In this chapter I present the syntactic formation of 'Multiple questions' in English and Kannada. The first section describes the Multiple questions in English and the second section deals with Multiple questions in Kannada. At the beginning, we will consider how the analysis discussed earlier accounts for the kinds of answers that can be given to the Multiple questions, especially to those where the Wh-phrases are in the singular, as in (1):

1. Which boy loved which girl?

Before doing this, we will discuss what kinds of answers can be given to multiple questions, i.e. I will examine whether or not it is the case, as claimed by Wachowicz (1974), that the direct answer to the multiple question must be a conjunction of sentences.

In the book 'On the syntax and the Semantics of Multiple questions' Wachowicz claims that in 'Ordinary Discourse', a multiple question requires a multiple answer. Let us consider the following examples:
2. Who is leaving when?
3. Raju is leaving in May and Sanju, in December.
4. Raju is leaving in May.

The sentence (3) would be a possible answer to the sentence (2) and sentence (4) would not be an answer to (2) in these examples. The same claim can be found in Kuno and Robinson (1972: PP-432-33), who insist that sentences like (4) are felt as incomplete answers to the question like (2). Hankamer makes an observation of the same kinds with respect to multiple questions he discusses without implying that this would be general for all sorts of multiple questions.

Wachowicz also claims that ordinary multiple questions are "requests for information on how to pair up the elements for which Wh-words stand, rather than requests for identity" (1974)

Furthermore she says that "in multiple questions each of the Wh-words stands for at least two members". Here to stand for means to be in the place of the appropriate values; we will use the term in the same way.

From this we understand, according to her, that the answer to the multiple question must be a multiple answer, but she does not say how it follows.

I will support the view that both of Wachowicz's claims are correct and supported by illustrations. That is multiple questions can be used as requests for identifying of appropriate values and multiple questions
'don't necessarily have to be answered by multiple answers. In addition, when there is more than one pair or triple, etc., it is obvious that for the answer to be true we need appropriate pairings.

We start by considering the four kinds of answers that a question such as (2) repeated here may try to elicit:

2. Who is leaving when?

There are four cases with respect to whether or not the person who asks (2) knows what is going to be substituted for the Wh-words in the answer as a wrong usage of tense:

(a) *The speaker knows who the persons who left are, and at what times there were departures, but he doesn't know the appropriate pairings\(^2\).

(b) *He only knows who the persons who left are.

(c) *He only knows the times of departures.

(d) *He neither knows who left nor what the departure times were.

We may eliminate the second situation, since ‘when’ what one Wh-phrase stands for is known while what the other stands for is not, it is the latter which moves in comp\(^3\).

Consider the first situation. If at least one of the Wh-words will be replaced in the answer by only one value, for example ‘today’ for ‘when’, there is no justification for using ‘when’ instead of ‘today’;
using 'when' would be misleading since it would be taken as indicating that the pairing is not known. A question like (2) is the first situation can thus elicit only multiple answers. This has nothing to do with the semantics of the multiple question itself.

The same can be repeated in the third situation. If the speaker knows that 'when' takes only one value and knows that value, the Wh-word shouldn't be used. Also, if 'when' stands for several values that are known but the only thing that is known about 'who' that it will take one value. Let us notice it in sentence (5):

(5) Who is leaving today, again on Monday, and again on Friday?

Using (2) would be taken as implying that the necessary information to ask (5) was not present, so there must have been at least two individuals, and so we can only expect multiple answers in the third case.

In the fourth situation we may expect either a single or a multiple answer. Wachowicz expresses doubts however as to whether a question like (2) can be used at all when the values for neither of the Wh-phrases are known to the questioner. We will see that (2) can be used in these circumstances and in particular when there is only one pair. Before coming to that we will consider some examples that Wachowicz gives as support for her claim that multiple questions always need multiple answers. Her claim predicts that questions where it is not possible that the Wh-phrase stands for more than one value will be ungrammatical. The following examples support her position:
(6) a.* Who killed Mahatma Gandhi when?
   b.* Who is keeping the gold in which bank?

These refer to only one subject and one object. So (6a) is a compound question and (6b) is a simple question. But consider the first example with the following situation. Some people might have two suspects in mind Naturam and Seturam, and in fact they know that either Naturam killed Gandhi at 6 a.m. or that Seturam killed him at 6:45 a.m. If they are sure of the time of the murder they will know who the murderer was, and conversely. Some dependency is created between murderer and time. In such contexts, informants finds. (6)a a much better. We will see other there is an one thing which is very clear here that there is an alternative way to ask these questions, for example:

(7) a. Who killed Mahatma Gandhi, and when?
   b. Who is keeping the gold, and in which bank?

The difference between (6) and (7) comes from one aspect of the multiple question. Somehow, it seems that the value for one of the Wh-phrases depends on the value for the other. This is clear in the case involving several pairs as in (6)a in the context we gave, answering with 'Naturam' would force you to take 6 a.m. as the time. However, in the absence of information about the relation between murderer and time, the answer to one variable doesn't provide the answer to the other one. A question like (7)a makes this absence of dependency clear, and it may be preferred perhaps for that reason.
The first kind of examples comes from Wachowicz herself (1974), cites Aquist. According to Aquist, (8)b is an appropriate answer a she claims that this is not true in ordinary language:

(8) a. What maestro is conducting what orchestra in the performance of what symphony at tonight's concert?

b. Bill is conducting the Boston symphony orchestra in the performance of Beethoven's fifth symphony at tonight's concert.

She is of opinion that in the normal conversation, (8)a would be pronounced with an intonation break after every question phrase, h indicates that it comes from a 'conjunction' and is a request for identity rather than request for pairing. She also claims that (8)a is normal request for identity and assimilates it to a quiz question.

First of all, besides an answer like (8)b, (8)a could have (9) as an appropriate answer, in cases where two different maestros conduct two different orchestras in the performance of two different symphonies at the same concert.

(9) Bill is conducting the Boston symphony orchestra in the performance of Beethoven's fifth symphony and Soiti is conducting the Chicago symphony orchestra in the performance of Muller's fifth symphony at tonight's concert.
The sentence (9) would be an answer to (8a) understood as a genuine multiple question; it is unlikely that (8b) would be an answer (8a) with a certain intonation and that (9) would be an answer to (8a) with another intonation. In addition to this, all speakers agree that (8a) would be totally natural in the context of a music festival, where each evening a different orchestra plays under the direction of a guest conductor, if the speaker doesn't know the programme. It would be equivalent to asking (10).

10. What is the programme tonight?

Wachowicz contrasts (9) a with (11), a reduced version of it, and points out that (11) has what she considers the normal interpretation, i.e. it elicits normally an answer made of a set of propositions:

11. What maestro is conducting what orchestra?

And she uses that contrast to say that (8) a is special. There is nothing strange here: (11) is simply a very general question about all the conductors who conduct some orchestra. As soon as some additional restrictive specification is added, a non multiple answer is again quite perfect, for example, in the context of music festival.

12. What maestro is conducting what orchestra at night's concert?

Two other similar examples are discussed by Wachowicz who claims they are examination questions.:4
13. a. What princess ran away with what prince, according to what fairy tale?

b. What French Emperor defeated what Russian Tsar in the last century?

Other counter-examples are found in Kuno and Robinson (1972). They involve indirect questions. The most striking one is (14):

14. Which one of you kids is going to tell me who stole this candy bar from where?

    John probably is .......... the dirty rat fink!

The answer can be seen as shortened form of (15):

15. John probably is going to tell you who stole this candy bar from where?

    The most likely interpretation of the embedded questions is that one individual is involved in stealing and that it took place in only one place. (14) and (15) are however perfect sentences.6

    The two other examples in Kuno and Robinson are (16) a and (16)b:

16. a Who asked you when Columbus discovered what?

    b Who remembers who discovered what an Oct 12, 1492?
It may happen that some people collapse Columbus' several voyages of discovery to a single people, the embedded sentence in (16a) is understood as involving only one pair (Columbus discovered America on October 12, 1492), and the same is possible for (16b). The (16b) can easily be considered as a quiz question; this is less likely for (16a) and totally out for (14). None of them is to be taken as a quiz question.  

One impression we have is that multiple questions involving only one pair are easier to accept as embedded questions than as direct questions.

17. a Who killed Rajeev Gandhi when, that is what the police have been trying to find out during last three years.

b Unless I find out who put my car through which car parking the insurance company won't pay me.

c The discussions on who is keeping the gold in which bank are quite boring.

These questions are just the statements that they require a specific information. The second class of counter examples or apparent counter examples discussed by Wachowicz is well-known: it involves what she calls reciprocal verbs as in (18).

18. Who hit who first?

The sentence (19) is a perfect answer to it, for example when it is known that two people are involved:

Wachowicz proposes to give (18) a sematic representation as in (20):

20. Either A hit B or B hit A.

For Wachowicz, single answers are natural with reversible verbs.

21. Which real number is a multiple of which other real number?

We notice by the way that it is just as plausible to derive single Wh-questions. For example, in a world with three individuals besides Jack, (22) could be represented as in (23):

22. Who liked Jack?

23. Either A liked Jack or B liked Jack or C liked Jack.

We have considered (18) with a context where only two people are involved. There are similar examples, like (24), where answer must be chosen from a large number of possibilities, and only a non-multiple answer is possible:

24. I wonder which team is going to meet which team in the final of the World Cricket Cup.

An infinite number of such examples can be constructed. At the moment we see no reason to consider multiple questions as different in nature from non-multiple ones.
In the following part we will discuss questions like (25) which we will call them 'iterated multiple questions':

25. Who knows where Radha bought which book?

Most linguists and Philosophers who have studied iterated multiple questions such as (25) have argued that there are ambiguities between narrow scope and wide scope reading for 'which book'; from now on we will generally simply talk about the narrow scope and wide scope readings of the questions.

On the narrow scope readings, the request for information concerns only the subject of the main clause; the person who asks the question wants to know which values have to be substituted for X in (26) in order for (26) to become a true sentence.

26. X knows where Radha bought which book.

27. Would be a sort of answer expected to such a reading of (25):

28. Ravi, Raju and Radha do.

On the wide scope reading the speaker wants to know which values have to be substituted for X and Y in (29) in order for it to become a true sentence.

29. X knows where Radha bought Y.

30. Would be the sort of answer expected to such a reading of (25):
31. Ravi knows where Radha bought 'Aspects' and Raju knows where Radha bought "Syntactic Structures" and Raghu know where Radha ought "Structural Linguistics".

Although it is generally assumed that sentences like (25) are ambiguous, Kuno and Robinson have argued that they are not, that they have only narrow scope reading. Hankmer criticizes several aspects of Kuno and Robinson's work. He shows that the constraint that they propose and which predicts that "sentences like (25) have only the narrow scope reading doesn't exist and that their analysis predicts several sorts of replies to be acceptable when in fact they are not".9

Kuno and Robinson's representation of the deep structure of (25) is similar to (32).10
Kuno and Robinson's position is based on two observations. First, they note that other constituents than wh's that some take as having widest scope in their terms, matrix-Q-bound-Wh-words can be specified. Second they note that "there are nonlinguistic circumstances under which giving constant values only to the matrix-Q-bound wh's would yield counter factual answers."

The first point is that a question exemplifies like (33) which can have (27) and (31) as acceptable replies, just as (25) can.

33. Who knows where we bought these books?

The fact that "these book" is given constant values in the reply has never been taken as indicating that "these books" was bound by a, and similarly, the fact that "which book in (25) is given constant values in (31) doesn't force one to say that "which book" is bound by the matrix Q (Kuno and Robinson, 1972:481).

The second point is that there are circumstances under which (27) can be false and (31) true. They propose the following general principle to account for the existence of replies like (27) and (31) to question like (25), assuming that such questions are not ambiguous and have only a reading as in (34).

34. We hold that giving more information than is syntactically called for, namely giving constant values to
Wh-words or other valuables (such as these books) that are not bound by the matrix $Q$ is possible only when assigning constant values to the matrix-$Q$-bound alone would constitute a counte factual or inaccurate answer.

(Kuno and Robinson; 1972:480).

To ensure that sentences like (36) can not be ambiguous, i.e. to mechanically restrict their scope of the unmoved Wh-word, Kuno and Robinson propose the clause Mate constraint on Multiple Wh-words.

35. Multiple Wh-words bound by the same $Q$ must be clause mates at the time of application of Wh-a movement.

Hankamer has proved that there was no such constraint, otherwise examples like the following one would have to be marked as ungrain matical:

36. What I can’t remember is which recipe requires that I buy which spice.

It is possible to construct examples with a missing Vp where the ambiguity is preserved, because after Vp-copying has applied, all the
traces are properly bound, as is the case with (37).

37. Which girl discovered where we bought which book before which boy did?

Let us see the syntactic structure of the sentence (37) in the following diagram.

Application of Wh-scope assignment to (37) with ‘which books3’ given narrow scope gives us the following logical form?

38. \([\text{which boy}_4, \text{which girl}_1, t_1 [\text{discovere [which book}_3, \text{where}_2
\text{we [bought t}_2 t_3 ]]]\) [before [t_4 did ]]].
In the case of wide scope reading (37), the syntactic surface structure is as in (37) diagram, but this time application of Wh-scope assignment gives (39).

39. \[\text{[which boy [which book}_3 \text{[which girl [t}_1 \text{[discovered [where}_2 \text{[we [bought t}_2 \text{ t}_3 \text{]]]} \text{[before [t}_4 \text{ did [Vp]]]]].}\]

Vp-coping gives (40).

40. \[\text{[which boy}_4 \text{[which book}_3 \text{[which girl}_1 \text{[t [discovered [where [we [bought t}_2 \text{ t}_3 \text{]]]} \text{[before [t}_4 \text{ did [discover [where [we [bought t}_2 \text{ t}_3 \text{]]]]].}\]

Every trace in (40), in particular t₄ and t₃ is properly bound. The impossibility of (38) is easy to explain: different occurrences of the same variable must have the same value: 'which books' binds two occurrences, of t₃ in (40); in the answer the values for different occurances of the variable corresponding to t₃ must be the same.
In this section, I will discuss the multiple question in Kannada Language. To give a short introduction, it is a familiar fact that languages differ in the extent to which they place Wh-words in a special, clause-initial position. Some languages like English, as we have seen earlier, normally place one and only one Wh-word in the specifier position. Other languages like Chinese, have all Wh-words in-situ at S-structure as in (1 b). In some languages for instance, French Wh-question is optional; as in (1 c) shows that French can follow either English or Chinese pattern. A third group of languages, less well-known to general linguistics, but including all the Dravidian languages as well as Slavic languages, moves all Wh-words to a clause initial position at S-structure, as in the Russian example (1 d) where kto-‘who’, cto-‘what’, kogda ‘when’ are fronted. Let us consider the following examples:

1. a What did you give to whom?
   b Ni xiang-zhadao Lisi weisheme mai-le sheme?
      you wonder   Lisi Why bought What  Huass1982)
      What do you wonder why Lisi bought it?

c Qu’ as-tu donne a qui?  = Tu s donne’ quoi a qui?
      What have you given to whom?=You have given what to whom?

d. kto cto dogda skazal’  (Wachowicz-1974)
      Who what when said.
      Who said what when?
We will be concerned with Kannada language that has multiple Wh-fronting. The following with all Wh-phrases at the beginning of the clause, are typical questions.

2. a. yaaru yaarannu noDidaru?
   who whom sees
   Who saw whom?

b. yaaru heege hoodaru?
   who how go
   Who went by what?

c. yaaru eenannu keeLidaru?
   who what asks
   Who asked what?

d. yaaru ennannu maaDidaru?
   who what do
   Who did what?

e. yaaru eeke hoodaru?
   who why go
   Who went why?

f. yaaru yavvaga eellinda eeke bandaru?
   who when where why come
   Who came when where why?
In Kannada language, all of the Wh-words in a multiple questions must move up to the closest interrogative specifier position, even if this means extracting more than one Wh from a clause. Wh-words may not remain in one position, nor in the specifier position of a non-interrogative clause.

3. *yaaru elli hoodarendu nivu vicaarisutiddiri?*
   
   who where has gone you think
   
   Who do you think went where?

4. *yaaru elli hoodarendu yaaru vicaarisutiddaru?*
   
   who where has gone who think
   
   Who was asking who went where?

5. *yaaru hoodarendu elli vichaarisutiddaru?*
   
   who has gone where think
   
   Who was asking where went who?

This is true regardless of the type of Wh-phrases involved. Examples with object Wh-phrases are given below:


   Rama gives Laxman a Mango in the forest tomorrow.

   Let us frame the multiple questions based on the sentence (6).
7. **raama yaarige eenanu koDuttane?**  
What does Rama give to whom?

8. **raama yaarige yaavaga maavinahaNNannu koDuttane?**  
When does Rama give a Mango to whom?

9. **raama yaarige eenanu yaavaga koDuttane?**  
What does Rama give to whom when?

10. **raama eenanu elli koDuttane?**  
What does Rama give where?

11. **raama yaarige mavinahaNNannu elli yaavagga koDuttane?**  
When does Rama give a Mango to whom and where?

12. **yaaru yaarige eenanu elli yaavaga koDuttane?**  
Who does give to whom what where when?

These examples show us that multiple Wh-words can always be extracted from a clause. It is possible to extract both interrogative and relative Wh-phrases from a clause if each Wh is able to move to an appropriate position.

Let us consider the following examples.

13. **yaava manuSya nimage goottillavo avanu eenanu elli koLLuttiddane ?**  
The man who you don’t know what is he purchasing where?
Apart from this and few other examples, construction of multiple questions from Wh-words is grammatical. In Kannada also, multiple Wh-movement out of the clause is possible. To give just one example, all Wh-words must be fronted to the matrix clause specifier position in questions like (18):

14. yaaru yaarige eenannu heeLi avanige pratijnemaDida?
   Who saying what did he promise to whom?

   Even Wh-words that arrive in different clauses can move to a single clausal boundary in Kannada.

15. yaaru eenannu heeLi avanigaagi kalpisuvadannu niivu kanDukonDarii?
   Who saying what imagining for him did you notice?

   Thus, in Kannada movement of more than one Wh-word of the clause in which they originate is fully normal and often obligatory.

   Kannada freely allows use of Wh-words from an embedded question or even from several interrogative Wh-clauses, as in (15).

16. yaava pustakavannu noDDiddenoo adannu yaaru koLLuvaroo yaarige goottendu nanage aascharyavayitu.
   I wonder who knows who will buy the book which I had seen.
Movement of an interrogative Wh-word out of an embedded Wh-question usually felt to be less normal than movement of a relative pronoun, but is fairly acceptable with heavy Wh-phrases.

17. eenlidu aashcharya yaarige goottu yaaru koNDaru?
What do you wonder who knows who buys?

18. ii yaava pustakagaLannu yaarige goottu yaaru koNDarendu aashcharyavagide?
Which of these books do you wonder who knows who buys?

Kannada also allows Wh-movement of both interrogative (19 a) and relative (19 b) Wh-phrases from inside an indirect question. It is more difficult to construct acceptable examples with interrogative Wh-movement. There is no limit on the number of clauses that may intervene between the fronted Wh-phrases and the extraction site.

19. a yaava gadyabhagavannu kaliyalicchisi yaaru inno nirdarisillavoo avara abhipraayaveenu?
For which paragraph do you want to learn who has not decided yet what will be his opinion?

20. b yaava suvarNaa nanage goottu avaLondige naanu charchisuvadu ninageenu tildide?
Suvarna, with whom I know what you think I discussed.
Let us consider the following example where the resumptive pronoun appears in interrogation.

21. yaaru maaDuvarendu nanageenu nilinu keeLuttiyaa?
What do you ask me who can do?

22. yaaru baruttarendu avarigeenu goottide?
What do they know who can come?

23. eenu avanu keeLiddannu yaaru shoodisidaru?
What did he ask who invented?

24. yaava yantravannu avanu keeLiddannu yaaru kaNDuhiDidaru?
The machine which he asked who invented.

The sentence (23) expresses interrogation from inside a finite which-clause whereas sentence (24) denoted relativisation with the same effect.

In Kannada, as shown in (25) and (26) case markers like- 'u', 'annu' and 'e' may not split up the Wh-sequence. On the other hand, the case markers and auxiliaries must directly follow the first Wh-word as can be seen in (27) and (28). No other position is possible, in particular case markers may not come at the end of the sequence of Wh-words.

25. a. yaaru eenannu ninage heeLidaruu?
Who told you what?

b. yaaru ninage eenannu heeLidaruu?
who you what told
Who told you what.
26. a yaaru eenannu yaarige kōTTaru?
   who who to whom has given.
   Who gave what to whom?

   b yaarige eenannu yaaru kōTTaru?
   To whom what who has given.
   Who gave what to whom?

   c yaaru eenu yaarige kōTTaru?
   who what to whom has given.
   Who gave what to whom?

27. a yaaru avanige eenu kōTTaru?
   who to him what has given.
   Who gave him what?

   b yaaru eenannu avanige kōTTaru?
   who what to him has given.
   Who gave him what?

28. a yaarinda eenannu yaarige kōTTaru?
   Who gave what to whom?

   b yaaru yaarige eenannu kōTTaru?
   who gave what to whom?
   or
   Who gave whom what?
These facts could reflect a difference not in the position of Wh-words but rather in the case marker placement rules. Let us see the following examples.

29. a esTannu avarige yaaru koTTaru?
   how much to them who gives.
   Who gives them how much?
   
   b yaarige yaavudara anjike?
   to whom of which afraid of
   Who is afraid of what?

Thus Kannada should place case markers at the end of the Wh-word sequence. This is essentially the pattern we find in Kannada language.

30. WH (clitic) WH (zero clitic) WH (clitic) V........
   a. yaarigaagi yaaru enthah pustkavannu bareyuttare?
      Who would write what kind of book for whom?
   b. enthah pustakavannu yaaru yaarigaagi bareyuttare?
      Who would write what kind of book for whom?
   c. yaarigaagi enthah pustakavannu yaaru bareyuttare?
      Who would write what kind of book for whom?

Thus, the case markers always follow the first major constituent of the clause. The following sentences are the best examples for parenthetical multiple questions.
35. a. yaaru nimma abhipraayada meerege eenu heelidaru?
   Who, in your opinion, said what?

b. yaaru eenannu nimma prakaara heelidaru?
   Who what according to you has said?

c. yaaru nimmanthe yaarigaagi eenannu koTTaru?
   Who according to you gave what to whom?

d. yaaru yaarigaagi nimma prakaara eenu koTTaru?
   Who in your opinion gave what to whom?

e. yaaru eenannu yaatakke nimmante koTTaru?
   Who what why according to you gave?

Thus, the formation of multiple questions in English and Kannada seems semblance at the surface level but there is a lot of difference at deep level. The theories of many linguists have shown us an insight deep penetrating into the main arena of multiple questions in English. But there is a need for still more systematic and detail study of multiple questions in Kannada. The little attempt, here, is made to understand the contrastive and comparative analysis of multiple questions in both the languages.
References:

1. Hirschbuhler - The syntax and semantics of Wh-questions

pp.40. Literally this is incorrect, because it predicts that (1) is a possible answer to (3): Raju and Sanju are leaving in May and again and in December. What is meant is clear however.

2. This corresponds to the situation described by Hankamer (1974: 73): The asker of the question must have in the mind some finite set of candidates for each 'wh' to be specified, so that in effect he is asking his addressee to specify which of the finite set of the possible circumstances, all visualised by him, obtains...In any case all of the multiple questions require such a presupposition; failure to which lead to construct one will make them all sound very strange.

3. Wachowicz has observed that many languages were sensitive to the distinction between known and unknown multiple questions. So in Kannada when the values for a wh- word are known by the questioner, the wh- word is reduplicated. So we may notice many in the section on Kannada multiple questions.

3. Wachowicz : On Syntax and Semantics of Multiple Questions pp: 40


7. Ibid. PP: 483
