In this chapter we propose a grammar of some select anaphoric and elliptical constructions in Malayalam. Here "anaphora" is used in the sense in which it is used in AI literature. In the beginning, the type of anaphors considered for the study, are dealt with. In the next, the various types of anaphors and elliptical constructions are discussed in detail and a computational grammar of the same is proposed.

Entities, which require coreference, are called anaphors. They are broadly classified here into pronominals, non-pronominals, gaps and ellipses. Pronominals are again classified into two: pronouns and one-pronouns, and non-pronominals are classified into three: reflexives, reciprocals and distributives. The reflexives are further divided into three subdivisions: emphatic, non-emphatic and possessive reflexives. Gaps are of two types: forward and backward. A schematic representation of this is given below.
Let us consider the pronouns in Malayalam. They are as follows:

<table>
<thead>
<tr>
<th>Person</th>
<th>Singular</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>First</td>
<td>naːn “I”</td>
<td>nannal “we”</td>
</tr>
<tr>
<td>Second</td>
<td>niː “you”</td>
<td>ninnal “you”</td>
</tr>
<tr>
<td></td>
<td>tanː “you”</td>
<td></td>
</tr>
<tr>
<td>Third</td>
<td>avan “he”</td>
<td>avar “they”</td>
</tr>
<tr>
<td></td>
<td>aval “she”</td>
<td></td>
</tr>
<tr>
<td></td>
<td>atu “it”</td>
<td></td>
</tr>
</tbody>
</table>
Thus we observe that there is a singular-plural distinction in all pronouns and a masculine-feminine distinction in the case of the third person pronouns above. The pronouns take the entire range of cases. For the purpose of illustration, the case form of one of them is given:

<table>
<thead>
<tr>
<th>Noun</th>
<th>Case</th>
<th>Case Marker</th>
</tr>
</thead>
<tbody>
<tr>
<td>avan</td>
<td>Nominative</td>
<td>Null</td>
</tr>
<tr>
<td>avane</td>
<td>Accusative</td>
<td>e</td>
</tr>
<tr>
<td>avanRe</td>
<td>Possessive</td>
<td>nRe</td>
</tr>
<tr>
<td>avanmu:lam</td>
<td>Beneficiary</td>
<td>mu:lam</td>
</tr>
<tr>
<td>avanka:ranam</td>
<td></td>
<td>ka:ranam</td>
</tr>
<tr>
<td>avanekontu</td>
<td>Purposive</td>
<td>kontu</td>
</tr>
<tr>
<td>avano:tu</td>
<td>Instrumental</td>
<td>o:tu</td>
</tr>
<tr>
<td>avana:1</td>
<td></td>
<td>a:1</td>
</tr>
<tr>
<td>avanu</td>
<td>Dative</td>
<td>u, kku</td>
</tr>
<tr>
<td>avanilinnu</td>
<td>Ablative</td>
<td>ilinnnu</td>
</tr>
<tr>
<td>avaneka:1</td>
<td></td>
<td>ka:l</td>
</tr>
<tr>
<td>avanku:te</td>
<td>Comitative</td>
<td>ku:te</td>
</tr>
<tr>
<td>avanil</td>
<td>Locative</td>
<td>il, kal</td>
</tr>
</tbody>
</table>

The relationship of the pronouns with their antecedents is discussed below. The pronoun and its antecedent are coindexed. Consider the following examples:
1. mo:han; avanRe; kuttiye kantu.
   mohan he-poss child-acc see-pst
   (Mohan saw his child.)

2. mo:han; avanRe; kuttiye kantu ennu kRisnan paRannu.
   mohan he-poss child-acc see-pst compl krishnan say-pst
   (Krishnan said that Mohan saw his child.)

3. *mo:han; avane; aticcu.
   mohan he-acc beat-pst
   (Mohan beat him.)

The pronoun is in its possessive form in both (1) and (2). In (3) it is in the accusative form. The antecedent of the possessive pronouns in (1) and (2) is “mo:han” “Mohan”, which is the subject of the clause in each case. But in the correct interpretation of (3), the antecedent of the accusative pronoun “avane” “him” is not the subject “mo:han” “Mohan”. Hence the coindexing of “avane” “him” with the subject “mo:han” “Mohan” makes the sentence ungrammatical. In the correct interpretation, “avane” “him” would refer to any individual other than “mo:han” “Mohan”. In other words, if (3) is part of an embedded clause, the antecedent would lie outside the clause (3) that is, in the clause in which it is embedded. The same can also be illustrated by the following examples:

4. mo:han avane; aticcu ennu kRisnan; paRannu.
   mohan he-acc beat-pst compl krishnan say-pst
   (Krishnan said that Mohan beat him.)

5. avano:tu; na:ttuka:r kRurama:yi peruma:Ri ennu ra:man; paRannu.
   he-inst people cruel behave-pst compl raman say-pst
   (Raman said that people were cruel to him.)
In sentence (4) the antecedent of the accusative pronoun “avane” “him” is “kRisnan” “Krishnan” which is the subject of the immediate clause [IC] in which the pronoun occurs. Thus from the above examples we can conclude that if the pronoun is possessive, then its antecedent is the subject of the clause in which it occurs and if the pronoun is non-possessive, then it is the subject of the clause immediate to the one in which the pronoun occurs. Consider the following sentences:

6. mo:hanı avanReı ammaye kantu.
   mohan he-poss mother-acc see-pst
   (Mohan saw his mother.)

   mohan she-poss mother-acc see-pst
   (Mohan saw her mother.)

   mohan their-poss mother-acc see-pst
   (Mohan saw their mother.)

   mohan I-poss mother-acc see-pst
   (Mohan saw my mother.)

Each of the above sentences has a possessive pronoun and in the grammatical sentence (6), clearly the antecedent of the pronoun is the subject of the clause and has the same person, number and gender features that the possessive pronoun has. In (7) the sentence is ungrammatical in the given reading because there is a gender disagreement between the pronoun “avalute” “her” which is feminine and the antecedent “mo:han” “Mohan” which is masculine. The ungrammaticality of sentence (8) is due to the lack of number.
agreement. The possessive pronoun “avarute” “their” is third person plural, whereas its coindexed antecedent is third person singular. In (9) “enRe” “my” is a first person pronoun and its antecedent is a third person pronoun. The sentence is ungrammatical because the pronoun-antecedent relation violates person agreement. Now consider the following examples:

10. ra:mani avanRei kuttiye kantu.  
    raman he-poss child-acc see-pst  
    (Raman saw his child.)

    he-poss child-acc raman see-pst  
    (Raman saw his child.)

12. ra:manei avanRei patti katiccu.  
    raman-acc he-poss dog bite-pst  
    (Raman was bitten by his dog.)

    he-acc raman-poss dog bite-pst  
    (He was bitten by Raman’s dog.)

    he-poss mother say-pst raman good copula compl  
    (His mother said that Raman is good.)

The antecedent of “avanRe” “his” in (10) is “ra:man” “Raman” and here the antecedent precedes the pronoun. The same holds for (12), where the antecedent “ra:mane” “Raman” precedes the possessive pronoun “avanRe” “his”. In contrast, in sentences (11), (13) and (14), the pronoun precedes the antecedent. In each of these instances the pronoun does not refer to the coindexed nominal which follows it, but has an outside sentence reference. Hence sentences (11), (13) and (14) are ungrammatical in the
intended sense. From this it is obvious that a pronoun cannot precede its antecedent. On the basis of the above, we arrive at the following conclusion:

I. A pronoun $P$ is coreferential with an NP iff the following conditions hold:
   a. $P$ and NP have compatible $P$, $N$, $G$ features.
   b. $P$ does not precede NP.
   c. If $P$ is possessive, then NP is the subject of the clause which contains $P$.
   d. If $P$ is non-possessive, then NP is the subject of the immediate clause which does not contain $P$.

Now consider the so-called one-pronoun. For Malayalam two types of one-pronoun can be postulated on the basis of countability which is an inherent feature: pronoun which is [+C], and the one which is [-C]. The two instances of one-pronoun which are homophones have the form “kuRe” “many”: “kuRe” [+C], “kuRe” [-C]. The [+C] pronoun takes [+/-animate, +count] NPs as its antecedent and [-C] pronoun takes [-animate, -count] NPs. In the case of homophone pronouns the antecedent is [+/-animate, +/-count] NPs. The antecedent NP is the non-subject NP in the immediate clause in which one-pronoun does not occur. Here we have to use world knowledge to analyze, which is outside the purview of this work. These are featured in tabular form below:
<table>
<thead>
<tr>
<th>One Pronoun in Malayalam</th>
<th>Inherent Feature of One Pronoun</th>
<th>NP which can be the antecedent</th>
</tr>
</thead>
<tbody>
<tr>
<td>orannam “one”</td>
<td>+C</td>
<td>+/- animate, +count</td>
</tr>
<tr>
<td>alpam “little”</td>
<td>-C</td>
<td>-animate, -count</td>
</tr>
<tr>
<td>kuRe “some”</td>
<td>+C, -C</td>
<td>+/- animate, +/- count</td>
</tr>
</tbody>
</table>

Given below are examples which demonstrate the above claim regarding [+C] pronouns along with two other claims that hold for [-C] pronouns, namely that (a) the antecedent must precede the pronoun and (b) the one-pronoun must have an explicit antecedent.

15. na:n rantu paksikale; ku:til kantu. ra:man orannatte, marattil kantu.  
I two bird-pl-acc nest-loc see-pst raman one tree-loc see-pst  
(I saw two birds in the nest. Raman saw one on the tree.)

I one-acc nest-loc see-pst raman two bird-pl tree-loc see-pst  
(I saw one in the nest. Raman saw two birds on the tree.)

17. ra:man pattu pustakam; va:niccu, orannam; ki:Riyatu a:yirunnu.  
raman ten book buy-pst one torn copula-pst  
(Raman bought ten books. One was torn.)

18. *ra:man vellam; naRaccu, kRisnan rantannam; taTTi kalannu³.  
raman water fill-pst krishnan two-quant hit throw-pst  
(Raman filled water. Krishnan threw two.)
In (15) "orannatte" “one” refers to the birds in the previous sentence and in (17) "orannum" refers to the books. In (16), the one-pronoun occurs in the first sentence and does not refer to birds in the following sentence. The sentence is ungrammatical in the reading in which the one-pronoun has its antecedent in the following sentence. It is also ungrammatical in the interpretation in which it has an inexplicit antecedent. From this it is clear that the NP should precede the one-pronoun. In (18) the one-pronoun "rantannam" “two” cannot have the NP “vellam” “water” which is [-count], as its antecedent. From the above examples it is also evident that the antecedent should have the feature [+count]. In the following examples we consider [-C] one-pronouns:

19. raːman paːluː vanniccu puːcca alpam; kuticcu.
raman milk buy-pst cat little drink-pst
(Raman bought milk. The cat drank a little.)

20. *raːman paːluː vaːnniccu puːca rantannam; kuticcu.
raman milk buy-pst cat two-quant drink-pst
(Raman bought milk. The cat drank two (of it).)

In (19) the one-pronoun “alpam” “little” refers to “paːlu” “milk” which is [-C] and in (20) “rantannam” “two” cannot refer to “paːlu” “milk” because “paːlu” “milk” is not [+C].

Consider the examples (21) and (22):

21. ammanaːr kuttikalkku vellam; koduttu avar kuRe; kuticcu.
mother-pl children-pl water give-pst they some drink-pst
(Mothers gave water to the children. They drank some.)
In (21) the one-pronoun “kuRe” “some” refers to “vellam” “water” which is [-C] and in (22) “kuRe” “some” refers to “a:pple” “apple” which is [+C]. From the above we arrive at the following ⁴:

II. A one-pronoun corefer with an NP iff:

e. Non-subject NP is in IC of one-pronoun.

f. NP precedes the one-pronoun.

g. one-pronoun and NP agree with respect to the C features.

Now consider the non-pronominals in Malayalam. As shown in the schematic representation, there are three types of non-pronominals in this language: the emphatic, the non-emphatic and the possessive. First consider the non-emphatic reflexive “ta:n”, which can take all the case forms. The following examples show the non-emphatic reflexive-antecedent relation.

23. ra:mani paRan nu tan ne, na:ttuka:r aticc u en nu.
    raman say-pst self-acc people hit-pst compl
    (Raman said that people hit him.)

24. tan na:l i paRRunnatu ceyyum en nu ra.man i paRannu.
    self-inst possible do-fut compl raman say-pst
    (Raman said that he (=Raman) would do whatever possible by him (=Raman).)
25. ra:mana; paRannu kRisnan tanno:tu; nunna paRannu ennu. 
raman say-pst krishnan self-inst lies say-pst compl 
(Raman said that Krishnan had told a lie to him (=Raman).)

26. ra:mana tanno:tu; nunna paRannu ennu kRisnani paRannu. 
raman self-inst lie say-pst compl krishnan say-pst 
(Krishnan said that Raman said a lie to him (=Krishnan).)

In sentence (23) the non-emphatic reflexive “tanne”, which is in the accusative form, has 
its antecedent “ra:manW “Raman” in the matrix clause. The non-emphatic reflexive 
“tanna:l” in sentence (24) has the antecedent “ra:man” “Raman”, which is the subject of 
the matrix clause. In the next two sentences (25) and (26) too, the antecedent is the 
subject of the matrix clause. From the above examples it follows that if the non-emphatic 
reflexive “tanne” is in the embedded clause then the antecedent is the subject of the 
matrix clause. Thus the following generalization holds for “ta:n”-antecedent relation:

III. A non-emphatic reflexive R is coreferential with an NP iff

h. NP is the subject of the IC which does not contain R.

Turning to the other type of reflexive, the emphatic reflexive namely “tannata:n” and 
“svayam”, the latter borrowed from Sanskrit and it is morphologically invariant in that it 
does not take any case forms. In the case of “tannata:n” it takes only two cases namely, 
nominative and accusative. Consider the examples given below:
27. ra:man; tannata:n; sku:lil po:yi.
   raman self school-loc go-pst
   (Raman went to the school himself.)

28. ra:man; tannata:n; vi:ttil po:yi ennu kRisnan paRannu.
   raman self house-loc go-pst compl krishnan say-pst
   (Krishnan said that Raman went to the house himself.)

29. ra:man; svayam; sku:lil po:yi.
   raman self school-loc go-pst
   (Raman went to the school himself.)

30. ra:man; svayam; vi:ttil po:yi ennu kRisnan paRannu.
   raman self house-loc go-pst compl krishnan say-pst
   (Krishnan said that Raman went to the house himself.)

In the above sentences (27) and (28), the antecedent of the emphatic reflexives “tannata:n” is the subject of the clause in which it occurs, that is “ra:man” “Raman”. The same is the case with the emphatic reflexive “svayam”. Both “svayam” and “tannata:n” have free distribution. Thus it concludes as:

IV. An emphatic reflexive $R_1$ is coreferential with an NP iff

i. NP is the subject of the clause which contains $R_1$.

The third type of reflexive is the possessive reflexive “svantam” which is also borrowed from Sanskrit. It behaves like the emphatic reflexive “tannata:n”. Consider the following examples that contain the possessive reflexive “svantam”:
    sita self child-acc beat-pst compl mother say-pst
    (Mother said that Sita beat her (=Sita's) child.)

    raman self vehicle krishnan-dat drive-purposive give-pst
    (Raman gave his (=Raman's) vehicle to Krishnan for driving.)

In both the cases the antecedent of the possessive reflexive “svantam” is the subject of the clause in which “svantam” occurs. In (31) “si:ta” “Sita” is the antecedent of “svantam” and in (32) it is “ra:man” “Raman”. From the above we conclude that:

V. The possessive reflexive $R_2$ corefers with an NP iff
   
   j. NP is the subject of the clause which contains $R_2$.

Consider another class of non-pronominals called reciprocals$^5$. There are several types of reciprocal anaphors in Malayalam. The ones which have the most frequent distribution are “ora:l-ora:l” and “ora:l-matte-a:l”. Consider the following examples:

    these children each other beat-neg
    (These children do not beat each other.)

    they-dat each other like-neg
    (They do not like each other.)
The antecedents of the reciprocal anaphor in (33) and (34) are “kuttikal” “children” and “avarkku” “they” respectively. In (33) and (34) each the antecedent precedes the anaphors. If the anaphor precedes the antecedent, the sentence becomes ungrammatical.

There are other forms in Malayalam which give the reciprocal meaning. They are “anyo:nyam”, “tammiltamil”, “parasparam” and “anno:ttum-inno:ttum”. These forms do not take any case markers. The following show the distribution of these reciprocals:

35. avari anyo:nyam/ tammil tammil/ parasparam/ anno:ttum inno:ttum;
    they each other
    sne: hiccu.
    like-pst
    (They liked each other.)

36. avari anyo:nyam/tammil tammil /parasparamann/ o:ttum inno:ttum; valakku
    they each other
    paRannu.
    say-pst
    (They scolded each other.)

37. *avan; anyo:nyam/tammil tammil/parasparam/anno:ttum inno:ttum;
    he each other
    valakku paRannu.
    scold say-pst
    (He scolded each other.)

The coindexing in the above shows that the antecedent of the reciprocal anaphor is the subject of the clause in which it occurs. The sentence (37) is ungrammatical because the antecedent is singular; the antecedent has to be plural for a reciprocal anaphor. It is also evident that the antecedent must precede the anaphor. Hence we arrive at the following:
VI. A reciprocal anaphor R' is said to corefer with an NP iff

k. NP is the subject of the clause, which contains R'.

l. NP is plural.

m. NP precedes R'.

Now consider the distributive anaphors “avar-avar” and “avan-avan”. These distributive anaphors are reduplication of the pronouns “avar” and “avan” and with respect to antecedents, they behave like reciprocals. They do not have masculine-feminine distinction and are always used in the plural form. Like the pronominals, distributive anaphors also take all the case forms. Consider the following examples:

38. ammama:ri avar-avarutei kuttikale raksiccu.
   mother-pl their children save-pst
   (Mothers saved their own children.)

   all their convenience alone see-pst
   (All looked at their own convenience.)

40. *avan; avan-avanRei ka:ryam no:kki.
   he their matter see-pst
   (He looked at their matter.)

In (38) and (39) the antecedent of the distributive anaphor is the subject of the clause in which it occurs. In (38) the antecedent is “ammama:ri” “mothers” and in (39) it is “ellavarum” “all”. In both the cases the antecedent is plural and it precedes the anaphor. Sentence (40) is ungrammatical because the antecedent is singular. From the above we arrive at the following:
VII. A distributive anaphor D corefers with an NP iff the following conditions hold:

n. NP is the subject of the clause in which D occurs.

o. NP precedes D.

p. NP is plural.

Now we consider the elliptical and the gapping constructions in Malayalam. They occur in discourses, each with at least two parallel structures elided for the reasons of economy or emphasis and can be understood in terms of the corresponding constituent in the other of the parallel constructions. Gaps are different from ellipsis in the following ways:

The gaps have the following properties:

1. A constituent such as subject, object or verb is omitted to avoid repetition.

2. Occur in intra-sentential constructions.

The ellipses have the following properties:

1. Even a non-constituent can be elided.

2. Occurs in inter-sentential constructions.

Consider gaps first. The gaps are of two types: forward and backward. In forward gapping, the gap occurs in the initial clause whereas in backward gapping, the gap occurs
in the second clause. The gapped entity can be the subject NP, the object NP, the verb or the whole VP. Consider the following examples, which have forward gapping:

41. sya:m kuttikale sne:hikkunnu pakse avanRe bha:rya verukkunnu.
    syam children like-prst but he-poss wife hate-prst
    (Syam likes children but his wife hates.)

42. ra:man dosa kaliccu, kappiyum kusiccu.
    raman dosa eat-pst, coffee-coord drink-pst
    (Raman ate a dosa and drank coffee.)

43. ra:man ka:ttil po:yi, lakshmananum.
    raman forest-loc go-pst lakshmanan-coord
    (Raman and Lakshmanan went to the forest.)

44. avan jayiccu enna va:rta aRinnu, pakse na:n visvasikkunnilla.
    he pass-pst compl news know-pst but I believe-neg
    (Heard that he passed the exam, but I do not believe.)

Each of the above sentences contains two parallel constructions. The parallel constructions are identified by the presence of the coordinate marker. In (41) the coordination marker is “pakse” “but” and in (42) and (43) it is “-um” as in “ka:ppiyum” “coffee and” and “lakshmananum” “Lakshmanan and”. In (41) the element gapped is “kuttikale” “children” which is the direct object and in (42) it is the subject “ra:man” “Raman” that is gapped. The verb “po:yi” “went” is gapped in (43). In sentence (44) the gapped constituent is “avan jayiccu enna va:rta” “the news that he passed”. From this it is clear that the subject, direct object, the locative NP, the verb and the whole clause can be gapped.
We generalize from the above examples that any constituent can be gapped in the forward gapping. Now consider the following examples which depict backward gapping:

45. ra:man sitayeyum hari ritayeyum kalya:nam kaliccu.
    raman sita-acc-coord hari rita-acc-coord marry do-pst
    (Raman married Sita and Hari married Rita.)

46. ra:man sitayeyum kRisnan tukminiyeyum sne: hiccu.
    raman sita-acc-coord krishnan rukmini-acc-coord like-pst
    (Raman likes Sita and Krishnan likes Rukmini.)

47. *sya:m sne:hikkukayum hari si:taye veRukkukayum ceyyunnu.
    syam like-coord hari sita-acc hate-coord do-pst
    (Syam likes and Hari hates Sita.)

    syam like-coord but hari sita-acc hate-coord do-pst
    (Syam likes but Hari hates Sita.)

In (45) the complex verb “kalya:nam kaliccu” “married” is gapped and in (46) it is the verb “sne: hiccu” “likes” which is gapped. In (47) the object “si:taye” is gapped, but it is not necessary that “si:taye” is the object of the first clause and the sentence is ungrammatical, which shows that the backward gapping of object is not allowed. Similar is the case with (48) in which the object “si:taye” “Sita” is gapped. From the above examples we can arrive at the following regarding forward and backward gapping:

I. If Q is a sentence and Q’ and Q” are the two parallel structures which constitute Q, then the verb V or the noun phrase NP occurs recursively iff
   a. for forward gapping
q. NP is any constituent in Q'.

r. V is in Q'.

b. for backward gapping

s. NP is the subject of Q''.

t. V is in Q''.

Coming to ellipsis next, we consider inter-sentential ellipsis involving wh constructions (wh-const) and also question constructions (q-const) where the "o:"
question morpheme occurs at the end of a declarative sentence. The elided material can
be any constituent and unlike gaps even non-constituents can be elided. In the case of wh
constructions the material that cannot be elided is the OBJECT (for the present purpose,
OBJECT is used to refer to what is called "discourse focus"). Consider the following
examples:

49. ni: evite po:yi?
    you where go-p$t
    (Where did you go?)

    vi:tti:il.
    house-loc
    (To the house. (=I went to the house.))

In the above sentence the wh word is "evite" "where" which is locative. The response
sentence to this wh-construction has two constituents elided, "na:n" "I" and "po:yi"
"went". The former is the subject and the latter is the verb. The constituent that is not
elided in the response is the locative, which is the focus of the sentence. Now consider
the following example:
50. avan vanno:?
    he come-que morph
    (Did he come?)

    vannu.
    come-pst
    (Came. (=Yes, he came.))

The above example shows another type of question construction in Malayalam. The response contains only the verb to form an elliptical construction. Unlike wh-const, in these constructions the verb cannot be elided, but the other constituents can be elided.

Consider the following wh-constructions.

51. ni: evite po:yi?
    you where go-pst
    (Where did you go?)

    sku:lil.
    school-loc
    (To the school. (=I went to school.))

52. ennane po:yi?
    how go-pst
    (How did you go?)

    bassil.
    bus-loc
    (In the bus. (=I went by bus.))

In (51) the wh-word is “evite” “where” and the response to this is “sku:lil” “to the school” which is locative. In (52) the wh-word is “ennane” “how” and the response is “bassil” “in the bus” which is also in the locative. From the above it is clear that wh-
words “evite” “where” and “ennane” “how” take locative as focus. Consider the following example.

53. ra:man entine kantu?
   raman what see-pst
   (What did Raman see?)
   pa:mbine.
   snake-acc
   (Snake. (=Raman saw a snake.))

54. ra:man a:re kantu?
   raman who see-pst
   (Who did Raman see?)
   kRisnane.
   krishnan-acc
   (Krishnan. (=Raman saw Krishnan.))

The wh-word “entine” “what” takes noun in accusative case as its response. In (53) “entine” “what” takes “pambine” “snake” as the response. The same is the case for “a:re” “who” in (54). The following examples show that focus of certain wh-words can be nominative.

55. ni: arute vi:ttil po:yi?
    you whose house-loc go-pst
    (Whose house did you go?)
    si:tayute vi:ttil po:yi.
    sita-poss house-loc go-pst
    (Went to Sita’s house. (=I went to Sita’s house.))

56. ni: entu kantu?
    you what see-pst
    (What did you see?)
sinima kantu.
see-pst film
(Saw a film. (=I saw a film.))

57. a:ru palam va:nniccu.
who fruit buy-pst
(Who bought the fruit?)
ra:man.
raman
(Raman. (=Raman bought banana.))

58. etra vila a:yi?
how much cost copula
(How much is the cost?)
pattu.
ten
(Ten. (=It costs ten rupees.))

In (55) the wh-word is “a:rute” “whose” which takes a possessive focus “si:taːs”. In (56) the wh-word is “entu” “what” which takes a nominative focus like “sinima” “film”. The same is the case of (57). The wh-word is “a:ru” “who” and the response is “ra:man” “Raman” which is in the nominative. The wh-word in (58) is “etra” “how much” and its focus is also a nominative nominal “pattu” “ten”. Now consider the sentence given below:

59. ni: entinu vi:ttil po:yi?
you why house-loc go-pst
(Why did you go to the house?)
si:taye kaːnaːn po:yi.
sita-acc see go-pst
(Went to see Sita. (=I went to see Sita.))
Here the wh-word is "entinu" "why" and its focus is the accusative "si:tye" "Sita".

From the above examples we can say that if the wh-word is nominative, then the focus is nominative. That is, the case of the wh-word is the case of the focus. The following table gives the information about wh-word and its focus:

<table>
<thead>
<tr>
<th>Wh-word</th>
<th>Focus</th>
</tr>
</thead>
<tbody>
<tr>
<td>etra</td>
<td>Nominative</td>
</tr>
<tr>
<td>a:ru</td>
<td>Nominative</td>
</tr>
<tr>
<td>entine</td>
<td>Accusative</td>
</tr>
<tr>
<td>entukontu</td>
<td>Instrumental</td>
</tr>
<tr>
<td>enno:ttu</td>
<td>Dative</td>
</tr>
<tr>
<td>ennane</td>
<td>Locative</td>
</tr>
<tr>
<td>eppe:l</td>
<td>Locative</td>
</tr>
<tr>
<td>evite</td>
<td>Locative</td>
</tr>
</tbody>
</table>

Another type of ellipsis that Malayalam has is yes/no question constructions as in the following:

60. ni: kalicco:?
    you eat-pst-Qmorph
    (You ate? (=Did you eat?))
    illa.
    no
    (No. (=I did not eat.))

Here the question is formed by adding a question morph to the verb or to the noun. The response will be either "illa" "no", "a:nu" "yes", "uvvu" "yes" or the verb without the question morph. Consider the following example:
There are three possible responses, in each of which different material is elided. In the first response only one constituent is present and it is “uvvu” “yes”. In the second the verb “kaliccu” “ate” is the only constituent present and in the third response both “yes” and the verb are present.

The question (61) itself has elided material. If the clause is a wh construction then the subject is elided and if a q-construction, then the subject, the object or both. From the above we arrive at the following:

IX. If the clause is a wh-construction, then the elided fragment in the response is of the following:

u. Subject
v. Verb.
Both the subject and the verb.

If the clause is a q-const then, the elided fragment in the response can be one of the following:

x. Subject.
y. Object.
z. Both the subject and the object.

To conclude, we have dealt with different types of anaphors and ellipses in Malayalam in this chapter. The grammar for each type is spelt out. However, we would like to add that certain constructions like the following are out of the scope of the study.

    raman syam-acc fruit give-pst he it eat-pst
    (Raman gave a fruit to Syam and he ate it.)

    raman syam-acc fruit give-pst he that-loc regretted
    (Raman gave a fruit to Syam and he regretted then.)

In these cases the syntactic resolution, which is what we are dealing with here, can not give a unique solution. In the above cases the pronoun “avan” “he” can have either “ra:man” “Raman” or ‘syam” “Syam” as its antecedent. This ambiguity can be resolved by using world knowledge.

Notes

1. However, it must be noted that although in the relevant literature the term “anaphors” includes ellipsis, we are using these as distinct terms here.
2. In Malayalam “ta:n” is a second person pronoun as well as a non-emphatic reflexive.

3. For the purpose of this work, the verbal element, which takes tense/participle features is regarded as the compound verb constructions.

4. The analysis described here does not use semantic knowledge, that is, world knowledge and as such cannot capture an ambiguous sentence of the following kind. For example consider the following:

   three  princess  three  princesses  marry

   kaliccu, onninu  ishtama:yirnnu.
   did  one  (become/was happy)
   (Three princes married three princesses. One was happy.)

In one reading the one-pronoun takes its antecedent as “ra:jakuma:ri” and in another reading it takes it as “ra:jakuma:ran”. To give the one-pronoun a unique antecedent and thereby resolve the ambiguity, that is, knowledge of the facts, that is world knowledge is necessary. Consider a problem of a different kind.

   rantu  a:nkuttikal  pattu  kuppikal  potticcu.
   two  boys  `  ten  bottle  broke

   a. onninu  kshatam  patti,
      one  hurt  aux

   b. onninu  vila  ku:tiyatu  a:nnu.
      one  expensive  copula
   (Two boys broke ten bottles, one was hurt, one was expensive.)

5. The reciprocal anaphors have a bipartite structure. The first “ora:l” takes the case of the antecedent and the second takes the case assigned by the verb. For example in sentence (33) in the text, the reciprocal anaphor is “ora:l-ora:le” or “ora:l-matte-a:le”, the first “ora:l” takes nominative case to agree with the antecedent and the second gets accusative case which is assigned by the verb. Since the antecedent is the subject, the first “ora:l” agrees with the subject of the clause in case.