you are saying.)

6.3 Summary

In this chapter I have tried to show the grammatical distribution, or function, in sentences of complement clauses, both those that are dominated by NP and those dominated directly by VP. From the account given above it is evident that the role of complement clauses in Shona cannot be minimized. We see them function as subjects, objects and also as adverbials of one kind or another.
7.0 SOME RESIDUAL PROBLEMS

The account given in the foregoing chapters of sentential complements in Shona is by no means exhaustive. There are many areas which have as yet to be investigated. Some of these areas are outlined briefly below.

7.1 Relationship between verbs and ideophones

The relationship between verbs and ideophones in sentences like the following requires further investigation. Both the ideophones and the complement clauses are underlined.

(1) Chimuti chakati pwa kutyoka.
   (The stick got broken.)

(2) Roni anogara akati zii kunyarara.
   (Roni is always quiet.)

(3) Damba rakati bu kuwa mumuti.
   (A wild orange fell down from a tree.)

The subjects of the infinitives kutyoka in (1), kunyarara in (2) and kuwa in (3) are clearly chimuti, Roni and damba respectively. Therefore it is uncontroversial that these three infinitives are embedded clauses of some sort. It is interesting to note that the meanings of these infinitive verbs and that of the preceding ideophones are the same. These explanatory infinitives, as I may call them, are added to the sentences so as to make explicit the meanings of the ideophones, for it is not infrequent for an ideophone to express more than one meaning as in (4) and (5).

(4)a. Mvura yakati pwa kutinhira.
   (There was lightning and great thunder.)

b. Rumuti rwakati pwa kutyoka.
   (A stick got broken.)

(5)a. Mombe ndakaiti dzi mudemo kutema.
   (I cut the ox with an axe.)
b. Nyatsoti dzi kumira.

(Stand upright.)

In cases where the meaning of an ideophone is unambiguously clear, either because the ideophone has only one shade of meaning or from the context, this explanatory infinitive need not be present.

These explanatory infinitives may also accompany other verbs as in (6) below.

(6)a. Sadza ndakarirakasha kudya.

(I ate a lot of sadza.)
b. Vana vakadyisa mumunda mangu ndakavarakasha kurova.

(As for the children who let their animals destroy my field I thrashed them severely.)
c. Chibage ndakachirakasha kutema.

(As for the maize crop I cut down a lot of it.)

The verb -rakasha in (6) carries a slightly different connotation in each sentence as is indicated by the explanatory infinitives which are underlined.

Notice also that if the preceding verb is in the passive, the verb in the explanatory infinitive will of necessity be in the passive form also.

(7)a. Rumuti rwakanzi pwa kutyorwa.

(The stick was broken.)

(8)a. Mombe yakanzi dzi nedemo kutemwa.

(The ox was cut with an axe.)
b. *Mombe yakanzi dzi nedemo kutema.

(9)a. Chibage chakarakashwa nenikutemwa.

(The maize crop was hewn down by me.)
b. *Chibage chakarakashwa nenikutema.

Observe also that complement clauses which occur after ideo-
phones are restricted to those which are introduced by ku [+ infinitive] only as the examples in (1) - (9) above show.

However, what is not immediately clear to me is how to characterize these explanatory infinitives in terms of deep and surface structure. That is, should they be regarded (a) as ideophone complements in which case they would appear in structures like the following:

\[ S \rightarrow NP \rightarrow VP \rightarrow V \rightarrow \text{Ideophone Phrase} \rightarrow \overline{S} \]

in which \( \overline{S} \) will give rise to the explanatory infinitive; or (b) as verb phrase complements

\[ S \rightarrow NP \rightarrow VP \rightarrow V \rightarrow \text{Ideophone Phrase} \rightarrow \overline{S} \]

or (c) as sentence complements

\[ S \rightarrow NP \rightarrow VP \rightarrow V \rightarrow \text{Ideophone Phrase} \rightarrow \overline{S} \]

or (d) even as a conjunct of some kind.
Since the ideophone and the explanatory infinitive complement each other it would appear it is preferable to treat the explanatory infinitive as a verb phrase complement. This would make them sister nodes. It must be emphasized though that I am merely stating a preference rather than making a statement of fact.

Verbalized ideophones may still be accompanied by explanatory infinitives in the same way that plain ideophones are.

(10) Peni’ akapwatika kuseka.
    cp. Peni akati pwati kuseka.
    (Peni burst out laughing.)

(11) Nyoka yakumon’orá kuruma pagumbo.
    cp. Nyoka yakamuti kon’o kuruma pagumbo.
    (The snake struck him on the leg.)

(12) Ruzvidzo akabvotomoka kutaura padare.
    cp. Ruzvidzo akati bvotomo kutaura padare.
    (Ruzvidzo spoke unwisely at the court.)

The pairs of sentences in (10) - (12) seem to be related both structurally and semantically. But it has still to be determined precisely in what way they are related.

Notice also that if the verb in the explanatory infinitive is interchanged with the verbalized ideophone the resulting string is ungrammatical.
This applies equally to verbs like -rakasha which readily accept explanatory infinitives.

7.2 An aspect of the possessive construction

The following constructions are noun phrases which consist each of a head noun and a possessive.

(17) badza rekusakurisa (a hoe with which to weed)
(18) mari yekufambisa (money with which to travel)

The possessive construction in these noun phrases comprises a possessive morpheme and an infinitive verb. The infinitives in rekusakurisa and yekufambisa are no doubt embedded clauses. That they are embedded clauses becomes more obvious in sentences like the following:

(19) Toko anoda badza rekusakurisa.
    (Toko wants a hoe with which to weed (the field).)

(20) Bere akapa mwana mari yekufambisa.
    (Bere gave the child some money for it to use on the journey.)

The grammatical subjects of the infinitive constructions kusakurisa and kufambisa in (19) and (20) are respectively Toko and mwana. The difficulty arises in how to characterize the noun phrases in (17) and (18).

Precisely how is the possessive element, represented in these noun phrases by /e/, as well as the causative idea represented by the morpheme /is/, to be described in terms of deep structure? As a possible solution the possessive element may be generated by the phrase structure rules, and to account for the causative idea one might have to postulate an ab-
abstract verb along the lines suggested by G. Lakoff. For the moment I leave it as an open question as to how to describe the type of noun phrase in (17) and (18).

7.3 Complement clauses introduced by kuti [+sub] and ku [+inf]

Another problem relates to complement clauses introduced by kuti [+ subjunctive] and ku [+ infinitive]. We saw in the preceding chapters that some complement clauses introduced by kuti [+ subjunctive] were synonymous with those introduced by ku [+ infinitive]. Consider the following pairs of sentences for illustration.

(21)a. Dende anoda kuti atenge motokari.
   b. Dende anoda kutenga motokari.
   (Dende wants to buy a car.)

(22)a. Nyoka yacho akaedzesera kuti airove ikabva yamusvipira.
   b. Nyoka yacho akaedzesera kuurova ikabva yamusvipira.
   (As he tried to hit the snake it spat at him.)

(23)a. Tondi abvumia kuti adzokere kuno hwedza.
   b. Tondi abvumia kudzokera kuno hwedza.
   (Tondi has agreed to return here tomorrow.)

(24)a. Unogona kuti uuye nenguva yaunoda.
   b. Unogona kuuya nenguva yaunoda.
   (You can come at the time you want.)

   b. Varangana kutiza mujeri.
   (They have planned to escape from prison.)

If there were a way of accounting for the synonymy of the sentences in the pairs (21) – (25) using a transformational rule(s), our grammar would be simplified. Since the difference between the members of each

pair lies in the complement clauses only, namely, that one is introduced by $kuti$ [+ subjunctive] and the other by $ku$ [+ infinitive], a solution would be to take one of the two complementizers as generated by the phrase structure rules and the other as introduced by an optional transformational rule under a certain stated condition, namely, that the subject of the complement clause must be identical with that of the higher sentence. Two objections to this solution immediately arise. First, these two complementizers are not always substitutable one for the other, as the pairs of sentences below show.

(26)a. Rozi akaita $kuti$ aroorwe chete naHuni.
   (Rose worked it in such a way as to get herself married by Huni.)


(27)a. Foromani akapunyaira $kuti$ done zvakuita nenaya yekudzingwa kwake basa.
   (The foreman thought very hard about what he could do concerning his dismissal from work.)

b. *Foromani akapunyaira kuona zvakuita nenaya yekudzingwa kwake basa.


b. Mwana wako abata kuba.
   (Your child has started stealing.)

(29)a. *Anyarara $kuti$ scheme.

b. Anyarara kuchema.
   (She has stopped crying.)

(30)a. *Vapedza $kuti$ vataure zvakaitika.

b. Vapedza kutaura zvakaitika.
   (They have finished narrating what happened.)

Given the transformational rule suggested above, (26b) and (27b) would be grammatical sentences, which they are not. There would be need then
for a caveat to this rule so that it excludes (26b) and (27b). Furthermore, since (28a), (29a) and (30a) are ill-formed, there would be need also to vary our transformational rule above so that it applies, not optionally, but obligatorily in these cases. With all these caveats it is doubtful whether in the end our grammar will be any simpler. Secondly, introducing ku (+ infinitive) transformationally seriously undermines the hypothesis that complementizers are present in deep structure which was otherwise convincingly argued for in Chapter Four. In any case it is highly questionable, if some complementizers are generated by the phrase structure rules while others are introduced transformationally, whether our grammar will achieve any reasonable level of descriptive adequacy at all. At the moment I know of no way of relating structurally within the generative transformational model the members of the pairs in (21) – (25).
8.0 CONCLUSION

In this study I have endeavoured to show the following points; firstly, it clear that an adequate linguistic description of Shona should take account of the fact that some embedded sentences are dominated by NP, while others are dominated directly by VP. Given the sentences

(1) *Vanhu vashinji vanotendera kuti Mwari ariko*.

(Many people believe that there is God.)

(2) *Kuti Mwari ariko zvinotenderwa nevanhu vazhinji*.

(That God exists is believed by many people.) it is as easy to believe that the clause *kuti Mwari ariko* is an instance of the constituent S as it is to believe that it is an instance of the constituent NP. A linguistic description which does not postulate that the string *kuti Mwari ariko* is an S at some level of derivation cannot achieve empirical adequacy. However, taken in the context of (1) this string is functioning grammatically as a direct object noun phrase, hence passivization is possible as (2) illustrates. This string is a noun phrase in (1) because it passes the tests for noun phrases and it behaves like an NP. We are therefore able to say that a given complement clause belongs to one or the other of these two groups, that is NP complements and VP complements, by applying the tests for discovering noun phrases. It is claimed in this study that any complement clause which passes these tests is considered to be dominated by NP, while those which do not pass these tests are taken to be dominated directly by VP.

One advantage of this approach is that once the tests for discovering simple noun phrases have been determined and established these same tests can be applied also to discover long and complex noun phrases. As has already been observed during the course of this discussion not all tests for noun phrases apply to every noun phrase in any given sentence.
For instance, noun phrases which function as adverbials have fewer tests applicable to them than noun phrases which are in an object position.

Besides, it has also been demonstrated conclusively that it is **necessary** to posit a head noun of either class 8 or class 15 (or class 16 in a few cases) for complement sentences which are dominated immediately by NP in order to account for the concordial agreement which these complement sentences govern. The other alternative, namely, to regard such an NP as expansible into $S$ only has been shown to result in a very weak grammar. As I have already pointed out the position with regard to the complement clauses which are directly dominated by VP is not so clearly defined. With further investigation it may turn out that the verbs discussed in 6.2.1 would be better treated as modals, and not as verbs as such, although this is not immediately apparent to me. The second type of VP complements may also prove not to be a watertight grouping. For one thing they occur in sentences which express comparison. With further research into how comparison is achieved in Shona this type of VP complement may turn out to require a different characterization. For the purpose in hand however any complement clause which does not meet the tests for noun phrases is considered to be a VP complement.

It has also been shown that a linguistic description of Shona should include complementizers among its grammatical categories. Complementizers have a semantic content although sometimes this meaning is not easily and immediately extractable. Accordingly in any derivation which involves a complement clause complementizers will be specified in the deep structure, and not introduced into sentences transformationally. Furthermore, the grammatical category of complementizer (COMP) is taken to comprise two elements, namely, a complementizer formative and a mood. This study claims also that every sentence node starts as $\bar{S}$, implying that every sentence has a complementizer. In the case of the topmost $\bar{S}$
the complementizer formative will be deleted obligatorily by a convention. It has also been shown that complementizers subcategorize verbs and also that these complementizers are mutually exclusive.

Another point which emerged in this study is that a description of Shona will be more adequate if we adopt the transformational approach for deriving infinitival constructions and the lexicalist approach for the other derived nominals. While derived nominals are always dominated by NP, infinitives on the other hand may be dominated directly by either NP or VP.
APPENDIX A

Phrase Structure Rules for Shona

1. \( S \rightarrow (\text{PreS}) \ NP + \ AUX + \ VP (PP) \ (ADV)^n \)

2. \( \text{PreS} \rightarrow \{ \{ \text{Imp.} \} \} \ (\text{Neg.}) \ (\{ \text{Passive} \ \text{Pseudo-passive} \} \)

3. \( \text{VP} \rightarrow \{ V (\text{NP} (\text{PP})) \} \)

4. \( \text{Pred.} \rightarrow \{ \text{NP} \ \text{PP} \ \text{Adj.} \ \text{Dem.} \ \text{Sel.} \ \text{Quant.} \ \text{Poss.} \}

5. \( \text{AUX} \rightarrow \text{Tns} (\text{Aspect}) \)

6. \( \text{PP} \rightarrow \text{P} + \ NP \)

7. \( \text{NP} \rightarrow \{ N (\overline{S}) \} \)

8. \( S \rightarrow \text{COMP} + S \)

9. \( \text{COMP} \rightarrow \{ \text{kuti} \ \text{indicative}, \ \text{kuti} \ \text{subjunctive}, \ \text{kama} \ \text{participial}, \ \text{kama} \ \text{consecutive}, \ \text{ku} \ \text{infinitive}, \ \text{zva} \ \text{participial}, \ \emptyset \ \text{complementizer} \}

10. \( \text{ADV.} \rightarrow \{ \text{Adv.} \ (\text{Time}) (\text{Place}) (\text{Manner}) (\text{Frequency}) \}

11. \( \text{N} \rightarrow \{ \text{mukómaná, mapánga, upfu} \}

12. \( \text{V} \rightarrow \{ \text{-róva, -nyóra, -fámbá} \}

13. \( \text{Tns.} \rightarrow \{ \text{a, ai, aha, cha, nga, no} \}

14. \( \text{Aspect} \rightarrow \text{chi} \)

15. \( \text{P} \rightarrow \{ \text{na, sa, ir} \)

16. \( \text{Adj.} \rightarrow \{ \text{-kúró, -temá, -tsva} \}

17. \( \text{Dem.} \rightarrow \{ \text{chi, va, ka} \}

18. \( \text{Sel.} \rightarrow \{ \text{-no, -ye} \)
Abbreviations:

Adj. = Adjective; ADV. = Adverbial; Adv. = Adverb;
AUX. = Auxiliary; COMP = Complementizer; COP. = Copula;
Dem. = Demonstrative; Imp. = Imperative; N = Noun;
Neg. = Negative; NP = Noun Phrase; P = Preposition;
Poss. = Possessive; PP = Prepositional Phrase; Pred. = Predicate;
Pres. = Present; Q = Question; Quant. = Quantifier;
S = Sentence; Sel. = Selector; Tns = Tense;
V = Verb; VP = Verb Phrase;

19. Quant. → (-o, -ga)
20. Adv. → (chete, bedzi, kani)
21. Time → (nhasi, nezuro, mangwana)
22. Place → (mumba, kurukova, panzira)
23. Manner → (chikomana, zvishoma, zvinonwirwa mvura)
24. Frequency → (kaviri, rutatu)
APPENDIX B

The verbs which are listed below are grouped according to the complementizer or complementizers which they allow in their complement clauses.

1. Verbs which allow kuti [+ subjunctive] and ku [+ infinitive] in their complement clauses:

- bvuma (agree) - chimbidza (hasten) - da (want, need)
- dziidza (learn) - edza (try) - edzesera (attempt)
- funda (learn) - funga (think) - fungidzira (guess)
- gadzirira (be prepared) - gadzira (prepare) - gara (not to do)
- gona (manage) - jaira (be in habit of) - kanganisa (do wrong)
- kanganwa (forget) - kodzera (be worthy) - kona (fail)
- koshiwa (forget) - kungira (regret) - kwaniisa (be able)
- mira (stop) - natsa (do well) - netsa (give trouble)
- ngwara (be wise) - nonoka (be late) - nyangadza (spoil)
- nyanya (do excessively) - nyara (be ashamed) - nyunyuta (grumble)
- nzvenga (avoid, dodge) - nzwara (hear) - ramba (refuse)
- rangana (plot, discuss) - sema (detest) - shinga (exert oneself)
- shora (despise) - siya (leave) - tadza (fail to do)
- teta (be scared) - tiza (run away) - tsika-tsika (hesitate)
- tsutsumwa (be reluctant) - tsvaga (seek) - tya (fear, be afraid)
- uDza (tell) - vamba (begin) - vavarira (persevere)
- zengurira (be unwilling to exert oneself)

2. Verbs which allow kuti [+ indicative] in their complement clauses:

- bheja (make solemn promise) - bvotomoka (speak unwisely)
- bvuma (agree) - bvunza (ask) - cherechedza (observe)
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-daira (believe)  -dziidza (learn)  -fembera (guess)
-funga (think)  -fungidzira (think)  -fushunura (reveal)
-kanganisa (do wrong)  -kanganwa (forget)  -koshiwa (forget)
-natsa (do well)  -nyara (be shy)  -nyunyuta (grumble)
-nzwá (hear)  -óná (see)  -paridza (preach)
-pfidza (confess)  -pika (swear)  -pindura (reply)
-pokana (refute)  -ramba (refuse)  -rangana (plot, discuss)
-rangaririra (ponder)  -réva (mean)  -ripa (compensate for)
-semá (detest)  -shinga (exert oneself)  -shora (despise)
-tadzá (fail to do)  -tanga (begin)  -taura (speak)
-tenda (thank)  -tendera (believe)  -tondera (remember)
-tsanangura (explain)  -tsiidza (promise)  -tsutomwa (be reluctant)
-tya (fear)  -vamba (begin)  -vanza (hide)
-viga (hide)  -yeuka (remember)  -ziva (know)

3. Verbs which allow kuti + subjunctive and kuti + indicative in their complement clauses:

-bvuma (agree)  -funga (think)  -fungidzira (think)
-kanganisa (do wrong)  -kanganwa (forget)  -koshiwa (forget)
-natsa (do well)  -nyara (be shy)  -nyunyuta (grumble)
-nzwá (hear)  -ramba (refuse)  -rangana (plot)
-revé (mean)  -semá (detest)  -shinga (exert oneself)
-shora (despise)  -tadzá (fail to do)  -tanga (begin)
-taura (speak)  -tenda (thank)  -tendera (believe)
-tondera (remember)  -tsutomwa (grumble)  -tya (fear)
-údza (tell)  -vamba (begin)

4. Verbs which allow kuti + indirect question as direct object:

-bvunza (ask)  -cherechedza (observe)  -dziidza (learn)
-fembera (guess)  -funda (learn)  -funga (think)
-fushumura (reveal)  -gadzira (prepare)  -kanganwa (forget)
-koshiwa (forget)  -nanganidza (look at)  -nyunyuta (grumble)
-nzwa (hear)  -ona (see)  -ongorora (examine)
-rangana (discuss)  -rangarira (meditate)  -shaya (be at a loss)
-tadza (fail to do)  -tsvaga (find)  -verenga (count)
-yeuka (remember)  -ziva (know)  -punyaira (be worried)
-tsanangura (explain)

5. Verbs which allow ku [+ infinitive], but not kuti [+ subjunctive] or
or kuti [+ indicative], in their complement clauses:

(a) Infinitives accompanied by possessives
-bata (get used to)  -chinja (change)  -enzana (be alike)
-gura (give up bad habit)  -isvava (do badly)
-kurumidza (hurry)  -nyanya (do excessively)
-nyarara (be quiet)  -pamhidza (do again)  -pora (be cool)
-serera (subside)  -wanza (do many times)

(b) Infinitives unaccompanied by possessives
-bata (get used to)  -enzana (be alike)  -gura (give up bad habit)
-isvava (do wrong)  -kwana (be affected)  -kurumidza (hurry)
-nyanya (do excessively)-nyarara (be quiet)  -pamhidza (do again)
-pedza (finish)  -pinda (get used to)  -pora (be cool)
-serera (subside)  -wanza (do many times)

6. Verbs which allow kuti [+ subjunctive], but not ku [+ infinitive],
in their complement clauses:

-ita (do)  -paridza (preach)  -tema (decide at court)
-sunga (decide at court)  -punyaira (be worried)
7. Verbs which allow kuti subjunctive in their complement clauses in which the subject may or may not be identical with the one in the higher sentence:

- bvuma (agree) - da (want, need) - edza (try)
- funga (think) - fungidzira (think) - gadzira (prepare)
- gadzirira (prepare) - goma (manage) - juirá (be in habit of)
- kanganisa (do wrong) - kanganwa (forget) - koshiva (forget)
- matsa (do well) - netsa (be difficult) - nyangadza (make mistake)
- nyara (be shy) - nyunyuta (grumble) - nzwa (hear)
- ramba (refuse) - rangana (plot, discuss) - revá (mean)
- shinga (exert oneself) - shora (contemn) - tadza (fail to do)
- tsutsunwa (be reluctant)
- tyá (fear) - vávarira (persevere) - zvonda (hate)

8. Verbs which allow kuti subjunctive in their complement clauses in which the subject may only be identical with the one in the higher sentence:

- chimbidza (hurry) - dzidzidza (learn) - edzesera (attempt)
- funda (learn) - gara (not to do) - kodzera (be fitting)
- kungura (regret) - mirá (stop) - nomoka (be late)
- shena-shena (do energetically)
- tanga (begin) - tsika-tsika (hesitate) - vamba (begin)
- zengurira (be unwilling to exert oneself) - nanga (go straight)

9. Verbs which allow kuti subjunctive in their complement clauses in which the subject may not be identical to the one in the higher sentence:

- ita (do) - konzera (cause) - paridza (preach)
- temá (decide) - sunga (decide at court) - tongá (judge)
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