THEORETICAL RESPONSES TO NAVAJO QUESTIONS

by

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1968

SUBMITTED IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE
DEGREE OF DOCTOR OF
PHILOSOPHY
at the
MASSACHUSETTS INSTITUTE OF
TECHNOLOGY
June, 1975

Signature of Author

Department of Foreign Literature & Linguistics
April 23, 1975

Certified by

Thesis Supervisor

Accepted by

Chairman, Departmental Committee
on Graduate Students
To Jay,
always the most confident,
the most optimistic.
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Submitted to the Department of Foreign Literature and Linguistics on April 23, 1975 in partial fulfillment of the requirements for the degree of Doctor of Philosophy.

ABSTRACT

This dissertation surveys a range of questions in Navajo, concluding on the basis of embedded questions that generally accepted theoretical claims about constraints on movement are incorrect. I argue that indirect question formation necessitates an unbounded rightward movement transformation, vitiating the Right Roof Constraint. Direct questions formed from sentences involving only direct discourse verbs demonstrate that unbounded leftward movement also occurs in Navajo, although it is a SOV COMP-final language, challenging claims that movement must be to COMP position. I claim that the different syntactic forms associated with the two types of movement exist because of the semantic interpretation imposed by the element (verb or complementizer) governing the question word. I contrast indirect questions to embedded questions which require no movement to establish the semantic requirements of the complementizers. I conclude that any theory of movement must consider two separate factors, the extent of the movement (i.e., how far upward an element moves) and the direction of the movement (rightward or leftward), arguing that semantic as well as syntactic conditions account for movement rules.

Thesis supervisor: Kenneth Hale
Title: Professor of Linguistics
ACKNOWLEDGMENTS

This dissertation owes its existence to those who offered assistance. This author, in turn, benefited not only by completing a thesis, but also by sharing the relationships on which it rests. Many of the intellectual debts are deeply felt personal ones as well, none more so than to Ken Hale. As advisor, scholar of both linguistics and Navajo, teacher and friend, his dedication, even at the expense of his own research and tranquility, was as inspiring as it was helpful. It is with deep respect and lasting affection that I again say thanks, Ken.

For the Navajo consultants who made this project possible I offer the sincere hope that its findings will in some small measure repay their cooperation. Special thanks and credit are owed to Lorraine Honie who helped with the earliest investigations, and to Ellavina Perkins, Lorene Begay and Linda Platero for their long hours, friendship and insightfulness which truly made this thesis a combined effort. I am also very grateful to the students of the 1973 Diné Bi'óta' Association Linguistics Workshop, particularly to Rose Fasthorse and Louise Benally, for a summer of challenge and assistance.

Noam Chomsky who gave most generously of his time and expertise provided invaluable insights and challenges. He, Ken Hale and Dave Perlmutter were supportive mentors, even in disagreement. To them goes my appreciation for a most helpful dissertation committee. My appreciation goes also to our chairman Morris Halle whose dedication touches all students in the department.
To fellow linguists, friends and instructors, Avery Andrews, Nomi Erteschik, Jorge Hankamer, Jim Kari, Jan Koster, Susumo Kuno, Paul Platero, Marga Reis, and Haj Ross go sincerest thanks for comments, critiques and consultations which greatly enhanced this undertaking. To Donna Furrow and Yvonne Bordelois are owed not only credit for significant enhancement but also my thanks for their warm friendship and bravery in the face of my battles with graduate work.

I am indebted to the American Philosophical Society Phillips Fund for a summer research grant, and to the faculty at M.I.T. for its financial support under N.I.H. grant 5T01 HD00111 and N.I.M.H. grant 5PO1 MH13390.

But most of all this dissertation is the product of my family. To my parents whose love and stimulation began it all goes an equal measure of love and appreciation for their continued presence. To Ian whose smiles made these last eight months so very special goes a promise of the long summer walks that the busy winter precluded. To Waffle I offer thanks for cuddling so very closely when the going got rough. And to Jay goes the greatest measure of love and thanks for sustaining me throughout. His loving, encouraging, cheering, prodding and editing surely made this dissertation possible.
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INTRODUCTION

0.1. Prologue

Although the Navajo language has been studied extensively, it is only very recently that transformational grammarians have begun investigating how our syntactic and semantic conceptions of generative grammar apply to this language. As has already been demonstrated by the little work done on the language (cf. especially Hale, Platero, Creamer), significant factors emerge in the study of Navajo that are less easily perceived in languages heretofore more intensively investigated.

One of the factors making Navajo particularly interesting is that it is a characteristic SOV language, and, more particularly, a verb final language. The natural word order is SOV, relative clauses precede their heads, complementizers follow their clauses, and postpositions, rather than prepositions, are used. It is well recognized that there are significant syntactic differences between verb final and non-verb final languages. Thus, Japanese and Turkish, the verb final languages studied in greatest detail, are often contrasted to other languages, and putative language universals have been created to account for the differences. However, as I intend to show, there are crucial differences between Navajo and existing descriptions of other verb final languages, differences requiring a reexamination of some fairly well-accepted universal constraints on language.
I will begin in Chapter 1 by looking at one type of question in Navajo, embedded indirect questions. These are immediately interesting because they are an example of unbounded rightward movement, a process thought not to exist. Since there is some reason to believe that the alleged universals under consideration are well-motivated, I believe it is necessary to look for extenuating circumstances which would both explain the use of the unbounded rightward movement and help account for why such movement went unnoticed. Thus, in Chapters 2 and 3 I turn to other types of questions in Navajo as I believe the contrasts between the types of questions are instructive. After a description of simple questions, incomplete but sufficient for understanding the basic Navajo yes/no and WH questions, the remainder of Chapter 2 is devoted to a second type of embedded question also thought not to exist in verb final (or COMP final) languages: WH questions involving unbounded leftward movement. I suggest that the point of view interpretation found in direct discourse sentences is what accounts for the use of unbounded movement: a WH word moves from one S to another to change its point of view interpretation.

Although the movement rules discussed in Chapters 1 and 2 are completely different, I will suggest that the rationale for both rules is the same: elements move unboundedly to escape contradictory or undesired interpretations. In Chapter 2 I discuss point of view interpretation as specified by the governing direct-discourse verb. In Chapter 3 I discuss the semantic content associated with the complementizers. This chapter then completes the survey of different types of embedded questions,
examining the case considered typical of a verb final language, i.e., the case in which no movement occurs. I demonstrate that each type of question can be associated with a different complementizer, concluding that the contrast in semantic requirements of the complementizers accounts for the diversity of question types. Unbounded rightward movement occurs only when it is necessary for semantic reasons to remove the WH word from the scope of the complementizer. Since there are no semantic problems with the question type discussed in Chapter 3, no movement is necessary.

Although I attempt to go into the fullest detail on issues related to my major claims, I am of course describing only a minute segment of the Navajo system. As a result, many of the conclusions I reach must be considered tentative and somewhat speculative. However, since the Conclusion is an attempt to describe and explain the Navajo results in terms of general theory, I hope that work on other languages as well as further research on Navajo will both justify and help refine my claims.

The problem is exasperated by the fact that there is little previous work on Navajo which relates directly to my inquiry. I am also working under the further handicap of not being a native speaker of the language. Having been particularly fortunate in having consultants who are not only patient relaters of facts about their speech, but interested linguists doing significant work of their own, I feel I have been able to describe the facts relatively accurately. I have attempted to vary the techniques used in collecting the data to get some feeling not only about what is acceptable Navajo, but how natural a sentence type is. It is
quite clear that many of the crucial grammatical examples are considered less than natural by at least some of the Navajos consulted. What is not so clear is whether this unnaturalness is due to the linguistic complexity of the examples or to cultural factors, or whether it reflects uncertainty due to contemporary changes or influence from English. None of these factors will be discussed here. However, although much of the information has been collected by asking for Navajo translations of English sentences, I have tried to avoid the English influence on decisions about grammaticality by also giving the sentences in Navajo to see if they are acceptable and then asking for English translations. Since I created many of the examples myself, this technique does not differentiate very well those examples which are preferable. Nor does this technique guard against slight changes in meaning. I have tried to cope with this latter problem in two ways. First, I have used dialogues instead of isolated examples since context often refines the meaning or possible meanings of a sentence. Second, after having collected relevant data, my Navajo consultants and I have discussed the theoretical questions involved. Understanding why a sentence is crucial, my consultants often provided further extremely relevant information and made suggestions about other sentences and directions to investigate.

One further weakness is that, although I mention dialect variation throughout, this is a topic needing considerably more attention. I have found that certain types of sentences vary so markedly among the relatively few people I have consulted that the description should really be reinforced
by a dialect study and/or diachronic study. Unfortunately, I have not yet been able to do either.

Since I am unable to motivate all aspects of the Navajo examples I will be considering, I will limit as much as possible the claims made about the structure of the Navajo sentence. As a result, I will make no attempt to describe a complete underlying structure, but will only describe what a tree would look like at the time a transformation applies. I will also take the liberty of creating forms for expository purposes without making any claims about their exact correlation in underlying structure. And when I do attempt to argue that certain forms must exist underlyingly, I will do so on the basis of arguments internal to Navajo rather than theories of underlying forms.

Although all aspects are not well motivated, it is of course necessary to work within some framework. Thus, before proceeding to Navajo questions, I will describe some facts about Navajo that will be relevant to the argumentation and mention some claims and assumptions I will be making about the structure of the language.

0.2. Basic Navajo Structure

As has already been mentioned, Navajo is an SOV language, shown by the natural word order in the following:

1. ashkii le'echa'í yiylitsé
   boy   dog     3.3.P.see
   The boy saw the dog.
In the Navajo sentence, the verb is the main source of information. Notice that the gloss on the nouns are only English nouns. This is because Navajo nouns are not normally inflected for number. Nor are they inflected for definiteness. Although Navajo has demonstrative pronouns, there are no determiners corresponding to the English a and the so the example is ambiguous with respect to definiteness. I will in general ignore these ambiguities, noting them only when relevant to the argumentation.

In contrast to the noun, the verb has numerous prefix positions. I have made no effort to gloss the verb fully since doing so would not aid the reader. I have noted only the subject and object prefixes and, where useful, the verb tense or aspect. The direct object prefix is ordered before the subject marker in the Navajo verb. Thus, in the above gloss, the first \( \text{3} \) refers to the third person object, and the second to the subject. \( P \) stands for perfective, and \( F \) for future. I will discuss specific prefixes as relevant to the argumentation.

0.3. Word Order: Scrambling

Since Navajo is an SOV language, complex objects create extensive subject-verb separation, making these sentences more difficult to process. Navajos compensate with various scrambling rules. Subjects, especially sentential subjects, can be postposed. Subjects and objects can be interchanged so long as the inversion does not lead to ambiguity. Thus, the following are all good outputs:
Sentence (2a) exhibits the natural word order, a sentential subject followed by the object and then the verb. In sentence (2b), the sentential subject is postposed. Sentence (2c) interchanges the subject and the object.

It is not evident from the English sentence that sentence (2) has a surface sentential subject. However, literally translated, sentence (2a) reads "That the boy saw the dog is known with John". Thus translated, the sentential subject is readily apparent. Its verb, /béhózin/, most closely resembles an intransitive passive, meaning is known about with. The /-l/ is a postposition meaning with, and /Jáan/ is its object.

0.4. Types of Embeddings

In the preceding examples, the embedded S is marked by the clause final complementizer /-ígíí/. This is one of the three types of embedded S's found in Navajo. Since this dissertation deals with significant
differences in behavior among the three, I will briefly mention the three, noting their most common syntactic uses at this juncture. In trying to account for the variety of embedded question types, I intend to demonstrate that there is in fact some overlap in the types of S's each complementizer may subordinate. While complementizers were originally viewed only as markers of syntactic subordination (cf. Elgin (1973)), I take the position (along with Bresnan (1972), Erteschik (1973), etc.) that complementizers may have semantic content which influences syntactic processes.

Although complementizers are central to the entire dissertation, I cannot argue whether they occur in underlying structure, nor whether there is a COMP node and if so how it is adjoined to the tree. For the most part, these matters are irrelevant to the discussion. Whenever they would make a difference in the argumentation, I will note their significance.

0.4.1. The /-i/ Complementizer

The /-i/ complementizer is normally considered a general nominalizer appearing on any S dominated by an NP node (cf. Elgin (1973), Platero (1974)). Although I will demonstrate in a forthcoming paper that this is not the only use for the /-i/ complementizer, the sentences in (2) are in fact typical of this complementizer. 6

I will refer to /-gii/ as one form of the /-i/ complementizer. The /-gii/ appears only in nominals and only if no other suffix appears on /-i/. In addition, the /-gii/ is suppressed when the past tense variant of this complementizer is suffixed to the verb (/ye/, /fe/, or /a/,
depending on purely phonological rules). The sentences in (3) show /-t/ and /-yëg/ alternating with tense.

3a. adaadeg' Bîl bêégashii yizlohe Mary bîl beéhózin yesterday Bill cow 3.3.P.rope.COMP Mary 3.with 3.be known Mary knows that Bill roped a cow yesterday.

b. Bîl bêégashii yidooolohíghi Mary bîl beéhózin Bill cow 3.3.F.rope COMP Mary 3.with 3.be known Mary knows that Bill will rope a cow.

0.4.2. Direct Discourse

Although /-t/ is an extremely general complementizer, there are certain verbs whose complements never take it.


b. Bîl bêégashii deesh-ôh nîzin Bill cow 3.1.F.rope 3.think Bill$_i$ thinks he$_i$ will rope a cow.


Notice the gloss of the embedded verb in both (4b) and (5b). The Navajo verb is in the first person, not in the third, as it is in English. The embedded sentence is structured as if it were spoken by the subject of the matrix S. A better translation of (5b), for example, is "John says, 'I bought a car'". While the /-i/ embedded sentences were instances of indirect discourse, this second type of embedded sentence is characterized by direct discourse. Contrast the following indirect discourse sentence with (5b), a sample of the direct discourse sentences above:

6. Jáan chidi naháinni'ígíí yaa ntsíkees
   John car 3.1.P.buyCOMP 3.about 3.think
   John is thinking about the fact that I bought a car.
Sentence (6) is a typical indirect discourse sentence with an /-1/ complementizer. In indirect discourse, the entire embedded S is understood from the point of view of the speaker. In direct discourse sentences, each embedded S is interpreted from the point of view of the subject of the immediately dominating S. In sentences (5b) and (6) the embedded S's both contain the same first person verb /naháinii'/. The difference between direct and indirect discourse is demonstrated by how first person is interpreted. In indirect discourse, first person is understood from the speaker's point of view. In sentence (6), therefore, it is the speaker who bought the car. However, in direct discourse, first person is understood from the point of view of the subject of the immediately dominating S. In (5b) the first person in S₁ is understood from John's point of view (the subject of S₀). I therefore refers to John, i.e., it is John who bought the car.
Since (5b) involves only one embedded $S$, it is impossible to differentiate the hypothesis that an $S$ embedded under a direct discourse verb is interpreted according to the immediately dominating $S$ from the hypothesis that such an $S$ is always interpreted from the point of view of the matrix $S$. Example (7) demonstrates that the former hypothesis is correct.

7. Jáan Mary chidí nahideeshnih nízin ní
John Mary car 3.1.F.buy 3.want 3.say
John says Mary wants to buy a car.

The verb in $S_2$ is in the first person. If the latter hypothesis were correct, the first person would refer to John, the subject of the matrix $S$, i.e., (7) would be talking about John's buying a car. However, this
is not a possible meaning for (7). In this sentence, it is Mary who will do the buying. In other words, the first person in $S_2$ is understood as Mary, the subject of $S_1$, the immediately dominating $S$, and not the subject of $S_0$, the matrix $S$. (7) demonstrates that the point of view of each direct discourse $S$ must be interpreted separately. Or, to put it another way, the scope of a direct discourse verb is only one $S$, and not everything it dominates. Since it is the verb which determines whether an embedded $S$ will be interpreted as a direct or indirect discourse $S$, I consider the verb the governing element.

Notice that it would be insufficient to say that in a direct discourse $S$ the point of view is interpreted solely according to the immediately dominating subject. Thus in (8) and (9), the matrix subjects are identical, the embedded verbs are identical, but the subjects of the embedded verbs are different.

8. Ján chidi nahidiiyinyilni
John Mary car 3.2.F.buy 3.3.say
John told Mary to buy a car.

9. Ján chidi nahidiinshilni
John car 3.2.F.buy 1.3.say
John told me to buy a car.

Notice that the second person verb form does not refer to the hearer as it would in an indirect discourse $S$. In these cases, the subject of the embedded verb is determined according to who John is speaking to, i.e., by the object of the matrix verb. (8) could be paraphrased, "John told
Mary, you work", and (9), "John told me, you work". (8) and (9) can be thought of as reports of what John said when talking to someone.

The second person form of the verb will not always be used when an embedded subject is identical to a matrix object. Consider the following example which contains a third person direct discourse verb:

10. Jāan Mary chidi neidiyoolnih yó'ní
    John Mary car 3.3.F.buy 3.of.3.say
    John expects Mary to buy a car.

In this case, John is not talking to Mary, but about Mary, so that we find a third person rather than a second person verb.

Having discussed verbs in the first, second and third person we are still left with a question as to how the speaker refers to himself. A first person verb will be interpreted as an action by the subject of the immediately dominating S. A third person verb can only refer to a third party. Sentence (9) above demonstrates that a second person embedded verb will refer to the speaker if the matrix verb contains an object pronoun which denotes the speaker. Another way to indicate the speaker in a direct discourse S is to use the fourth person form of the verb.

11. Jāan chidí nahizhdoolnih sho'ní
    John car 3.4.F.buy 1.of.3.say
    John expects me to buy a car.

The fourth person is normally used as a third person form, either to differentiate two different third persons, or as an impersonal form
equivalent to the English one (cf. Akmajian and Anderson (1968)). In sentence (11), the embedded verb gets interpreted from the point of view of the immediately dominating S. It is because of the first person object in /shó'ńí/ (expect me) that /nahizhdoōñih/ (buy) refers to the speaker. Thus, if the object pronoun changes, so does the reference for the embedded verb:

12. Jáan chídí nahizhdoōñih nó'ńí
   John car  3.4.F.buy  2.of.3.say
   John expects you to buy a car.

So far as I know, a direct discourse S can refer to the speaker only if the governing verb refers to the speaker, either with /shó'ńí/ (expect me) and an embedded fourth person verb, or with /shílmí/ (tell me) and an embedded second person verb (cf. example (9)). There is no way to use the verbs which do not contain such a reference and still refer to the speaker. For example, "John wants me to buy a car" can only be paraphrased by (9) and (11), not translated directly by /nízin/.

Since in sentence (10) the embedded verb is in the third person, it is impossible to tell from the verb agreement whether this verb is being interpreted as an example of direct or indirect discourse. However, the direct discourse style is normally obligatory in the complements of /ní/, /nízin/, and /yó'ńí/. Thus, a third person verb embedded in a direct discourse S cannot refer to the subject of the matrix. Sentence (13), for example, cannot be identical to (5b).
13. Jáan chidi nayiisii' ní
John car 3.3.P.buy 3.say
*John₁ says he₁ bought a car.
John₁ says he₂/she bought a car.
He₂/she says John₁ bought a car.

Sentence (13) means only that one person said of somebody else that he/she bought a car. Since pronouns generally delete in Navajo, there is no reason to assume that the subject of the embedded S deleted under identity to that of the matrix S. In fact, /Jaan/ can be the subject of either S, although it cannot be the subject of both. Sentence (14) clearly shows that the subjects are non-identical.

14. Jáan Mary chidi nayiisii' ní
John Mary car 3.3.P.buy 3.say
John says Mary bought a car.

Although the verb agreement in (13) does not indicate that this sentence is an example of direct discourse, the absence of a complementizer does. Recall that in indirect discourse sentences the embedded S is marked with a complementizer (cf. sentence (6)). To see that the presence of a complementizer is obligatory in normal indirect discourse, consider the following:

15a. Mary Bíl dibé yiyisxíígii yoolá
Mary Bill sheep 3.3.P.killCOMP 3.3.believes
Mary believes that Bill killed the sheep.
It thus seems clear that direct discourse correlates with the absence of any overt complementizer.

So far as I know, there are three direct discourse verbs in Navajo, /ní/, meaning say or tell, /nízin/, meaning think, want, wonder, and /yó'ni/, meaning expect (him). Although all three are verbs of thinking or saying, it is difficult to define direct discourse verbs in terms of a semantic class. Notice that believe in example (15) is not a direct discourse verb. There will be examples of other indirect discourse verbs which would fit into the same semantic class. I will therefore make no attempt to characterize the direct discourse verbs, but will only consider the structures in which they occur.

0.4.3. Structural Configuration

The difference between direct and indirect discourse is reflected in their structural configurations. Two alternative explanations suggest themselves: either only indirect discourse involves embedded S's, or both direct and indirect discourse involve embedded S's where only the latter are also NP's.

In the first case, one could try to treat the Navajo direct discourse as one would an English quotation. In the English sentence

16. John said: "Who do you think killed the sheep?"
one would not want to embed the quotation under *John said* because the quotation contains its own root sentence as demonstrated by the position of *who*. From example (5b), however, it is apparent that the direct discourse S occurs internally and therefore must be considered an embedded complement, at least at this stage of the derivation. In Chapter 1, it will become clear that, for the purposes of movement rules, direct discourse clauses must also be embedded.

In addition, it is necessary to differentiate quotations from direct discourse within Navajo. Although the verbs /ni/ (*say*) and /nizin/ (*in the sense of think*) can be used in quotations, the direct discourse verb /yó'ni/ does not take quotations. One way to differentiate direct discourse sentences from quotations is to use the particle */ya'/, the Navajo equivalent to a tag question. Consider the following:

17. Jáan Bíl chidi neidiyoolnih ní ya'
   John Bill car 3.3.F.buy 3.say right
   (i) John said that Bill will buy a car, didn't he?
   (ii) John said, "Bill will buy a car," didn't he?

18. Jáan Bíl chidi neidiyoolnih ya' ní
   John Bill car 3.3.F.buy 3.of.3.say right 3.say
   (i) *John said that Bill will buy a car, won't he?
   (ii) John said, "Bill will buy a car, won't he?"

19. Jáan Bíl chidi neidiyoolnih yó'ni ya'
   John Bill car 3.3.F.buy 3.of.3.say right
   John expects Bill to buy a car, doesn't he?
/ya', like an English tag, can only appear in non-embedded S's. When occurring with a seemingly subordinate S, the sentence is good only if interpreted as a question, i.e., a non-embedded S. Although /yó'ní/ takes direct discourse, it does not take embedded quotations (just like the English expect). Sentence (20) is ungrammatical because the /ya'/ requires an embedded quotation but /yó'ní/ allows only direct discourse, not quotations. Thus, for Navajo we must differentiate indirect discourse, direct discourse, and quotations. Only the last will not involve embedded S's.

Since it is necessary to adopt the second alternative, i.e., that direct discourse involves embeddings, the above difference between direct and indirect discourse can be explained by claiming that only indirect discourse S's are also NP's (as implied in the trees for (6) and (5b) above). The Navajo verb morphology supports this claim. Consider the following:

21a. ashkii mosí yiyiltsą
   boy    cat 3.3.P.see
   The boy saw the cat.

b. *ashkii mosí yiiltsą
   boy    cat 3.P.see
   The boy saw the cat.

c. *ashkii yiyiltsą
   boy    3.3.P.see
   The boy saw.
The /yi-/ prefix is a direct object agreement marker. It occurs when and only when there is a third person subject followed by a third person direct object. Thus (21c) is ungrammatical on the reading where /ashkii/ is the subject because there is no stated object, and (21b) is ungrammatical because there is a direct object but no agreement.

We can use this fact to determine whether sentential complements are direct objects. Since direct objects, by definition, are NP's, we can differentiate those sentential complements which are not direct objects by claiming that they are not dominated by NP, at least at the stage of the derivation at which this /yi-/ agreement occurs. Consider the following:

22a. Ján mósi yinizin
   John cat 3.3.want
   John wants a cat.

b. *Ján mósi nizin
   John cat 3.want
   John wants a cat.

23a. *Ján mósi diyeeshxel yinizin
   John cat 3.1.F.kill 3.3.want
   John wants to kill the cat.

b. Ján mósi diyeeshxel nízin
   John cat 3.1.F.kill 3.want
   John wants to kill the cat.

The sentences in (22) affirm the fact that the /yi-/ prefix must appear on /nizin/ when it has a direct object. The impossibility of a /yi-/ prefix in (23) proves that these direct discourse sentential complements are not
direct objects. In contrast, the sentences in (24) prove that indirect discourse complements are direct objects, since the matrix verb has a /yi-/ prefix.

24a. Kii naakaii tl'ö'ö yizbizhígííi yiýííini'
   Kee Mexican rope 3.3.P.braidCOMP 3.3.P.hear
   Kee heard that the Mexican braided the rope.

b. *Kii naakaii tl'ö'ö yizbizhígííi yiýííini'
   Kee Mexican rope 3.3.P.braidCOMP 3.P.hear
   Kee heard that the Mexican braided the rope.

I will therefore assume that these direct discourse sentential complements are not dominated by NP. This fact can be used to distinguish these complements from those with /-I/. Sentence (24) is another example demonstrating that \( S_{NP} \) is a possible structure for /-ígíí/ complements. Recall that this is the normal condition. I will thus assume that /-ígíí/ may occur on complements only when there is such a structural configuration. In Chapter 1, it will be important to characterize when an /-I/ should appear instead of direct discourse to see how these two different types of embedded S's interact with enclitics.

0.4.4. The /-go/ Complementizer

Although ignored in Chapters 1 and 2, Navajo has a third important method of subordinating S's. The /-go/ complementizer has typically been referred to as a subordinator for adverbial clauses. "In English, therefore,
one may render /-go/ with participial ...ing, or conjunctive 'if, when, in case that' or, possibly, ignore the enclitic" (Haile (1942), II.32). While I will be discussing the more unusual uses of /-go/ in Chapter 3, the following are typical examples of the use of the /-go/ complementizer, including approximate English translations:

25. shizh'ë'é n'iyáago da'diidii
   1.father 3.P.comeCOMP 1pl.F.eat
   When my father comes, we'll eat.

26. íít' sínílohgo shizh'ë neidiyooñih
   horse 2.P.ropeCOMP 1.father 3.3.F.buy
   If you rope the horse, my father will buy it.

27. Mary shaaníyáago Jáan biì hózhó
   Mary 1.3.P.comeCOMP John 3.with 3.be happy
   Because Mary came to see me, John is happy.

/-go/ is like /-í/ in that the clause it subordinates is interpreted as an indirect discourse rather than a direct discourse complement, i.e., it is interpreted from the point of view of the speaker and not the subject of the immediately dominating S. Thus, in (27), the first person pronoun /shaa/ (to me) is interpreted as referring to the speaker and not to John. The uses of /-go/ will be discussed in Chapter 3.

0.5. Conclusion

In summary, the basic Navajo facts described thus far which will be crucial to the following argumentation include the following:
1) Navajo is an SOV, COMP final language.

2) Navajo verb morphology provides crucial information about the entire sentence. For example, person is marked in the verb. So are direct objects.

3) The two most common sentential complements are
   a) sentential NP's with /-í(gí)/ complements
   b) embedded direct discourse S's, which are not NP's.

4) /-go/ is primarily an adverbial subordinator.

Further detailed background material will be given as applicable. Since this dissertation deals primarily with the formation of embedded questions, I felt that an introduction to this topic required a view of basic word order and various types of embeddings. As we examine the different types of questions, I will be trying to demonstrate that it is the word order plus the requirements of the various types of subordination that provide the rationale for the complex system of questions found in Navajo and the somewhat unexpected transformations required for these outputs.
FOOTNOTES TO INTRODUCTION

1. It has been brought to my attention that there is also evidence from Hindi and Telugu that there are rightward movement rules which are not upward bounded. Cf. Satyanarayana and Subbarao (1973).

2. However, /ashkii/ is one that happens to be inflected for number, it being the singular form. Those that are inflected for number normally refer to people. Cf. Young and Morgan (1971).

3. See Kari (1973), Stanley (1963), etc. on verb morphology and phonology.

4. For some people, (2c), rather than (2a), is considered the most natural word order. This variation seems to be related to the fact that it is not clear what the underlying word order is. It may be that the object of the postposition can be the underlying subject for some people.

5. Postpositions have object agreement markers. Thus /bi-/ in /biţ/ is the third person personal pronoun.

6. There are also adverbial clauses with this /-i/ complementizer.

   i. shizhë’ë niyahídéé’, da’diidii’i
      1.father 3.P.comeCOMPpst-time 1pl. F.eat
      Since my father has come, we will eat.

   ii. t’áá shizhë’ë niyahí, da’diidii’á
       just 1.father 3.P.comeCOMP 1pl.F.eat
       As soon as my father comes, we will eat.
Since /-gif/ never occurs on adverbial clauses, I conclude that /-gif/, not /-i/, is in fact the nominal marker.

7. The most convincing argument is based on the semantics of the /-i/ complementizer and the fact that the same semantic interpretation would be present for both (3a) and (3b). If /yege/ were a simple past tense marker, it would not require such an interpretation. See Chapter 3 for a discussion of the semantics associated with /-i/.

8. As we will see in Chapter 3, this contrasts with the scope of the /-i/ complementizer.

9. For some people, an indirect discourse interpretation is possible in addition to the direct discourse one. See 2.2.3.-2.2.5. for a discussion of Strict Constructionists and Loose Constructionists. Except when specifically mentioned, I will be discussing the dialect of Strict Constructionists only, i.e., of those allowing only a direct discourse interpretation.

For convenience, I am using the third person imperfective form of the verb to refer to the verb since stems can be used in a variety of verbs. Note that I gloss /yó'ni/ (expect) as including the stem /ni/ of say. I chose this gloss because there is no exact English equivalent and because phonologically the stem of expect is identical to that of say. However, I have no other direct evidence that the stems are identical.
10. I am using the term root sentence as used by Emonds (1970). Emonds distinguishes root, or matrix, S's from all others because there is a group of transformations (root transformations) which apply only to this highest S. Thus, English question formation applies only to root sentences, ruling out such ungrammatical (non-echo) questions as

(1) *You think who killed the cat?

11. (21c) is of course good, meaning He saw the boy. Also although considered ungrammatical out of context, (21c) is grammatical if it means the boy saw it where it refers to something in the discourse. For a discussion of /yi-/ and reference, see section 3.2.5.

12. I am using the term complement to describe sentential subjects and objects, as contrasted to the other subordinate clauses, e.g., adverbial clauses. Recall that /-i/ but not /-gí/i occurs in adverbials only.

13. When I claim three types of subordination, I am referring primarily to subjects and objects. Although /-go/ is normally an adverbial subordinator, I argue in Chapter 3 that it can also subordinate sentential NP's. There may also be a fourth type of subordinator (/-dd/), found only in adverbials. See my forthcoming article for discussion of this point. In addition, there are types of embedded clauses I will not be describing at all.

14. Note, for example that there is no Navajo word in these sentences for if, when, or because. See my forthcoming article for discussion of adverbial clauses.
CHAPTER 1

INDIRECT QUESTIONS AND UNBOUNDED RIGHTWARD MOVEMENT

1.0. Introduction

In this chapter, I will describe the behavior of spatial enclitics in embedded indirect questions in Navajo, demonstrating that some movement rule involving unbounded rightward movement is necessary to account for surface configurations. These questions are particularly interesting because they require reconsidering some of the most widely accepted work in transformational theory, Ross’s Right Roof Constraint and alleged universal constraints on question formation, formulated by Bach and Baker.

John Ross (1967) divided transformations according to whether or not they made crucial use of a variable. Rules that did so were considered unbounded. Beyond this important distinction, Ross also first proposed the Right Roof Constraint, which claimed that all transformations which move elements rightward are upward bounded. That is, no element will ever move rightward out of its own S. The Right Roof Constraint thus claims that there will be neither rightward movement involving crucial variables nor rightward movement across a single S, such as English subject or object raising, relative clause formation through movement, etc. Although linguists have recently begun to question the Right Roof Constraint (Satyanarayana and Subbarao (1973) and Grosu (1973)), this putative universal has been widely accepted and employed.
In particular, the Right Roof Constraint has been used to account for the small variety of question types found in languages studied. It has been widely accepted (based especially on the data from Greenberg (1962)) that verb final languages have no special rule for moving questioned constituents and that in those other languages where such a rule does exist, the questioned constituent will be moved to clause-initial position. Baker (1969), for example, concludes that:

(i) "only languages which position their particles for yes-no questions in clause-initial position permit a movement rule for questioned constituents" (207); and

(ii) "there is only one possible movement rule for questions, which differs in different languages only in the particular formative mentioned in place of the English wh:

\[
\begin{array}{cccc}
Q & X & NP & Y \\
1 & 2 & 3 & 4 \\
\end{array} \quad \xrightarrow{1 \ 3 \ + \ 2 \ \emptyset \ 4} \\
\text{Condition: 3 dominates WH}" \ (\text{ibid.}).
\]

He further explains that "those SOV languages which had particles positioned with reference to the sentence as a whole put them at the end of the sentence. Correspondingly none of the SOV languages studied regularly moved other question words to sentence-initial position" (ibid.).

Bach (1971) takes Baker's work one step further, using Ross's concept of unbounded rules and the Right Roof Constraint to derive Baker's conclusions. Bach presents four assumptions, and I repeat the three relevant ones (the first being irrelevant to the conclusions here under discussion):
b) Question movement is unbounded

c) Movement is toward a governing verb

d) Only leftward movement rules may be unbounded (the RRC).

From assumptions (b) and (d) he derives the obvious conclusion that:

(i) the WH phrase will always be to the left, never the right.

And from all three assumptions, Bach further concludes:

(ii) Question movement will never occur in languages that have
the deep and surface order SOV. For if movement happens
by attraction to a governing verb (c), then in an SOV
language we would have to move to the right, a result
which we have just shown inconsistent with our assump-
tions (161).

Joan Bresnan (1972) refines even more the explanation for known
question types. Her claim that WH is a complementizer, plus The Compl-
mentizer Attraction Universal is sufficient to predict both of Bach's
conclusions.

The Complementizer Attraction Universal

Only languages with a clause-initial COMP permit a COMP-
attraction transformation.

Here "the term COMP-attraction transformation may be understood informally
to apply to any transformation moving a constituent (perhaps over an es-
soential variable) into COMP position—for example,...Question Formation" (42).
While the hypotheses vary in each case, all three sets are designed to account for the observation that there is no unbounded rightward movement, and specifically none in questions. The description of embedded indirect questions in this chapter is designed to demonstrate only that Navajo requires an unbounded rightward movement rule. However, seeing how the particular hypotheses compare to Navajo facts is also revealing. I believe that such a comparison will help to explain why unbounded rightward movement had gone unnoticed for so long. Thus, as I look at other types of Navajo questions in the following chapters, I will return to these assumptions when applicable.

Let us now turn to spatial enclitics, embedded questions, and the required movement rule.

1.1. **Enclitic Phrases and Enclitic Raising**

Since the raising transformation that I will propose moves spatial enclitics from enclitic phrases, I will first identify and define the terms under discussion.

1.1.1. **Identification of Spatial Enclitics and Enclitic Phrases**

Consider first examples of simple enclitic phrases (EP's):

1. Kii kínánídeé' oolbás
   Kee Flagstaff.from 3.drive
   Kee is driving from Flagstaff.
2. Kii kinlánígóó na'asbááž
   Kee Flagstaff.to 3.P.drive
   Kee drove to Flagstaff (and back).

3. Kii kinláníígyi ni'nílbááž
   Kee Flagstaff.as far as 3.P.drive
   Kee drove as far as Flagstaff.

4. Kii kinlánídí na'albaas
   Kee Flagstaff.at around 3.drive
   Kee is driving around in Flagstaff.

5. Kii hooghangóó' yah íuyá
   Kee house in into 3.P.go
   Kee went into the house.

6. Kii bikoohgóóyaa oolbaas
   Kee canyon.down in 3.drive
   Kee is driving down the canyon.

In sentences (1)-(4), Kee was driving somewhere in relation to Flagstaff.
A comparison thus provides an approximate meaning for these four enclitics:
"in the direction away from" (/-déé'/), "in the direction toward" (/-góó'/),
"motion up to or as far as" (/-jí'/), "located in or at" (/-dí'/).² /-góó/'
in sentence (5) means "located in", but refers only to things that have an
entrance. In sentence (6), /-góóyaa/ indicates location down in something.
In these sentences, the enclitic phrase (EP) is defined as the enclitic
and the word it modifies. The enclitics themselves divide into two cate-
gories, the directional enclitics which are necessarily complements of
motion verbs (/-déé', /-góó', and /-jí') and the locative enclitics
which, as later examples demonstrate, may also be complements of stance verbs. As we will see, both directional and locative enclitics may modify phrases as well as single words.

1.1.2. EP's As NP's

In all the above examples the enclitic is attached to a noun. It is thus reasonable to assume that an enclitic phrase is an NP. In fact, some enclitic phrases do act like NP's: locative EP's can be subjects or objects. Consider first sentences with EP subjects:

7. kindi shil yá'áhoot'ééh	house.at 1.with area.3.be good
I like it at the house.

8. bikoohgóyaa hótsaa
canyon.down in area.3.be big
The canyon is big.

9. a'áángóne' hózaad
hole.in area.3.be deep
The hole is deep.

In sentence (7), the verb /-1 yá'át'ééh/ is an intransitive verb with a postposition. More literally it means "it is good with me". Thus, the subject is the EP in the house.

By considering sentences (1)-(6) above, we see that it is equally apparent that EP's can be spatial complements.

More specifically, we can establish that locative EP's are direct
objects. However, final confirmation of this claim must await the discussion of issues covered in later sections. For the moment, suffice it to show the correlation between EP objects and direct objects. Consider the following:

10. Jáan bikooh yiyiłtsą̂
    John canyon 3.3.P.see
    John saw the canyon.

11. Jáan bikooh hooltsą̂
    John canyon area.3.P.see
    John saw the canyon.

12. Jáan bikoohgóyaa hooltsą̂
    John canyon.down in area.3.P.see
    John saw the canyon.

Notice that in sentences (7)-(9) and (11)-(12), there is an agreement marker /ho-/ in the verb, just as for any subject or object. This agreement marker is obligatory whenever a subject or object is locative.

13. kin shił yá'át'ééh
    house 1.with 3.be good
    I like the house.

14. *kindi shił yá'át'ééh
    house.at 1.with 3.be good
    I like it at the house.

Sentence (14) is ungrammatical because of the absence of a subject agreement marker. Notice, however, that this same sentence with /ho-/ is acceptable
The presence of the prefix /yi-/ in sentence (10) shows that /bikoo/ is a direct object. In (11), however, /yi-/ is replaced by /ho-. Yet in both (10) and (11) the same logical relationship holds between the action and the two nouns: John is seeing the canyon. It therefore seems that /ho-, as well as /yi-, is a direct object marker. The difference is that in (10) the canyon is simply named, while in (11) the area occupied by the canyon is designated.

Returning to sentence (12), we see that the /ho- in this sentence shows that EP's act like NP's in triggering locative object agreement. Thus, if /ho- is considered a direct object marker, then EP's are not only NP's, but also direct objects.3

Note that /ho- is a locative marker only. It does not mark directional phrases. Assuming that /ho- is a direct object marker accounts for the fact that it does not mark directional phrases. Directional phrases never function as direct objects because they only occur as complements of motion verbs and motion verbs do not take such objects. Notice that there is also no /ho- when locatives are complements of motion verbs (cf. (4)-(6)).

1.1.3. Enclitics On Verbs

I have so far said little about the constituents of the EP, except to point out that there is an enclitic and that in the examples thus far considered the enclitic has attached to a noun. The exact characterization
of possible EP constituents is irrelevant to this discussion. Notice, however, that a noun is not the only constituent an enclitic will attach to:

15. Jáan di'í ashkii naagháhíde' yaa áhonízín
John this boy 3.comeCOMPfrom 3.about 3.be aware
John is aware of where this boy comes from.

16. di'í bilagáanaa dine' bizaad yíhooígá'ádíi doo shil bééhózinda
this whiteman Navajo language 3.3.P.learn.at neg 1.with 3.be known.neg
I don't know where this Anglo learned Navajo.

17. shizhé'é oołbasígóó Bill bił bééhózin
1.father 3.driveCOMPto Bill 3.with 3.be known
Bill knows where my father is driving to.

18. Mary Jáan nimíyáhíí' bee bił hólne'
Mary John 3.walkCOMPas far as 3.about 3.with 2.tell
Tell Mary how far John walked.

19. Jáan yah íiyáhígíi'nyé Mary bił bééhózin
John into 3.P.goCOMPin Mary 3.with 3.be known
Mary knows where John went in.

In all the above sentences, the enclitic appears in the same word as the embedded verb. In each case, the /-í/ which precedes the enclitic is the complementizer. Notice also that in each case there is no Navajo word which corresponds to the English "(the place) where". In other words, the English spatial particles (from, in, etc.) have NP complements (where in these examples) just as they did in all the previous examples. Yet this is no longer true of the Navajo sentences.
1.1.4. **Missing NP's**

It is certainly not characteristic of enclitics occurring in embedded clauses that they have no NP complement. Sentences (20) and (21) show that embedded enclitic complements do appear.

20. Kii kínlání'góó na'asbáágií Jíán bìl beéhózín
Kee Flagstaff.to 3.P.driveCOMP John 3.with 3.be known
John knows that Kee drove to Flagstaff (and back).

21. Bíl hooghangó'ne' yah íiyádíí Mary yoodlag
Bill house in into 3.P.goCOMP Mary 3.3.believe
Mary believes that Bill went into the house.

However, it is a fact of the Navajo language that words like who, what, and where generally do not have a surface form in an embedded S in an indirect question.\(^4\) This fact is independent of enclitic phrases. Thus, we find sentences like the following:

22. shízhé'é báán yiilíyá'ígíí Jíán bìl beéhózín
1.father bread 3.3.P.eatCOMP John 3.with 3.be known
John knows that my father ate bread.

23. shízhé'é yiilíyá'ígíí Jíán bìl beéhózín
1.father 3.3.P.eatCOMP John 3.with 3.be known
John knows what my father ate.

24. shíchídí yineez'é'ígíí bee shít hónne'
1.car 3.3.P.stealCOMP 3.about 1.with 2.tell
Tell me who stole my car.
There is nothing in the surface form of sentences (15)-(19) which elucidates the underlying structure. In sentence (23), however, the missing word is a direct object.\(^5\) We know this because, as already discussed, the /yi-/ prefix marks direct objects and can only occur when there is a specified object in the surface structure. Contrast the following sentences:

25a. *Shiz\'e\(^\prime\)\(^e\) ili\(^{\prime}\)liya\(^{\prime}\)\(^a\)
   1.father 3.3.P.eat
   My father ate.

b. *Shiz\'e\(^e\) yiyiy\(^{\prime}\)y\(^{\prime}\)\(^a\)
   1.father 3.3.P.eat
   My father ate.

26a. Bil aneez\(^\prime\)\(^e\)\(^e\)
   Bill 3.3.P.steal
   Bill stole (something).

b. *Bil yineez\(^\prime\)\(^e\)\(^e\)
   Bill 3.3.P.steal
   Bill stole.

As in English, the Navajo verbs for "eat" and "steal" are transitive. Thus, when we say my father ate, we mean he ate something, without identifying what. Navajo has an indefinite object marker /'i-/ to designate such a PRO direct object.\(^6\) (In (26a) the underlying /'i-/ has become /'a-/.\) Since /'i-/ occurs only when no object appears, one could argue that /'i-/ is a nonreferential marker, indicating that although the verb is transitive in
meaning, it never had an object. However, since /'i-/ does not occur on truly intransitive verbs, it is reasonable to assume that it is an agreement marker. In any case, the ungrammaticality of (25b) and (26b) demonstrates that the /yi-/ prefix does not function as a nonreferential marker.

Return now to sentence (23). Since /yi-/ requires a direct object, there must have been an underlying object in these embedded clauses.

Notice that in sentence (24), the missing WH word is a subject, not an object. We know from the /yi-/ on the verb that there must have been two NP’s in underlying structure, an object as well as a subject. It is therefore a general fact that WH words do not have a surface form in the indirect discourse embedded S’s treated here.

Let us now resume our discussion of the underlying structure of the enclitic phrase. It seemed that sentences (15)-(19) semantically contained a noun which does not appear on the surface in the Navajo. We have shown that there is an underlying direct object in sentence (23) and an underlying subject in (24). Just as (20) and (21) are analogous to (22), sentences (15)-(19) should be analogous to (23)-(24). There should be an underlying object EP even when it has no surface realization. I will postpone discussion of the nature of the underlying noun until section 1.4.1. For expository purposes, I will designate these "missing" nouns by $\triangle$.

1.1.5. **Enclitic Placement**

Note also that enclitic placement follows a prescribed pattern. The enclitic may not appear on the verb if there is a noun for it to
attach to. Contrast (27) with (20).

27. *Kii kínlání na’asbázhóó Sáán bił bééhózin
   Kee Flagstaff 3.P.driveCOMP to John 3.with 3.be known
   John knows that Kee drove to Flagstaff.

The only difference between (20) and (27) is that the enclitic /-göö/ (to) was attached to its noun in the former and to its verb in the latter.

1.1.6. **Enclitic Movement**

Sentence (27) provides an argument against generating all enclitics underlingly where they occur on the surface. If enclitics with verbal complements were generated independently of those with NP complements, there would be no way to account for (27). However, we can account for the facts so far discussed if we assume that enclitics occur underlingly only in phrases with an NP. Since enclitics by their very nature cannot be independent words, we must account for their cliticization anyway.

Under the hypothesis that all enclitics originate in phrases with NP’s, an enclitic will cliticize to its NP whenever possible. However, if an enclitic is stranded in its own phrase through deletion of its NP, a transformation will move it so that it attaches to the end of the embedded verb. Since the complementizer precedes the enclitic, the cliticization could be either to the clause final morpheme or to the COMP. As we will see, the two are not necessarily equivalent. What is important to note is that, by taking advantage of a characteristic inherent to enclitics we can postulate a single source for EP’s and predict when there will be movement.
1.1.7. **Unbounded Raising**

We have thus far considered cases with only one embedded verb. The truly interesting cases involve several embeddings:

28. Jáán adeesbâ̱s nízinígôó Mary bîl bềhồzin
   John 1.F.drive 3.wantCOMPto Mary 3.with 3.be known
   Mary knows where John wants to drive to.

29. Jáán dînâː̀ bi'doo'niidígô̱̱sh nił bềhồzin
   John 2.F.go 3.pl.tellCOMPtoQ 2.with 3.be known
   Do you know where John was told to go?

30. shînâː̀ ndeeshnish nízinígî́sh nił bềhồzin
    1.brother 1.F.work 3.wantCOMPatQ 2.with 3.be known
    Do you know where my older brother wants to work?

In none of these sentences is the enclitic part of the verb it complements. Notice that the verbs to which the enclitics are attached are incapable of taking enclitic phrases as their complements (see examples (31)-(32)). On the other hand, enclitic phrases may occur as complements to the lower verbs, and such complements are semantically accurate for the above sentences.

31a. *Jáán kînânígôó nízin
    John Flagstaff.to 3.want
    John wants to Flagstaff.

31b. Jáán kînânígôó adoołbâ̱s
    John Flagstaff.to 3.F.drive
    John will drive to Flagstaff.
32a. *Jáan MITgóó bi'doo'niid
    John MIT.to 3.3.pl.tell
    John was told to MIT.

b. Jáan MITgóó doogáá̱l
    John MIT.to 3.F.go
    John is on his way to MIT.

These facts demonstrate that even if some enclitics originate in an EP and some on the verb, a transformation is still necessary. The enclitics in (28)-(30) cannot originate where they appear in the surface string. Given that a transformation is needed anyway, if we allow only one underlying source for spatial enclitics (an EP with either a specified NP or a △), then we can express the generalization that the logical relationship is the same in all the examples considered. Notice also that these facts further demonstrate that, whatever the proper transformation may be, its scope is more than a simplex S.

To see that the scope of the transformation is in fact unbounded, that the enclitic may appear on a verb any number of S's away from its original, consider the following: 3

33. shínaáí deesháá̱ nisin nínígőó Jáan bił bééhózin
    1.brother 1.F.go 1.want 3.sayCOMPto John 3.with 3.be known
    John knows where my brother says he wants to go.

It is obvious from the meaning of (33) that /-goó/ (to) must have originated in the lowest S, as a complement of /deesháá̱/ (go). In addition, it is
clear that neither want nor say takes EP complements. There is no other possible source for the enclitic. We must therefore postulate an unbounded enclitic raising transformation.

1.1.8. The Raising Transformation

Since enclitic movement is unbounded, it is necessary to determine which verb an enclitic will move to. Let us first rule out the possibility of fixed position, i.e., movement to the highest embedded verb:

34. Bil Mary naaghahid qd' yishnih ninigii shi bëehoizin
Bill Mary 3.comeCOMPfrom 3.1.hear 3.sayCOMP 1.with 3.be known
I know that Bill said he heard where Mary comes from.

35. dînîyâhîgii adeesbqs nisin
2.goCOMPto 1.F.drive 1.want
I want to drive to where you are going.

While the enclitic does not necessarily attach to the highest embedded verb, it will in fact attach only to an embedded verb. Thus we never find sentences like the following:

36. *Jaan naaghâhîgii shi bëëhózindq
John 3.come.COMP 1.with 3.be known-from
I know where John comes from.

To determine where an enclitic will attach, it is therefore necessary to compare embedded S's. We already know that one characteristic distinction among verbs is whether they take /-i/. In all the above
examples, if a verb has an enclitic attached to it, it also has an /-I/
complementizer. No verb that an enclitic has passed over has an /-I/
complementizer. Thus, it seems that a stranded enclitic cliticizes not
to the V, not to clause final position, but to the /-I/ complementizer.

We are now in a position to state a tentative raising rule.

**Enclitic Raising**

\[ W - [\Delta E]_{EP} - X - I - Y \]

1 2 3 4 5 6
1 2 0 4 5+3 6

Condition: X does not contain any /-I/.

1.1.9. **Phonological Evidence Against Chomsky-Adjoining the Enclitic**

The Enclitic Raising Transformation as now stated moves the enclitic
to the right of the complementizer. However, I have said nothing about how
it is adjoined. I have no evidence that the enclitic is dominated by COMP,
only evidence that the /-I/ complementizer must be present in an S for the
E to attach to that S. The E may still be directly dominated by S. There
is, however, some evidence that the enclitic is not Chomsky-adjoined to the
S. This evidence is based on sentences containing two enclitics.

Since an enclitic is associated with a particular S and a complete
sentence can be composed of more than one S, we should expect to find
sentences with more than one enclitic. In fact we find two enclitics
attached to one verb. Consider the following:
37. Ján díníyáhígoóđéę' naaghá
   John 2.go to from 3.come
   John comes from the place where you are going.

38. Kii i'ílbázígoódi nahaltin
   Kee 3.P.drive to at 3.be raining
   It's raining where Kee drove to.

39. Bíl Kii naagháníđéę'jì' niníyá
   Bill Kee 3.come from as far as 3.P.walk
   Bill walked as far as where Kee comes from.

40. Ján Kii yóó' anáłwoóđéę'goó deeshází nízin
    John Kee away 3.P.run from to 1.F.go 3.want
    John wants to go to where Kee ran away from.

41. t'áá Ján nidoogájì'goó Mary oolbás
    just John 3.P.walk as far as to Mary 3.drive
    Mary is driving to where John will walk as far as.
In $S_1$, we find an enclitic phrase containing a null NP. Thus, the enclitic /-gôô/ must move. By the raising transformation, it moves up to the nearest /-i/.\footnote{11}

Now consider $S_0$. There is an EP there also. But the NP dominated by the EP is not null; it contains an $S$. The enclitic therefore will not move. We have said that an enclitic normally attaches to the end of its NP. But the NP in question is actually a whole sentence, $S_1$. The enclitic will therefore attach to the end of $S_1$, which is in fact the same thing as attaching onto the COMP of $S_1$, a lower $S$. Thus, we find the surface word /diniyâhígóôđê/.\footnote{12}

The pronunciation of the word /diniyâhígóôđê/ involves a curious phenomenon. The /-gôô/ is longer than normal. In fact, in some speech,
there is almost a pause between /-go/ and /-de/. I would describe this fact as a phonological indication of the phrase structure. Thus, according to the above tree, /-de/ is outside of S. As is generally known, S's tend to be the most independent of all constituents, a fact described in our theory by an extra set of word boundaries. The pause, then, is a result of # within the syntactic word.

If we postulate that the S word boundary is not erased in order to account for the pause in /diniyaho/ and if the enclitic movement rule Chomsky-adjoins the enclitic onto the S, then there should also be a word boundary and therefore a lengthening or pause between the COMP /-I/ and the following enclitic. However, no such phenomenon occurs. It is therefore reasonable to assume that the enclitic is not Chomsky-adjoined to the S. If movement involves such adjunction, we may postulate that the enclitic cliticizes directly to the /-I/ complementizer.

1.1.10. Chorus

To recapitulate, I have shown that Navajo spatial enclitic placement is predictable. All the examples are semantically consistent with a single source for the enclitics, an EP. The noun in the EP may or may not be phonologically constituted at the stage at which enclitic cliticization occurs. If it is, the enclitic will attach to it. If it is not, and the enclitic is stranded, the enclitic will move rightward to the nearest /-I/, passing over as many S's as necessary. In other words, this is a case of unbounded rightward movement, a phenomenon believed not to exist in natural
language. It has been said that there is a dichotomy between languages with leftward movement (e.g., English) and those without (e.g., Japanese). While unbounded movement exists in the former, the latter were said to have movement within a clause only. The facts about Navajo enclitics, however, demonstrate that this asymmetry does not exist.

1.2. **Enclitic Phrases and Relative Clauses**

Since the enclitic raising transformation as postulated is evidence against a putative universal, the obvious questions to ask are: (1) Is this in fact a movement phenomenon at all? Could the facts explained by my raising transformation alternately be accounted for by deletion rules? and (2) If we are in fact dealing with a movement phenomenon, does it have some special properties to explain it?.

I will consider question (1) first, since it is plausible to argue that we are dealing with relative clauses rather than headless NP's. As I discuss in more detail below, one could argue that the above facts are accounted for by postulating underlying relative clauses with EP heads. The "missing NP" would then be an EP deleted through relative clause formation. I will try to demonstrate, however, that at least some of the aforementioned examples cannot be relative clauses. Moreover, whether or not they are relative clauses, an unbounded movement rule is necessary. Once I have demonstrated that there must in fact be movement, I will return to factors related to the second question.
1.2.1. /-í/ As Relative Clause and Complementizer Marker

The Navajo relative marker is identical to the complementizer, a clause final /-í(kíl)/. (See Platero (1974) for a detailed discussion of the relative clause in Navajo.) Navajo relative clauses are formed through deletion of either the head NP or the embedded NP:

42a. kíníání́dée' yóó' anaálwóígíí hastíin baa éhónisin
Flagstaff.from away 3.P.run.REL man 3.about 1.know
I am aware of the man who ran away from Flagstaff.

b. hastíin kíníání́dée' yóó' anaálwóígíí baa éhónisin
man Flagstaff.from away 3.P.run.REL 3.about 1.know
I am aware of the man who ran away from Flagstaff.

When the head NP is deleted (forward deletion), as in (42b), the sentence is identical to an embedded complement; (42b) also means "I am aware that the man ran away from Flagstaff".

Because of this identity, if one were to argue that EP's can be relative clause heads, the indirect questions (28)-(32) could be formed from relative clauses where the head is an EP. For example:

28. Jáan adeesbás nízinígóó Mary bɪ́l beéhózin
John 1.F.drive 3.wantCOMPto Mary 3.with 3.be known
Mary knows (the place) where John wants to drive to.
If the embedded EP is deleted under coreference to the head EP (backwards deletion), sentence (28) is produced. If the head EP is deleted, however, there is no good output. Because the noun in the EP is null, the string that is formed from deletion strands an enclitic:

43. *Jáan dę́' yóó' adeeshwol níziníigíí Mary bił béehózin

The relative clause alternative is designed to replace the movement rule. Since under this theory there is no movement, one could say that deletion of the head is unconstrained and that the sentence is thrown out by virtue of the stranded enclitic.
1.2.2. Insufficiencies of the Relative Clause Explanation

Even though hypothesizing a relative clause structure explains the sentences so far discussed, there are many reasons why these sentences should not be considered to be relative clauses. To begin with, recall the phonological argument in section 1.1.9 which concludes that there is no S node between /-i/ and the spatial enclitic. Since an enclitic which is from the head of a relative clause would be separated from its relativizer /-i/ by an S node, the phonological evidence argues against relative clauses.\(^1\)

Syntactic selections also argue against this solution. Wherever a relative clause can appear, a simple NP should also be able to appear. Thus, the existence of (44) should predict a good sentence in (45). (45), however, is bad.

44. Ján naalnishídi shił bééhózin
   John 3.workCOMPat 1.with 3.be known
   I know where John works.

45. *kinlání shił bééhózin
    Flagstaff 1.with 3.be known
    I know Flagstaff.

As a corollary to the above, sentence (44) should also predict that an EP can occur as the subject of /-i béehozin/ (know). We would expect that (44) would be formed from a relative clause with an EP head. Any head should be able to occur without the relative clause. However, sentence (46) is also bad.
46. *MITdi shił bééhózin
MIT.at 1.with 3.be known
I know at MIT.

Pat Brogan (n.d.) has shown that there are "strange NP's" in English which cannot occur without a relative clause. He gives the following examples (his (5)-(8)):

47. He told me the chair he'd put it under.
48. He told me the man to arrest.
49. *He told me the chair.
50. *He told me the man.

One could argue that (45)-(46) are ungrammatical because (44) is really a strange NP. The Navajo would therefore be parallel to (51)-(52).

51. She told me the place where he lives.
52. *She told me the place.

The difference between the English and the Navajo is that tell allows some simple NP's while /-1 bééhózin/ requires sentential subjects. Contrast the following:

53. He told me the story.
54. *hane' shił bééhózin
story 1.with 3.be known
I know the story.
Navajo has a transitive version of "to know", used in the sense of "to be acquainted with". Contrast (45) and (54) with the following:

55. kinlání bééhonisin
    Flagstaff 1.know
    I know Flagstaff.

56. hane' bééhonisin
    story 1.know
    I know the story.

The contrast between /bééhonisin/ and /shil bééhózin/ provides yet another argument against calling (44) a relative clause. Contrast the meanings of (57) and (58), two superficially identical embedded sentences.

57. kinlánígoó deeyágígii bééhonisin
    Flagstaff.to 3.go REL 1.know
    I know the person who is going to Flagstaff.

58. kinlánígoó deeyágígii shil bééhózin
    Flagstaff.to 3.go.COMP 1.with 3.be known
    I know that he is going to Flagstaff.
    *I know the person who is going to Flagstaff.

Sentence (58) does not have the relative clause reading of (57). If the verb /-l bééhózin/ can have relative clause complements, as in (44), then (58) should be ambiguous. Since the relative clause marker is identical to the /-l/ complementizer, the embedded S in (58) should be interpreted as either a sentential subject or a relative clause with a deleted head, identical to (57). Since (58) cannot be a relative clause, (44) should
not be either.

The above arguments strongly suggest that the indirect questions under consideration are not formed from relative clauses.

1.2.3. **EP's As Relative Clause Heads**

However, there is at least one set of facts which argues for a relative clause structure. Consider the following:

59a. *ga'bbáhí a'áángóne' yah eełowiódííf hatl'éé'*
   rabbit hole in into 3.P.run.REL area.be dark,
   It is dark in the hole that the rabbit ran into.

   b. *ga'bbáhí a'áángóne' yah eełowiódííf tl'éé'*
   rabbit hole in into 3.P.run.REL be dark
   The hole the rabbit ran into is dark.

Sentence (59a) appears to contain a relative clause where the head has been deleted. It is unclear, however, whether the head is just an NP (/a'áán/) or an EP (/a'áángóne'/). If (59a) could only be derived from a relative clause with an EP head, then one would have to postulate that an EP can in fact be the head of a relative clause, the position I have been arguing against.

Sentence (59a) is derived from the following structure through deletion of some head:
We know from the meaning that the head includes /a'áán/, but do not know whether it is the NP /a'áán/ or the EP /a'áángóne'/. Since the head should be able to occur without the relative clause, one would normally decide between the two by seeing which conforms to the requirements of the main verb (/hatl'ée'/). In this case, however, both can occur with /hatl'ée'/.

The /ha-/ in /hatl'ée'/ is the /ho-/ locative marker discussed above. Recall that it is obligatory whenever a locative meaning is specifically mentioned. It is therefore obligatory with locative NP's. Thus:

60. a'áángóne' hatl'ée'
    hole.in area.be dark
    It is dark in the hole.

61. *a'áángóne' tl'ée'
    hole.in be dark
    The hole is dark.
However, the locative marker /ho-/ may also be used with simple nouns which can be interpreted to mean "area":

62. a'áán hatl'ée'
   hole  area.be  dark
   It is dark in the hole.

63. a'áán tl'ée'
   hole  be  dark
   The hole is dark.

The unacceptability of (59b), however, seems to argue that the simple NP /a'áán/ is not the head. If the head of the relative clause were the simple NP, then (59b) should be good since the main verb in (59b) is not locative and therefore takes a simple NP but not an EP (cf. (61) and (63)).

The ungrammaticality of (59b) might be considered irrelevant on the grounds that a noun cannot be used both neutrally and spatially in the same sentence: once a noun is specifically made spatial, the interpretation must be used throughout a sentence. However, to see that this is not a valid explanation, consider the following:

64. Jáán bikooh yiyiiitsánígíf hózaad
    John  canyon  3.3.P.see.REL  area.be  deep
    The canyon which John saw is deep.

The /yi-/ prefix in the embedded clause shows that /bikooh/ as the object of "saw" is being used in its denotative sense. As the subject of /hózaad/, however, /bikooh/ is being used in its locative sense (note the locative
marker /ho-/). Thus it is possible for a noun to be used in both senses at once.

The ungrammaticality of (59b) therefore suggests that a fully specified EP can in fact be the head of a relative clause. If this is the case, then there could be an EP head with an unspecified EP (Δ). Such a head would produce the indirect questions under consideration.

1.2.4. The Inability of the Relative Clause Explanation to Replace Movement

However, notice that if we do in fact have a relative clause structure in (59a), then deletion of the embedded EP should also be possible. Sentence (65) shows that this is not the case.

65. *galbáhí yah eelwodiíí a'áangóne hatl'éé'
   rabbit into 3.P.runREL hole.in area.be dark
   It is dark in the hole the rabbit ran into.

Therefore, if we maintain that (59a) is a relative clause structure, backwards deletion must be constrained. Notice further that it is precisely by backwards deletion that we proposed to derive sentences (28)-(30) under the relative clause hypothesis. Since there is no significant difference between (65) and (28)-(30), blocking backwards deletion in (65) would also block it in (28)-(30). Thus, in the relative clause theory, indirect questions would be derived through deletion of the head noun, but the unbounded movement rule is still required. Therefore, even if we do have a relative clause structure, it does not replace the movement rule.
There is no way to explain (59a) except to assume a relative clause structure. Even if it should be a relative clause, not all spatial indirect questions can derive from relative clauses. Relative clauses assume coreference. While in all of the above examples there may be coreference, it is clear that there is none in the following sentences:

66. galbá'ní a'dángóne' yah eełwó'dígi hatl'ée' rabbit hole.in into 3.P.runCOMPat area.be dark
It's dark in the area around where the rabbit ran into the hole.
*It's dark in the hole which the rabbit ran into.

67. Jáñ ná'ák'eh k'i'doolyándígi naalnish John field 3.3.plantCOMPat 3.work
John works where there is a field planted.
*John works at the field which is planted.

68. Jáñ ná'ák'eh yinaa'nishídi óltá'ídi ndeeshnish John field 3.3.workCOMPat school.at 1.F.work
I'm going to work at the school (in the area) where John works the field.
*I'm going to work at the school at the field where John works.

In sentence (66), it is not the hole which is dark. Ellavina Perkins (personal communication) explained that if the rabbit hole were under a bush, one could use (66) to describe the area under the bush as dark. Sentence (67) does not mean that John works on the field. That is made clearer by (68), which means that I will be working near John. It does not mean that the school is located on the field.

If (66)-(68) were to come from relative clauses, they would have instead the starred translations. It is only in the ungrammatical
translations that the object of the main verb is coreferential with something in the embedded S. The ungrammaticality of interpretations involving coreferentiality therefore substantiates the claim that (66)-(68) are not relative clauses.

Although there is at least one example which argues for a relative clause structure, it is now clear that using a structure requiring co-reference is incorrect for at least some of the indirect questions. It is also clear that a relative structure cannot be used to argue against an enclitic movement rule, a rule involving unbounded rightward movement.

1.2.5. Recapitulation

In the preceding section I have argued that postulating an underlying relative clause structure for these indirect questions does not vitiate the need for an enclitic raising transformation. At the same time, I tried to argue that the indirect questions were not relative clauses at all, but could only conclude that at least some of the cases considered were not relative clauses. However, if it is necessary to postulate two different types of underlying structures, then we must consider the possibility that I have been describing two different types of sentences under the rubric of "indirect question".

It has been argued for English (Baker, 1970; Bresnan, 1972; Brogan, n.d.; Jespersen, 1927) that there are three phenomena which are superficially identical, relative clauses, indirect questions, and strange NP's. Although I have discussed the Navajo sentences under consideration with
respect to strange NP's and relative clauses, I have not actually given any arguments that these sentences are in fact indirect questions. In this section I will investigate further the relationship between these Navajo examples and relative clauses and then turn to the problem of positive proof that there is unbounded movement from indirect questions. I will approach the problem by discussing the constituent parts of the EP, for although I have been discussing EP's throughout, I have yet to investigate the nature of the constituent parts. I have also said that EP's act like NP's and yet if they were normal NP's, they should be able to be the head of a relative clause. Investigating the constituent parts may shed some light on this problem.

Investigating the characteristics of the constituent parts is also the first step to determining the underlying form of Δ. I will argue that Δ is /háá/, the Navajo WH PRO form, helping to justify my claim that there is in fact an indirect question in these examples.

1.3. The EP and Its Constituents

Having noted both that EP's act like NP's (can be subjects and objects; require a locative agreement marker in the verb which is mutually exclusive with other subject and object markers, etc.) and that EP's are different from NP's with respect to relative clauses, I will now compare EP's to postpositional phrases (PP's), another special type of NP, to try to understand the reason for the abnormal behavior.
1.3.1. EP's and PP's: Similarities

Since EP's are so similar to PP's, a comparison of the two should provide significant information about the character of the EP. To see that they are in fact quite similar, note the following correspondences:

69a. hooghangóne' sidá
   house in 3.sit
   He is sitting in the house.

   b. hooghan yii' sidá
   house 3.in 3.sit
   He is sitting in the house.

70a. kingóó adílbás
   house.to 2.drive
   Drive to the house.

   b. kin bich'i' adílbás
   house 3.toward 2.drive
   Drive toward the house.

Thus in the above examples, the enclitic and the postposition seem to be similar both by virtue of their meaning and in that they combine with a noun to form a phrase.

1.3.2. EP's and PP's: Differences

The correspondence, however, is not as neat as it appears at first glance. Unlike enclitics, postpositions are independent words. To see that the enclitic but not the postposition forms a phonological unit with
its noun, contrast the tone on the following:

\[
\begin{array}{ccc}
\text{ch'ínílį́} & \text{ch'ínílį́di} & \text{ch'ínílį́ bii'} \\
\text{Chinle} & \text{at Chinle} & \text{In Chinle}
\end{array}
\]

Navajo has a rule which changes a stressed high tone to a falling tone when followed by a low tone within the same word. This phenomenon is apparent when an enclitic was added above to the town name /ch'ínílį́/. However, when a postposition was used, no tone change occurred. It thus seems that postpositions do not form a single phonological word with their nouns.

Syntactically, it is also clear that postpositions are independent of their heads. Thus, the postposition may be stranded either by movement or deletion. Recall that when discussing scrambling (0.2) an example was given in which the object of the postposition was interchanged with a sentential subject, the postposition remaining with the verb:

\[
\text{71. } \text{Jáan ashkii lę́échą́ą́́į́ yiyliltsánígíí bií bééhózin}
\]
\[
\begin{array}{cccc}
\text{John} & \text{boy} & \text{dog} & 3.3.\text{P.see.COMP} 3.\text{with} 3.\text{be known}
\end{array}
\]
\[
\text{John knows that the boy saw the dog.}
\]

In addition, Paul Platero pointed out the following fact to me:

\[
\text{72a. } \text{díí tsékooh bii'}
\]
\[
\text{this canyon 3.in}
\]
\[
\text{In this canyon}
\]

\[
\text{b. } \text{díí bii'}
\]
\[
\text{this 3.in}
\]
\[
\text{In this}
\]
(72b) may be used to refer to the area in which one is standing. That is, a noun within a postpositional phrase may be deleted as redundant. Thus, a postposition, unlike an enclitic, may be stranded through deletion of its noun.

Recall also that the postposition includes an object agreement marker. /bii'/ in fact means in it, while the corresponding enclitic /gónê'/ means only in. The postposition /-ii'/ takes the full complement of person markers, /sh-ii'/ (in me), /n-ii'/ (in you (sg. and pl.)), /b-ii'/ (in him, her, it, them), /hw-ii'/ (in one), /nih-ii'/ (in us). In contrast, /gónê'/ does not take any person markers: */shigónê'/, */nigónê'/, etc. The fact that postpositions include agreement markers helps explain why they can be independent of their heads: the agreement helps to "recover" the object.

It is thus clear that the relationship between a postposition and its head is quite different from that between an enclitic and its head, the latter being a suffix, while the former is a separate word.

1.3.3. The Classes of NP's Which Can Occur With EP's and PP's

The contrasting grammaticality in the above examples makes it perfectly clear that a postposition can occur in places where a spatial enclitic cannot. In fact, postpositions occur rather freely, while the use of spatial enclitics is very restricted. For example, enclitics unlike postpositions can attach to only a very small class of nouns.
73a. * Jáandé' yóó' anáshwod
    John.from away 1.P.run
    I ran away from John.

b. Jáan bits'áá yóó' anáshwod
    John 3.from away 1.P.run
    I ran away from John.

74a. *ássaa'góne' hózaad
    pot in area.be deep
    It's deep in the pot.

b. ássa' bii' hózaad
    pot 3.in area.be deep
    It's deep in the pot.

It thus seems correct to generalize that an EP can contain only those lexical items which by themselves can refer to place. That is, an enclitic does not make a word locative, but attaches to a locative to provide directional or spatial information. A postposition, in contrast, can create a locative interpretation for almost any noun. Thus, unlike the above grammatical examples with PP's, in all the good examples I have of EP's, the enclitics attach to words which in themselves refer to place. For example, they attach to place adverbs:

    tl'óó'di
    at outside

    áádíí'
    from there

    kodi
    at here
Recall that there is a verb agreement marker /ho-/ which marks locative subjects and objects. Since the above definition requires that a lexical item refer to a place, we should be able to define those items which can take enclitics in terms of those which can take /ho-/ agreement. Consider the following:

75a. hooghangóne' hótssaa
    house in area.be big.
The house is big.

b. hooghan hótssaa
    house area.be big
The house is big.

76a. bikoohgóyaa hózaad
    canyon.down in area.be deep
The canyon is deep.

b. bikooh hózaad
    canyon area.be deep
The canyon is deep.

77a. a'áangóne' hatl'éé'
    hole.in area.be dark
The hole is dark.

b. a'áán hatl'éé'
    hole area.be dark

In contrast, the sentences in (73a) and (74a) are bad because (78) and (79) are bad.
78. *Jaán hótsaa
   John area.be big
   John is big.

79. *ásaa' hózaad
    pot area.be deep
    The pot is deep.

3.4. Postpositions and Relative Clauses

Related to the independence of a postposition and particularly to its ability to stand alone is the fact that it is possible to form a relative clause on the NP within the PP:

80a. yii' sidánhííi kin shil ya'át'ééh
     3.in 3.sit.REL house 1.with 3.be good
     I like the house he is sitting in.

     b. kin yii' sidánhííi shil ya'át'ééh
        house 3.in 3.sit.REL 1.with 3.be good
        I like the house he is sitting in.

The relative clause in sentence (80a) results from the deletion of the embedded NP. (80b) is the result of deleting the head NP. Note that it is clear that the head of the relative clause in both (80a) and (80b) is the simple NP /kin/ and not the PP /kin yii'/. Thus, if a PP head were possible, (81a) should be good. The fact that (81a) is bad and (81b) is good proves that /kin/ is the head.
81a. *kin bii' shil yá'át'ééh
   house 3.in 1.with 3.be good
   I like it in the house.

   b. kin shil yá'át'ééh
   house 1.with 3.be good
   I like the house.

   In contrast, the comparable structure with an enclitic instead of
   a postposition has no good output.

82. *góne' sidáhigíi kin shil yá'át'ééh
   in 3.sit.REL house 1.with 3.be good
   I like the house he is sitting in.

83. *sidáhigóne' kin shil yá'át'ééh
   3.sit.REL in house 1.with 3.be good
   I like the house he is sitting in.

Whatever a PP is, it must be composed of an NP and a postposition. Thus
sentential clitics which go into second position after phrases will come
between an NP and its postposition but not between a noun and a spatial
enclitic.

84a. kin ga' yii' sidá'
   house emph 3.in 3.sit
   He is sitting in the house.

   b. *kin ga' góne' sidá'
   house emph in 3.sit
Given the other evidence differentiating PP's and EP's, it is possible to account for the varying relative clause possibilities by postulating different structural configurations for EP's and PP's. Assuming that both EP's and PP's are NP's, it is still necessary to determine whether that NP is formed from another phrase or from a simple noun, from (a) or (b):

\[
\begin{array}{c}
\text{(a)} \\
\text{NP} \\
\text{NP} \\
\text{NP} \\
\text{(b)} \\
\text{NP} \\
\text{NP} \\
\end{array}
\]

Since the head of a relative clause is an NP, its antecedent must be also. We know that a relative clause can be formed on the head of a PP ((80)) and therefore must postulate that the head is an NP, not an N (structure (a)). On the other hand, since a comparable relative clause cannot be formed from an EP ((82)), we could account for that by postulating structure (b) for EP's.

Note that this choice of constituent structure is consistent with all the differences already noted between EP's and PP's. A phrase is generally considered more independent than a lexical category. Transformations refer to phrases more than categories, phrases are more likely to be moved than lexical categories, etc. To say that a postposition is independent of its head is also to say that the head is independent of a postposition.

A final strong argument that the head of a PP, but not an EP, is an NP comes from Platero (1974). He notes that PP's but not NP's may
appear with a demonstrative determiner: (his (103) and (106))

85. (shí) díí tsékooh bii' sédá
   I this canyon 3.in 1.sit
   I am sitting in this canyon.

86. *(shí) díí tsékoohdi sédá
   I this canyon.at 1.sit
   I am sitting at this canyon.

The fact that the noun in an EP cannot be modified is evidence that it is not an NP.

1.3.5. Phrases With Both Postpositions and Enclitics

One problem with the above postulated constituent structures arises from cases in which an enclitic has attached to a postposition. Consider the following:

87a. kin yiigone' sidáhígií shíl yá'át'eéh
   house 3.in.into 3.sitCOMP 1.with 3.be good
   I like the house he is sitting in.

   b. yiigone' sidáhígií kin shíl yá'át'eéh
      3.in.into 3.sitCOMP house 1.with 3.be good
      I like the house he is sitting in.

88a. *sidáhíyiigone' shíl béehózin
      3.sitCOMP.3.in.into 1.with 3.be known

   b. *yiigone' sidáhígií shíl béehózin
      3.in 3.sitCOMP into 1.with 3.be known
Sentences (87a)-(87b) demonstrate that a postposition enclitic combination can be stranded by relativization. As we have seen, this process occurs to PP's but not to EP's. Sentences (88a)-(88b) show that movement by the enclitic raising transformation is not possible with a postposition enclitic combination, although this process is associated with enclitics. We should thus assume that a postposition plus enclitic occurs in a postpositional phrase not in an enclitic phrase. The lack of movement can be accounted for either by saying that there is no EP or by saying that the enclitic has cliticized to the postposition and is therefore not stranded. Recall that only stranded enclitics move.

The problem occurs in trying to determine the structural configuration specific to these phrases containing both a postposition and an enclitic. The following trees depict the possible alternative structures for the phrase in sentence (87):

(87A) NP
     PP  E
      NP  P  NP
        kin  yii'  gone'

(87B) NP
     PP  E
      NP  P  NP
        kin  yii'  gone'

(87C) NP
     PP
      NP  E  F
        kin  gone'  yii'

(87D) NP
     PP
      NP  P  E
        kin  yii'  gone'
The tree in (87A) is an example of the type of constituent structure I argued against above, one in which an enclitic is a sister to a phrase instead of to a lexical category. In addition, the structure claims that the phrase should behave like an EP rather than a PP. Further, if a PP is an NP, then (87A) predicts that /kin yii'/ is a possible head of a relative clause. By backwards deletion, the enclitic would be stranded and would then move to the /-i/, creating a sentence such as (89).

89. *sidahígóne' kin yii' shíl yá'át'ééh
   3.sitCOMPinto house 3.in 1.with 3.be good

The fact that (89) is ungrammatical provides another argument against (87A).

The structure in (87B) on the other hand tells us nothing about whether these are to be considered enclitic phrases or postpositional phrases. The choice is arbitrary and therefore behavior should be random. However, the behavior is quite consistent.

Structure (87C) predicts the correct behavior, but provides the wrong surface order. Besides the fact that enclitic movement is not motivated from a fully specified noun, such a transformation would be unnatural because clitics do occur between a noun and its postposition.

Our last structure makes the correct claim about postposition precedence and about surface order. It also makes the correct claim that /yii'góne'/ but not /kin yii'/ is a phonological unit. While I believe (87D) to be the best structure, accepting this structure means resting
our answer on the question of what it means to be an enclitic. How can a postposition be composed of a postposition and an enclitic? Even more important, I argued above that there should be only one source for enclitics. I have suggested that that source is an EP having the constituent structure of (b) (p. 77). Now I am suggesting a second constituent structure for enclitics.

I would like to suggest that even (87D) is suspect and that these enclitics have no status of their own. Instead, I would suggest that some kind of contraction has occurred forming a new postposition. While I have no direct evidence for this hypothesis, there are other contraction rules in Navajo which change constituent structure. As Kenneth Hale pointed out to me, /tō biih/ \textit{(water in)} may contract to /taah/. Consider the following:

\begin{verbatim}
90a. tō biih yi'ą
   water 3.in 3.1.P.handle
   I put it in the water.

b. taah yi'ą
   water.in 3.1.P.handle
   I put it in the water.
\end{verbatim}

(90a) forms relatives like a normal PP:

\begin{verbatim}
91. aweé' tō biih yi'tinígíí sik'ąz
   baby water 3.in 3.3.handle.REL 3.be cold
   The water I put the baby into is cold.
\end{verbatim}
In (91), /tō/ was the head of a relative clause and the head was deleted. Once contraction occurs, it is impossible for /tō/ to be identical to the embedded noun.22 Thus:

92. *awéé' taah yítinígíí sik'az
   baby water.in 3.3.handle.REL 3.be cold

Therefore, whatever /taah/ is, it is no longer composed of an NP plus P.

Analogously, I would suggest that the postposition plus enclitic is no longer a separate P followed by an E, but has contracted to a single lexical item. Since these phrases act like PP's, that single item should be considered a new postposition.

If this argument holds, then there will be one constituent structure for PP's, that of (a) on page 77 above. More importantly, we will be able to retain the claim that there is only one source for enclitics, (b) above. In either case, however, notice that the generalization still holds that an enclitic will only attach to an item which is inherently locative. We will return to this claim in trying to define Δ.

1.3.6. PP's, EP's and Other Types of Relative Clauses

Before turning to the characterization of Δ, let us consider the last case of possible relative clauses involving PP's and EP's. We have considered forming relative clauses on the objects of the postposition and enclitic and saw that the first was possible but the second was not. The difference in behavior was accounted for by different constituent
structures. Nothing has been said so far about forming a relative clause on the entire PP and EP. Since both are NP's, such relative clauses should be possible. To see that the entire PP can be the head of a relative clause, consider the following:

93a. kin biyii' yah iiyahigii shił yá'ahoot'éeh
   house 3.in into 1.P.go.REL.1.with 3.area.be good
   I like it in the house I went into.

b. yah iiyahigii kin biyii' shił yá'ahoot'éeh
   into 1.P.go.REL house 3.in 1.with 3.area.be good
   I like it in the house I went into.

94a. kin biyii' shił yá'ahoot'éeh
   house 3.in 1.with 3.area.be good
   I like it in the house.

b. *kin shił yá'ahoot'éeh
   house 1.with 3.area.be good

The fact that (94b) is ungrammatical proves that the head had to be the entire postpositional phrase, /kin biyii'/.

The PP head also shows up in (93b) in which backwards deletion has occurred. (93a), formed through forward deletion, proves that the antecedent is also the full PP, as we would expect given the PP head in (93b).

We have already seen one example which needs an EP head of a relative clause. I repeat (59a) below:
59a. gałbahi a'ąągóné yah eelwodíí hatl'ée
rabbit hole in into 3.P.run.REL area.be dark
It is dark in the hole that the rabbit ran into.

While (59a) requires us to postulate that an EP can be the head of a relative clause, it seems there must be other restrictions on the formation of relative clauses. Consider the following:

(95)

95a. *hastiin sidáhígíí kindi hodiiltlah
man 3.sit.REL house.at area.3.P.fire breaks out
Fire broke out at the house where the man is sitting.

b. *hastiin kindi sidáhígíí hodiiltlah
man house.at 3.sit.REL area.3.P.fire breaks out
Fire broke out at the house the man is sitting at.
Sentences (96a) and (96b) prove that the tree should be well formed. Yet there is no good output. While I have no explanation for this phenomenon, I point it out to emphasize the need to further illumine the behavior of enclitic phrases and the implication of that behavior for other syntactic processes. In particular, an explanation for (95) might help explain whether the sentences I have argued are indirect questions are also ambiguous, and if not, why not.

1.3.7. **Meaning Problems For Indirect Questions As Relative Clauses**

I do feel, however, that the constituent structure of EP's already provides an explanation for why indirect questions do not come from relative clauses. Consider the following:

97. Ján naagháhíde' baa áhonisin  
John 3.comeCOMPfrom 3.about 1.be aware  
I am aware of where John comes from.

To make sense as a relative clause, the head would have to be a plain NP rather than an EP: "I am aware of the place" makes sense; "I am aware of
from the place" does not. However, the embedded clause contains an EP: "John comes from \( \Delta \)," not "John comes \( \Delta \)." Thus, to be a relative clause, (97) would have to be formed from a relative clause within the EP, not on the entire EP: 24

(97)

This, however, is precisely the class of possible relative clauses that has definitely been eliminated. The impossibility of forming a relative clause on the object of an EP (as opposed to the object of a PP) has been shown to be inherent to the character of EP's.

1.4. Movement and Indirect Questions

Having completed the investigation of the relationship between the examples involving rightward movement and a relative clause structure, I would now like to try to provide positive proof that these sentences are in fact indirect questions. Since I want to discuss the implications for
question formation universals as well as for the Right Roof Constraint, the proof by process of elimination which I have used so far may be considered inadequate.

1.4.1. Identification of \( \Delta \)

Since questions require a question morpheme—either a WH word or a signification for a yes/no question—I will begin by arguing that \( \Delta \) is underlingly the Navajo WH morpheme /há/.\(^{25}\) I have been asserting that enclitic raising exists because the enclitic has been left stranded; the N in the EP is phonologically empty. There are, however, several ways to account for a null N: (1) it was a dummy in underlying structure; (2) the noun deletes; or (3) the noun has been moved away. We can eliminate (1) on the basis of the character of the EP, verb morphology, and meaning.

1.4.2. \( \Delta \) Is Not a Dummy Node

Recall from the investigation of the constituents of an EP that enclitics were found to attach only to lexical items which are inherently spatial. If we allow a dummy node, we will have to abandon that generalization. Notice that generating EP constituents randomly and using a surface filter would be insufficient, precisely because of the enclitic raising transformation. Thus, in a case like (98), the enclitic /-di/ is attached to the COMP /-í/ which does not refer to place.
Saying that the enclitic is really attached to the verb does not help either, since there is nothing spatial about want (/nizin/). On the other hand, while the generalization is inconsistent with postulating a dummy node, it is consistent with the translations of all the examples. They all translate as if the missing noun did indicate place. It is therefore reasonable to assume that the $\triangle$ in EP's is not a dummy node, but a lexical item indicating "place".

A second argument that $\triangle$ is not a dummy node is provided by the verb morphology in (99).

In this case the $\triangle$ is not part of an EP, but is the direct object. In section 1.1.4. I argued that the presence of /yi-/ proved that there had to be an underlying object and, more particularly, a specified reference. Recall that /'i-/, not /yi-/ agrees with PRO direct objects. Thus, unless there were some way to interpret a dummy node before direct object agreement occurred, a dummy node would be incompatible with /yi-/. There is, however, nothing in (99). We therefore must conclude that $\triangle$ has a distinct underlying form and is not a dummy node.
To state the argument another way, a dummy node implies non-distinctness of meaning. However, in every example mentioned, $\triangle$ always gets translated as a WH word. The distinct meaning therefore argues against a dummy node and for a specified underlying form.

1.4.3. **Evidence That $\triangle$ Is /háá/**

Having argued against an empty node, I will now try to motivate the specific underlying form, a WH word. So far, the only suggestion that $\triangle$ is /háá/ comes from the English translation: Whenever there has been a gap in the Navajo, there is a WH word in the English. While translations provide a reasonable starting point, since "translations" are really more like paraphrases, more direct justification is called for.

Using the English as a guide, let us turn to a consideration of Navajo WH question words, the words which appear in the English translations. Consider the following:

100a. Ján deeyáhígo\h' shil bëshőzin
   John 3.goCOMPto 1.with 3.be known
   I know where John is going.

   b. háagóosh Ján deeyá
      where.to Q John 3.go
      Where is John going?

101a. Ján yigáalídë\h' shil bëshőzin
   John 3.walkCOMPfrom 1.with 3.be known
   I know where John is coming from.
b. háadéé' sh Jáan yigááł
where.from.Q John 3.walk
Where is John coming from?

102a. Jéan naalnishídi shíl béehózin
John 3.workCOMPat 1.with 3.be known
I know where John is working.

b. háadísh Jéan naalnish
where.at.Q John 3.work
Where is John working?

The (b) sentences are typical direct questions. The question word is made up of three parts. /háá/- is the indefinite form for where which also shows up in the indefinite pronouns for somewhere. /-sh/ is an interrogative particle. Whereas English makes questions through subject-aux inversion, Navajo uses interrogative particles. /-sh/, /lá/, and /-sha'/ are used in WH questions; /-ísh/ and /-sha'/ in yes/no questions. The system for forming simple questions is quite complicated because there is a variety of interrogative particles as well as variation in where in the sentence they are attached. I will discuss the system in more detail in Chapter 2 in order to discuss embedded direct questions, but I do not believe that any other characteristics of the interrogative particles are relevant to the present discussion. However, the third part of the "where" words is crucial in the comparison between these simple direct questions and the indirect questions. Compare each "where" word with the corresponding enclitic in the (a) sentence. Phonologically each "where" word
contains its corresponding enclitic. Notice also that it is impossible
to replace the enclitic in (a) with the full WH word (with or without the
interrogative particle).

103a. *Jaan háágóó deeyáhígíí shíł bééhóżín
    b. *Jaan háágóósh deeyáhígíí shíł bééhóżín

104a. *háádéé' Jáan yigááhígíí shíł bééhóżín
    b. *háádéé' lá Jáan yigááhígíí shíł bééhóżín

The semantic and morphological similarities as well as the complimentary
distribution could all be accounted for by postulating that △ is a WH
word and the (a) and (b) sentences had the same underlying form for that
WH word.

Another way to determine what a sentence means is to examine how
it would be used. Consider the following questions and responses:

105. Q: shínaal yiskahígíísh nil bééhözín
    1.brother 3.3.P.shootCOMP.Q 2.with 3.be known
    R: nda, ha'á tísh nínaal yiskah
        no what Q 2.brother 3.3.P.shoot with an arrow
        No, what did your brother shoot (with an arrow)?

106. Q: Jáan deeyáhígóósh nil bééhözín
    John 3.goCOMPto.Q 2.with 3.be known
    R: auu', na'nízhoozhígóó deesháá' níí ní'  
        yes Gallup to 1.F.go 3.say pst. assertive
        Yes, he said he's going to Gallup.
The above questions really contain two questions, the direct question "do you know?" and an indirect question, asking in (105) what my brother shot, and in (106) where John is going. That there are two questions is clear from the responses. One would reply "yes" or "no" only to a direct question and only to a yes/no question. On the other hand, one adds more information to the response only if there is also an indirect question, if more information is requested. Contrast (105) to (107).

107. Q: Jáá' shíínáai yiskahííqísh níł bééhózín  
John 1.brother 3.3.P.shootCOMP.Q 2.with 3.be known  
Do you know that John shot my brother (with an arrow)?

R: auu', (Jáá' níínaaí yiskahííqíí níł bééhózín)  
yes  John 2.brother 3.3.P.shootCOMP 2.with 3.be known  
Yes, (I know that John shot your brother (with an arrow)).

Since (107) asks only whether you knew about something, i.e., were aware of a fact, a simple "yes" or "no" is an appropriate answer. Notice that if any more is said, it is merely a repetition of the question, adding no new information.

In contrast, if a direct question containing an indirect question is answered with a simple "yes", the questioner will feel the answer is only partial and therefore inappropriate and will request more information. Thus, if (105) had been answered as in (107), the questioner would come back with
108. áko ha’át’î̱sh nínaaí yiskah
thus what Q 2.brother 3.3.P.shoot with an arrow
So what did your brother shoot (with an arrow)?

In sum, the way these sentences are used also argues that they are indirect questions.

Lest it cause any confusion, it should be noted that the interrogative particle in the above questions is the yes/no interrogative particle and is not responsible for the indirect question. Recall that the indirect questions discussed earlier did not contain the particle. To see that my assertion is correct, consider the following:

109. Jáan deeyáhígo'6 níšh běéhózin
John 3.goCOMPto 2.with.Q 3.be known
Do you know where John is going?

110. *Jáan deeyáhígo'la níl běéhózin
John 3.goCOMPto.Q 2.with 3.be known

In the examples I have been using, the interrogative particle was attached to the end of the subordinate clause, leaving it unclear whether it was marking a question in the higher or lower S. (109) demonstrates that the interrogative particle is not actually part of the embedded indirect question, i.e., is not a leftover of the deleted WH word. The fact that the WH interrogative particle /lál/ may not be used ((110)) also proves that the particle in (105)-(107) is the yes/no particle.

One final argument that the sentences under consideration are in fact indirect questions and that ∆ is a WH word is based on the following
idiom, pointed out to me by Kenneth Hale:

111. Q: ha'át'íísh baa naníná
    what   Q 3.about around.2.go
    What are you doing?

R₁: *naanish baa naashá
    work 3.about around.1.go

R₂: naashnish
    1.work
    I am working.

The expression /baa na-aa1/ requires a question word. It cannot be used with a regular object. Thus, this expression cannot be repeated in answering (111). The fact that this expression can be used in the following argues that they are in fact questions:

112. baa naasháhigíísh nił bééhózin
    3.about around.1.doCOMP.Q 2.with 3.be known
    Do you know what I am doing?

113. shizhé'é yaa naagháhíí doo shi1 bééhózinda
    1.father 3.about around.3.doCOMP neg 1.with 3.be known.
    I don't know what my father is doing.

Since the embedded S's contain an expression requiring a question word, there must have been a question word underlyingly although there is none in the surface.

In sum, all the examples discussed argue that we have in fact been considering Navajo indirect questions which contain an underlying WH word.
I in fact know of no arguments against postulating that $\triangle$ is underlyingly a WH word. However, it should be noted that postulating a question formation rule which deletes the WH is unusual. But then so is the rightward movement of the spatial enclitic. Perhaps one unusual fact can be used to explain the other.

1.4.4. Further Considerations

To account for why there is any movement at all requires investigating other factors in detail, such as the other Navajo question types and the semantics of the complementizer system. However, having argued against accounting for the spatial enclitic placement through deletion instead of movement, and having described in as much detail as possible the underlying forms involved in the movement, I will now return briefly to the question of whether this movement phenomenon has any special properties to explain it. There are two particularly interesting characteristics deserving further mention.

1.4.5. The Rightward Movement Is In Indirect Questions

One is that the movement occurs in indirect questions. It thus reflects not only on the Right Roof Constraint but on the putative question formation universals as formulated by Baker, Bach, and Bresnan, and discussed in the introduction to this chapter. According to them, there is only one possible movement rule for questions, and it moves the questioned word to clause-initial position. If this movement is to be considered a
question—movement transformation, it clearly violates that claim. On the other hand, Bach claims that question movement is toward the "governing verb" and Bresnan (1970) and Chomsky (1971) claim that all movement out of an S is through complementizer position. This movement is clearly consistent with either one of these formulations. Recall, however, that my formulation of the movement transformation was dependent on the previous deletion of the noun—i.e., whenever a noun is phonologically constituted, the enclitic does not move. If that formulation is correct, then one could postulate that the actual question formation is the WH deletion and that the movement rule is not in fact a question formation rule. Thus, while WH deletion remains unusual, it does not violate the question formation universal. In this particular case, Bresnan's COMP Substitution Rule is not violated, although her Complementizer Attraction Universal is.

In some current research, Hale and Platero are investigating the possibility that Navajo relativization is a movement rather than a deletion rule. They have suggested that by modifying my enclitic raising transformation, relativization might be collapsed with indirect question formation. The structural description for the enclitic raising transformation now includes a deletion site. If Hale and Platero are correct, then the environment for movement can no longer be based upon deletion because relativization would involve no deletion. One should therefore reconsider whether WH-deletion occurs before or after movement and whether the raising transformation is in fact a question formation rule. Such reconsideration must await further refinement of their proposal.
1.4.6. The Unbounded Movement Is Not Unconstrained

The second interesting characteristic of this rightward movement phenomenon has to do with its unboundedness. While unbounded in the sense that the enclitic moves across a crucial variable, it is not unconstrained. The enclitic never passes over an /-i/ complementizer. Of course, it has often been noted that question formation in English also must be constrained. For example, as Langacker (1969) points out, WH words from indirect questions move to the front of their clause, not to sentence-initial position.

114. John asked when Mary had arrived.

115. *When did John ask Mary had arrived.

Nor can two WH words ever be moved to initial position.

116. *Who where did John say is going?

Bach uses the concept of movement toward but not past the governing verb to handle these restrictions; Chomsky (1971) has a Tensed S constraint and Specified Subject constraint. In the Navajo case, however, since the movement is only across the direct discourse segment of the sentence, the absence of an overt complementizer could lead one to question whether the movement is truly across an indefinite number of S's. One might argue that some kind of clause reduction has occurred, perhaps through pruning, and the enclitic therefore moved to the main verb of its clause. Under Ross's hypothesis (Ross, 1966), the S node would be pruned if unbranching.
Since there is no complementizer, it would prune in the above cases for lack of a subject. However, although not specifically discussed here, as we saw in the Introduction, Navajo direct discourse S's can have surface subjects. In those cases, the enclitic will still move.

117. Mary Jáan doogáal nízinígóó Bíl bil beéhózin
Mary John 3.F.go 3.wantCOMP to Bill 3.with 3.be known
Bill knows where Mary wants John to go.

As we have already seen, go, but not want, takes directional complements. (118) is the usual form:

118. Mary Jáan kinláníngóó doogáal nízinígií Bíl bil beéhózin
Mary John Flagstaff.to 3.F.go 3.wantCOMP Bill 3.with 3.be known
Bill knows that Mary wants John to go to Flagstaff.

Example (117) is the result of Enclitic Raising from a Δ (a deleted WH word).

Another possibility is that direct discourse verbs raise, which would also trigger pruning in the above examples. There is, however, neither phonological nor morphological change in the embedded verb to suggest any raising. The most convincing way to show that the lower verb has not been raised is to produce sentences with material from the lower S intervening between the two verbs. Consider the following:

119. ?Jáan kinláníngóó adeesbas yiskáago nízin
John Flagstaff.to 1.F.drive tomorrow 3.want
John wants to drive to Flagstaff tomorrow.
Since Navajo is a relatively strict verb final language, especially in embedded S's, it is difficult to find natural sentences with material to the right of the verb. Thus, (119) is considered awkward but acceptable. It is clear, however, that the awkwardness is not related to the problem of clause reduction in direct discourse. I thus think it fair to conclude that (119) is an argument against any verb raising.

Note, however, that arguing against clause reduction is not the same as arguing that it is irrelevant that the enclitic moves only as far as the /-i/ complementizer. The fact that there is no clause reduction simply means that it may be some other property of the /-i/ which causes the enclitic to attach to it, a subject to be discussed in Chapter 3.

Chomsky has suggested that the crucial factor is that movement is never across a COMP node. Thus he follows Bresnan (1970) in distinguishing S and S':

\[ S \rightarrow COMP \quad S' \quad (unordered) \]
\[ S' \rightarrow NP \quad Aux \quad VP \]

Since movement is never across an overt complementizer, it could be described as passing an indefinite number of (S')'s, but would be movement to the first S. One must then question whether the Right Roof Constraint should be reformulated to differentiate S' from S.

Although I have refrained from postulating a COMP node on direct discourse S's, I must reiterate that it was an unmotivated decision,
based solely on the fact that there is no surface complementizer. It should be emphasized, however, that I can conceive of no sense in which direct discourse S's are "reduced S's", as infinitival S's are in English. In Chapter 2, I introduce more evidence which demonstrates that direct discourse S's act like full S's.

1.4.7. Conclusion

In this chapter I have argued that Navajo requires some unbounded rightward movement rule to account for enclitic placement. I consider the version of the rule I have introduced to be tentative because that version is extremely narrow in two respects. Written as a language particular rule, it does not consider whether there is any relationship to clitic movement in other languages. Secondly, further investigation is required to determine whether the rule can even be generalized for Navajo itself. I have just argued that this movement occurs in indirect questions and that these questions contain an underlying WH word rather than an empty node. Since there is an underlying WH word, it is possible that the movement is triggered by the WH rather than the deletion site. If triggered by the WH, then it may be possible to generalize the rule to include relative clauses as Hale suggests. However, since a more general rule cannot be properly formulated at this juncture, I will continue to refer to movement from a deletion site because the explanation for the movement that I will propose in Chapter 3 is more obvious under this formulation.

The explanation for this movement becomes clear when indirect questions are compared and contrasted to other Navajo questions. Chapter 2 does just this.
FOOTNOTES TO CHAPTER 1

1. Note that this is further generalized to include relative clauses (cf. The Expansion Universal). However, the △ is irrelevant here.

2. There are two forms of the locative enclitic, /-di/ and /-gi/. I propose to treat them as variations of the same enclitic because they act alike: they have much the same meaning, occur in the same places, and can often occur with the same word.

3. Although I assume that an enclitic phrase is some kind of noun phrase, I will continue to refer to it throughout the discussion as an EP, in order to distinguish it from NP's.

4. Chapter 3 deals with cases where embedded S's do contain WH words in their surface string. However, most, if not all, are cases of direct not indirect questions.

5. It is interesting to note that although there is no Navajo corresponding to who in this sentence, it is not ambiguous. As (23)-(24) demonstrate, sentences with missing NP's can mean who or what, but not why, where, etc. As I show later ((28)-(30)), where sentences require an enclitic. There is in fact no way that I know of to get why, when referring to the future (from Navajo /hahgo/) in exactly this construction. When referring to the past (from Navajo /hádéf/) is possible with the past tense form of the /-i/ complementerizer and an enclitic.
1. Mary niyáháadá' shil bééhózin
   Mary 3.P.comeCOMP 1.with 3.be known
   I know when Mary came.


7. Note that (24) also means "Tell me about his stealing my car". Since there is no trace of who, the subject may also be interpreted as a deleted third person pronoun.

8. Although in principle the scope of the movement is indefinitely large, it is in fact difficult to construct examples where movement involves more than three S's. One reason is that the complex sentences are extremely difficult to process, and judgments vary randomly. Another reason is that I know of very few verbs which take no /-í/, and the sentences become even more difficult if the subjects of the different verbs are not identical.

9. Hale and Platero (1973) discuss an example of an enclitic attached directly to the verb, i.e., without an /-í/. However, the exact status of such sentences is now in doubt. I suggest that they are actually cases of deletion of the /-í/, resulting from fast speech.

10. Note that if direct discourse S's have no underlying COMP, it may not be necessary to mention /-í/ specifically, but only the COMP node. Such a system is possible only if the transformation which deletes WH words is constrained to /-í/ clauses, as contrasted with /-go/ clauses. Cf. Chapter 3.
11. Although I do not argue for the existence of a COMP node, I have included such a node in the tree. While not necessary to my argument, I believe it is useful for expository purposes. I have also chosen to attach the raised enclitic to the COMP node rather than directly to $S_1$ to emphasize the fact that it forms a phonological unit with /-i/.

12. This argument claims that every possible combination of enclitics should occur. In fact, this is not the case.

   ia. *Jāan naalnishídigóó deeshááž John 3.workCOMPat.to 1.F.go I am going to where John works.

   iia. Jāan naalnishídigóó deeshááž John 3.workCOMPto 1.F.go I am going to where John works.

   iiiia. *Jāan deeyáhígóó'googóó adeesbás nisin John 3.goCOMPto.to 1.F.drive 1.want I want to drive to where John is going.

   iva. Jāan deeyáhígóó adeesbás nisin John 3.goCOMPto 1.F.drive 1.want I want to drive to where John is going.

From the meaning of these examples and what we know about EP behavior in simple sentences, we would expect two enclitics to occur underlyingly in both (i) and (ii), although they cannot appear on the surface.
(iii) a. Jáan kindi naalnish  
John store. at 3. work  
John works at the store.

b. kingoó deeshááí  
store. to 1.F. go  
I will go to the store.

(iv) a. Jáan dá'ák'ehgőó deeyá  
John field. to 3. go  
John is going to the field.

b. da'ak'ehgoo adeesbas  
field. to 1.F. drive  
I will drive to the field.

I would argue that there are two enclitics underlyingly and propose two environments for enclitic deletion:

(1) When there are two identical adjacent enclitics, delete one.
(2) When /-di/ (and possibly /-ji'/) occurs before another spatial enclitic, delete it.


14. No special pause is perceptible in (39)-(41) because the first enclitic in each case ends in a glottal stop which provides a natural pause.

15. If this argument is valid, then one should consider whether it helps to determine whether the COMP /-í/ is Chomsky-adjoined to the S. There is no lengthening or pause between the verb and the /-í/ as
predicted for such an adjunction. On the contrary, long high tone stem vowels are usually shortened. I conclude therefore that if there was a word boundary, it was eliminated. However, I have no way of determining whether there is a rule which incorporates complementizers into the verb. That is, one must account for the fact that a complementizer will cliticize to verbs only. It is impossible to get another word in the same S to the right of the verb when there is an overt complementizer, although it is possible when there is no complementizer (i.e., in matrix S's and embedded direct discourse S's). Cf. example (119) and Chapter 2.

16. I am assuming that Navajo relative clauses have a fully specified head. Chomsky has postulated that relative clauses should have dummy heads and there should be a transformation to fill the head. If I were to adopt Chomsky's theory, my case would already be proven.

17. This argument does not hold in a theory in which the /-i/ and the enclitic are generated together as a Specifier and then moved to REL or COMP position. See also section 1.4.5., section 2.5.7., and Hale (forthcoming B) for further discussion.

18. The sentence should in fact be ambiguous, but with a third reading: "I know who is going to Flagstaff". Thus, as I argue, there should be three possible trees, (1) a relative clause, (2) a sentential clause containing a non-empty NP, and (3) a sentential clause with
This third is the indirect question. No one has yet investigated why no sentence seems to be three ways ambiguous.

19. So far as I know, this rule applies only to stem vowels. However, I know of no argument which determines whether this rule applies when there is a word boundary between the stem and the suffix. This phenomenon, therefore, cannot at this juncture be used to decide whether there is a word boundary between the verb and the complementizer. Phonological evidence of a word boundary would argue for Chomsky-adjoining the COMP node. This issue will come up again in Chapter 3.

20. This generalization provides another argument for enclitic movement. If an enclitic were to originate on a verb, it would attach to verbs which are not spatial and thus the generalization would be lost.

21. Obviously, the /ho-/ is relevant only insofar as the lexical items containing this /ho-/ are locative and not directional.

22. I am unable to determine whether this is a pre-underlying structure morphophonemic rule or a transformation. Obviously, my case is much stronger if it is /taah/ that occurs in the underlying structure.

23. This sentence is grammatical with the meaning, "The baby I put into the water is cold."

24. And then, of course, the enclitic raising transformation would have
to apply to move the enclitic. Thus, even if possible, this would enhance not eliminate the need for the transformation.

25. There are two WH morphemes, /haá/ and /haa/. I have only discussed the former in this chapter. The latter occurs incorporated into the verb, i.e., never as an independent word (cf. 2.3.7). Perhaps this difference could be used to account for the deletion. In any case, I have no way of determining which of the two should be postulated as the underlying form.

26. I am assuming that the sentential subject readings (e.g., "I know that he ate it") do not come from Δ's but from anaphoric pronouns which delete in Navajo in general.

27. Although as we will see in Chapter 2, not all Navajo questions are consistent with these formulations.

28. This idea was first discussed in Hale and Platero (1973). Also see Hale (forthcoming B).
2.1. Simple Questions

Before looking at direct questions in embedded clauses, it is necessary to have some idea about the general method of forming questions in Navajo. Let us therefore take a brief look at simple questions first, i.e., questions in sentences composed of only one S, for even here we find that the system is rather complicated. And, unfortunately, simple questions have never been studied in detail.

2.1.1. Identifying the Interrogative Enclitics

The usual conception about Navajo question formation is well expressed by Young and Morgan (1971, 16-17):

Sha', -sh, -îsh...are the interrogative enclitics. A question is not indicated in Navajo by raising the tone of a word or phrase as we do in English, but is indicated by the suffixation of one of the interrogative enclitics to the first word in the clause, or by use of the particle da', whose function it is to introduce a question, or by use of both the enclitic and the particle. Thus:

1. haísha' or háish anît'í
   Who are you?

2. ha'at'îsha' or ha'at'îsh nînîzin
   What do you want?
3. haasha' or haash yiníghé
   How are you called? What is your name?

4. bich'ahásh díí ch'ah bilsáah ánítso
   Is his hat larger than this hat? (–ásh = –ísh)

5. bee núní'í'ísh
   Did you steal it from him?

6. da' dichinísh nílí
   Are you hungry?

Since Young and Morgan list the three forms separately, they obviously consider them distinct forms. In their explanation they do not differentiate their uses, but it is clear from the examples that they consider /-sh/ and /-shá'/ WH question markers, and /-ísh/ a yes/no question marker.

2.1.2. /-sh/ As a Distinct Enclitic

It is not universally agreed, however, that there are three distinct enclitics. Elgin (1973, IV.2.2), for example, says that the interrogative suffix /-ísh/ appears on both yes/no questions and WH questions.¹ Phono-logical evidence, however, argues for two distinct particles. The crucial examples are those in which the enclitic attaches to a word ending in a low tone vowel. Since vowels assimilate in Navajo (cf. sentence (5)), the vowel quality is often irrelevant. However, when a high tone vowel cliti-cizes to a low tone vowel, a rising tone results. Consider example (3). Since the tone has remained low, we know that /-sh/ and not /-ísh/ was
used. The ungrammaticality of (7) proves that /-ísh/ is impossible:

7. *haásh yinílghe

In contrast, the yes/no questions in (4)-(6) all have the /-ísh/ suffix. This is apparent because the words the enclitics are attached to do not end in vowels. Once again, substituting /-sh/ for /-ísh/ is impossible:

8. *bee nínííf'ish
   *bee nínííf'ísh

9a. ashkiiísh ííí' nabíílgo'
b. *ashkíiísh ííí' nabíílgo'

Lest it be assumed that /-sh/ can only attach to vowels, and that the previous examples of yes/no questions were ungrammatical because they ended in consonants, (9) shows that /-sh/ also cannot attach to vowels in yes/no questions.

Haile (1942, II.112) also differentiates /-ísh/ and /-sh/ because of phonological evidence. He notes that "we cannot say */háadiísh/ or */háajíísh/ but must say /háadish/ or /háadisha', 'whereat'; /hádíjísh/, /hádíjíshq'/, 'which way'." In other words, there is no change in the final vowel of the WH word when the interrogative enclitic is attached. Since an enclitic beginning with a high tone vowel would affect the vowel, the interrogative enclitic in these cases cannot begin with such a vowel.

Haile concludes from this evidence that "the reduced form /-sh/ goes back to the low-toned /-shq'/, rather than to high-toned /-ísh/."
However, he gives no arguments for relating /-sh/ and /-sha'/.

2.1.3. /-sha'/ As a Topic-Question Enclitic

Since the differences between the three enclitics will be important as we proceed with more complex sentences, I will suggest briefly, without any real argument, why I disagree with Haile's position that /-sh/ is a reduced form of /-sha'/. Unfortunately, nobody has yet investigated this area in sufficient detail.

To begin with, some speakers of Navajo use /-sha'/ for yes/no questions as well as WH questions, as in (10).

10. ashkiishā' 1 ' nabīlgo' 3.3. P. throw
   boy  Q  horse
   Was the boy thrown by the horse?

If, as I argue, /-sh/ and /-ish/ are distinct, then how can they both be reduced forms of /-sha'/? On the other hand, if /-sh/ and /-ish/ are not distinct, then how come some people use /-sha'/ only for WH questions?

The behavior of /-sha'/ is sufficiently different from /-sh/ and /-ish/ that I see no reasoned way of collapsing two enclitics into one. As Elgin notes (112), only /-sha'/ typically occurs on single words instead of whole sentences. Her two examples are (her (23)-(24)):

11. X: Jáan naalnish
    John is working.

    Y: Mērishā'?
    How about Mary?
12. Jáanshₐ?
Where is John?

According to Elgin, as part of sequence (11) /-shₐ/ (sic) means approximately "and does the preceding statement apply to Mary as well?" (ibid.). On the basis of this, she suggests that /-shₐ/ (sic) may be a compound, consisting of /-sh/ and an affix /-ₐ/ (sic) meaning "aforementioned".

Although I see no motivation for her morphological analysis,⁴ I would suggest that /-shₐ'/ appears to break down into the above components because it is a topic marker as well as an interrogative enclitic. As I will discuss in Chapter 3, /-ₐsh/ may also perform another function in addition to indicating a question. Of these three enclitics, however, only /-shₐ'/ is inherently a topic marker.⁵ Thus, we find examples like the following:

13. Jáanshₐ', háágoosh doogáá\-
John.Q where.to.Q 3.F.go
What about John, where is he going?

Note the pause between /Jáanshₐ'/ and the rest of the sentence. Note also that the sentence is a question even without the /Jáanshₐ'/. In other words, while /-shₐ'/ serves to indicate both topic and question, either may be its primary function in a particular sentence. In other words, both aspects should be considered basic to /-shₐ'/. I will assume, therefore, that in at least some sentences, /-shₐ'/ is generated as a topic marker, a process different from that of generating other question particles.
The fact that /-shə'/ can be used to indicate that a question is being asked about the topic of the sentence, as opposed to indicating a question about the whole sentence, can be observed more clearly by comparing (14) to (15) and (16):

14. Maryshə' Jáan bich'i' yádooltih
   Mary.Q John 3.to 3.F.speak
   (i) Is John going to speak to Mary?
   (ii) Where is Mary? John is going to speak to her.

15. Maryísh Jáan bich'i' yádooltih
   Mary.Q John 3.to 3.F.speak
   Is John going to speak to Mary?

16. Maryshə', Jáanísh bich'i' yádooltih
   Mary.Q John.Q 3.to 3.F.speak
   How about Mary, is John going to speak to her?

For people who use /-shə'/ as a yes/no question particle, (14) can be used instead of (15), i.e., (i) is a correct translation for (14). However, some people normally consider /-shə'/ ungrammatical in yes/no questions, while accepting /-shə'/ in WH questions. Linda Platero, one such speaker, accepted (14) but did not accept the yes/no question reading ((14i)). She pointed out that (14) was not identical to (15). Requiring a pause after /Maryshə'/ in (14), she gave (14ii) as the correct paraphrase. In order to question whether John is going to speak to Mary, it is necessary for her to use /-ísh/ in addition to /-shə'/ ((16)). Generating /-shə'/ as a topic marker will account for this meaning of (14). It will also account for the fact that there may be two interrogative particles in one sentence.
(17) and (18) demonstrate that if there are two such particles, the first one can only be /-shā'/.

17. *Marysh, Jáánísh bich'í' yádooltih
   Mary.Q John.Q 3.to 3.F.speak

18. *Marysh, Jáánísh bich'í' yádooltih
   Mary.Q John.Q 3.to 3.F.speak

Assuming that /-shā'/ is generated with topics leaves open the question of whether it is also generated as a yes/no particle for some people and with WH words for everyone. That is, we must account for the reading of (14) which is identical to (15) and for the WH questions in which there is no pause after the first word and /-shā'/ is the only interrogative particle (cf. (1), (10), etc.).

One possibility is that there are three possible categories for /-shā'/, as topic-question marker, WH question marker, and yes/no question marker. People simply vary as to which categories they have put /-shā'/ into. Given this option, /-shā'/ will be generated the same way the other question particles are, in addition to being generated with topics.

Another possibility is that /-shā'/ is only generated with topics, but Navajo has two types of topics, just like English.

19. As for John, I like him.

20. John I like.

The left dislocation in (19) is analogous to the /-shā'/ cases with a pause. Since there is a pause, it is easy to keep the question aspect
of /-sha'/ isolated to the topic.

If the cases in which /-sha'/ is the only interrogative particle are analogous to (20), then all words marked by /-sha'/ must be topics. Such a claim is consistent with the fact that it is impossible to get two /-sha'/s in one sentence. While (13) and (16) are fine, (21) and (22) are not:

21. *Jáanshá', háágóóshá' doogáá\#
   John.Q where.to.Q 3.F.go

22. *Maryshá' Jáanshá' bich'i' yádooltih
   Mary.Q John.Q 3.to 3.F.speak

It is also consistent with the fact that even for those who use /-sha'/ as a yes/no particle, /-sha'/ cannot be substituted for /-ísh/ when the latter is not in second position.6

23a. Mary Jáánísñ bich'i' yádooltih
   Mary John.Q 3.to 3.F.speak
   Is it John who is going to speak to Mary?

23b. *Mary Jáanshá' bich'i' yádooltih
   Mary John.Q 3.to 3.F.speak

The use of word order to designate topics seems to be a very common process in Navajo. If we assume that topics must always occur in initial position and that /-sha'/ is always a topic marker, then this difference between /-ísh/ and /-sha'/ follows automatically.
However, assuming that /-shₗ'/ is always a topic marker also causes problems. If /-shₗ'/ is generated with the topic, then a second interrogative particle will be generated with the WH word. It should therefore be possible to get the two interrogative particles in one sentence without a pause. Such a subtle difference is difficult to detect, especially since /-shₗ'/ ends in a glottal stop which creates a pause of its own. However, so far as I can tell, the pause is necessary. If my data are correct, then a deletion rule for the extra question particle is required.

An even bigger problem is the fact that /-shₗ'/ occurs attached to WH words. It has always been assumed that question words may not be topics, but it is also unclear exactly what the import of question word behavior is. I therefore leave unanswered the question of how many ways /-shₗ'/ is generated.

In sum, I conclude that /-shₗ'/ is different from the other question particles both because it is a topic marker as well as a question marker and because its behavior is not precisely identical to that of any of the other particles. On the basis of the above facts, I will thus assume that the three enclitics are all independent, and will refer to /-shₗ'/ as the Topic-Question enclitic, /-ish/ as the Normal yes/no Question Enclitic, and /-sh/ as the Normal WH-Question Enclitic.

2.1.4. The Interrogative Particle /lₐ/  
Young and Morgan do not include the particle /lₐ/ in their list of interrogative particles, but it will be prevalent in the examples I use.
Consider the following:

24a. háílá ìì' nabiílgo'
who.Q horse 3.3.P.throw
Who got thrown off the horse?

b. háísh ìì' nabiílgo'
who.Q horse 3.3.P.throw
Who got thrown off the horse?

25a. ha'át'íilái ashkii yiyiíltsa₈'
what Q boy 3.3.P.see
What did the boy see?

b. ha'át'éish ashkii yiyiíltsa₈'
what Q boy 3.3.P.see
What did the boy see?

26a. háágóolá Ján deeyá
where.to.Q John 3.go
Where is John going?

b. háágóósh Ján deeyá
where.to.Q John 3.go
Where is John going?

27. *ashkiiilá ìì' nabiílgo'
boy Q horse 3.3.P.throw

It thus seems that /lá/ and /-sh/ are interchangeable. Both occur with WH questions but not yes/no questions. However, more work needs to be done to find out whether there is any substantive difference in the current use of /-sh/ and /lá/ as questions markers.⁹
One difference between /lá/ and the other interrogative particles seems to be that only /lá/ is not an enclitic. If it were an enclitic, /lá/ should cause a lengthening of a high tone word final vowel. None of the WH words end in a short high tone vowel. However, /lá/ does not cause a lengthening of word final vowels: /ashiiké/ (boys) becomes /ashiikélá/, not */ashiikélá/. For our purposes, however, it makes no difference whether or not /lá/ is part of the class of particles which are enclitics. Because it does not seem that /lá/ is an enclitic, I will refer to /lá/ as a Normal WH-Question Particle, since particles may or may not be enclitics.

2.1.5. Word Order

From my preliminary work, it appears that, if there is a significant difference, that difference will be found in types of sentences not included at all in Young and Morgan's description of interrogative particles. According to them, the particle must be placed on the first word of the clause, i.e., in what has been referred to as second position. While this is the most common position, it is not the only possible one. Compare (28) with (25).10

28a. Jáan ha'át'íllá yiyiiltsq John what Q 3.3.P.see What did John see?

28b. ashkii ha'át'íllsh yiyiiltsq boy what Q 3.3.P.see What did the boy see?
In addition to showing that the question particle need not appear in second position, (28) also demonstrates that WH words need not be moved to the front of the sentences (at least in these cases) as, for example, they must in English. That these are two separate facts is clear from (29)-(30) where we have a WH question and yet the question particle is attached, not to the WH word, but to the first word:

29. ashiikélá ha'át'í'í yiyiíltsá
   boys Q what 3.3.P.see
   What did the boys see?

30. ashkiish ha'át'í'í yiyiíltsá
   boy Q what 3.3.P.see
   What did the boy see?

To round out the logical possibilities (i.e., having discussed (25), (28), (29)) note that the following is impossible:

31a. *ha'át'í'í ashkiilá yiyiíltsá
   what boy Q 3.3.P.see

31b. *ha'át'í'í ashkiish yiyiíltsá
   what boy Q 3.3.P.see

In other words, a WH question particle may end up either in second position or with the WH word, no matter where it is placed in the sentence.
2.1.6. Where Question Particles Occur Underlyingly

Although I do not argue in depth for any hypothesis about where the question particle occurs in underlying structure, I would like to speculate a bit about some aspects of possible explanations because they involve some conceptions about other principles in Navajo. With Young and Morgan, I assume that Navajo has a rule moving clitics into second position. This Second Position rule is probably necessary for other clitics besides the question clitics (cf. Perkins, 1973). However, it was previously believed that the Second Position rule was obligatory. Although it is not clear to me exactly how second position should be defined, the sentences in (25) as well as the work done by Perkins demonstrate that clitics need not end up in second position. I therefore assume that this rule is optional rather than obligatory.

Under the assumption that the Second Position rule is optional, the simplest explanation for the above data would involve postulating that the question particle occurs underlingly as part of the WH word rather than as a separate entity in a fixed position (either an initial Q or in COMP, i.e., final, position). Generating the question particles that occur in WH questions with the WH words accounts for the fact that /l/ and /-sh/ cannot occur in a sentence unless there is a WH word associated with it somewhere in that sentence. Also, if the WH question particle is not generated with the WH word, then an additional rule is required which optionally attracts the particle to the WH word. Generating the two together, the Second Position rule which is needed anyway derives
the other possible output. Throughout the following discussion, I will therefore generate the question particle with the WH word, but will not try to justify any particular constituent structure. However, in section 2.5.7, I will reconsider the possibility that the question particle is generated separately as an initial Q, since such an assumption makes it easier to account for certain factors of question formation in complex sentences.

We know from the above data that, in addition to the optional Second Position rule for particles, there is some rule which optionally moves WH words into initial position. For expository purposes, I will temporarily refer to it as the WH-movement rule. Notice that, since both rules are optional, it is not necessary to apply either rule. Sentence (28) is the result of not applying either rule. (31) is generated by applying the Second Position rule but not WH-movement. If (31) were acceptable, it could be generated by applying the WH-movement rule but not the Second Position rule. Notice, however, that (31) cannot be blocked merely by ordering these two rules since, as described, they do not apply to the same constituent. However, the assumption that the question marker is part of the same constituent as the WH word does allow us to block (31). If the WH-movement rule is written to apply to the entire constituent, then when the WH word is moved, the Q particle will be dragged along. In other words, (31) could be generated by interchanging the subject and object, but leaving the Q marker behind. The WH-movement rule must therefore be written to ensure that the Q marker
cannot be stranded. Notice, however, that it is also necessary to ensure that WH-movement applies before the Second Position rule. Consider the following logically possible derivations:

A.  

\[
\text{ashkii ha'áť'ílá yiyiltsá} \\
\text{Second Position: ashkìlál áha'áť'í yiyiltsá} \\
\text{WH-Movement: *ha'áť'í ashkìlál yiyiltsá} \\
\]

B.  

\[
\text{ashkìlì äha'áť'ílá yiyiltsá} \\
\text{WH-Movement: ha'áť'ílá ashkìlì yiyiltsá} \\
\text{Second Position: --------} \\
\]

It is perfectly reasonable to assume that any rule which is designed to account for surface linear order will not apply until all rearranging of constituents has occurred. One should expect (B) but not (A).

It should also be noted that sentences like (25) do not involve the Second Position rule even though the Q marker ends up in second position. Since WH-movement is applied before the Second Position rule, and since WH-movement is written so that the Q marker will always be dragged along, whenever a WH word is in initial position, the Q marker will always be in second position before the Second Position rule has had a chance to apply. In other words, for simple WH questions, the Second Position rule is operative only for sentences like (29).

2.1.7. How To Account For WH Placement

Let me now mention briefly the possible rules that could account for initial WH placement. It is clear that this is not done by Subject
Object Inversion (cf. Hale, 1973; Creamer, 1974). Thus, when Subject Object Inversion interchanges the subject and the object, it also changes the direct object prefix on the verb from /yi-/ to /bi-/. However, in (25) the object occurs before the subject and yet the /yi-/ has not changed to /bi-/.

In addition, it is generally agreed that word order is freer when the subject or object is a WH word. Thus, the order of the subject and object is generally constrained by a semantic hierarchy (cf. Creamer, 1974). That hierarchy, among other things, requires that when there are two NP's the animate must precede the inanimate. Thus

32a. Jáan tsé yiyiîltsá
   John rock 3.3.P.see
   John saw the rock.

b. *tsé Jáan biîltsá
   rock John 3.3.P.see
   The rock was seen by John.

33a. *tsé Jáan yishjîzh
   rock John 3.3.P.crush
   The rock crushed John.

b. Jáan tsé bishjîzh
   John rock 3.3.P.crush
   John was crushed by the rock.

However, in either case, /ha'át'îsh/ what may precede /Jáan/.
34. ha'át'íísh Jáan yiyiiłtsé
    what    Q John 3.3.P.see
    What did John see?

35. ha'át'íísh Jáan yishjjízh
    what    Q John 3.3.P.crush
    What crushed John?

These facts suggest the possibility that there is a special question formation rule.

2.1.8. A Comparison to Baker's Proposals

While such rules are not expected in SOV languages, the formulation required for these sentences would not be a violation of Baker's universal constraints on question formation. First, the rule could be the same as the one Baker formulates for languages in general. The fact that there is a variable in it is irrelevant for these simplex sentences since the variable would be null.12 Second, Baker does not say that question movement is impossible in verb final languages, only that it cannot be obligatory. As is apparent from (17)-(18), the Navajo rule would have to be an optional one. Third, Baker's statements about verb final languages are limited to those which place particles "positioned with reference to the sentence as a whole...at the end of the sentence" (207). As we have just seen, Navajo interrogative particles do not normally go to the end of the sentence.
2.1.9. **Relationship Between Yes/No Questions and WH-Movement**

Baker also notes that it is "only languages which position their particles for yes-no questions in clause-initial position [that] permit a rule for questioned constituents" (207). Except for differentiating /-sh/ and /-ísh/, I have so far said nothing about Young and Morgan's description of Navajo yes/no questions. Recall that, in addition to the three enclitics, they mention the particle /da'/ which introduces a question. This particle does in fact occur in clause-initial position. As can be seen from their one example with /da'/ ((6)), it introduces yes/no questions. Young and Morgan do not mention it, but /da'/ cannot occur with WH questions.

36a. *da' Jáan ha'át'íísh yiyiiítsá\text{Q} Q John what Q 3.3.P.see

\text{What did John see?}

b. *da' ha'át'íísh Jáan yiyiiítsá\text{Q} Q what Q John 3.3.P.see

\text{What did John see?}

c. *da' Jáan lá ha'át'íí yiyiiítsá\text{Q} Q John Q what 3.3.P.see

\text{What did John see?}

There is, however, one problem with trying to claim that all Navajo yes/no questions are introduced by a clause-initial particle. /da'/ does not always occur in a yes/no question. However, since /da'/ and /-ísh/ do occur in the same sentence, one could postulate that they both appear
underlyingly and that there is an optional rule (or rules) which can delete either one (but not both) of the segments.

In a very interesting class conducted by Paul Platero at Rough Rock Demonstration School, the Navajo students listed the following possibilities and proposed this solution to account for the evidence:

37a. *da'ish hastiin nihaaníyá
    Q Q man 1pl.3.P.come
b. da' hastiin nihaaníyá
    Q man 1pl.3.P.see
    Did the man come to (see) us?
c. *ísh hastiin nihaaníyá
    Q man 1pl.3.P.come

38a. da' hastiinísh nihaaníyá
    Q man 1pl.3.P.come
b. da' hastiin nihaaníyá
    Q man 1pl.3.P.come
c. hastiinísh nihaaníyá
    man Q 1pl.3.P.come

39a. da' hastiin nihaaníyá'ásh
    Q man 1pl.3.P.come.Q
b. da' hastiin nihaaníyá
    Q man 1pl.3.P.come
c. hastiin nihaaníyá'ásh
    man 1pl.3.P.come

Although there are some differences in meaning among (37)-(39), the sentences within each of the numbered sets were felt to be identical in meaning. Semantically, there is therefore no reason to postulate different underlying forms. On the contrary, one could account for the identity by having a single underlying source. In addition, note that /-ish/ cannot attach to /da'/. If /da'/ is a pro-clitic, there is nothing more to be said. However, if /da'/ is a separate word, one could account for this fact by having a question formation rule which either moves /-ish/ or deletes one of the elements. Since I have no evidence to argue whether or not /da'/ is a separate word, I will make no conclusions about this hypothesis. I mention it because it would make the Navajo facts more consistent with Baker's observations.

2.1.10. More Problems With /-shat/ 

Perhaps it should also be noted that /da'/ cannot occur with /-shat/ when the latter is being used as a yes/no question particle. On the basis of the earlier discussion about /-shat/, this fact is not a true problem for Baker's hypothesis. First, /-shat/ is not a yes/no question particle for all speakers. Second, even when designating yes/no questions, it is probably still a topic marker. It thus seems that the normal yes/no question is formed with /-ish/ and not /-shat/. One could therefore claim that Baker's claim about the correlation between initial particles and question movement holds for Navajo, since the normal yes/no question is derived from /da'...ish/.
In any case, this particular movement of questioned constituents cannot at this juncture be a counterexample to Baker's claim if we assume he is only talking about movement rules that specifically apply to questioned words. This is because, while discussing a possible question formation rule, I have not argued that the movement must be the result of a question formation rule. Considering some explanatory remarks made when I asked people to contrast (25) and (28) (i.e., WH objects in first or second position), one must wonder whether the movement is in fact a result of a question formation rule. In general, my consultants feel that the first word is "what you're talking about," or "what you're most concerned about." Thus, if the discussion has been about John or the boy, and the interest is on his movements, his name rather than the question word is likely to appear in first position (i.e., (28) or (29)). However, if the concern is with a particular incident, say an accident, and you want more information about it, in asking what John or the boy saw, it would be more natural to put the WH word first (i.e., (25)).

This description suggests that using the first position for topics is a major factor in deciding word order for questions with /-sh/ and /lá/ as well as /-shá'/. Although I eliminated Subject Object Inversion as the WH-movement rule, the fact that Navajo is a language which permits a certain amount of scrambling (except that the verb is usually final) and the fact that topics are frequently reflected in the Navajo word order suggest that the possibility of a topicalization rule should not be eliminated lightly. The fact that /-shá'/ can be used instead of the
other question particles when they are in second position may also suggest a close connection between topicalization and WH-movement.

One major problem with using a topicalization rule to explain the appearance of WH words in initial position is that these question words are considered indefinite pronouns. As Bach has pointed out, the fact that they are indefinite means that question words will never occur as themes (1971, 115). Bach does not attempt to give a definition to the term theme, using examples instead. It is not clear to me exactly what the relationship is between themes and topics. One point that Bach makes is that themes are always presupposed and one cannot presuppose the truth of question words (162-3). One must, therefore, investigate the relationship between presupposition, topics, and Navajo WH words. This is a subject I will discuss in depth in Chapter 3.

At this juncture, it is impossible to present any conclusive evidence about the formation of simple questions involving WH-movement, universal question rules, the use of topics, and the principles behind these possible transformations. Some understanding of simple questions is necessary to investigate the more complex questions. But it is only after an investigation of the complex questions that some claims can be made.

2.2. Complex Sentences

When WH words are embedded in complex sentences containing only direct discourse verbs, all variations found in WH questions in simple sentences are still possible. As we will see, unbounded leftward movement
of the WH word into any higher S is also possible, which creates even more possibilities. For some people, it is even possible to get the WH question particle and WH word in separate S's, so long as the question particle is in the higher S. The possibilities I will be discussing are summarized in the following table, as defined for the given underlying tree.¹⁶

![Diagram of S0, S1, and S2]

**LOGICAL POSSIBILITIES FOR DIRECT DISCOURSE QUESTION FORMATION**

<table>
<thead>
<tr>
<th></th>
<th>S₂</th>
<th>S₁</th>
<th>S₀</th>
<th>Status</th>
<th>Point of View</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>WH</td>
<td>lá</td>
<td></td>
<td>OK</td>
<td>subject S₁</td>
</tr>
<tr>
<td>2.</td>
<td>lá</td>
<td>WH</td>
<td></td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>lá</td>
<td>WH</td>
<td></td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>WH</td>
<td>lá</td>
<td></td>
<td>OK</td>
<td>subject S₀</td>
</tr>
<tr>
<td>5.</td>
<td>WH</td>
<td>lá</td>
<td></td>
<td>OK</td>
<td>subject S₀</td>
</tr>
<tr>
<td>6.</td>
<td>lá</td>
<td>WH</td>
<td></td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>WH</td>
<td>lá</td>
<td></td>
<td>OK</td>
<td>speaker</td>
</tr>
<tr>
<td>8.</td>
<td>WH</td>
<td>lá</td>
<td></td>
<td>OK</td>
<td>speaker</td>
</tr>
<tr>
<td>9.</td>
<td>WH</td>
<td>lá</td>
<td></td>
<td>*</td>
<td></td>
</tr>
</tbody>
</table>
In the following sections I will discuss the above variations separately, including the fact that the variations differ in meaning. I will motivate an unbounded leftward movement transformation and link its existence to the differences in meaning.

2.2.1. Unbounded WH-Movement to Sentence-Initial Position

Having discussed the simple sentences in which we find movement of WH words into sentence-initial position, let us now turn to the cases where a WH word has moved from an embedded S into sentence-initial position. Consider the following:

40. hágóólá Jáan deesháá ní
   where.to.Q John 1.F.go 3.say
   Where does John say he's going?

41. háädilá Jáan Mary dínilnish yiínlí
   where.at.Q John Mary 2.P.work 3.3.say
   Where did John tell Mary to work?

42. ha'ät'iísh Jáan nahideeshnih nízin
   what Q John 1.F.buy 3.want
   What does John want to buy?

43. hágóólá Jáan jidoogáá shó'ní
   where.to.Q John 4.F.go 1.3.say
   Where does John expect me to go?

The first thing to establish is that the WH word must have originated in an embedded S. This can be proved by noting that the WH word in each
example is a possible complement to the embedded verb, but not to the matrix verb.

44a. *háágóólá  Jáán ní
   where.to.Q John 3.say
   To where does John say?

   b. háágóólá  Jáán doogáál
      where.to.Q John 3.F.go
      (To) where is John going?

45a. *háadilá  Jáán Mary yilní
      where.at.Q John Mary 3.3.say
      At where did John say to Mary?

      b. háadilá  Mary deeshnish
         where.at.Q Mary 3.work
         Where will Mary work?

46a. *ha'át'ilish Jáán nízin
      what  Q John 3.want
      What does John want?

      b. ha'át'ilish Jáán neidiyooníih
         what  Q John 3.3.F.buy
         What will John buy?

47a. *háágóólá  Jáán shó'ní
      where.to.Q John 1.of.3.say
      To where does John expect?

      b. háágóólá  deesháál
         where.to.Q 1.F.go
         Where will I go?
Notice that in all the (b) sentences it was necessary to change the form of the verb in order to retain the same reference as that of the embedded verbs in (40)-(43). Since (40)-(43) are direct discourse sentences, the embedded verbs are from the point of view of the subject of the matrix S rather than from that of the speaker. Thus, in (40), although John is doing the "going", the verb is in the first person rather than the third. A direct discourse segment is interpreted from the point of view of the subject of the immediately dominating S rather than from the point of view of the speaker. Since the subjects of the matrix and embedded S are coreferent in (40), the first person is used. When the speaker is reporting what the subject said to a third party, the second person is used instead of the third (cf. (41)). The third person is used in a direct discourse segment only when the subject of the higher S says or thinks something about a third party. Notice that that leaves none of the usual person markings for the subject to designate the speaker. As (43) demonstrates, the Navajo fourth person is used to handle this situation.

The verb changes from (40)-(43) to (44)-(47) respectively are, of course, irrelevant to this discussion about where the complements originate. Adjustments for number agreement obviously do not affect the underlying grammatical relations a verb may enter into. That is, the first person form of a verb can take any complement the third person form takes. (48) is as good as (44b).
48. háágóólá deeshááł
    where.to.Q 1.F.go
    Where shall I go?

I used (44b) instead of (48) merely to keep the meaning consistent.

The fact that the embedded verb in (40) is in the first person proves another point: the noun is the subject of the matrix verb, not the lower verb. The subjects of the lower verbs in these cases must have been pronouns which deleted as pronouns generally do in Navajo. To show that the glosses are correct, note the following:

49a. *Jáán deeshááł
    John 1.F.go

b. Jáán doogááł
    John 3.F.go
    John is going.

c. deeshááł
    1.F.go
    I am going.

While the embedded form of the verb can stand alone as a separate sentence, it cannot have /Jáán/ as its subject.¹⁹ This proves that the WH words have moved across the subject of the matrix verb as well as that of the embedded verb. In other words, there is no question that the WH word has ended up in the matrix S. Given my claim that direct discourse clauses are embedded S's, we now have examples of unbounded leftward movement in a verb final, COMP final language.
To see that this movement is not only unbounded, in the sense of moving out of one S, but can involve movement across an indefinite number of S's, consider the following:\textsuperscript{20}

50. hàágóólá Jáan Mary doogááí nisin ní
where.to.Q John Mary 3.F.go 1.want 3.say
Where did John say he wants Mary to go?

Sentence (50) would evolve from a tree something like the following:

\[\text{(50)}\]

The above tree is incomplete because it does not include the question particle /lá/, since where /lá/ originates is irrelevant to the argument that the WH word itself may move unboundedly leftward. However, the
underlying position of /lá/ will effect both the form of the WH-movement transformation and any explanation for the existence of unbounded leftward movement. I discuss these problems below. If direct discourse S's include a COMP node, that also has been omitted. The crucial points depicted by the tree are that the EP originates in the lowest S, S₂, and is moved by some transformation across several S's to sentence-initial position. For these particular examples, it seems that Navajo has the same unbounded leftward movement found in languages like English.

2.2.2. Contrast To Theoretical Claims

The problem is, of course, that such rules are not supposed to exist in verb final languages. More specifically, given a theory such as Bresnan's or Chomsky's, there is no way to account for this movement. They say both that the only way a constituent can move out of an S is through COMP position and that the question formation transformation moves the WH word into the COMP node.

Notice that assuming that direct discourse S's do contain a COMP node (as well as matrix S's) does not solve the problem because the COMP's would be on the right, at the end of each S, rather than to the left. In the most extreme case of trying to save the claim that all movement out of an S must be through COMP position, one could postulate that each S contains a COMP node and that the movement occurred rightward rather than leftward. After reaching S₀, another rule would then move the WH word to sentence-initial position. Such an hypothesis would still violate
the following putative universals:

(i) that WH words never move rightward. Recall that one possible explanation for the deletion of the WH word in the indirect questions in Chapter 1 was to avoid rightward movement of that word.

(ii) Bresnan's Complementizer Attraction Universal which says that movement into COMP position is possible only if the COMP is clause-initial. However, the facts in Chapter 1 probably show that this is inaccurate anyway.

While this Navajo unbounded leftward movement contradicts Bresnan's refinement and explanation for Baker's observations, the phenomenon provides little problem for Baker himself. The transformation he suggests does in fact work for these Navajo WH words. Such a transformation is not prohibited because, although Navajo is an SOV language, it does not generally position particles at the ends of S's. And Navajo does have at least one yes/no question particle which is clause-initial, a prerequisite for having a WH-movement rule.

The one factor that might prove a problem for Baker is his claim that SOV languages will never have an obligatory movement rule. However, it depends in what sense he means obligatory. If the unbounded WH-movement rule is thought of as a general question formation rule, then the Navajo rule is not invariant in the sense that it is not used to form all WH questions. As we have already seen, indirect questions are not formed by
leftward movement, but by deletion of the WH word, possibly before the rightward movement rule applies. In addition, as we will see in the next chapter, there is a type of direct question which involves no movement at all (i.e., WH words embedded in /-go/ subordinate clauses).

Even closer to home, this unbounded movement rule is not obligatory in that, if not applied, the string will still be well-formed. For some people, however, the meaning must be different when unbounded movement is not applied. If one includes the meaning difference in the tree before movement takes place, the rule may still be obligatory. I will be discussing these facts below.

2.2.3. **Dialect Variation**

There are also people for whom the question movement is optional and the meaning remains the same, that of a direct question from the speaker's point of view. That is, while examples (40)-(43) seem to be acceptable to everyone, preferred by some, and the only possible forms for some, there are others who allow a question reading even when there is no movement. Although some unbounded leftward movement rule seems to exist in all dialects, it is difficult to characterize when it can apply and when it must apply. I will now turn to cases in which there is no unbounded WH-movement, describing what different sentences mean to different people. After that, I will look at cases of movement where people disagree about grammaticality and/or meaning, and will later speculate about the development of these various dialects.
Consider the following sentence and a tree representing it:

51. Jáan Bil ha'át'íuí tí yizhbizh ní
   John Bill what Q 3.3.P.braid 3.say

We know that there are two NP's underlyingly in the S with the embedded verb /yizhbizh/ (S₁) since /yi-/ is the direct object marker only for verbs containing a third person subject followed by a third person object. Thus, S₁ by itself means, "what did Bill braid?". Recall, however, that S's change their point of view when embedded under direct discourse verbs.

As we saw previously, the point of view is no longer that of the speaker, but that of the subject of the matrix sentence. The problem in (51) thus is who said "what did Bill braid", John, or the speaker?. If, for the purposes of (51) John uttered those words, then when the speaker says them he is not asking a question but merely reporting what John had said.
Thus, following the definition of direct discourse given above, (51) may be a declarative sentence, not a question. In this case, the correct paraphrase for (51) would be (52).

52. John asked what Bill braided.

2.2.4. Strict Constructionists

Notice that to say that (52) is the proper translation of (51) is to claim that direct discourse is defined over S's. However, recall that in all previous examples, the only word that changed from indirect to direct discourse was the verb. It is thus possible that the term direct discourse applies only to verb interpretation, and not to full S's, and therefore not to object NP's for example. However, I have tacitly assumed all along that direct discourse applies to full S's by using as an argument the fact that subjects must agree with their verbs. Thus, I claimed that in sentences like (53), /Jáán/ could not be the subject of the lower verb /adessbas/ because the latter is in the first person while /Jáán/ is a third person noun.

53. Jáán kínlánígóó adeesbas nízin
John Flagstaff.to 1.F.drive 3.want
John wants to drive to Flagstaff.

One aspect of Navajo grammar that is not in doubt is the fact that the subject and verb agree in person and number. Note, however, that since there must be some rule anyway to make the subject and verb consistent
with one another, the fact that both take a direct discourse point of view is not definitive proof that direct discourse is defined over S's. Whatever rule makes them agree in person and number could also be sensitive to point of view interpretation, so that only one would have to be interpreted independently for such an interpretation.

To see that direct discourse must be defined on S's, not V's, consider the gloss of the following:

54. Ja'an shizhé'é ha'àt'îllá yizbizh ní
   John 1.father what Q' 3.3.P.braid 3.say
   John să asked what hisă father braided.

/shizhé'é/ is composed of the noun /-zhé'é/, father, plus the first person pronoun /shi/. And yet, when asked whose father John is talking about in (54), the answer is John's father, not the speaker's father. In other words, the first person pronoun is being interpreted from the point of view of the subject of the sentence, i.e., as part of the direct discourse, and not from the point of view of the speaker. The interpretation of the possessive pronoun therefore demonstrates that the direct discourse point of view cannot be defined for verbs only. There is nothing in the verb which could indicate whose father is being referred to.

In parallel fashion, if the word /ha'àt'îllá/ is to be interpreted as part of the direct discourse point of view interpretation, then it must be the subject of the sentence (i.e., the subject of the immediately dominating S) and not the speaker who is asking the question. In fact, for some people, (51) cannot be a question. Thus, for these people, it
would be completely incorrect to answer the question. In other words, the following is not a coherent dialogue:

55. A: Jáan shizh'ę ha'át'ííla yizhbizh ní
   John 1.father what Q 3.3.P.braid 3.say

B: #t'1'oó' yizhbizh ní
   rope 3.3.P.braid 3.say
He said he braided a rope.

I will refer to those people who do not allow (51) to be interpreted as a direct question from the speaker's point of view, to those adhering to a strict direct discourse interpretation, as strict constructionists.

2.2.5. **Loose Constructionists**

There are, however, some people who will accept the discourse in (55) as appropriate, people who will allow (51) to be a question even though there has been no movement. However, these people would render (51) into English as (56a), not (56b).

56a. What did John say my father braided?

b. *What did John₁ say his₁ father braided?

In other words, when the speaker is asked whose father is being talked about, the response has changed from John's father to the speaker's father. The point of view is now that of the speaker, not the subject of the sentence. Although there is no overt complementizer (and none is possible), there are people who will allow both a direct discourse and an indirect
discourse interpretation with these verbs. The interpretation in which (51) is a question rather than a report is thus perfectly consistent: the entire S is being treated as an embedded indirect discourse clause rather than a direct discourse one. Notice, however, that when a logical possibility requires one NP in the embedded S to be interpreted from a direct discourse point of view and another part from an indirect discourse point of view, that possibility is considered ungrammatical. In other words, the fact that (56b) is not a translation of (54) can be explained by claiming that the entire S must be interpreted from the same point of view.

Since the embedded verb in (51) is in the third person, it is impossible to tell directly that the verb is also being interpreted as an indirect discourse verb. To see that this is the case, consider the following:

57. Ján kinłánígoo' adeesbas ní
   John Flagstaff.to 1.F.drive 3.say

58a. John₁ says he₁ is driving to Flagstaff.

b. John says I am driving to Flagstaff.

For the strict constructionists, only (58a) is a proper translation of (57). However, for those who accept (56a) as a possible rendering of (54), (57) is ambiguous, allowing both (58a) and (58b) as possible translations.

In (57), the embedded verb /adeesbas/ is in the first person. It thus
becomes a question of the point of view for the verb: (58a) is the direct discourse point of view; (58b), like (56a) and (52), is the indirect discourse point of view. (56b) which requires mixing the two is not acceptable. I will refer to those people who allow ambiguity between direct and indirect discourse as loose constructionists.

In summary, the term direct discourse refers to the point of view of an entire S and not just to the verb or to the process of person-number agreement. For strict constructionists, an S embedded under a small set of verbs must be interpreted as a direct discourse S. For loose constructionists, it is possible to use an indirect discourse interpretation. Given the sentences described so far, the decision is made for the entire S, not for the individual constituents, so that it is impossible to get a mixed interpretation when material is embedded.

2.2.6. A Rationale for the Unbounded Movement

The fact that it is impossible for a strict constructionist to have any indirect discourse references within an S embedded under direct discourse verbs provides a rationale for the WH-movement transformation. One way to explain this is to consider the choices when faced with a desire to utter (59) in Navajo.

59. Where does John want Bill to go?

Consider (59) in terms of the following tree which depicts the proper grammatical relations and the required forms of the verbs.
Under the assumption that there is no question movement rule, (59) could remain as is. If (59) remains as is, however, the WH word and question particle remain within $S_1$, the direct discourse segment of the sentence. As such, it is the subject of the immediately dominating $S$ (John), not the speaker, who is asking the question.

\[
\begin{align*}
(59) & \quad \text{Ja'an Bil hââgoółá doogáål nízin} \\
& \quad \text{John Bill where.to.Q 3.F.go 3.want} \\
& \quad \text{John is wondering where Bill will go.} \\
& \quad *\text{Where does John want Bill to go?}
\end{align*}
\]

Faced with this wrong interpretation, a strict constructionist could

i. decide there is no way to say this sentence directly

ii. become a loose constructionist

iii. try another alternative. \textsuperscript{24}
The first alternative is in fact a very attractive one. That is, these sentences which are very common in English are in fact unusual in Navajo. However, assuming a strict constructionist rejects the first two alternatives, another alternative would be to delete the WH word, a process we found in Chapter 1. This alternative, however, does not provide an immediate solution. Recall that the WH words in Chapter 1 were all in indirect questions and that once the WH word deleted, the spatial enclitic moved to the nearest /-í/. Using the same rule for the questions under discussion here thus creates two problems: first, indirect questions do not contain question particles. WH deletion would not automatically delete the direct question particle. If the particle were not deleted, the question would still be from the point of view of the subject, i.e., John. If the particle were deleted, the sentence would not automatically denote a direct question. Second, some new solution would have to be found for the spatial enclitic because there is no /-í/. (Deletion of the enclitic will not suffice because then the specific WH word would be lost, creating an unacceptable ambiguity.)

Another alternative, of course, is to move the WH word so that it is no longer within an S requiring a direct discourse interpretation. This, of course, is precisely what we find. Thus, using Baker's universal WH-movement rule, the questioned word in (59) is moved to the sentence-initial position:
While I do not intend to make any claim about the type of adjunction used, it is clear that the EP can no longer be a part of $S_1$. In (59'), it is only $S_1$ which receives a direct discourse interpretation, so that the EP will not receive that interpretation. This explanation assumes that the point of view of $S_0$ is determined after the movement rule. In other words, the point of view designation cannot be pre-cyclic; it could be post-cyclic. If cyclic, either the determination is made some time on the same cycle as the movement and is ordered after the movement, or the determination is made at any time, but the reference of the moved constituent is reinterpreted when the reference of $S_0$ is determined.

It should now be apparent why this movement rule must be unbounded: the point of the rule is not so much to get the questioned word to the front of the sentence, but to get it out of the scope of the direct
discourse point of view. In (59), moving /háagódá/ to the front of S₁ would be insufficient because it would still be interpreted as part of that S, and therefore as a report of a question rather than a direct question.

Now consider (60).

60. háagódá Ján Mary doogáá nisin ní where.to.Q John Mary 3.F.go 1.want 3.say
Where does John say he wants Mary to go?

In (60), not only is movement to the front of S₂ insufficient, movement across one S boundary is also insufficient. To be removed from the scope of the direct discourse, the EP in S₂ must be moved to S₀. In other words, since there can be an indefinite number of S's within the scope of the
direct discourse, movement must be allowed across an indefinite number of S's in order to fulfill its purpose of removing a constituent from within any direct discourse scope.

2.3. The More Problematic Cases

2.3.1. The WH Word Is Non-Initial

The above exposition describes the facts as if they were completely known and completely consistent. Unfortunately, however, the data are not that straightforward. Thus, some loose constructionists who accept (56a) but not (56b) as a possible meaning for (51) do accept the following with the translation as given:

61. *Ján ha'át'íšísh nahideeshnih ní*
   John what Q 3.1.F.buy 3.say
   What did John say he'll buy?

This is a case in which the WH word is not in initial position, the verb is given a direct discourse interpretation, and yet the sentence can be considered a direct question from the speaker's point of view. In other words, the WH word is given an indirect discourse designation but the verb is not. (61) thus seems to be a counterexample to the claim that the embedded S is interpreted as a whole with respect to point of view.

Let me first demonstrate that (61) can in fact be a direct question from the speaker's point of view. This is clear when put into a dialogue. Thus, when I said (61), the response was (62).
62. chidí nahideeshnih ní
car 3.1.F.buy 3.say
He says he'll buy a car.

Notice, however, that given the linear order in (61), the phrase structure bracketing is not obvious. (61) would be bracketed as either (63) or (64).

63. Jáan S₁ [ha'át'íísh nahideeshnih] S₁ ní
64. Jáan ha'át'íísh S₁ [nahideeshnih] S₁ ní

If (63) is the correct bracketing, it is a counterexample as suggested above. If (64) is the correct bracketing, it is not a counterexample, but then I must explain why the WH word is not in first position where the hypothesized transformation placed it. I want to claim that (63) is not the correct bracketing when the sentence is interpreted as a direct question from the speaker's point of view. I believe that (64) is the correct bracketing and that the sentence is the result of having a topicalization rule apply to the matrix S after WH-movement has applied.²⁵

Positive evidence that (64) is correct would be a sentence of the form of (65), interpreted as a direct question with the embedded verb having a direct discourse point of view.

65. Jáan S₁ [NP ha'át'íísh V] S₁ ní

Consider the following:
66. Jáan ashiiké ha'át'i'ísh bá nahíi'niih shíkní
   John boys what Q 3.for 3.2.F.buy 1.3.say
   John asked me what I will buy for the boys.
   *What did John tell me I should buy for the boys?

(66) is exactly the form of (65). However, it is impossible for (66) to be interpreted as a direct question. In other words, in any example in which both the WH word and the question particle must be bracketed as part of the lower S, the sentence will not be a direct question. Thus, when a sentence is a direct question, we should expect that the WH word and question particle will not be in the lower S. Therefore, although the word order in (61) is insufficient to determine the bracketing, the fact that it is a direct question from the speaker's point of view argues for the bracketing in (65).

It should be noted that (61) is in fact ambiguous, having also the report of a question reading, a direct question from the subject's point of view. That is, (61) can also be translated as "John asked what he should buy." This reading corresponds to (63). When used this way in a dialogue, (67) is an appropriate reply:

67. ak'áán la' nahíi'niih bidíní
   flour some 3.2.buy 3.2.say
   Tell him to buy some flour.

Note that (67) is not an appropriate answer to the direct question reading of (61): it is incongruous to follow the question "What did John say..."
with "You tell him...". Although (67) is an appropriate continuation of a conversation, it is not a response to a direct question, but a reply to a comment. The fact that one responds to a sentence does not mean that that sentence was understood as a question. This distinction is not so obvious with a response like (67) which is in fact a reaction to John's request for information. However, (67) should be considered a gratuitous response rather than a reply to a direct request for information.

I have been referring to all the questions discussed in this chapter as direct questions, as contrasted with the indirect questions in Chapter 1. That is, when (61) is interpreted as a declarative sentence, it is not an indirect question, but a report of a direct question asked by someone else, a direct question from the point of view of the subject of the S immediately dominating the question. It is necessary to distinguish the two for two reasons. First, the direct discourse point of view is inconsistent with an indirect question interpretation. Second, all the other cases of question particles are instances of direct questions. Since the indirect questions in Chapter 1 do not contain question particles, if these were also indirect questions, it would be necessary to explain why some indirect questions contain question particles and others do not. If these direct discourse question-reports are direct questions, we can maintain the claim that question particles always signal direct questions.

In summary, all cases of a WH word plus question particle are instances of direct questions. What differs is who is asking the question.
When the WH word plus question particle remain in an embedded direct
discourse S, the question is asked by the subject of the S immediately
dominating the WH word and question particle, instead of the speaker.
It is only reported by the latter.

2.3.2. Chorus

So far we have looked at three kinds of cases involving direct
discourse, as summarized below.

1. The WH word remains within its S and the Q particle is
attached to it.

2. The WH word plus Q particle occur sentence initially, having
moved leftward across an indefinite number of S's.

3. The WH word plus Q particle occur as the second word of the
sentence. I claim that these examples result from having a topicaliza-
tion rule apply after question formation.

In all these cases the interrogative particle has remained with the WH
word. Recall, however, that in simple questions the interrogative par-
ticle could be attached to a word other than the WH word, without changing
what was being questioned. We therefore must consider such a possibility
in the case of direct discourse sentences. Parallel to (1)-(3), I will
consider the following cases:

4. The WH word remains within its S but the question particle
does not.
5. The WH word occurs sentence-initially, but the question particle is not attached to it.

6. The WH word occurs as the second word of the sentence, but the question particle is not attached to it.

2.3.3. **Second Position and Case (5)**

Once the interrogative particle is not attached to the WH word, it is logically possible for it to attach to any word in the sentence. In the case of simple questions, recall that if there is a WH word in the sentence, the only acceptable positions for the question particle were with that word or in second position. To see that the same is true for sentences containing direct discourse S's, consider case (5) first.

68. *hahgo* Ján lá Mary doogaáí nízin
    when.F John Q Mary 3.F.go 3.want

69. *ha'at'í* Jáansh nahideeshnih nízin
    what John.Q 3.1.F.buy 3.want

70. *hádaáz* Ján Mary lá naaghá ní
    when John Mary Q 3.come 3.say

To say that the question particle may occur in second position is not quite sufficient. Second position is a term which refers to embedded S's as well as matrix S's. In (71)-(72), for example, /lá/ is in second position in the lower S.
71. Jáan Mary lá háádé'ı' naaghá ní
   John Mary Q from 3.come 3.say
   John asked where Mary comes from.

72. Jáan yiskáago lá Bíl háágóó deeyá ní
   John tomorrow Q Bill where.to 3.go 3.say
   John asked where Bill is going tomorrow.

73. *Jáan yiskáago Bíl lá háágóó deeyá ní
   John tomorrow Bill Q where.to 3.go 3.say

The ungrammaticality of (73) confirms the fact that the question particle placement is no more arbitrary in lower S's than it is in matrix S's. The Second Position rule thus applies within any S.

Since the Second Position rule applies to embedded S's, it is insufficient to say that question particles can occur in second position in general. The structure of (70) is as follows:

\[ \text{háádé'} \text{ Jáan } S_1 \text{[Mary lá naaghá]} S_1 \text{ ní} \]

In other words, /lá/ is in second position in the embedded S. The fact is that the question particle cannot remain in the lower S when the WH word is moved out. Recall that when discussing simple sentences, I suggested that WH-movement moves the question particle with the WH word and that the Second Position rule does not apply until all rearranging has occurred. These two stipulations are sufficient to rule out (70). More generally, these two stipulations rule out any grammatical sentences in case (5). If the WH word occurs sentence-initially, the question particle
must be in the matrix S. Second position in the matrix S, however, is precisely the end of the WH word. Thus, if the WH word is sentence-initial, the question particle must be attached to it.

In summary, when there is a WH question, the question particle can occur only on the WH word or in second position, with the qualification that the question particle cannot remain in an S lower than the one the WH word ends up in. In proceeding to cases (4) and (6), I will therefore limit myself to second position particles. Since the qualification about second position follows naturally from the rules, there is no need to stipulate it.

2.3.4. Case (6)

Since the facts are even murkier for case (4) than they are for case (6), let us begin with case (6). Consider the following:

74. Q: Ján la háágóó Mary deeyá ní
John Q where.to Mary 3.go 3.say

R₁: *auu'
yes

R₂: kingóó deeyá ní
store.to 3.go 3.say
He said she's going to the store.

75. Q: Ján la hahgo Mary doogáá nízin
John Q when.F Mary 3.F.go 3.want
When does John want Mary to go?
The first thing to demonstrate is that the question particle is semantically part of the WH word, i.e., that these are direct WH questions from the speaker's point of view rather than a WH question from the subject's point of view or a yes/no question containing a direct or indirect WH question. In other words, (77a), not (77b)–(77d) is the correct rendering of (74).

77a. Where did John say Mary is going?
   b. John asked where Mary is going.
   c. Did John ask where Mary is going?
   d. Did John mention where Mary is going?

Assuming that /la/ and /-sh/ (as opposed to /-ish/) are used only for WH questions, this fact is obvious. In other words, the use of /la/ in (74) automatically marks the sentence as a WH question. Since there is no second question particle (an /-ish/ or /-shə'/), the sentence could not also be a yes/no question. However, since the work on the question particles is far from completed and we already know that people vary in
the way they use them, I further substantiate this claim through use of dialogues. The fact that (74) cannot be answered by a yes, but can and must be answered by naming a place proves that in (74) the speaker is asking a question and it is a WH question.

2.3.5. Generating Case (6)

The next thing to consider is how forms like (74) would be produced. We have in fact already discussed the mechanisms required. They include:

1. leftward WH-movement
2. topicalization
3. second position particle placement

Using (74) for demonstration purposes, consider the following derivation:

(74A) Ján S₁[Mary háágóó lá deeyá]S₁ ní

rule (1): háágóó lá Ján S₁[Mary deeyá]S₁ ní
rule (2): Ján háágóó lá S₁[Mary deeyá]S₁ ní
rule (3): Ján lá háágóó S₁[Mary deeyá]S₁ ní

Although there is nothing in the derivation which requires the question particle to originate with the WH word, I have put it there to emphasize that semantically it is associated with the WH word.

What is important to notice is that although the WH word does not end up in sentence-initial position and does end up adjacent to the direct
discourse S, it has in fact been moved out of S₁ and therefore out of the scope of the direct discourse point of view by a rule we need anyway, the unbounded leftward movement. It is the fact that the WH word has been moved out of the scope of the direct discourse which makes these direct questions; it is not its occurrence in first position which does so. However, needing a rule to move WH words, it is logical to assume that Navajo used the universal question formation rule postulated by Baker, especially since that rule is necessary in Navajo anyway.

2.3.6. Case (6) Or Case (4)?

While the above derivation of (74) is the one most consistent with the theory that WH-movement out of the direct discourse segment of the sentence is necessary to create a direct question, it is not the only derivation that will generate (74). The topicalization rule, unlike in English, seems to apply within lower S's. Thus, (78b) is an acceptable variant of (78a).

78a. Jáán Mary kinlánígóó adoołbas ní
John Mary Flagstaff.to 3.F.drive 3.say
John says Mary is driving to Flagstaff.

b. Jáán kinlánígóó Mary adoołbas ní
John Flagstaff.to Mary 3.F.drive 3.say
John says to Flagstaff Mary is driving.

Under the assumption that (78a) is composed of two S's,
(78) \( S_0 [Jaan \, S_1 [Mary \, kina\'ani\'go\'o \, adoo\,b\,as] \, S_1 \, ni] \, S_0 \)

topicalization can apply to \( S_1 \), generating (78b) with the following structure:

(78b) \( S_0 [Jaan \, S_1 [kina\'ani\'go\'o \, Mary \, adoo\,b\,as] \, S_1 \, ni] \, S_0 \)

In a parallel fashion, (74) would be generated by applying topicalization to \( S_1 \) instead of \( S_0 \).

(74B) \( S_0 [Jaan \, S_1 [Mary \, h\,\acute{a}\,g\,\acute{o\,l}\,\acute{a} \, deey\,\acute{a}] \, S_1 \, ni] \, S_0 \)

rule (2): \( Jaan \, S_1 [h\,\acute{a}\,g\,\acute{o\,l}\,\acute{a} \, Mary \, deey\,\acute{a}] \, S_1 \, ni \)

rule (3): \( Jaan \, l\,\acute{a} \, S_1 [h\,\acute{a}\,g\,\acute{o\,l}\,\acute{a} \, Mary \, deey\,\acute{a}] \, S_1 \, ni \)

Notice that, while the same linear string is produced by (74A) and (74B), the bracketing is different. WH-movement applied in (74A), moving the WH word out of \( S_1 \), the direct discourse segment of the sentence. In (74B), however, the WH word is still within \( S_1 \), although the question particle is not. In all my explanations of how the point of view of direct WH questions is determined, I have assumed that both the WH word and the interrogative particle had to be removed from the scope of the direct discourse. The arguments have concentrated on the WH word because that is the part one least expected to find moved. However, in all previous cases the question particle and the WH word have always ended up in the same \( S \), even if not together. If (74B) is a permissible derivation, then
note that it is necessary to have an unbounded movement rule which moves the question particle without the WH word. If (74B) is a permissible derivation, it is necessary to decide what it means, i.e., who is asking the question, and how it gets its interpretation. If both (74A) and (74B) are permissible derivations, then one must question whether the different bracketings result in different interpretations. (74B) is an example of case (4), the next case to be discussed. However, since the existence of (74B) creates more doubts about (74A), I will further justify the rules which give rise to (74A) before continuing to case (4).

Recall that the use of topicalization after WH-movement was originally postulated for example (61), a direct question from the speaker's point of view with the WH word and question particle second in the sentence. If that bracketing is necessary, then (74A) is in fact a derivation of Navajo.

The argument that (61) requires bracketing the WH word plus question particle in the higher S is based on the fact that it can be a direct question. Let me turn to another example which does not rely on the interpretation of the question word. Consider the following:

79. Jáan lá ha'át'í'í shizhé'ó neidiyoołňih yó'ní
   John Q what 1.father 3.3.F.buy 3.of.3.say
What does John expect my father to buy?

/yó'ní/ say of him requires an object as well as a subject. Therefore /shizhé'ó/ is in the higher S, leaving no doubt that the WH word is in
the higher S although not in initial position.

Notice that although father (/shizhé'e/) is the subject of buy as well as the object of expect, /shizhé'e/ cannot be in the lower S. Because of the direct discourse point of view, a first person pronoun in the lower S would refer to John, not to the speaker, and therefore first person possessive refers to John's father, not the speaker's father. This is the case in (80).

80. Ja'an lá ha'át'íí Mary shizhé'é yá neidiyoot'ính yó'ní
   John Q what Mary 1.father 3.for 3.3.F.buy 3.of.3.say
   What does John₁ expect Mary to buy for his₁ father?

In this example, linear order alone is sufficient to prove that /shizhé'e/ is in the lower S. That is, /yó'ní/ takes only two NP's, /Jaán/ and /Mary/. (The moved WH word does not create confusion since /yó'ní/ requires an animate subject and object.) The third animate NP must therefore be in the lower S, a fact which is confirmed by the translation. That is, only when in a direct discourse S can a first person pronoun refer to someone other than the speaker.

In summary, the contrast between (79) and (80) reinforces the claim that WH words will occur in a higher S without being first in that S. (74A) is therefore a possible derivation of (74).

2.3.7. Case (4)

Let us now return to (74B) as a possible derivation of (74), i.e., to case (4). We have already seen examples like (61) with two possible
derivations. If (74B) is a permissible derivation, (74) would be parallel to (61) in that, according to the possible derivations, the WH word can end up in either the matrix S or the embedded S. The difference between the two is that no matter how (61) is bracketed, the WH word and question particle will always be in the same S. This is not true of (74). Although the WH word can be in the lower S, the question particle cannot be. It is easy to see how (61) is ambiguous, but what happens when the question word is divided up? That is, I have claimed that anything within a direct discourse S is from the point of view of the subject of the matrix S, while everything else is from the point of view of the speaker. If the question particle in the higher S denotes that a direct WH question is being asked by the speaker, but there is no WH word that the speaker is questioning because that word remains within the domain of the subject of the matrix, is a consistent interpretation possible?

Since (74) has another possible derivation, it is more difficult to determine the acceptability of (74B) and sort out its meaning if good. There are, however, WH elements which can never be moved away from their verb and therefore could not undergo the WH-movement transformation. If there exist grammatical examples with these WH elements in a lower S and a WH question particle in a higher S, it is clear that the WH question particle can move unboundedly without the WH word. Such cases do exist. Consider the following:
81a. at'éd haash wolyé
     girl how.Q 3.name
     What is the girl's name?

b. *haash at'éd wolyé
    how.Q girl 3.name

82a. 7ii' lá haanéélég'í
    horse Q how.3.there be
    How many horses are there?

b. *haalá 7ii' néélég'í
    how.Q horse 3.there be

c. 7ii' haalánéélég'í
    horse how.Q 3.there be

83. Jáan lá haa yinishye' ni
    John Q what 1.name 3.say
    What did John say his name is?

84. Jáan lá shilí' haanéélég'í ni
    John Q 1.horse how.3.there be 3.say
    How many (of his) horses did John say there are?

Examples (81)-(82) demonstrate that the WH element /haa/ can never move away from the verb. Therefore, in (83)-(84) there is no doubt that the WH element has remained in the lower S. In (83)-(84) there is also no doubt that the WH question particle is in the higher S, since /Jáan/ cannot be the subject of either a first person verb ((83)) or a neuter construction ((84)). There also seems to be no doubt about the grammaticality of (83)-(84). It therefore seems that case (6) does exist in Navajo for
at least some speakers.

One need not resort to such special cases to demonstrate the acceptability of case (6). Word order alone is sufficient to prove that the WH question particle has moved but the WH word has not. Consider (85):

85. Ja'an lâ Mary hââdq' naaghâ nî
   John Q Mary where.from 3.come 3.say

We know that /nî/ does not take NP objects, so that /Mary/ cannot be the object of /nî/.

86. *Ja'an Mary nî...
    John Mary 3.say

87. Ja'an Mary yîlmî...
    John Mary 3.3.say
    John said to Mary...

Since /naaghâ/ is a third person verb, /Mary/ is obviously its subject. In addition, we know that particles are attached to the end of the first word, so that /lâ/ is in the same S as /Ja'an/. /Ja'an/ is clearly the subject of /nî/. Thus (85) must be bracketed as follows:

$$S_0 [Ja'an lâ S_1 [Mary hââdq', naaghâ] S_1 nî] S_0$$
2.3.8. **Interpreting Case (4)**

(85) is therefore a case in which the WH word is in the embedded S, a direct discourse S, while the question particle is in the matrix S and therefore not under the scope of the direct discourse. How then should (85) be interpreted? Is it a question or a report of a question? If a question, is it a direct or indirect question? The following methods of reasoning lead to different conclusions:

1) It is the position of the question particle which determines who is asking the question (the speaker or the subject of the S immediately dominating the question particle). Since the question particle is not within the direct discourse S, (85) is a direct question. Since /lá/ is not used for yes/no questions, (85) must be a WH question. Although the WH word is within the scope of the direct discourse, the /lá/ forces a change in its point of view. (85) is therefore a direct WH question from the speaker's point of view, just like (74). If this theory is correct, then my rationale for WH-movement must be reconsidered. If it is possible to change the point of view of an element without movement, why move it at all? Note, however, that the interpretation of the question is still based on an unbounded leftward movement rule, necessary to create the correct point of view for the question. The difference is that this rule moves only the particle, not the WH word also.

ii) It is the WH word which determines the point of view.
Question particles are necessary to distinguish direct questions from WH pronouns or indirect questions. However, since any question particle
can be placed in second position, those particles are not themselves marked for point of view. Sentence (85) therefore is not a question for strict constructionists, but a report of a question's having been asked.

iii) Both the question particle and the WH word get marked for point of view. Since the question particle is outside the scope of the direct discourse, (85) is a direct question from the speaker's point of view. Since /lá/ refers to WH words, the question is about a WH word. WH words, however, serve several functions in Navajo, usually differentiated by enclitics. One function is to stand for a specific name, either known to the speaker but not specifically mentioned (/háágóó'ya/), or not known to the speaker but the speaker assumes a specific reference and usually assumes that reference is known by someone else (/háágóó'shisí/). /háágóó'shisí/ may be translated by both what and something. In other words, there is nothing about the Navajo WH word which makes it a question element. To leave the WH word in the direct discourse segment of the sentence does not therefore indicate that the speaker is asking a question. (85) is therefore interpreted as the speaker asking a question about a WH word, using that WH word in his report of what the subject of the sentence said. One could consider the WH word a PRO substitute for what was actually said, similar to the English "Bill told me what to buy". Under this theory, (85) would be asserting that John named the place Mary is from and requesting the hearer to repeat that name. There is then, no real difference between (85) and any other WH question asked by the speaker.
Although theories (i) and (iii) make different claims about the point of view designations of the WH word and the question particle, they end up with the same result, i.e., interpreting (85) as a direct question from the speaker's point of view. I therefore see no way of distinguishing the two through the data. However, it should be possible to decide whether (85) is a direct question from the speaker's point of view or a direct question from the subject's point of view, and, therefore, from the speaker's point of view, a report of a question. Even this determination is difficult to make, since speakers will say that these sentences are grammatical, but hesitate when it comes to translating them. The best test I know is the use of dialogues. But these also present difficulties, as the most natural answer to (85) is

88. kin'ñíide'í naaghá
   Flagstaff. from 3.come
   She comes from Flagstaff.

While it is true that a report of a question from the subject's point of view is not to be answered, (88) is still an appropriate follow-up in a dialogue. Consider the English.

89. A: John asked where Mary comes from.
    B: Oh, she comes from Flagstaff.

The most natural responses are therefore not the most useful ones. Yet, as far as I can judge, and this with some trepidation, the following data
are accurate for some speakers of Navajo:

90. Q: Jaán lá Mary hááº°'t naaghá ní
   John Q  Mary where. from 3. come 3. say

   R: Jáan Mary kinlánídé'é' naaghá ní
   John Mary Flagstaff from 3. come 3. say
   John said Mary is from Flagstaff.

91. Q: Jáan lá ñé' haanéelá' ní
   John Q  horses what 3. there be 3. say

   R: k'ad neezná naakai ní
   now ten around 3. go 3. say
   He says that now there are ten (walking around).

92. Q: Jáan lá díí at'é'éd haa wolyé ní
   John Q  this girl what 3. name 3. say

   R: Jáan ánìigo Mary wolyé ní
   John thus 3. say Mary 3. name 3. say
   John said (thus) that her name is Mary.

I therefore conclude that these are direct questions, i.e., that the point
of view of a direct question is determined by the discourse segment the
question particle is in. I will leave open the factual question of how
the point of view of the WH word is interpreted, since I know of no way
of making that determination. However, I will return to these issues
in the next section when speculating about how this dialect of Navajo
may have developed.
2.4. **Summary, Conclusions, and Speculations**

2.4.1. **Summary**

Since I have been describing a myriad of logical possibilities related to confusing data, I will summarize my claims and classify the various types of sentences as an aid in accounting for the data.

I have shown that WH questions contain both a WH word and a question particle. The particle may remain with the WH word or move to second position in any S, with the caveat that the question particle may not end up dominated by the WH word. In simple sentences, the WH word may optionally move to initial position. Since it is not the purpose of such movement to form a question (i.e., the sentence will be a question whether or not there is movement), it is not clear whether the movement is due to a special WH-movement rule. In complex sentences containing an indirect discourse segment and a direct discourse segment with an underlying embedded WH question, there are four logical possibilities.

1. Both the WH word and the question particle end up in the indirect discourse segment of the sentence, i.e., in an S interpreted from the speaker's point of view. Type (1) corresponds to alternative (7) in the Table of Logical Possibilities for Direct Discourse Question Formation (p. 130). These sentences vary greatly in acceptability, both from speaker to speaker and from example to example. If accepted, however, they are always considered direct questions from the speaker's point of view.
2. Both the WH word and the question particle end up in the same direct discourse segment of the sentence, i.e., alternatives (1) and (5) in the table. Strict constructionists interpret all parts of this segment which are under consideration from the point of view of the subject of the immediately dominating S. These therefore are reports of questions, not direct questions. Loose constructionists find these examples ambiguous, adding a second interpretation from the point of view of the speaker. Given this indirect discourse interpretation, these examples may also be direct questions. People also have difficulty with these sentences.

3. The WH word moves up into a higher S and the question particle remains within the direct discourse segment, i.e., alternatives (2), (3), (6), and (9) in the table. Everyone agrees that these examples are ungrammatical.

4. The question particle moves up into a higher S and the WH word remains behind, i.e., alternatives (4) and (8). These sentences create the greatest problem for most people. When accepted, however, they are almost always interpreted according to where the WH question particle occurs rather than according to the placement of the WH word itself. If the question particle is in the matrix S, these sentences are considered direct questions from the speaker's point of view; if the question particle is in an intermediate S, such a sentence is taken as a report of a question which had been asked by the subject of the S immediately dominating the question particle.
To account for type (1), I have postulated an unbounded WH-movement transformation, moving both the WH word and the question particle to initial position. This rule applies before Topicalization and the Particle Placement rule, accounting for all the acceptable word orderings. Type (2) is generated when unbounded WH-movement does not apply. Since the movement includes the question particle, type (3) will never be generated. Type (4), presumably is generated not by WH-movement but by an unbounded application of Particle Placement.

Assuming my account of the data is accurate, the first three types follow nicely from a theory which says that point of view is determined solely by the nature of the S an element ends up in, and therefore unbounded movement is used here in order to create direct WH questions. If type (4) is in fact acceptable and is a direct question type, then it brings into question both how point of view is determined and why there is any unbounded WH-movement at all. While this type allows an element (the WH word) to remain within the direct discourse S and yet be interpreted as if it had been moved, if the WH question particle is generated with the WH word as I have been assuming, this type still requires an unbounded particle placement transformation to signal that interpretation.

2.4.2. Is There Really Any Unbounded Movement?

I cannot provide any definitive answer to why strict constructionists allow type (4) questions because the data are too murky to support any substantive claims. Rather, I would like to speculate a bit on why
the data are so unusually difficult to compile. These speculations suggest ways in which these rules and sentence interpretations may have developed.

To begin with, in this instance it seems relevant to take into consideration the fact that these sentences are not used in normal conversation. While one commonly hears questions in English like "Where did John say he's going?", "What do you want to buy for Mary?", etc., these questions are not heard in Navajo. The reason why such questions are not common in Navajo could, of course, be extra-linguistic. If linguistic, there are two most likely explanations: either the unbounded leftward movement does not really exist in Navajo or the factors involved in these sentences are so complex that people avoid them. My work is obviously based on the latter assumption. However, the more I investigate, the clearer it becomes that these sentences create real confusion. Nevertheless, there are some examples which are pretty universally accepted. These are examples of type (1) (not type (2)), usually with a single NP, for example:

93. háágóólá Ján deeshááí nízin
    where.to.Q John 1.F.go 3.want
    Where does John want to go?

It is certainly possible that even these sentences are ungrammatical, since when first presented with such sentences, most Navajo speakers hesitate. It could be that they are then accepted by analogy to simplex sentences. Thus, simple sentences optionally move WH words to initial position. Like a simple sentence, (93) has only one subject. In fact,
while admittedly ungrammatical, people will even say (94) instead of (93):

94. *háágóólá Ján nízin
   where.to.Q John 3.want

I reject the hypothesis that all these examples are in fact ungrammatical and that unbounded WH-movement does not now exist for any speakers, primarily because I think that acceptance by analogy involves a more clear-cut distinction between what is acceptable and what is not. Thus, if analogy were the only criterion, any sentence with two subjects (and therefore obviously two S's) would be equally unacceptable and everyone would agree. Everyone should agree that (95) is both unacceptable and as bad as (96).

95. háágóólá Jáan Mary doogááí nízin
   where.to.Q John Mary 3.F.go 3.want
   Where does John want Mary to go?

96. háágóólá Jáan shizhé'e doogááí nízin
   where.to.Q John 1.father 3.F.go 3.want
   Where does John want his father to go?

While some people hesitate over (95), others find it as acceptable as (93). And having no trouble with (95) does not mean equal comfort with (96). The difference between (93) and (95) is that in the given form of the verb, /nízin/ takes only one NP. Since (95) has two NP's, it looks less like a simplex sentence than does (93) with only one NP. (96) has the same number of NP's as (95), but has the added complication that one NP has a possessive
pronoun which must be assigned a point of view, requiring a decision on
the part of the speaker which takes into consideration the fact that the
sentence contains an embedded direct discourse S.

Notice that the embedded verb in (93) is obviously being inter-
preted as within a direct discourse segment, while the verb in (95) could
be either direct or indirect since it would receive the same meaning. Is
(93) then really more like a simplex S than (95)?

There is another argument against claiming that the problems with
the data derive from the fact that there really is no unbounded movement.
People have at least as much trouble with type (2), the case with no
movement at all, as with type (1) which involves the application of un-
bounded WH-movement. This fact seems to suggest that some factor other
than (or in addition to) unbounded movement makes these sentences con-
fusing.

If one is to assume that there is no unbounded WH-movement in
Navajo, one must still account for why some examples are considered
acceptable (if ungrammatical), others unacceptable, with a large group
of examples generating ambivalent responses. In going over the data that
I now have, I see no principled way of accounting for the reactions under
the assumption of no unbounded movement.

Another way of looking at these facts is that there is no unbounded
WH-movement but that these examples are grammatical because there is no
separate S at the time the movement rule applies. The problem of proving
that direct discourse segments, having no overt complementizer, are in
fact separate S's has already been discussed in Chapter 1. While I have little proof that the S's are considered separate after WH-movement, there is syntactic evidence that the surface strings without movement are interpreted as separate S's.

2.4.3. An Argument For Separate S's: Double Questions

One argument that the direct discourse segment is a separate S is based on the fact that it is possible to get two questions, a direct question and a report of a question. Normally, of course, it is impossible to have two such questions within one S.\(^\text{30}\) Consider the following:

97. da' Jánísh ha'áta'ílá Mary bá nahideeshnih ní
   Q John Q what Q Mary 3.for 1.F.buy 3.say
   Did John ask what he should buy for Mary?

Notice that the WH word and the WH question particle are positioned so that they could belong to either S. Without the yes/no question, as in (98), this string would be ambiguous.

98. Q: Ján ha'áta'ílá Mary bá nahideeshnih ní
    John what Q Mary 3.for 1.F.buy 3.say
    (i) John asked what he should buy for Mary.
    (ii) What did John say he'll buy for Mary?

99. Ján ánígo ak'aán la' nahideeshnih ní
    John thus.say flour some 1.F.buy 3.say
    John said he'll buy some flour.
The first translation of (98) is the same as that in (97). The fact that (99) is a possible response to (98) demonstrates that (98ii) is also a possible translation of (98). Since it is impossible to have a yes/no and WH question in the same S, adding the yes/no question as in (97) disambiguates the string in (98).

The same result occurs with the particle /ya'/, the Navajo equivalent to an English tag question. Since the addition of /ya'/ makes an S a question, there cannot be another question in that same S. Adding, /ya'/ to (98) therefore disambiguates the string, forcing the interpretation in which the WH word and question particle have remained in the lower S.

100. Ja'án ha'át'ílá Mary bá nahideeshnih ní ya'
   John what Q Mary 3.for 1.F.buy 3.say right
   John asked what he should buy for Mary, didn't he?
   *What did John say he'll buy for Mary, right?

2.4.4. Arguing From Emphatic Particles

Another and perhaps stronger argument that there are separate S's is based on the use of the emphatic particles /ga'/ and /yee'/. These two cannot co-occur in an S with a question word.

101a. askii ga' ści' nabiígo'
   boy emph horse 3.3.P.throw
   It's the boy who was thrown by the horse.
b. ashkii įįį' ga' nabilí+go'
    boy horse emph 3.3.P.throw
    It's the horse that threw the boy.

c. *háilá įįį' ga' nabilí+go'
    who.Q horse emph 3.3.P.throw

d. *ashkii ga' ha'át'ilá nabilí+go'
    boy emph what Q 3.3.P.throw

102a. Jáan Bíl yee' néidiits'in
    John Bill emph 3.3.hit
    It's Bill who John is hitting.

b. *háilá Bíl yee' néidiits'in
    who.Q Bill emph 3.3.hit

Perhaps one could finesse the double question argument by saying it is
not a matter of grammaticality, but of finding an acceptable interpreta-
tion. However, in the emphatic particle case, we have good English
sentences with no direct Navajo translation.

103. Where did John tell Mary he ran away from?

104. John asked Mary where she ran away from.

The direct translation into Navajo of (103) and (104) without emphasis
are both grammatical.

103a. háádéé'lá Jáan Mary yóó' eeshwod yíłní
    where.from.Q John Mary away 1.P.run 3.3.say
    Where did John say to Mary that he ran away from?
104a. Jáan Mary hásádé'ág'lá yóó' ńínílword yílní
John Mary where.from.Q away 2.P.run 3.3.say

Adding emphasis in the normal fashion, by placing /ga'/ after the word to be emphasized, produces only one good sentence.

103b. *hásádé'ág'lá Ján Mary ga' yóó' eeshwod yílní
where.from.Q John Mary emph away 1.P.run 3.3.say

104b. Ján Mary ga' hásádé'ág'lá yóó' ńínílword yílní
John Mary emph where.from.Q away 2.P.run 3.3.say
John asked Mary where she ran away from.

(103b) is ungrammatical because the question word cannot be in the same S as the /ga'/ (104b) is grammatical means that the /ga'/ and the question word are in separate S's.

2.4.5. Arguing From Negatives

The use of the Navajo negative /doo...da/ provides another argument that the direct discourse segment of the sentence is a separate S, and probably the best argument that the S's are still separate at the time of the unbounded movement. /doo/ can generally precede any segment within the same S, although any differences still need to be investigated.32

105a. Ján Bostongöó doo adoolba'gášda
John Boston.to neg 3.F.drive.neg
John will not drive to Boston.
b. Jáan doo Bostongóo adoolbąsda
   John neg. Boston.to 3.F.drive. neg
   John won't drive to Boston.

c. doo Jáan Bostongóo adoolbąsda
   neg John Boston.to 3.F.drive
   John won't drive to Boston.

Now consider the following:

106a. Jáan Bostongóo jidoogáal doo shó'níida
   John Boston.to 4.F.go neg 1.of.3.say. neg
   John doesn't expect me to go to Boston.

b. Jáan Bostongóo doo jidoogáalda shóní
   John Boston.to neg 4.F.go neg 1.of.3.say
   John expects me not to go to Boston

c.?*Jaan Bostongóo doo jidoogáal shó'níida
   John Boston.to neg 4.F.go 1.of.3.say

(106a) and (106b) prove that the two verbs have not become one, one of
the ways the lower S node could be eliminated (cf. Chapter 1). The un-
grammaticality of (106c) follows from the hypothesis that there are two
S's. Since /shó'ní/ is in a different S from /Bostongóo/ and /jidoogáal/,
the /doo/ and /da/ cannot be interpreted as part of the same S. If ac-
ceptable at all, it will be interpreted as two separate instances of
negation. Thus, consider the translation of the following:

107a. Mary Jáan Bostongóo doo adoolbąs níida
   Mary John Boston.to neg 3.F.drive 3.say. neg
   Mary didn't say whether or not John couldn't drive to Boston.
(107a) is being interpreted as deletions from (107b).

107b. Mary Jáan Bostongoó doo adoolbاصda doo máída Mary John Boston.to neg 1.F.drive.neg neg 3.say.neg Mary didn't say that John isn't going to Boston.

Each of the two S's thus contains a separate instance of negation.

Having seen that a negative on the lower verb provides evidence that there are two separate S's, consider the following:

108. háágólá Jáan doo jidoogá1da shó'ní where.to.Q John neg 4.F.go neg 1.of.3.say Where is it that John expects me not to go?

Sentence (108) is an example of unbounded movement since John is the subject of expect. The fact that movement is possible when the lower verb is negated proves that the lower S is still there when question movement occurs. Sentence (108) is positive evidence that question formation is truly an unbounded transformation.

2.4.6. Arguing From Second Position

The last argument that the direct discourse segment of the sentence is a separate S is based on the positioning of question particles. Recall that I demonstrated for simple sentences that if a question particle is not attached to its WH word, it can appear in second position and only in second position. While it is not completely clear how second position should be defined, some of the type (2) examples make sense only if second
position is being marked in an embedded S. Consider the following:

109. Jáan Mary adáádí' lá háágóó nisíníyá yilní
John Mary yesterday Q where.to 2.P.go 3.3.say
John asked Mary where she went yesterday.

110. Jáan Bílishq' háádí' naaghá ní
John Bill.Q where.from 3.come 3.say
John said, how about Bill, where is he from?

Assuming a single S, there is no way /lá/ in (109) could be taken to be in second position. However, /yilní/ requires an object as well as a subject so that /Mary/ as well as /Jáan/ can belong to the higher S. Since the embedded verb is in the second person, not the third, /Mary/ cannot be in the lower S. Thus, under the assumption that there are two S's, (109) would be bracketed as follows:

$$S_0 [Jáan Mary S_1 [adáádí' lá háágóó nisíníyá] S_1 yilní] S_0$$

In this case, /lá/ is clearly in second position within S_1.

The same reasoning applies to (110). In addition, notice that /-shá'/ is being used not only as a question particle, but as a topic marker. Navajos often use word order to mark topics. In general, topics go into initial position. The use of /-shá'/ as a topic marker in (110) therefore also argues that there is an embedded S. That is, /Bí/ is the topic of the lower S and thus in first position in that S:

$$S_0 [Jáan S_1 [Bílishq' háádí' naaghá] S_1 ní] S_0$$
The fact that there is a lower S with an initial topic position is also shown by (111).

111. Jáan kinlänígóó Mary adoołbás ní
   John Flagstaff.to Mary 3.F.drive 3.say
   John said, to Flagstaff Mary will drive.

112. Jáan Mary kinlänígóó adoołbás ní
   John Mary Flagstaff.to 3.F.drive 3.say
   John says Mary will drive to Flagstaff.

(112) is the neutral, and more normal, word order, but (111) is acceptable especially when /kinlän/ is being used as a topic.

2.4.7. Topicalization and Unbounded Movement

While the topicalization in (111) seems to argue that the direct discourse segment is a separate S, topicalization facts are no less confusing than the questions. Sentence (113) is generally accepted, suggesting that topicalization, like WH-movement, is an unbounded movement rule.

113. kinlänígóó Jáan adeesbás ní
    Flagstaff.to John 1.F.drive 3.say
    It's Flagstaff John says he'll drive to.

However, if (113) is generated by unbounded movement, then (112) should have an analogous variant. (114), however, seems to create confusion for at least some people who accept unbounded WH-movement.
114. ?kinlánígóó Jáan Mary adooíbas ní
  Flagstaff.to John Mary 3.F.drive 3.say
  It's Flagstaff John says Mary will drive to.

Sentences (113) and (114) thus revive the possibility that there is no unbounded leftward movement.

2.4.8. **Speculations: The Genesis of the Movement**

I believe it is significant that the unbounded topicalization is less acceptable than the unbounded WH-movement. While there is insufficient evidence to argue for any theory of change, I would like to speculate on the genesis of these cumbersome rules. On the basis of the facts presented, it would not be surprising to find that unbounded leftward movement is a relatively new phenomenon in Navajo. One possibility is that people first started moving WH words to initial position by analogy to movement in simple sentences. In that case, movement would be most acceptable when the embedded subject is identical to the matrix subject. As discussed above, (93) but not (95) would then be acceptable. Since accepting (93) creates the ability to ask a whole new set of direct questions, it is not surprising that the movement would be generalized and reanalyzed as an unbounded WH-movement rule. The addition of an unbounded question formation rule significantly increases the types of questions that can be asked. Unbounded topicalization, on the other hand, adds little to the expressive power of the language. There is thus more motivation for accepting unbounded question formation than there is for
unbounded topicalization. Since unbounded question formation rules create confusion, any unbounded topicalization should create as much if not more confusion.

2.4.9. Speculations: Why So Confusing?

Let me now return to the central claims of this chapter and try to account for Navajo speakers' unusual hesitation with these types of sentences. Under my hypothesis that there is unbounded leftward WH-movement, all sentences of type (1) should be equally grammatical. The hesitations must therefore be due to other factors. I believe that the use of direct discourse is the root of the problem: the difficulty with a sentence is proportional to the points of conflict between direct and indirect discourse. Sentences may initially be given an inappropriate interpretation because that interpretation presents fewer conflicts. It is not unusual for me to be told "I'm sure the sentence is grammatical, but it's difficult to translate." This remark might mean that the sentence is well-formed but very opaque, i.e., difficult to understand and not just difficult to translate. There are several ways direct and indirect discourse can come into conflict:

1. The points of view of the verbs will be different. Interestingly, this seems to create the least confusion. Thus, there is no hesitation in explaining that a first person verb refers to the subject of the matrix.
2. The point of view of pronouns will be different. Since subject and object pronouns are marked in the verb, they seem to be no more difficult to interpret than the verb is. However, possessive pronouns do present more difficulty.

3. Placing particles into second position creates conflicts. Thus, the most natural place in a sentence for particles is after the first word of the entire sentence, i.e., linear second position. People vary in how strongly they prefer linear second position to other places in a sentence. For example, there is no doubt that a question particle can always occur with its WH word. Yet, some people find (115) much less desirable than (116)-(117), explaining that /la/ should be in second position.

115. Jáan ha'át'íílá nayiisni'!
    John what Q 3.3.P.buy
    What did John buy?

116. Jáan lá ha'át'íí nayiisni'!
    John Q what 3.3.P.buy
    What did John buy?

117. ha'át'íílá Jáan nayiisni'!
    what Q John 3.3.P.buy
    What did John buy?

For sentences which are reports of questions, the question particle remains within the direct discourse S (type (2)). If the question particle is to remain within the direct discourse segment, the use of linear second
position is impossible given a full matrix subject and normal word order. That is, second position in the embedded S is not linear second position. This problem can be avoided by extraposing the matrix subject:

118. hááđéé' lá Mary naaghá ní Jáán
Where.from Q Mary 3.come 3.say John
Where is John, said Mary.

119. ha'át'íí lá Bíl yizhbizh nízin Jáán
what Q Bill 3.3.braid 3.think John
John is wondering what Bill braided.

As far as I can judge, sentences like (118)-(119) do seem easier to interpret.

4. The question particles /lá/ and /-sh/ normally indicate direct questions. There is a conflict between the recognition that there is a direct question and the fact that the entire sentence is really a declarative sentence. In fact, some people will answer sentences like (120), at the same time giving the translation I have given.

120. Jáán Mary lá hááđéé'  naaghá ní
John Mary Q where.from 3.come 3.say
John asked where Mary comes from.

The reasoning seems to be that, although (120) is not actually a question, the intent can be to get some information. It seems to me that there is a desire to answer (120) because of the occurrence of /lá/ which normally signifies that an answer is requested. It is significant, however, that
(120) would be answered only by (121a), not (121b).

121a. Mary kinlánídéé' naaghá
Mary Flagstaff.from 3.come

b. #Jáan Mary kinlánídéé' naaghá ní
John Mary Flagstaff.from 3.come 3.say
John says Mary comes from Flagstaff.

In other words, the question being answered is "Where is Mary from?" and not "Where does John say Mary is from?". The WH word and question particle are not being interpreted as a question about the entire sentence as they are when moved out of the direct discourse S. Rather, (120) is being interpreted as a request to answer a question put by John. Sentence (121a) is thus an attempt to resolve the conflict between the question particle request for an answer and the direct discourse indication that John is the one who asked the question.

5. Hale and Platero (1973) demonstrate in their investigation of Navajo relative clauses and pronominalization that there seems to be a surface constraint having to do with possible interpretations of a sentence. They propose that the following parsing principle is employed with varying degrees of strictness by speakers of Navajo: "In a string Σ of the form (NP) NP V, the subsequence (NP) NP is a clausemate with V if the string exists as a well-formed simple sentence of Navajo" (12). Since unbounded movement of NP's rearranges the linear order of the NP's in a sentence, there is a potential conflict between movement and the parsing principle.
Getting the question out from under the scope of direct discourse requires movement. After unbounded WH-movement has applied, a sentence may become unacceptable or marginal because of this parsing constraint. Consider the following:

122. ?ha'at'ilá Jáan Bíl yishxash ní
   what Q John Bill 3.3.P.bite 3.say

(122) was rejected because the string /Jáan Bíl yishxash/ ("John bit Bill") gets interpreted as a separate S. (122) thus gets interpreted as "What said 'John bit Bill'?". People vary in how strictly they adhere to the parsing constraint. The constraint can be overridden if the sentence does not make sense. Thus, since inanimates don't speak, some people will look for another subject for /ní/ (say), reinterpreting the sentence to its intended meaning, "What did John say bit Bill?", and thus accepting it. However, nobody would interpret (123) as "Who did John say bit Bill?", the intended meaning if unbounded WH-movement is applied to the following well-formed underlying string:

\[ S_0 [ Ján \ s_1 [ há'ilá Bíl yishxash ] \ s_1 ní ] \ s_0 \]

John who.Q Bill 3.3.P.bite 3.say

123. há'ilá Jáan Bíl yishxash ní
   who.Q John Bill 3.3.P.bite 3.say
   Who said John bit Bill?
Sentence (123) is only given the one translation. There are thus factors independent of the actual movement which create confusions.

It is clear that it is not the WH-movement but the parsing principle which accounts for these facts. Thus, WH-movement applies to directional phrases which cannot be subjects or direct objects, while the parsing principle applies only to these latter categories. Since the parsing principle accounts for the possible ungrammaticality of (122), a similar example with a directional phrase should be acceptable. That is exactly what we have found.

2.4.10. Speculations About Case (4)

Notice that there are alternatives to (122), namely (124)-(125):

124. Ján lá ha'át'í Bíl yishxash ní
John Q what Bill 3.3.P.bite 3.say
What did John say bit Bill?

125. Ján ha'át'íílá Bíl yishxash ní
John what Q Bill 3.3.P.bite 3.say
What did John say bit Bill?
John asked what bit Bill.

Sentence (125) is less desirable than (124), both because it is ambiguous and because the question particle is not in second position when bracketed for the intended meaning. (As a direct question, /ha'át'íílá/ is in the matrix S.) In (124), however, it is not so obvious that the WH word is in the matrix S. The fact that /lá/ must be in the matrix already indicates
that the sentence is a direct WH question. Since /yishxash/ requires two 
NP's, and since Navajo has the surface parsing constraint, I would expect 
a tendency to parse (124) as follows:

\[ S_0[Ja{\text{`a}n \hat{\text{n}} \text{'}}]_{S_1} [ha'\dot{\text{a}}'t'\hat{\text{\text{'}}}f B{\text{'}}l \ yishxash]_{S_1} n\text{'}]_{S_0} \]

Such a parsing interpretation creates a conflict between the point of view 
interpretations of the /l\text{'}/ and the WH word, which accounts for the con-
sternation caused by this set of type (4) sentences.

It may be that thinking about sentences like (124) is what causes 
people to come to accept type (4) sentences, sentences in which the question 
particle can only be in the matrix S and the WH word can only be in the 
embedded direct discourse S. Sentence (124) is first accepted as a direct 
WH question because /l\text{'}/ is obviously in the direct discourse segment of 
the sentence. But then when trying to figure out the meaning, /ha'\dot{\text{a}}'t'\hat{\text{\text{'}}}f/ 
is parsed as part of the lower, direct discourse S. Since the position 
of /l\text{'}/ already signifies a direct WH question and the WH word must always 
be associated with the embedded S, to figure out the meaning of the sentence, 
some people might begin to ignore the actual position of the WH word. It 
may be that type (4) examples seem grammatical because, ignoring the 
direct-indirect discourse conflict, the sentence is a well-formed string 
and using (124) as a model for finding the meaning, the type (4) examples 
are easily interpretable. That is, the only conflict for WH words posed 
by the difference between direct and indirect discourse is who is asking
the question. There is no problem about what the word means within the sentence. In contrast, with pronouns or verbs, there is a problem in figuring out who is being referred to. Since the only conflict can be resolved by the placement of the question particle, type (4) sentences become interpretable.

This line of reasoning which suggests that type (4) sentences are acceptable by analogy says nothing about whether type (4) sentences are in fact grammatical. Notice, however, that if type (4) sentences become grammatical by analogy for a given speaker, then that person no longer requires an unbounded WH-movement rule. In other words, if Question Particle Placement is sufficient to designate a direct WH question, why ever move the WH word?

2.4.11. Question Particle Placement

There are two things to notice about Question Particle Placement. First, given a theory in which the question particle is generated with the WH word, this rule also involves unbounded leftward movement. Since using Particle Placement instead of WH-movement to designate direct WH questions does not eliminate unbounded leftward movement, there is no theoretical reason having to do with possible types of movement which would lead to the elimination of one rule in favor of the other. In fact, people who accept both types of movement differ as to which they prefer. Second, although Question Particle Placement involves unbounded movement, it makes a sentence look syntactically normal. That is,
ignoring the meaning problems created by the direct-indirect discourse conflict, a sentence looks normal when the particle is in linear second position and the WH word remains in the position bearing the underlying grammatical relation. It is only when figuring out what these sentences mean that there is confusion. Unbounded Particle Placement therefore is syntactically easy to accept but semantically confusing. In contrast, sentences involving unbounded WH-movement are syntactically difficult to accept but semantically desirable, i.e., easy to interpret. It is therefore reasonable that people differ in which they prefer, depending upon whether they are more concerned with syntactic form or an easily accessible interpretation.

2.5. **Formulating the Transformations**

Having described, explained, and justified the data and the types of rules needed to account for it, I will conclude with a discussion of the exact formulation of those rules. Thus, under the assumption that type (4) is acceptable, it would be generated by an unbounded application of Particle Placement. I will continue to consider the theory in which the WH question particle is generated with the WH word, and then will turn to a theory in which the WH question particle is generated separately.

In considering actual transformations, it is not clear whether the unbounded particle placement under discussion is a special application of the Second Position rule, one part of a general question formation rule, or a separate rule. I will now consider several options that would handle
the facts, taking into consideration the purpose of each rule, whether or not a rule is cyclic, and how the rules interact with point of view designation.

2.5.1. Are Particle Placement and Second Position the Same Rule?

Let me first consider whether the unbounded particle movement should be considered part of the Second Position rule. Since in both cases the WH question particle ends up in second position, it seems like they are one rule. However, I believe the two cases should be separate. The unbounded movement of the question particle differs from the Second Position rule in two important respects. First, Question Particle Placement affects the meaning of a sentence, while second position rules are normally housekeeping rules with no effect on meaning. Second position in Navajo is a neutral position. For example, as I discuss elsewhere (cf. Chapter 3), the yes/no particle /-Ish/ generally goes into second position, denoting a straightforward yes/no question. If, however, the particle is placed on another word in a simple sentence, that word becomes the focus and the rest of the S is presupposed. More investigation is necessary, but it may be that the Navajo negative /doo...da/ is most neutral when /doo/ occurs in second position. /doo/ can precede any word in the sentence; /da/ is always suffixed to the verb. There is a clear contrast between the following, as expressed by the translations:
While the occurrence of a WH question particle in second position may be stylistically more correct, there is nothing "neutral" about moving that particle from one S to another, i.e., from one point of view segment to another. Therefore, while it might be correct to connect the occurrence of the WH particle in second position to the fact that that position is considered a neutral position for particles, it does not seem proper to use the Second Position rule to move a particle from one point of view segment to another.

The second reason for not using the Second Position rule to move the WH particle from one point of view segment to another is that the Second Position rule is normally a bounded rule. That is, other elements that move into second position normally go into second position in their own clause. The /doo/ part of the Navajo negative, for example, will not be placed in linear second position if that requires movement up out of its own clause. And, as we have already seen, even the WH question particle can go into second position of a lower S. Therefore, if WH question particle movement is incorporated into the Second Position rule, that rule will need an extra case involving a crucial variable. That case
will have to apply only to WH question particles and not to any of the other particles which can go into second position in their own clause. In other words, since the Second Position rule is bounded and the WH Question Particle Placement is unbounded, the latter is not automatically handled by the former even though they both apply to the WH question particles and in both cases the particles end up in second position.

2.5.2. An Independent Rule

Since WH Question Particle Placement is not to be incorporated into the Second Position rule, how then should the Question Particle Placement rule be written? One option is to have a rule which does not interact at all with the Second Position rule. Such a rule would take a /lâ/, /-sh/, or /-shâ/ from anywhere in a tree and place it after the first word of the sentence.

A second option would be to write an unbounded movement rule which feeds the Second Position rule. This option claims that WH Question Particle Movement involves two separate phenomena, moving the particle unboundedly from one point of view segment to another, and then placing it into a stylistically correct position. The unbounded movement has a semantic purpose; the actual occurrence in second position does not. I favor this approach because it emphasizes that the occurrence in second position does not affect the meaning of the sentence. Recall that in both simple and complex sentences the WH question particle need not end up in second position; it may remain with the WH word which need not occur
initially. So far as I can tell, when the question particle and WH word occur in the same S, the movement of the question particle off the WH word does not affect the meaning of a sentence. That is, (128) and (129) are identical in meaning, but not necessarily in acceptability. People differ only as to whether they prefer leaving the question particle with its WH word or putting it into second position.

128. Ján là háí yiyiiltsg
    John Q who 3.3.P.see
    Whom did John see?

129. Ján háílá yiyiiltsg
    John who.Q 3.3.P.see
    Whom did John see?

2.5.3. Are Particle Placement and WH-Movement the Same Rule?

Given an approach in which the unbounded movement is not linked to occurrence in second position, it is possible to consider whether WH question particle placement and leftward WH-movement should be the same rule. It would be nice to collapse them because they both have the same purpose, moving a question element from one point of view segment to another. Creating one rule captures the generalization that one or the other, but not both, will be used in a given sentence. In addition, they both need to refer to the WH question particle. Recall that the WH word may not move and leave the question particle behind, i.e., type (3) sentences are ungrammatical. To rule out these sentences, I suggested that
the WH-movement rule be written so that the question particle obligatorily moves with the WH word. If the two types of movement are collapsed, one could say instead that the WH word optionally moves with the question particle. That is, the rule would collapse the following two cases:

i) \( X - WH \ Q - Y \)
   
   \[
   \begin{array}{cccc}
   1 & 2 & 3 \\
   2 & 1 & 3 \\
   \end{array}
   \]

ii) \( X - Q - Y \)
   
   \[
   \begin{array}{cccc}
   1 & 2 & 3 \\
   2 & 1 & 3 \\
   \end{array}
   \]

As written, this looks like a straightforward case for parenthesis notation

iii) \( X - (WH) \ Q - Y \)
   
   \[
   \begin{array}{cccc}
   1 & 2 & 3 \\
   2 & 1 & 3 \\
   \end{array}
   \]

Notice, however, that when case (ii) should apply, there is still a WH word present in the string. If used here, parentheses would be signifying that one could choose whether to consider the WH word part of the Q or part of the X rather than signifying that the presence of the WH word in the string is optional. Rule (iii) is therefore an incorrect use of the parenthesis notation.

Although there is another rule which moves the Q particle, it is impossible to take advantage of it to separate the Q from the WH word before the question formation rule has applied. That is, one could opt to order the Second Position rule before question movement in order to separate out the question particle. But then the question particle would be stranded sentence-initially.
It is only when the WH word moves with the Q particle that the question formation rule places that particle in second position. Question formation must therefore follow the Second Position rule in order to insure that the question particle ends up in second position.

Notice that the notation problem is analogous to the problem found in English when a WH word is part of a prepositional phrase, i.e., how to allow the preposition to be optionally dragged along in order to generate both (130)-(131).

130. Where does Mary come from?
131. From where does Mary come?

The Navajo WH word is parallel to the English preposition, not to the English WH word. In both cases it is the leftmost element which is optionally dragged along. So far as I can tell, whatever solution works for the English will work for the Navajo.

2.5.4. Chomsky's Proposals

Chomsky's solution for the English case is worth mentioning because it brings forward several interesting facts about the Navajo case (Chomsky, 1971). He proposes a cyclic movement rule which includes a WH feature.
He then says that the WH feature may be placed on either the PP or the NP. The optionality therefore is not in the rule, but in the tree.

Looking back at the Navajo, I have so far said nothing about any feature to trigger the question formation rule, describing the rule in terms of the question particle only. Such a description, however, is inadequate because it does not distinguish the WH question particles from the yes/no ones. Such a distinction is necessary when the WH word is not part of the structural description, i.e., for case (ii). There is no reason therefore why the feature used to distinguish WH and yes/no questions could not also be used instead of the WH word in case (i).

Chomsky's use of a cyclic transformation is based on his theory of movement rather than on facts about question formation since the WH word in English can never remain in any intermediate tree. Such cases, however, do exist in Navajo. Consider the following:

132a. Jáan Bíí lâ hâágóó Mary dîínàáí yîí ní  
    John Bill Q where.to Mary 2.F.go 3.3.say 3.say  
    John said, where did Bill tell Mary to go?

b. Jáan Bíí lâ Mary hâágóó dîínàáí yiîí ní  
    John Bill Q Mary where.to 2.F.go 3.3.say 3.say  
    John said, where did Bill tell Mary to go?

Such sentences are exceptionally difficult to process because of the long strings of verbs and of nouns. They are of course made even more difficult by the changing points of view, and probably by the repetition of the same verb. While nobody would ever choose to use such sentences, so far as I
can tell they are grammatical. Sentences (132a)-(132b) would be derived from the following tree:

(132)

Sentence (132a) is derived by moving the WH word plus Q particle from $S_2$ to $S_1$; sentence (132b) by moving only the Q particle to $S_1$. Since the movement is optional, it is of course possible to get a good output by leaving the WH word and Q particle in $S_2$.

133. Ja'an Bill Mary há'agoolá' diínaa' yilní' ni
    John Bill Mary where.to.Q 2.F.go 3.3.say 3.say
    John said Bill asked Mary where she is going.

Since the movement is cyclic, it is also possible to get a good output by moving the question particle with or without the WH word to $S_0$. 
Where did John say Bill told Mary to go?

What is not acceptable is to strand the WH word in $S_1$, moving the Q particle to $S_0$. This is analogous to stranding the preposition in English.

Where did John say Bill told Mary to go?

Whatever mechanism is used to throw out (136) should also throw out (135). Whatever the proper solution for English, it should not be based on the properties of COMP position or principles for moving elements out of the COMP node because such a solution is not available for Navajo. There are other mechanisms available, however.

One option is to use the feature marking, which is a way of saying that once a choice is made, it is made for the entire derivation. Another option is to create some kind of meta-constraint to the effect that there cannot be connections from more than one $S$ back to a trace. I have no theoretical motivation for choosing any particular option.
2.5.5. **Chorus**

In sum, collapsing WH-movement and Question Particle Placement is desirable because the rules are disjunctive, apply in part to the same constituent, and have the same semantic intent. Having one rule makes it easier to discuss the different preferences people have. That is, it is no longer a preference for one rule over another, but a choice as to whether the WH word should be considered part of the Q. Given one rule, it is easier to see how type (4) sentences do not require the addition of a new rule (WH Question Particle Placement), but the elimination of an element in the Q. As separate rules, the two would share the problems of how to trigger the rule and whether it should be allowed to apply cyclically, generating different meanings. Writing one rule, however, creates some difficulty because the parenthesis notation cannot be used. Having one cyclic rule also creates the problem of how to avoid stranding the WH word in an intermediate tree. Neither of these problems is unique to Navajo, as was seen when looking at English prepositional phrases.

2.5.6. **Meaning Changes and a Q Node**

There is one other factor about the Navajo that should be considered. Each of the sentences has a different meaning because the point of view of the question changes. Is it thus possible to use the point of view designation as a controller?

I can find no reasonable way of using the point of view designation. Since an element is from the point of view of the immediately dominating
subject, if point of view is marked before movement, the question element will never change its point of view. There is nothing in the tree which stipulates who should be asking the question unless one adds a Q node, or perhaps some kind of semantic feature. The decision whether or not to use point of view to control the movement of the question element becomes a decision about whether a given tree should generate sentences with more than one meaning. Let me just note that once the point of view is introduced underlyingly, the question of whether the rule should be cyclic or post-cyclic becomes academic since movement will apply only once.

2.5.7. Advantages of a Pre-S Q

A desire to introduce point of view information in the underlying form creates one type of motivation for a Q node. However, it is not necessary to use point of view interpretation to motivate an underlying Q node. There are also purely formal considerations, as well as syntactic ones, which could lead one to postulate an S-initial Q node.

I have been assuming throughout that the WH question particle is generated underlyingly with the WH word. A second possibility is that the WH question particle is generated separately as a pre-S Specifier. That is, one could postulate that in addition to an S-final COMP, Navajo also has an S-initial Specifier. If filled by a Q, it could be spelled out either by a yes/no question particle or a WH question particle. Recall that the initial interrogative particle /da'/ is found in yes/no questions. Having an S-initial Q thus accounts for the placement of that
particle. WH questions never have an initial question particle. However, the Second Position rule which is needed anyway would insure that the WH question particle does not end up sentence-initial.

Since, under this hypothesis, the Q node is generated separately from the WH word, it is possible to have an underlying form with the Q node spelled out as a WH question particle (e.g., /la/) in one S and the WH word in another S. That is, given such a theory, the following would be generated as underlying forms:

(137)

(138)

Under this hypothesis, no unbounded Question Particle Movement transformation is necessary. Type (4) sentences would be generated without any unbounded movement, requiring only the Second Position rules to move the /la/ from initial to second position. That is, (137) generates (137a), and (138) generates (138a), the two acceptable cases in which the WH word and /la/ are not in the same S.
137a. Jáan lá Mary yiskággo háágóó adeesbąs nízin ní
John Q Mary tomorrow where.to 1.F.drive 3.want 3.say
Where does John say Mary wants to drive to tomorrow?

138a. Jáan Mary lá yiskággo háágóó adeesbąs nízin ní
John Mary Q tomorrow where.to 1.F.drive 3.want 3.say
John asked where Mary wants to drive to tomorrow.

Notice that this hypothesis still requires an unbounded leftward
WH-movement transformation. Since the underlying position of the WH
word is determined by grammatical relations, (137b) must be derived from
(137) by unbounded WH-movement, and (138b) from (138) by the same rule.

137b. háágóólá Jáan Mary yiskággo adeesbąs nízin ní
where.to.Q John Mary tomorrow 1.F.drive 3.want 3.say
Where did John say Mary wants to drive to tomorrow?

138b. Jáan háágóólá Mary yiskággo adeesbąs nízin ní
John where.to.Q Mary tomorrow 1.F.drive 3.want 3.say
John asked where Mary wants to drive to tomorrow.

Under this hypothesis, the movement is defined by the position of
the Q. That is, WH-movement would now be written as a rule which option-ally
attracts the WH word to the /lá/, to an S-initial Specifier. While
Navajo still requires an S-final COMP for /-go/ and /-í(gíí)/, such an
S-initial Specifier would be similar to a COMP node both in position and
some functions. Bresnan has suggested for example that for English the
COMP is marked [±WH], [+WH] being identical to Q (Bresnan, 1972). She
uses one feature to combine relative clauses, questions, and complementizers.
In Navajo, [+WH] would signify an initial COMP, and [-WH], a final COMP. I know of no real definition of COMP. It has been suggested, however, that complementizers are to S's what determiners are to NP's. Both are subsumed under the term Specifier (cf. Pope, 1972). One could hypothesize that some of the functions of the English COMP, including indicating direct questions, are performed by other Specifiers in other languages. Since Navajo determiners, i.e., NP Specifiers, precede NP's, it is already necessary for the term Specifier to refer to initial as well as final elements in this one language. Thus, while it seems implausible to hypothesize both initial and final COMP nodes of the same type, it may be possible to divide up the functions of Specifiers in such a way as to make an initial S-Specifier plausible even with an S-final complementizer. Under such a theory, one could then say that all unbounded movement must be to a Specifier, a result which is more consistent with Bresnan's and Chomsky's proposals that all unbounded movement be either to or through COMP position.

Notice that once a Q node is introduced, the point of view interpretation can be done either on the underlying or the surface form. If done on the underlying form, all WH words will be treated as exceptions to the usual point of view interpretation rule. That is, the point of view of the WH word will not be determined by the S immediately dominating the WH word, but by the Q, whose point of view interpretation in turn will be determined by its immediately dominating S. If the point of view interpretation is done on the surface, then only WH words which do not occur
in the same simplex $S$ as their governing $Q$'s (i.e., type (4) cases) will be exceptions to the general point of view interpretation rule. In other words, doing the point of view interpretation on the surface necessarily distinguishes type (4) cases from the other cases, a distinction which seems to be necessary.

2.5.8. Problems With an Underlying Pre-$S$ $Q$

Besides the theoretical issues of whether to use both initial and final $S$-Specifiers in the same language and whether to allow $Q$ nodes, generating an $S$-initial $Q$ presents other problems. For one, since such a theory does not generate /lá/ and the WH word together, a filter is needed to eliminate the ill-formed structures: those in which there is no WH word for the /lá/; and those in which the WH word is in a higher $S$ than the /lá/.

The existence of an initial $Q$ creates problems in explaining sentences like the following:

139. hastiin ałk'ésdisí håínå yeiní'á
       man   candy who.Q 3.3.P.give

Who did the man give the candy to?

Under a theory in which the /lá/ is generated with the WH word, (139) is a result of applying neither the WH-movement rule nor the Second Position rule. If, however, the /lá/ is generated initially, a new rule is needed to attract the /lá/ rightward to the WH word. One must consider whether
such a rule is natural, given the existence of the optional rule which attracts a WH word leftward to a /lá/.

One way of arguing for such a rule is to hypothesize that /lá/ is a type of focus marker. Since other particles create foci in Navajo, including the yes/no particle /-ísh/, one could hypothesize that whatever rule positions the other focus particles also positions the /lá/. Such a theory requires assuming that WH words may be foci and that in WH questions, the WH word is the only possible focus (since /lá/ cannot attach to any other word, except when in neutral second position). To say that a WH word is a focus is to use the term focus in a new, but not unfamiliar, fashion. Just as nobody has been able to define for English the relationship between WH words and foci, I can find no positive evidence in Navajo that WH words are foci. However, such a conclusion is suggested by the fact that the emphatic particle /gá/ which creates foci cannot occur in the same S as a WH word (cf. section 2.4.4).

Having both a rule which attracts a WH word to a /lá/ and a rule which attracts a /lá/ to a WH word still would not explain how the following sentence is generated:

140. Jáan shízhé'é ha'át'iílá neidiyoolníh yó'ní
    John 1.father what  Q  3.3.F.buy  3.of.3.say
    What does John expect my father to buy?

Sentences such as (140) have been insufficiently investigated. From my preliminary work, it seems that they are grammatical. Since /yó'ní/
(expect) allows direct questions from the speaker's point of view only
(i.e., "John expects what his father will buy" vs. "John asked what his
father will buy"), (140) could have only one possible interpretation.
Such an interpretation requires (140) to be bracketed with the /lá/, and
therefore the WH word, in the matrix S:

\[ S_0 [Jáán shizhé'é ha'át'ilá S_1 [neidiyooínih] S_1 yó'ní] S_0 \]

In other words, the /lá/ in (140) would be generated in \( S_0 \), i.e., sentence-
initial position. The WH-movement rule would then attract the WH word to
the /lá/, i.e., to sentence-initial position. How then does the WH word
end up as the third NP in the sentence?

If such sentences are in fact grammatical, they present problems
for any WH-movement rule which moves the WH word into initial position.
Recall that I have said that the purpose of the unbounded WH-movement is
not to get the WH word into initial position, but to move it from an S
requiring one point of view interpretation to an S requiring a different
point of view interpretation. Sentences like (140) suggest entertaining
the possibility that WH-movement is not to sentence-initial position at
all. However, I will not pursue this problem here.

2.5.9. Comparing Two Theories

So far as I can tell, the Navajo facts can be handled equally well
whether one postulates an underlying pre-S Q node, generating WH particles
separately from any WH word, or whether one generates the WH word and Q
particle together, postulating an unbounded Question Particle Placement rule. Both hypotheses require some unbounded leftward movement. The former hypothesis has the advantage of easily specifying the direction and extent (i.e., to which S) of the WH-movement for any given sentence. However, such a theory does not explain why these direct questions are formed through leftward movement rather than rightward movement such as exists in the indirect questions discussed in Chapter 1. Such a theory also cannot explain why type (4) sentences create so much more confusion than the other types. If anything, this hypothesis suggests that type (4) sentences should be the most acceptable since they require no movement transformations. The second theory, on the other hand, makes it easier to discuss the different preferences people have. Assuming that WH-movement and Question Particle Placement are one rule, the choice between types becomes a choice as to whether or not the WH word should be considered part of the Q in the structural description of the movement rule. I have claimed that the unbounded WH-movement exists in these cases in order to move the question word from one point of view segment to another. Since this theory provides no other way of specifying how far the WH word and question particle will move, it leaves open the question of whether the rationale for the movement should be incorporated somehow into the transformation. While the second theory does not require postulating either underlying initial, as well as final, Specifiers or Q nodes, it will require introducing other theoretical devices.
2.5.10 Conclusion

Ignoring all the questionable cases, it is still clear that Navajo requires some unbounded leftward movement transformation, despite the fact that it is a verb-final, complementizer-final language. This rule applies in sentences containing direct discourse verbs, verbs which govern point of view interpretation. I claim that the unbounded movement originated in order to move a question word from one point of view segment to another. The WH question particle signifies that a direct question is being asked. Who is asking the question depends upon the point of view interpretation of the S that the particle and (usually) the WH word end up in. Since a given embedded S is interpreted from the point of view of the immediately dominating subject, only the matrix S must be from the speaker's point of view. For the speaker to ask a question, movement to the matrix S is required, as, therefore, is unbounded movement.

Point of view interpretation requires unbounded movement, but this says nothing about the direction of the movement. Whether or not a Pre-S Specifier is introduced, it is still necessary to explain why this movement is leftward rather than rightward. I will return to this problem in the Conclusion, using a concept developed in Chapter 3 to provide some criteria for leftward versus rightward movement.
FOOTNOTES TO CHAPTER 2

1. Reichard (1951) also says that /-sh/ and /-ísh/ are the same interrogative particle, analyzing the latter as composed of /-sh/ plus the nominalizer /-lí/.

2. Haile uses his own Navajo orthography which I have transcribed.

3. Elgin spells this enclitic without a final glottal stop.

4. Among other things, the vowel in the enclitic is /ã'/ while her "aforementioned" morpheme is /áq/ although she spells it /q/.

5. Normally elements that are focused on do not reduce. Since topicalizing creates added emphasis, if /-sh/ were a reduced form, one could account for the ungrammaticality by saying that reduced forms cannot be used on focused elements. However, I believe that other factors are at work, and that /-sh/ is not a reduced form anyway.

6. Cf. Chapter 3 for a discussion of /-ísh/, focus, and presupposition.

7. I avoid the term neutral because questions with /-ísh/ need not be neutral. Cf. Chapter 3.

8. Note that the semantic hierarchy does not seem to apply to WH words. Cf. section 2.1.7.

9. In section 2.5.8, I discuss the possibility that /lá/ may be a focus marker when not placed in neutral second position.
10. Although there is no question that these are grammatical, people disagree about how preferable they are. That is, some have a strong preference for putting the question particle in second position, while others prefer to leave it with the WH word. I discuss this further in my conclusions and speculations, section 2.4.

11. While this sentence is grammatical, it is preferable to use /lá/ instead of /-sh/. The difficulty seems to be with the phonology rather than the syntax. That is, if the noun ends in a vowel, it is difficult to differentiate the yes/no enclitic /-ísh/ from this /-sh/, i.e., /ashkíísh/ from /ashkíísh/. If the noun ends in a consonant, unnatural consonant clusters arise, e.g., / Jáansh/. /lá/ creates neither of these difficulties because it sounds very different from the other question particles and because it is a separate syllable. As a result, some people prefer /lá/ to /-sh/, especially when detached from the WH word.

12. I discuss the cases with a crucial variable in section 2.2.

13. This class was part of a summer workshop on the Navajo Reservation, summer, 1973, sponsored by Diné Bi'ólito' Association.

14. Notice that it is possible for the question particle to be placed at the end of the sentence. It is not clear whether Baker meant to be describing languages which can or which must place their particles sentence-finally.
15. Cf. Chapter 3 on /-ísh/, /hanii/ and presupposition.

16. The table ignores the problem of describing where within an S the WH word and the /lá/ end up. I also discuss this below.

17. The point of view given in the table is that permitted by a Strict Constructionist. Loose Constructionists allow in addition an interpretation from the speaker's point of view in every grammatical example. Cf. section 2.2.5.

18. The translation is misleading. It is not that it is impossible to say "What does John want?", but that when want has a direct object, a prefix appears on the verb,

   i. ha'át'íísh Jáán yínízin
      what Q John 3.3.want

As explained in the Introduction, direct discourse complements are not direct objects.

19. I am assuming that these sentences appear in a discourse so that there is an antecedent for the pronoun. Strictly speaking, no sentence in Navajo is complete without a subject. One must distinguish, however, between normal pronoun deletion and missing subjects.

20. Although in principle the scope of the movement is indefinitely large, it is in fact difficult to construct examples where movement involves more than three S's. One reason is that the complex sentences are
extremely difficult to process, and judgments vary randomly. Another reason is that I know of very few direct discourse verbs, and the sentences become even more difficult if the subjects of the different verbs are not identical.

21. In section 2.5.7, I discuss the possibility that there may be an initial COMP-like node—a Specifier—in addition to the S-final COMP. I am assuming here that COMP refers to the position in which the complementizers appear (/-i(gif)/ and /-go/ in Navajo).

22. As I discuss below, some people can use unbounded WH question particle movement instead of WH-movement to generate the same meaning. For those who consider these to be separate rules, WH-movement is obviously optional.

23. As Reinhart (1973) points out, adverbs are often interpreted differently from the rest of the sentence. A cursory investigation suggests that, when in the direct discourse segment, an adverb may be interpreted either from the subject's or the speaker's point of view. Therefore, when I talk of whole S's, I am referring only to NP's and verbs. Further investigation of adverbs is required before any claims can be made.

24. Another alternative is to reorder the sentences so that the lower S is not center-embedded. For example
I am not certain, however, whether this alternative exists for the other direct discourse verbs. Thus, (ii) presents problems, both in deciding whether or not it is grammatical and deciding what it means if grammatical.

Normally it is subjects which extrapose. But, normally the NP closest to /yó'-/ is considered its object. Thus, it is not clear whether (ii) should mean, "John expects Mary to go to Flagstaff" or "Mary expects John to go to Flagstaff". See also footnote (34).

25. It is also possible that, although /ha'átil'ish/ has moved from one S to another, the movement was not to initial position in the higher S as I am assuming. In sections 2.3.1 and 2.5.8, I discuss examples which create problems for movement to initial position.

26. Such a rule is necessary only under the assumption that the WH question particle is generated with the WH word.

27. These sentences provide another argument that the Q particle is generated with the WH word, since the Q particle may occur between the WH word and the verb.
28. In all the examples so far given, the Q particle has in fact been in the highest S or the one it originated in. I will give examples below which show that it can be in any S.

29. I do not have the facts to describe the loose constructionists' dialect in greater detail. In particular, I do not know whether sentences in which the question particle is placed on a word in the direct discourse segment other than the WH word also receive a direct discourse interpretation.

30. Some people will allow more than one yes/no question in a simple sentence. I have not investigated this dialect, but at least in the cases I know about, using more than one /-ish/ is linked to the fact that /-ish/ can be used as a focus marker. For discussion of /-ish/ and focus and presupposition, cf. Chapter 3.

31. As I discuss below (pp. 187f.) one can show that (i) is a possible translation of (98) by the following possible response:

   i. ak'áán la' nahííniih bidíni
   flour some 2.buy 3.2.say
   Tell him to buy some flour.

   (i) shows that the question can be what to buy and not what John said he would buy.

32. But cf. Perkins (1973) for some discussion of /doo...da/ as contrasted with another negative, /hanii/.
33. Another possibility is that WH-movement to initial position originated by analogy to English. The differences in grammaticality could still be related to a comparison with simple sentences. Such a theory could be tested by talking to monolingual speakers of Navajo.

34. It is not clear to me whether (118)-(119) are instances of embedded direct discourse, equivalent to English indirect discourse, or cases of quotations. Since Navajo does allow extraposition of subjects, it is reasonable to assume the former is at least one possible interpretation. However, if these are direct discourse examples, I have no explanation for why examples with /yó'ní/ are ungrammatical, as in the following (b) sentences:

ia. Jáan kîlánígóó Mary adoolbás yó'ní
   John Flagstaff.to Mary 3.F.drive 3.3.say
   John expects Mary to drive to Flagstaff.

b. *kîlánígóó Mary adoolbás yó'ní Jáan
   Flagstaff.to Mary 3.F.drive 3.3.say John

iia. Jáan há'ilá Bíł yidiyoołhée'í yó'ní
   John who.Q Bill 3.3.F.kill 3.3.say
   Who does John expect will kill Bill?

b. *há'ilá Bíł yidiyoołhée'í yó'ní Jáan
   who.Q Bill 3.3.F.kill 3.3.say John

More work needs to be done on extraposition of subjects before one can decide whether these sentences are ungrammatical because /yó'ní/
does not allow quotations or are ungrammatical for some other reason.

35. However, the order of the WH word may affect the meaning. That is, while (128) and (129) are identical, (i) may be slightly different.

   i. háilá Jaán biiltsê
      who.Q John 3.3.P.see
      Who was it that John saw?

It is not clear whether who should be considered some kind of focus, or topic, or what. This is an area needing more investigation.

36. This possibility was first suggested to me by Kenneth Hale.

37. The term Specifier has been used in an even broader sense. Chomsky (1968) refers to "the phrase associated with N, A, V in the base structure as the 'specifier' of these elements" (27). Thus, [Spec, N] will be analyzed as the determiner, similar to my suggestion. In addition, [Spec, V] would be analyzed as the auxiliary and [Spec, A] "perhaps as the system of qualifying elements associated with adjectival phrases" (ibid.). It may be that this broader notion is the more useful one.

38. Hale (forthcoming B) suggests that the final /-t/ complementizer originates as an initial determiner. Under that assumption, the use of a Specifier node would characterize the connection between Navajo determiners and complementizers.
39. So far as I can tell, multiple WH questions are impossible in Navajo. Therefore, the filter would have to throw out any sentence with more than one WH question particle. However, any theory would have to eliminate these cases.

40. I am assuming here that emphatic particles are analogous to intonation centers in English. Chomsky (1969) defines focus as follows: "The focus is a phrase containing the intonation center; the presupposition, an expression derived by replacing the focus by a variable" (26). While the intent of this definition seems correct for most uses of Navajo emphatic particles (as well as the yes/no particle /-ísh/), there are cases where a focus in an embedded clause may actually be part of the presupposition (cf. Chapter 3).
3.0. Introduction

We have now examined two types of Navajo subordinate clauses and the questions that are formed when there is a WH word embedded in each type. With the /-i/ complementizer we found indirect questions, formed through deletion of the WH word and unbounded rightward movement of the spatial enclitic. In direct discourse S's, we found that the interrogative particle, and optionally the WH word, is moved by an unbounded leftward movement transformation. I postulated that this is the universal question formation transformation and that it has been applied in this particular case to remove the question word from within the scope of the direct discourse. It is due to the unbounded leftward movement that direct questions are possible with direct discourse verbs.

Let us now turn to WH questions embedded under the third type of Navajo subordinator, the /-go/ complementizer. In this case, neither deletion nor movement is required to produce direct questions. This then represents the form of question expected in verb-final, COMP-final languages. Using this type for contrast, I will generate a rationale for the form of question found embedded under the /-i/ complementizer. Although the form of the /-i/ questions and direct discourse questions is totally different, I will claim that the rationale behind both atypical
forms is the same: some rule is needed to get the question word out of the scope of an element which gives the question word an undesired or contradictory semantic interpretation. Speculations about why the different types of transformations will be postponed until the Conclusion. This is because I believe the question formation facts are related to the nature of the complementizers. Therefore, before turning to questions embedded under /-go/, I will compare /-go/ and /-í/, demonstrating that although their most common uses are very different, there are cases where they appear in superficially identical clauses. I will argue that, at least in some cases, their structures are in fact identical. However, although the clauses may be structurally identical, their meanings are not. I attribute the meaning difference to the complementizers themselves, and will then use that difference to explain the different forms of embedded questions. In this chapter, the semantic differences are based primarily on an examination of sentential subjects and objects, although the most natural use for /-go/ is as an adverbial subordinator. Therefore, before turning to a contrast between /-go/ and /-í/, I will briefly describe adverbial clauses to help explain my claims about /-go/.

3.1. /-go/ and Adverbs

3.1.1. Overview

In the Introduction I stated that the /-go/ complementizer has always been described as an adverbial subordinator (0.4.4). Although I will not detail how adverbial clauses get their meanings, it will be useful
to examine somewhat superficially this most common use of the \/-go/ complementizer.\(^2\) Such an examination will both help to explain why people have always made the assumption that \/-go/ is an adverbial marker, as well as help justify my claim that the same morpheme may be found as a nominal subordinator. Consider the following sentences, examples of the most natural uses of \/-go/:

1. shizhé’é níyáago da’diidi'í
d1.father 3.P.comeCOMP pl.1.F.eat
When my father comes, we'll eat.

2. Mary shaaníyáago jáán bił hózhó
Mary 1.3.P.comeCOMP John 3.with 3.be well
Because Mary came to see me, John is happy.

3. shííníloho go shizhé’é neidiyoo’ni
horse 2.P.ropeCOMP 1.father 3.3.F.buy
If you rope a horse, my father will buy it.

4. jáán chidi nayiisni’go bił hózhó’go shaaníyá
John car 3.3.P.buyCOMP 3.with 3.be wellCOMP 1.3.P.came
Because John had bought a car, he was happy when he came to see me.

Navajo does not always distinguish temporal, conditional, and resultative subordinate clauses. Thus, sentence (3) can have another meaning. It also translates as "When you rope a horse, my father will buy it". Notice that there is no word in any of these examples that designates the type of condition which the subordinate clause is intended to communicate. Sometimes a sentence does not seem ambiguous because one reading is so much more natural than the other. Thus, example (1) could
be translated, "If my father comes, we'll eat". Since such a dependency is somewhat odd, one tends to give the sentence a unique translation. In a similar fashion, tense and aspect relationships tend to disambiguate a sentence. If sentence (2) were to have a "when" reading, it would have to mean

2. *John is in a good mood when Mary came to see me.

If, however, the matrix clause is put in the perfective, the sentence does in fact have a "when" reading:

5. Mary shaaníyágo Ján bił hóózhóód
   Mary 1.3.P.comeCOMP John 3.with 3.P.be well
   When Mary came to see me, John was in a good mood.

Since the only difference between (2) and (5) is the aspect relationship between the two clauses, it is clear that aspect is one of the factors which determines the relationship between the two clauses. Since /-go/ appears in both sentences, it is also clear that /-go/ itself does not differentiate among "if", "when", and "because" clauses. It is now clear that there is no single word in the above examples which performs this function.

As further proof, consider the following example in which such a word does exist. This example is no longer ambiguous.

6. Mary shaaníyágo bininaa Ján bił hóózhóód
   Mary 1.3.P.comeCOMP because John 3.with 3.P.be well
   Because Mary came to see me, John was happy.
   *When Mary came to see me, John was happy.
While I will not discuss /biniinaa/ in detail, it is sufficient to note that example (6) makes it clear that Navajo possesses more specific ways to designate the specific semantic relationship between a dependent adverbial clause and its independent clause than are found in examples (1)-(4). Morphemes such as /biniinaa/ have definite semantic content. That content provides a unique meaning for the sentence, one that requires such clauses to be adverbial. It is thus not clear what function /-go/ performs. In such clauses, /-go/ seems merely to be a syntactic subordinator. However, when there is no other word to designate the adverbial relationship, /-go/ is the only morpheme available to perform that function. It is clear, however, that /-go/ does not mark any specific relationship since it is used to replace when, if and because. Therefore, if /-go/ has any semantic content, it must be some abstract concept consistent with all three meanings, a concept I will refer to as adverbial since it occurs in adverbial clauses and define simply as the semantic common denominator of such words as if, when, and because. Adverbial is being used here as a heuristic device, one needing no further clarification since I will argue that /-go/ in fact has no semantic content at all. What is important to note is that there are two ways in which /-go/ could be an adverbial marker. One is to contain some semantic content which requires it to be adverbial. The second is to be a syntactic marker that appears in adverbial clauses. I will consider both possibilities and show that neither is in fact possible.
3.1.2. Possible Semantic Content For /-go/

The morpheme /-go/, in addition to being a complementizer, is an affix added to adjectives and verbs to form adverbs, similar to -ly in English. Consideration of some simple adverbs shows how impossible it is to find any semantic content for /-go/. Consider the following pairs with respect to the function of /-go/:

7a. nizhóní
    good, nice

7b. nizhónígo
    well

8a. tl'ée'
    dark, night

8b. tl'ée'go
    when it's dark, at night

9a. yiską
    it has dawned

9b. yiskągo
    when it has dawned, tomorrow

Given these examples, /-go/ could still be a semantic adverbial marker. However, it is now even less clear what the content of adverbial would be. In examples (8)-(9), /-go/ could be said to be doing more than just changing the part of speech. The English dark, darkly or night, nightly is not analogous to /tl'ée'/, /tl'ée'go/. In examples (8)-(9), /-go/ could perhaps be said to contain the notion when, at least as much as it did in example (1). However, it is difficult to see how anything from the notions if, when, or because has been added with /-go/ to (7b). In this case, /-go/ merely signifies a change in the part of speech. Thus, the English good, well in (7) is parallel to the Navajo /nizhóní/, /nizhónígo/.
It thus seems that if /-go/ has any semantic content at all, the notion adverbial must be limited to whatever semantic content, if any, there is in switching a part of speech. Even to claim that adverbial could be defined as the common denominator of if, when, and because is too specific. So far as I am aware, there is no evidence that changing a part of speech involves a semantic change. I therefore will assume that if there is anything about /-go/ which is inherently adverbial, it must be syntactic.

3.1.3. Possible Syntactic Content For /-go/

The second way /-go/ could be an adverbial marker is to be a syntactic marker. If the /-go/ marker appeared in only one syntactic configuration, it could be considered a syntactic marker of that configuration. As such it need have no semantic content to be an adverbial marker.

While I have stated that examples (1)-(4) contained adverbial clauses, the only evidence given was the translations. To see that they really are adverbial clauses, notice that in the above examples, the matrix clause is independent of the /-go/ clause. The /-go/ clause is not acting as a subject or object of the matrix S. Thus, if the /-go/ clause were deleted, there would still be a full, i.e., non-elliptical, sentence. Compare the following with examples (1)-(4):

1'. da'didíičí
   We will eat.

2'. Ján bil hózhó
   John is happy.
3'. shizhé'é neidiyóónhí
   My father will buy it.

4'. shaníyá
   He came to see me.

The two clauses in examples (1)-(4) interact to the extent of pronominalizing identical nouns. Pronouns generally delete in Navajo. Thus, (3) has a deletion site where horse would be, and (4) one where John would be. It is clear from the meaning, however, that it is the noun and not the adverbial clause which has pronominalized.

Recall that the /-í/ complementizer can only mark NP's. It cannot, for example, replace /-go/ in these adverbial clauses. Contrast the following with (1) and (3) above:

10. *shizhé'í niyáhíí di'diidìí
   1.father 3.P.comeCOMP pl.1.F.eat

11. *li'tí sínihíí shizhé'í neidiyóónhí
   horse 2.P.ropeCOMP 1.father 3.3.F.buy

Given the information so far presented, we can hypothesize that sentences with /-go/ clauses have the following structural configuration:
I am using the node ADV to depict the claim that these clauses are adverbia
tals and that they are subordinate clauses, i.e., that the /-go/ comple-
mentizer is subordinating its clause with respect to the main clause.
While I have no intention of motivating this particular node, I believe
that the claim that /-go/ clauses are syntactically subordinating is suffi-
ciently important to be depicted graphically. However, since I will
include the notion "subordinate" in my eventual definition of /-go/,
there is no a priori reason why an underlying form must contain any sub-
ordinating node.\(^5\)

Among the questions to be considered in this chapter are whether
/-go/ clauses are found only in such a configuration and how its syntax
bears on its semantic content. Further discussion of the semantic content
of /-go/ must await further discussion of its syntactic behavior, especially
in comparison to the /-Í/ complementizer.

3.2. Are /-go/ and /-Í/ Clauses Always Structurally Differentiated?

3.2.1. Seemingly Anomalous /-go/ Sentences

So far all the examples given have shown that /-go/ and /-Í/ are
both structurally and semantically distinct: the former marks subordinate
adverbial S's; the latter marks sentential NP's. The following, however,
are sentence pairs which have identical translations:

12a. ch'é'tiingô naanéego shil béehózin
   entrance.toward 3.playCOMP 1.with 3.be known
   I know that he is playing in the yard.
12b. ch'é'étingóó naanéhííí shii b'éhózin entrance.toward 3.playCOMP 1.with 3.be known
I know that he is playing in the yard.

13a. Mary kinlánígoó ííyáago yishniih
Mary Flagstaff.to 3.P.goCOMP 1.hear
I hear that Mary went to Flagstaff.

b. Mary kinlánígoó ííyáhígíí yishniih
Mary Flagstaff.to 3.P.goCOMP 1.hear
I hear that Mary went to Flagstaff.

14a. Mary kinlánígoó na'asbaţgo Bil bii yá'át'é'éh
Mary Flagstaff.to back.3.P.driveCOMP Bill 3.with 3.be good
Bill is happy that Mary drove to Flagstaff.

b. Mary kinlánígoó ííyáhígíí yishniih
Mary Flagstaff.to 3.P.goCOMP 1.hear
I hear that Mary went to Flagstaff.

15a. Mary Bil yich'i' yálti'go baa ąkonisin
Mary Bill 3.to 3.3.talkCOMP 3.about 1.be aware
I am aware that Mary is talking to Bill.

b. Mary Bil yich'i' yálti'ígíí baa ąkonisin
Mary Bill 3.to 3.3.talkCOMP 3.about 1.be aware
I am aware that Mary is talking to Bill.

How accurate are these translations? Is there something missing in the English translation? Are these /-go/ clauses in fact structurally identical to the /-i/ clauses? In other words, can the /-go/ complementizer mark sentential NP's? And, if so, are /-go/ and /-i/ in those cases semantically identical?
3.2.2. The Structure of the /-go/ Clauses

I am going to argue that /-go/ clauses may in fact be sentential subjects and objects exactly as the above English translations suggest. I will use two general types of argumentation. The first is based on the assumptions that there must always be a subject, and a subject is by definition an NP. If there is nothing else which can be the subject, then the /-go/ clause must be. However, since pronouns generally delete in Navajo, a surface subject is not always present in well-formed sentences. It is thus necessary to show that a subject could not have been deleted by pronominalization in order to prove that there is no other possible subject. The important thing to notice is that, after pronominalization deletion, a sentence is still complete. While the specific reference may be lost, the pronoun itself is recoverable through agreement markers in the verb. In contrast, an elliptical sentence, while not completely ungrammatical, is an incomplete sentence, more like a phrase. A missing subject or object is not recoverable through other information in that sentence. Context alone provides the missing subject or object.

The second type of argument is also based on morphology. If there is an agreement marker requiring an NP and there is nothing else which could have triggered the agreement, then the /-go/ clause must have done so, and the /-go/ clause must therefore be an NP.

Notice that neither type of argument proves that the /-go/ clause must be an NP in underlying structure, or, more specifically, a subject or an object. One possibility is that there are subjectless underlying
structures and all /-go/ clauses are dependent adverbial clauses in the underlying structure. A transformation may then attract the adverbial clause into subject or object position.

Arguing from agreement markers also does not conclusively prove the structure of the underlying phrase marker. Agreement could obviously take place after the transformation which attracted a subordinate clause into subject or object position.

In the following sections I will be comparing /-go/ and /-Í/ clauses and arguing that the differences that are found are not due to structural differences. While I cannot yet motivate an underlying structure, I believe it will be sufficient to show that /-go/ and /-Í/ clauses are structurally identical at some point in the derivation.

3.2.3. What Is the Subject?

Consider the sentences in (12) above. I have already shown that the /-Í/ clause in (12b) is a sentential subject (see Chapter 1). If the /-go/ clause in (12a) is not, analogously, also a subject, then what is the subject? Recall that /-shí/ is a postposition meaning with me. It is therefore clear that it is not the surface subject. The only other word appearing in (12a) is the verb. Thus, if the /-go/ clause is not the subject, then the subject must have been deleted. Since pronouns generally delete in Navajo, it is reasonable to hypothesize that the subject has been deleted. We can test this hypothesis by deleting the /-go/ clause and seeing if we still have a complete sentence. Recall
that when adverbial /-go/ clauses are left out, the sentence remains well-formed, i.e., non-elliptical, even when the subject is a pronoun which has been deleted (cf. examples (1)-(4)). The following example demonstrates that the hypothesis that a subject has been deleted by pronominalization is incorrect.

16a. *shil beéhózin
   1.with 3.be known

Sentence (16a) can be used as an elliptical phrase. In that sense the /*/ is misleading. For our purposes, however, it is not a complete sentence. It is interpreted as meaning

16b. éí shil beéhózin
    that 1.with 3.be known
    I know about that.

In other words, it is interpreted as a phrase without a subject.

The incompleteness of (16a) argues that (12a) must have a subject. Since there is nothing else in (12a) which could be the subject, nor is the subject a deleted pronoun, the /-go/ clause must be the subject. The structure of (12a) therefore seems to be identical to (12b).

3.2.4. **Morphological Evidence For /-go/ Clauses As Subjects**

Recall that Navajo verbs may have overt subject markers. One example is the locative marker /ho-/. Thus we find the following:
17. shil yá'áhoot'één
   1.with 3.loc. be good
   I like it at that place.

18. shil hózhó
   1.with 3.loc. be well
   I am happy.

Contrast these with the verbs we are considering which do not have the /ho-/ subject markers:

19. *shil yá'át'één
   1.with 3. be good

20. *shil nizhóní
   1.with 3. be nice

Once again, the incompleteness of (19) and (20) demonstrates that there is no deleted pronominal subject. If we add a subject, the postposition-verb combinations become grammatical.

21. éí shil yá'át'één
    that 1.with 3. be good
    I like that.

It must therefore be the lack of a subject that is causing the ungrammaticality or strong feeling of incompleteness.

Now contrast the translations of /-go/ clauses in the following pairs of sentences which differ only in the presence or absence of the locative subject marker /ho-/:
22a. Bíl kínáánídi naalnishgo Mary bił yá'át'ééh
Bill Flagstaff.at 3.workCOMP Mary 3.with 3.be good
Mary likes it that Bill works in Flagstaff.

b. Bíl kínáánídi naalnishgo Mary bił yá'áhoot'ééh
Bill Flagstaff.at 3.workCOMP Mary 3.with 3.loc.be good
Because Bill works in Flagstaff, Mary likes it there.
*Mary likes it that Bill works in Flagstaff.

23a. Jáán shaaníyaago shil nizhóní
John 1.3.P.comeCOMP 1.with 3.be nice
I'm glad that John came to see me.

b. Jáán shaaníyaago shil hózhó
John 1.3.P.comeCOMP 1.with 3.loc.be well
Because John came to see me, I'm happy.
*I'm happy that John came to see me.

With the verbs that have no other subject, the /-go/ clause is translated as an integral part of the sentence, as a subject. If there is another subject, the /-go/ gets its normal adverbial translation. Again, it seems that we must postulate two functions for /-go/, as a sentential NP marker as well as an adverbial marker.

Recall that /-í/ cannot be an adverbial marker. We can reinforce the above conclusion by replacing /-go/ with /-í/ in the above examples. As we expect, the sentences are good only in those cases in which /-go/ clauses have been postulated to be NP's.

24a. Bíl kínáánídi naalnishígíí Mary bił yá'át'ééh
Mary is happy that Bill works in Flagstaff.

b. *Bíl kínáánídi naalnishígíí Mary bił yá'áhoot'ééh
25a. Jáan shaaníyahííí shíl nízhóní
I'm glad that John came to see me.

b. *Jáan shaaníyahííí shíl hózhó

3.2.5. /-go/ Clauses As Objects

My arguments that /-go/ clauses can be objects are based on morphological evidence. I will use the verb and the negative to show that /-go/ clauses can be an integral part of the sentence as well as separate adverbial clauses.

The most obvious cases are those with verb agreement. /yi-/ and its variant /bi-/ appear in the verb only when there is a direct object with a specific reference. Consider the following:

26. Mary náldzid
   Mary 3.afraid
   Mary is afraid.

27. Mary Jáan yínáldzid
   Mary John 3.3.afraid
   Mary is afraid of John.

28. *Mary Jáan náldzid
   Mary John 3.afraid

Sentences (26)-(28) demonstrate that the /yi-/ on /náldzid/ is in fact the direct object marker. /yi-/ occurs instead of /bi-/ because the subject is third person. /náldzid/ also marks objects when the subject is non-third person; in this case, with the prefix /bi-/.
29. násdzid
   I am afraid.

30. Jáan binásdzid
    I am afraid of John.

It is thus perfectly clear that if /bi-//-yi-/ occur, there must be an object. Now consider the following:

31. Mary na'ładbąsasgo yináldzid
    Mary 3.driveCOMP 3.3.afraid
    Mary is afraid of driving.

32. na'asbąasgo binásdzid
    1.driveCOMP 3.1.afraid
    I am afraid of driving.

We know from the morphology that there is an object. From the translation, we see that the /-go/ clause must be that object. Further proof that it is in fact the /-go/ clause which is the object is provided by the fact that (32) can be an answer to the question

33. ha'át'íífis bi'nánildzid
    what  Q  3.2.afraid
    What are you afraid of?

I will conclude my argument that /-go/ clauses are NP's with the following sentence:

34. dooOUND  hóne'é nìjigháago  diìsts'a'da
    neg someone inside 4.walk aroundCOMP 1.hear neg
    I don't hear anyone walking around inside.
Notice first the position of the negative. The two-part negative surrounds both the /-go/ clause and the matrix verb. While it is true that /doo/ gets placed to enclose the entire scope of the negation, Navajo does not permit the two parts of the negative (/doo/ and /da/) to be placed in different S's (cf. section 2.4.5). The position of the negative therefore provides more evidence that the /-go/ clause is not a separate subordinate clause. Since adverbials are separate clauses, the negative demonstrates that /-go/ clauses are not always adverbials, but may be NP's. The use of the negative is therefore consistent with my claim that the /-go/ clause is the object in (34).

Another approach to this sentence would be to claim that /la'/ (someone) and not the whole /-go/ clause is in fact the object of hear. The sentence would then translate more like "It's not the case that I hear someone (when he's)walking around inside." Consider the following:

35. doo 1a'  hodiists'a'da
    neg someone 4.1.hear   neg
    I don't hear anyone.

36. *doo 1a'  diists'a'da
    neg someone 1.hear   neg

/1a'/ requires a so-called fourth person marker. Since there is none in (35), the /-go/ clause and not /1a'/ must be the object of /diists'a'/.

I have argued so extensively for /-go/ clauses as both NP's and adverbs for two reasons. First, there seems to be a strong feeling on the part of Navajo speakers that /-go/ clauses are always adverbia.
presented with a sentence containing a /-go/ clause, the Navajo speakers I have consulted first try to translate it as a subordinate adverbial clause. It is only when such an attempt fails that they will translate a /-go/ clause as an NP. Second, in section 3.1.2, I discussed the question of whether /-go/ has any semantic content, a content somehow related to its use as an adverbial marker. If, however, /-go/ is also a nominal marker, then it is necessary to give up the idea that it has any semantic content. I will return in section 3.3.6 to the semantics of /-go/. I have so far argued that there is an area in which /-go/ and /-í/ overlap. The next step is to differentiate the two within that area. Doing so will, I believe, clarify the function of /-go/ and therefore the problem of its semantics.

3.3. Are /-go/ and /-í/ Clauses Semantically Identical?

3.3.1. Differentiating /-go/ and /-í/

While I have just argued in detail that /-go/ can be an NP complementizer, I have not yet looked closely at the semantics of /-go/ when it is an NP complementizer. To demonstrate that /-go/ and /-í/ can mark structurally identical clauses, I considered examples in which /-go/ and /-í/ seem to be interchangeable. It is precisely this identity, however, which makes it difficult to distinguish the two complementizers semantically. Thus, I will now contrast sentences in which the matrix verbs permit only /-go/ on sentential NP's with ones which permit only /-í/. The differences in the matrix verbs provide clues to the differences in the
complementizers. Consider the following:

37a. Mary na'āłbąsγo yínáldzid
Mary 3.drive COMP 3.3.afraid
Mary is afraid of driving.

b. *Mary na'āłbąsīgii yínáldzid
Mary 3.drive COMP 3.3.afraid

38a. shilłįį' ałtso dínóonēłłgo ádzaa
1.horses all 3.die COMP 1.P.imagine
I imagined that all my livestock would die.

b. *shilłįį' ałtso dínóonēłgii ádzaa
1.horses all 3.die COMP 1.imagine
I imagined the fact that all of my livestock would die.

39a. adáadą́g náho'ítáńgiií ch'iíníŋ
yesterday 3.P.rain COMP 1.P.bring out the fact
I brought out the fact that it rained yesterday.

b. *adáadą́g náho'ítą́ago ch'iíníŋ
yesterday 3.P.rain COMP 1.P.bring out the fact

40a. Bíl Jáán Mary yiyiiłtsánígíí bi'diit'ą
Bill John Mary 3.3.P.saw COMP 3.bother
It bothers Bill that John saw Mary.

b. *Bíl Jáán Mary yiyiiłtsą́go bi'diit'ą
Bill John Mary 3.3.P.saw COMP 1.bother

41a. adáadą́g Jáán Mary yích'į́' haadzi'ígíí t'ą́ ákónéehee
yesterday John Mary 3.to 3.3.P.talkCOMP just 3.be thus
It's good that John talked to Mary yesterday.
From the above examples, we can hypothesize as a first approximation that the sentences with /-í/ presuppose the truth of the complement of /-í/. In contrast, the /-go/ complements require no such presupposition. In (37b), for example, Mary is not afraid of the fact of her driving. One cannot fear a fact, only the driving. Nor as we see in (38b) can one imagine facts. On the other hand, one can point out a fact, consider a fact to be good, or be bothered by a fact, as in (39)-(41). The following provides further evidence that the complements of /-í/ but not /-go/ must be presupposed:

42. shileéchqą́ʼ nahał'ingo shil át'íį́ńí' chidi yilwol lá
   1.dog  3.barkCOMP 1.with 1.imagine pst  car  3.go by it happened
   1想象ed that my dog was barking, but it turned out that a car was
   going by.

43. shilíí' aítso dínooneę́'go baa niséyeel, doo t'áá aanií
   1.horses all  3.die.COMP 3.about 3.1.P.dream and just true
   3ákwóó̰ t'iiit adéédaqą́ʼ
   thus.3.P.happen yesterday
   I dreamt that all my horses would die, and yesterday that truly happened.

44.*nahóó'tánígií ch'ínìí'á,
   3.P.rain COMP 1.P.bring out the fact but tell REL lie 3.be
   3íko ndí hane'ígíí yooch'íid át'é
   I brought out the fact that it had rained, but what was said is a lie.

45.*nahóó'tánígií ch'ínìí'á,
   3.P.rain COMP 1.P.bring out the fact and tell REL just true
   dójí hane'ígíí t'áá aanií
   I brought out the fact that it had rained, and what was said is true.
It is appropriate to deny what is imagined. It is also fine to assert that what was dreamt is in fact true. However, it is contradictory to deny what has already been presupposed to be true. And it is inappropriate to assert that what is presupposed is true because it is redundant to assert what is already assumed. Further explication thus confirms the hypothesis that sentences with /-í/ involve presuppositions about the complement.

3.3.2. The Semantics of /-í/

It is too strong to claim that sentences with /-í/ always presuppose the truth of their complement. Consider the following:

46. Jáan diné nilínígíí yooch'ííd át'é
   John Navajo 3.be.COMP lie 3.be
   That John is a Navajo is a lie.

The translation of sentence (46) suggests that in fact there is no presupposition involved at all. However, it is the English translation that is at fault. As we know, surface that has numerous meanings. Thus, one could substitute "the fact that", "the story that", "the idea that", etc. A more accurate translation of (46) would be, "the idea that John is a Navajo is a lie", or, better still, "this business about John's being a Navajo is a lie". So far as I know, there are no Navajo nouns for "fact", "idea", "business" to clarify the meaning. Notice, however, that the semantics of "is a lie" requires referring back to a proposition. Consider the following English sentences:
47. *John's being a Navajo is a lie.

48. The claim that John is a Navajo is a lie.

In other words, the speaker is not assuming the truth of the proposition, but is assuming that there is a proposition under discussion. What is being assumed is a contextual reference. My Navajo consultant has said, for example, that (46) could be taken as an elided form of (49).

49. Jáan diné nilé ha'níñíííí yooch'ííd át'é
John Navajo 3.be story.3.sayCOMP lie 3.be
The story about John's being a Navajo is a lie.

Sentence (49) has no direct English translation. It signifies that the content of what was said (John is a Navajo) is a lie. What we take as given is that something was said. /-í/ in (46) specifies that the proposition that John is a Navajo has previously been a part of the discourse.

On the basis of this added data, we must modify our hypothesis about complements of /-í/ to say that they presuppose the existence of either a fact or a previously discussed proposition. Notice that this characterization of the possible presupposition involves two logically distinct notions, factivity and discourse reference. There is no a priori reason why a language should combine the two. In fact, the two factors are normally considered separately. There is thus no generally accepted term for the union of the two. However, others have also argued that the concepts need to be combined. Pope (1972), for example, argues that definite NP's and factive S's (as well as generic NP's) share the property
she designates as definiteness and represents as a TH marker generated in specifiers, i.e., determiners of NP's and complementizers of S's. The crucial semantic property shared by TH categories is that of being appropriate only when anaphoric (p. 7). The definition of anaphoric used by Pope is the broader than usual one first introduced by Kuno (1972): any NP whose entry in the discourse registry is uniquely determined is anaphoric. Unlike the more common definition, Kuno's concept of anaphora includes elements not previously mentioned in the discourse so long as they are known or familiar to both speaker and hearer. Within Pope's framework, the crucial factor about elements within the complement of /-í/ is not that they are presupposed true, but that they are presupposed identifiable.

Although further refinement of the relationship between presupposition and /-í/ is necessary, the problems become clearer when the referential hypothesis is examined through the functional notion of semantic subordination. In turning to this new perspective, I propose the following working version of the Referential Hypothesis:

Complements of /-í/ always presuppose the existence of either a fact or a previously discussed proposition. In other words, whatever is in the scope of /-í/ must be anaphoric.

The term scope of /-í/ is defined as follows:

If /-í/ commands X asymmetrically, then X is in the scope of /-í/.
As I will explain in section 3.5.5, the spatial enclitics which attach to /-í/ (as discussed in Chapter 1) must not be included in the scope of /-í/. There are two ways to describe this fact. One is to say that X is in the scope of /-í/ only if /-í/ commands X and X is to the left of /-í/. To avoid using linear order in addition to the concept of command, I have given the definition in terms of the second alternative. This alternative relies on the condition that X may not command /-í/. Notice, however, that under the assumption that the /-í/ and the spatial enclitic form one constituent, it is possible to use this condition only if /-í/ (i.e., the COMP) is Chomsky-adjoined to the S node. That is, given a tree like (A), everything in S₁ will command /-í/.

(A)

Yet it is precisely the material in S₁ which is referential and therefore must be included in the scope of /-í/. The tree in (B) solves this problem.
Since the COMP node is Chomsky-adjointed to $S_2$, COMP commands $S_2$, but nothing in $S_2$ commands the COMP. Thus, as stated, the definition of the scope of /-i/ implies that the structure in (B) exists for Navajo.

In contrast to the Referential Hypothesis required by /-i/, the /-go/ complementizer requires no presuppositions. Notice that a contrast between /-i/ and /-go/ has brought forth requirements for /-i/ clauses. So far, however, the uses of /-go/ have not been defined any better. Although the ungrammatical sentences with /-go/ in this section suggest that /-go/ precludes any presuppositions, we have already seen examples which show that this statement is too strong. In (12a), for instance, /-go/ occurs with /-1 bééhózin/ (know). I return to this issue in 3.3.5. For the present, however, notice that /-go/ is still only a semantically empty syntactic subordinator.
3.3.3. /-лив/ and Semantic Subordination

Another way to understand the semantics of /-лив/ is to view this complementizer as specifying that everything within its scope will be a semantically subordinate part of an entire sentence. I am using the term "semantically subordinate" as employed in Erteschik (1972). In that work, Erteschik contrasts this notion with "semantically dominant". An S is semantically dominant "if it is not presupposed and does not have contextual reference" (p. 22). An embedded S is semantically subordinate if it is presupposed or has contextual reference. (By definition, no simple sentence can be subordinate.) Intuitively, it is the dominant and not the subordinate part of the sentence which it is natural to comment on. An S is semantically subordinate because its content is already known and is therefore less important in terms of the message being communicated.

Notice that the two criteria for semantic subordination—contextual reference and presupposition—are precisely the characteristics required of everything within the scope of /-лив/. Erteschik has argued that these two characteristics should be subsumed under one concept because they affect the possible syntactic forms for a given underlying structure. Her dominance condition on extraction states that "extraction can occur only out of clauses or phrases which can be considered dominant in some context" (p. 27). I will argue that the dominance/subordination contrast characterizes the difference in meaning between /-гов/ and /-лив/ clauses in Navajo and also affects syntactic processes in that language, among them question formation.
While, according to Erteschik's theory, syntactically subordinate clauses need not be semantically subordinate, \(-\text{i}/\) clauses will always be semantically subordinate because of the semantics of the complementizer. In contrast, \(-\text{go}/\) clauses may be semantically dominant. This is because that complementizer is semantically empty and therefore requires no presuppositions or contextual reference. It may therefore be possible to emphasize either the \(-\text{go}/\) clause or the matrix clause. Erteschik has devised some tests to determine when an S is semantically dominant. They are based on "the principle that it is only the dominant part of the sentence which it is natural to comment on" (p. 16). One test says that if an S can be denied, that S must be semantically dominant. Erteschik implies, and I assume, that if a given test is appropriate to a sentence type and a particular clause fails that test, then that clause cannot be semantically dominant. The following examples therefore demonstrate that my claims about \(-\text{go}/\) and \(-\text{i}/\) and dominance are correct:

50. Bil Ján dine' nilínígíí yinishdlá níigo doo ákót'ěeda
   Bill John Navajo 3.be.COMP 1.believe 3.sayCOMP neg thus.be.neg
   It's not right that Bill said he believes that John is a Navajo.

(a) Bil éí doo áhwídidooniilda
   Bill that neg thus.say.neg
   Bill wouldn't say that.

(b) #Ján yee' doo diné nilíida
    John emph neg Navajo 3.be.neg
    John isn't a Navajo.
51. Bíl Jáan dine' nilįgo yinishdlą níigo doo ákót'eëda
Bill John Navajo 3.beCOMP 1.believe 3.say.COMP neg thus.be.neg
It is not right that Bill said he believes that John is a Navajo.

(a) Bíl eí doo áhwídidooniilida
Bill that neg thus.3.say.neg
Bill wouldn't say that.

(b) Jáan yee' doo dine' nilįida
John emph neg Navajo 3.be.neg
John isn't a Navajo.

The fact that the /-í/ clause in example (50) cannot be denied is proof
that it cannot be semantically dominant. It cannot be semantically domi-
nant because the /-í/ identifies it as previously-mentioned information.
In (51), however, the idea that John is a Navajo could be new information
(i.e., neither previously discussed in the conversation nor presupposed to
be true), and therefore semantically dominant. As such, it can be negated.

Since (51) has two possible negations, it is said to be ambiguous
with respect to dominance. In other words, /-go/ is neutral with respect
to dominance: it is the context and not the /-go/ which determines the
dominance. This point is even more obvious when a sentence is put into
two different contexts. Consider the following:

52. Bíl: Mary ch'ee'ñ hanishtá. háágóolá íyá
Mary in vain 1.seek where.toQ 3.P.go
I can't find Mary. Where did she go?

Jáan: kintahg'óó íyáago yinii'
town.to 3.P.goCOMP 1.P.hear
I heard she's going to town.
53. Bíl: ji'i'dágá' Mary kintahgóó í'iyá, nilísh beéhózin
day.time pst Mary town to 3.P.go 2.with.Q 3.be known
Mary went to town today. Did you know?

Jáan: auu' Mary kintahgóó í'iyáago sidéts'ágá'. ha'át'íílá
yes Mary town to 3.P.go.COMP 1.P.hear what Q
Yes, I heard Mary went to town today. Why (do you ask)?

The /-go/ clause in John's response in (52) answers the question
and is therefore the semantically dominant clause. In (53), however, the
/-go/ clause is repeating old information and is therefore relatively un-
important. In fact, a more natural answer would be simply, "Yes, I've
heard". 11

In summary, the notion of semantic subordination seems to describe
the /-í/ complementizer: /-í/ marks everything it dominates as semantical-
ly subordinate. /-go/, on the other hand, is semantically empty. It
therefore permits context to determine dominance.

3.3.4. An Explanation of Earlier Translations

In light of the referential and dominance differences between /-go/
and /-í/ clauses, let us now reconsider the earlier examples in which the
two types of clauses seemed to be identical.

13a. Mary kínááńígóó í'iyáago yishniih
Mary Flagstaff.to 3.P.goCOMP 1.hear
I hear that Mary has gone to Flagstaff.
13b. Mary kiłáñí́goó ́ ́iíyaáɡíí́ yishniíh
Mary Flagstaff.to 3.P.goCOMP 1.hear
I hear that Mary has gone to Flagstaff.

Since /-go/ clauses may be either semantically subordinate or dominant, there are two ways in which these two sentences could be considered different. First is the case where the embedded clause must be semantically dominant. Thus (13a) but not (13b) could answer the following direct question:

54. haá́gadoíá Mary ́iíyáágo ninííh₁²
   where.to.Q Mary 3.P.goCOMP 3.hear
   Where do you hear that Mary went?

(54) is not asking whether you heard about something. It is asking for information about where Mary has gone. (54) could not be answered

55. ́aauu ́yínií
   Yes, I've heard.

but could be answered

56. kiłáñí́goó ́iíyaá
   She went to Flagstaff.

Therefore, as an answer to (54), the embedded and not the matrix clause in (13) must be semantically dominant. Since such an interpretation contradicts the semantics of /-í/, (13b) cannot be an answer to (54). Since /-go/ is a semantically empty syntactic subordinator, either S may be
semantically dominant in (13a) and therefore (13a) is an appropriate re-
response to (54).

The second way of contrasting (13a) and (13b) is to consider a
question they could both answer. (57) is such a question.

57. ha'át'íílá niniih
what Q 2.hear
What did you hear?

Although both (13a) and (13b) talk about hearing that Mary went to Flag-
staff, the two convey different information. In (13a), the speaker need
not know whether or not Mary has gone to Flagstaff. He is neutrally re-
porting what had been said by others. In (13b), the speaker is reporting
what he considers to be the truth, what he had heard from reliable sources.
We therefore find the following contrast:

58a. Mary kínànígóó ííyáago yishnih, áko ndi Mary hooghandi sidá nisin
Mary Flagstaff.to 3.P.goCOMP 1.hear but Mary home at 3.sit 1.think
I hear that Mary has gone to Flagstaff, but believe she's at home.

b.*Mary kínànígóó ííyáhgíí yishnih, áko ndi Mary hooghandi sidá nisin
I heard about the fact that Mary has gone to Flagstaff, but I think
she's at home.

Example (13) is therefore consistent with the semantics required by
/-1/. It is not so clear, however, how (13b) relates to the dominance hy-
pothesis. Since as an answer to (57), the embedded clause in (13b) contains
the information requested, it cannot be considered semantically subordinate.
Yet I have claimed that /-í/ clauses are always semantically subordinate.

There are two aspects to this problem. First, it is often thought that complements of factive verbs are necessarily assumed to be true by both the speaker and the hearer. However, Karttunen (1973) has pointed out that factive verbs can be used to convey information. Consider the following:

59. MIT regrets that it cannot accommodate children at graduation.

(59) would be found in a letter to graduates in order to inform them not to bring children to graduation. It does not assume that the graduates already knew that information. The use of a factive verb indicates that the speaker, or writer, assumes the truth of the embedded proposition. (59) is thus an indirect way of conveying a fact. Since the subordinate S is conveying the new and most important information in the sentence, (59) is thus a case where the complement of a factive verb is semantically dominant. We must therefore refine the notion of semantic subordination to include only those cases where the speaker assumes that the presupposition is assumed by the hearer as well.

3.3.5. Refining the Referential Hypothesis

Although not all clauses with /-í/ can be subsumed under the definition of semantic subordination, those that are not semantically subordinate behave differently from semantically dominant clauses. Notice that it is the entire subordinate clause of (13a) which is the answer to (57). There
is a difference between concentrating on the whole /-í/ clause and a part of it. I will return to this point below. For the present, note that when a constituent within the clause is the answer to a question, as in (58), it is impossible to use /-í/. These facts can be described mechanically by recalling that /-í/ clauses are sentential NP's. As an NP, i.e., as a constituent of the main clause, an /-í/ clause is part of the dominant main clause. But as an NP, the clause must also be taken as a single element, an element the speaker indicates as having a unique reference, a fact.

Because English factive complements like that in (59) must be considered semantically dominant, e.g., because of extraction facts, there is no way of defining semantic subordination to include all /-í/ clauses. However, unlike the English equivalents, Navajo /-í/ clauses never act syntactically like semantically dominant clauses, except in the case where the clause is considered as a whole. With respect to extraction facts, for example, /-í/ clauses may not be considered semantically dominant. For this reason, I will continue to use the semantic dominance/subordination contrast to help describe the Navajo facts. Also for this reason, the other concepts developed for English are not exactly appropriate for Navajo. The concept of anaphoricity developed by Pope coheres with the notion of semantic subordination since it also assumes that the reference is known by the hearer as well as the speaker. /-í/ on the other hand is more like the complement of factive verbs in that its complement must be presupposed anaphoric only by the speaker. I must thus modify my definition of the semantics associated with /-í/.
The Referential Hypothesis

/-í/ denotes reference. The reference is either to a fact or to a discourse. Therefore, whatever is in the scope of /-í/ is assumed referential for the speaker. The assumption of reference is generally shared by the hearer, but need not be.

It should now be clear how an /-í/ clause can seem semantically dominant when taken as a whole, i.e., as an NP. It is only when the information is known to both the speaker and the hearer, either through presupposition or previous discourse, that a clause must be semantically subordinate. However, /-í/ must denote reference only with respect to the speaker. When the reference is not shared with the hearer, an /-í/ clause need not be semantically subordinate according to Erteschik's definition. However, with respect to syntactic rules, anything that is referential in Navajo will behave as if semantically subordinate.

Let us now return to the other examples in which /-go/ and /-í/ seemed to be identical.

12a. ch'ê'tiingôó naanéego shìl bééhózin
entrance to 3.play.COMP 1.with 3.be known
I know that he's playing outside.

b. ch'ê'tiingôó naanéhéí shìl bééhózin
entrance to 3.playCOMP 1.with 3.be known
I know that he's playing outside.

So far as I can tell, there is no difference in meaning between these two when the matrix clause is semantically subordinate. However, in considering
the meaning of the verb know, the reason for the identity in this particular case should become clear. To know something is by definition to be aware of a fact. Since in (12) /- bee'h'zin/ is unqualified, there is no difference between knowing and knowing a fact. /-i/ therefore provides no new information, so the use of the two complementizers overlaps.

One logical possibility is that the use of /-go/ in (12a) is a method of qualifying /- bee'h'zin/, so that (12a) would be better translated as "I think I know...". So far as I am aware, this is not the case. In all the other cases where /-go/ has been used to cast doubt, the doubt has not been about the accuracy of the matrix verb, but about commitment to the embedded proposition. In (58), for example, the speaker is not saying he's not sure what he heard, but that he's not sure he believes that what he heard is in fact true. To put doubt on the complement of /- bee'h'zin/ requires doubting the assertion involved in the matrix verb as well. Apparently the use of /-go/ is insufficient to indicate such doubt. However, when /- bee'h'zin/ is itself qualified, the difference between /-go/ and /-i/ embedded under it becomes clear. Consider the following questions and negations:

60a. ch'e'étiing'o naanéego doo shi{l} bee'hózinda
entrance to 3.playCOMP neg 1.with 3.be known.neg
I don't know whether he's playing in the yard.

b. *ch'e'étiing'o naanéhigíí doo shi{l} bee'hózinda
entrance to 3.playCOMP neg 1.with 3.be known.neg
I don't know the fact that he is playing in the yard.
61. ch'él'tiingóó naanéhígíí doo Mary bi l béhéñizinda
entrance to 3.playCOMP neg Mary 3.with 3.be known.neg
Mary doesn't know (about the fact) that he is playing in the yard.

62a. ch'él'tiingóó naanéegoísh nil l béhéñizin
entrance to 3.playCOMP.Q 2.with 3.be known
Do you know if he's playing in the yard?

b. ch'él'tiingóó naanéhígíísh nil l béhéñizin
entrance to 3.playCOMP.Q 2.with 3.be known
Do you know about (the fact) that he's playing in the yard?

The (b) sentences are perfectly consistent with my claim. (60b) is ungrammatical because it is a contradiction to simultaneously assert and deny a proposition. One cannot be in the state of knowing and not knowing simultaneously. It is however possible to explain that someone else does not know the fact. As expected, (61) is grammatical although (60b) is not. (62b) is questioning whether you are aware of a particular fact.

The (a) sentences are also perfectly consistent. They involve no presuppositions. They are neutral questions.

3.3.6. /-go/ Is Semantically Empty

Sentences (60a) and (62a) are the first cases given in which sentential complements have been translated by if instead of that. The use of if with /-go/ is reminiscent of the adverbial /-go/ clauses discussed in section 3.1.1. In fact, it is possible to get a temporal reading from an NP /-go/ complement as well as from the adverbial /-go/.
Sentence (63) may be the most obvious evidence of the identity. From everything said so far about /-go/ clauses, it should be clear that it is the same /-go/ which appears in subordinate adverbials and embedded sentential NP's. We must therefore give up the notion suggested in section 3.1 that /-go/ contains the notion "adverbial". /-go/, in contrast to /-í/, does not have a consistent meaning. I therefore propose that, unlike /-í/, /-go/ has no semantic content. It is a subordinator creating a logical connection between a dependent proposition and the rest of the sentence. To say that two S's are logically connected is to require some possible-world relationship between them, specifying only that one S is dependent on the other. In the adverbial cases, there is nothing about the /-go/ clause which requires it to be an adverb; it is its relationship to the independent clause which causes that interpretation, i.e., the fact that there are other subjects and complements. I suggest that the tendency to expect /-go/ clauses to be adverbs is based on the experience that they are normally used that way, and not on the semantics or syntax of /-go/.

Since /-go/ is a semantically empty logical connective, it involves no presupposition of reality. Thus, as in English "if...then" sentences, a condition may never be fulfilled. The /-go/ by itself provides no clues about the speaker's belief that the conditions will be fulfilled. In English one may use when instead of if to imply that one expects the conditions to be met. Contrast the following English sentences:
64. If you rope the horse, my father will buy it.

65. When you rope the horse, my father will buy it.

66. If you rope the horse, and I don't think you will, my father will buy it.

67. *When you rope the horse, and I don't think you will, my father will buy it.

Both (64) and (65) require you to rope the horse in order for my father to be committed to buying it. The major difference is in the speaker's expectations, as can be seen from (66) and (67). Since /-go/ itself is neutral on expectations, it can be interpreted either way. The equivalent Navajo sentences are vague on expectations. Therefore, the Navajo examples which I previously labelled as ambiguous are in fact simply vague.

One way to specify expectations in Navajo is to add the clitic /-sh'ii/ to the /-go/ clause. While the precise uses and meaning of /-sh'ii/ must still be investigated, the following contrast is clear:

68.  sh'ii doo yiniishqodgo  shi deeshqoll
     horse neg 3.2.P.tame.COMPneg I  1.F.tame
     If you do not break in the horse, I will.

69.  sh'ii doo yiniishqodgo sh'ii shi deeshqoll
     horse neg 3.2.P.tame.COMPneg.possible I  1.F.tame
     If you cannot break in the horse, I will.

(68) says nothing about whether the speaker believes that the condition (your not breaking in the horse) will be met. It is also neutral about
how this condition might not be met. You may not even try to tame the horse. Sentence (69), on the other hand, would be uttered only when the speaker expects you to attempt to break in the horse. The speaker is doubting your ability to do it. He is really saying, "if you should fail, I'll do it", or "when you fail to break in the horse, I'll take over".

Notice that the translations of (68) and (69) demonstrate that English if can be used neutrally, much like /-go/. Notice also that it is the auxiliary verb (do vs. can) which provides the shift in meaning.

As we saw in section 3.1, Navajo also uses its verb to provide information not carried by the complementizer. The temporal and aspectual relationship between the two clauses is crucial in distinguishing among because, before, when, if, etc.

In summary, /-go/ can be viewed as a way of pointing out that one proposition depends on another without spelling out the dependency. A sentence may be left vague, or other factors can be used to fill in the information. These factors include clitics, verb morphology, and the nature of the independent verb, as we saw with /-l bééhózin/, (know).

3.4. Syntactic Evidence For the Referential Hypothesis

Let us now turn to some uses of two Navajo particles, /-rish/, a question clitic, and /hanii/, a negation particle. It will be seen that the behavior of these particles is different when used with different complementizers. The referential hypothesis explains this difference in behavior.
3.4.1. Clitics Determine Focus and Presupposition

In Chapter 2, I discussed the fact that Navajo places particles in what has been called clitic or second position. It is not clear to me exactly how second position should be defined because there are many places in a complex sentence into which the particles may be placed. In investigating the problem of defining second position, I discovered that the yes/no question clitic need not go into second position at all. Kenneth Hale and Ellavina Perkins, investigating the uses of one negation particle /hanii/, discovered that Navajo has the option of placing /hanii/ on any constituent in the sentence in order to focus on that constituent. The result is that the rest of the S becomes presupposed. It seems that for /-ish/, second position is a neutral position, stylistically natural and requiring no presuppositions. However, /-ish/ may also behave like /hanii/. Consider the following:

70. Jánísh ́į́ biztal 
John.Q horse 3.3.P.kick
(i) Did the horse kick John?
(ii) Is it John that the horse kicked?

71. Ján ́į́į́į́sh biztał 
John horse.Q 3.3.P.kick
Is it the horse that kicked John?

72. Ján ́į́ biztałį́sh ĭ́
John horse 3.3.P.kick.Q
Is it kicking that the horse did to John?
The result of clitic placement in simple sentences in Navajo appears to be analogous to clefting in English. Except when in neutral second position, the focus is on the constituent immediately to the left of the clitic and the rest of the sentence is presupposed. Thus, translation (i) of sentence (70) is perfectly neutral. It requires only a "yes" or "no" as an answer. If, in contrast, (71) were to be answered, "no", it would be considered an incomplete answer. The other person would respond, "well, what did then?". Since (71) presupposes that something kicked John, a denial implies that the speaker knows what did. A simple "no" is thus withholding information. Instead, one would expect an answer like (75).

75. nda, Jáán dzaanééz ga' biztał
   no John mule emph 3.3.P.kick
   No, it's the mule that kicked John.

or simply,

76. nda, dzaanééz ga'
    No, it's the mule.

Since John's being kicked is already presupposed, it is unnecessary to repeat that information.
In a similar fashion, a speaker uses /hanii/ instead of the neutral negative /doo...da/ when a proposition has already been asserted and the speaker wants to deny part of the proposition. Sentences (78) or (79) would be natural responses to (77).

77. ashkii lii' nabii'go'
    boy horse 3.3.P.throw
    The horse threw the boy.

78. ashkii lii' hanii nabii'go', dzaaneéz ga'
    boy horse neg 3.3.P.throw mule emph
    It's not the horse that threw the boy, it's the mule.

79. ashkii hanii lii' nabii'go', at'eé'd ga'
    boy neg horse 3.3.P.throw girl emph
    It's not the boy the horse threw, it's the girl.

Notice once again that it is unnecessary to repeat the entire sentence when the denial is being explained. What is not repeated is precisely what is still being presupposed. The following non-sentence confirms that what is left unsaid is precisely what is being presupposed:

80. *ashiiké dibé hanii yinoolkal, at'eéké ga'
    boys sheep neg 3.3.herd girls emph
    It's not the sheep the boys are herding, it's the girls.

81. ashiiké dibé hanii yinoolkal, tl'ízi ga'
    boys sheep neg 3.3.herd goats emph
    It's not the sheep the boys are herding, it's the goats.

The first part of (80) denies that it is sheep the boys are herding. In addition, however, it presupposes that the boys are herding something. The
assumption, therefore, is that the second part of the sentence need not repeat /ashiiké/ or /yinooðkal/ because they are presupposed. The verb /-kal/ can only take certain animals as its object. Thus, one herds sheep and goats but not girls. /at'ëéké/ could be a subject of /yinooðkal/. The fact that /at'ëéké/ is an incorrect continuation while /tl'ízí/ in (81) is fine, shows that it is the object and not the subject which must be substituted for. In other words, it is the denied NP which is being explained and the presupposed NP which is being deleted.

In summary, we have seen that in simple sentences the /-ish/ and /hanii/ can be placed after any constituent in order to focus on that constituent and presuppose the rest of the sentence. Now let us turn to complex sentences.

3.4.2. Complex Sentences With /-go/

When the embedded S has a /-go/ complementizer, /-ish/ and /hanii/ can be placed after any constituent in the embedded clause in order to focus on that constituent, just as they could in simple sentences. Thus, we find the following possibilities:

82. Jánísh ḋi' ḋ bizta'go  yinídlá
John.Q horse 3.3.P.kickCOMP 2.believe
(i) Do you believe that the horse kicked John?
(ii) Do you believe that the horse kicked John?

83. Ján ḋi'ish bizta'go  yinídlá
John horse Q 3.3.P.kickCOMP 2.believe
Do you believe that the horse kicked John?
84. Jáan lī′ biztalgoīsh  yinīdl417  
John horse 3.3.P.kickCOMP.O 2.believe  
Do you believe that the horse kicked John?  
?Do you believe that the horse kicked John?

85. Jáan hanii lī′ biztalgo  yinishdl4  
John neg horse 3.3.P.kickCOMP.1.believe  
I don't believe that the horse kicked John.

86. Jáan lī′ hanii biztalgo  yinishdl4  
John horse neg 3.3.P.kickCOMP.1.believe  
I don't believe that the horse that kicked John.

87. Jáan lī′ biztalgo  hanii yinishdl4  
John horse 3.3.P.kickCOMP neg 1.believe  
?I don't believe that the horse kicked John.

The effect of /hanii/ is more complicated in embedded clauses than it is in simple sentences. The element to the left of /hanii/ is still the focus. However, the focus is no longer what is being denied. Since I am concerned here with focus and presupposition rather than the scope of the denial, suffice it to say that regardless of where /hanii/ is placed in the embedded clause, the scope of the denial is the entire embedded clause. More precisely, the semantic effect of /hanii/ "is clearly to deny the reason, i.e., the rational connection between the subordination and the main clause" (p. 19). What is germane to the present discussion is the fact that /hanii/ has the same effect on embedded /-go/ clauses as it does on simple sentences in that it can focus on any element and in doing so
create a presupposition. The following example from Perkins (1973) demonstrates the presupposition through an appropriate continuation:

(her (15))

88. Mary hanii níyáago baa shíł hózhó', Jáan ga'
    Mary neg 3.P.comeCOMP 3.about 1.with 3.happy John emph
    It's not that Mary came that I'm happy about, but (that) John (did).

/Jáan/ is being contrasted to the focus /Mary/. Since the rest of the sentence is presupposed, it is not repeated.

In sum, in terms of focus and presupposition, /hanii/ has the same effect in embedded /-go/ clauses as it does in simple sentences.

3.4.3. Complex Sentences With /-í/

It is within an embedded S with an /-í/ complementizer that the deviance occurs. Consider the following:

89. Jáanísh lè'ë biztalígíí yinídłá
    John.Q horse 3.3.P.kickCOMP 2.believe
    Do you believe that the horse kicked John?
    *Do you believe that the horse kicked John?

90. *Jáan lè'ë'sh biztalígíí yinídłá
    John horse.Q 3.3.P.kickCOMP 2.believe
    Do you believe the fact that the horse kicked John?

91. Jáan lè'ë' biztalígíísh yinídłá
    John horse 3.3.P.kickCOMP.Q 2.believe
    Do you believe that the horse kicked John?
92. *Jáan hanni biztalígíí yinishdla
    John neg horse 3.3.P.kickCOMP 1.believe
    I don't believe the fact that the horse kicked John.

93. *Jáan biztalígíí yinishdla
    John horse neg 3.3.P.kickCOMP 1.believe
    I don't believe the fact that the horse kicked John.

94. Jáan biztalígíí hanii yinishdla
    John horse 3.3.P.kickCOMP neg 1.believe
    I don't believe (this business about) the horse's kicking John.

Notice that the only good question sentences are those in which /-ísh/ acts as a neutral question marker: /-ísh/ is not focusing on a particular element within the proposition. The only grammatical sentences with /hanii/ are the ones in which there is no focus within the embedded clause. When /hanii/ is placed after the embedded clause (e.g., (94)), the entire proposition is being focused on, as well as denied. In other words, neither particle may divide up an S within an /-í/ complementizer into a presupposed part and a part focused for purposes of questioning or denying. It is only the entire proposition that can be questioned or denied by use of /-ísh/ or /hanii/ if that proposition has an /-í/ complementizer.

These facts contrast with those discussed in sections 3.4.1 and 3.4.2. The ungrammatical sentences here are identical to the good sentences in section 3.4.2 except for the complementizer. We must therefore assume that it is the choice of the complementizer and not the placement of /hanii/ or /-ísh/ which is causing the ungrammaticality.
Recall now the referential hypothesis: everything within the scope of /-i/ must be anaphoric for the speaker, assuming the existence of a fact or a proposition in discourse. In other words, everything within the scope of /-i/ must be considered as a whole. Sentence (89), for example, is a restatement of a claim that has been made (the horse kicked John) and an inquiry as to whether you believe that claim. It is like saying

95. čísh yinídləʔ
   that.Q 2.believe
   Do you believe that?

96. hane'íglísh yinídləʔ
    tell.REL.Q 2.believe
    Do you believe what is said?

One must either accept or deny the whole. He may then, if he wishes, pick apart the proposition, explaining which parts he believes and which he does not.

To put it another way, once an entire proposition is assumed, how is it possible to then deny or question a part? This restatement is more easily explicated when what is being referred to is a fact:

97. ashki il'iił' nabilílo'íglísh nil behéózin
    boy horse 3.3.P.throwCOMP.Q 2.you 3.be known
    Do you know about the horse throwing the boy?

Sentence (97) states that the horse threw the boy and inquires whether you are aware of that fact. If something is stated as the truth, how can part of that truth then be questioned or denied?
Although the above examples suggest that /hanii/ and /-ísh/ can never occur in certain positions when used with /-i/ because these particles require a focus as well as a presupposition, this is only partially true. While not apparent in the above examples, the crucial factor which causes the ungrammaticality is not that there is a focus within the embedded clause, but that this use of a focus excludes the focus from the presupposition. The following example demonstrates that it is possible to have a focus within an /-i/ clause:

98. Jaan líf' ga' biztalíí'í yinishdlá
John horse emph 3.3.P.kickCOMP 1.believe
I believe the fact that it is the horse that kicked John.

Example (98) is more transparent because it involves neither a question nor a negative. Although horse is being emphasized, John's having been kicked by that horse is not being denied or questioned. It is therefore possible to include horse in the presupposition. In contrast, (93) requires a presupposition that something kicked John, but denies that the horse did it. Thus, horse must be excluded from the presupposition.

It is the meaning of the matrix verb in (93) which requires that horse be excluded from the presupposition. That is, I claim that a focus is not necessarily eliminated from the presupposition, but is separated from the presupposition in (93), for example, because it is impossible to believe that the horse kicked John and simultaneously to deny that it was the horse who kicked John. In other words, in this case, denying something about the horse with respect to the matrix verb entails separating horse
from the presupposition that something kicked John. However, when it is possible to deny the identification of an element with respect to the main verb but still include that element in the presupposition, the use of /-i/ forces the interpretation in which the focus is included in the presupposition. Contrast the following with (93):

99. Jáan ęįį' hanii bistałigii  yínii', dzaanéez ga'
    John horse neg  3.3.P.kickCOMP 1.P.hear mule  emph
    I didn't hear about the horse kicking John, (but about) the mule.

(99) is possible because it does not deny that the horse kicked John. It denies only that I had heard about it. In fact, my consultant explained that (99) presupposes that the horse did kick John. She contrasted (99) with (100), explaining that with /-i/ both the horse and the mule kicked John, but when /-i/ is replaced by /-go/, only the mule kicked John.

100. Jáan ęįį' hanii bistałgo  yínii', dzaanéez ga'
    John horse neg  3.3.P.kickCOMP 1.P.hear mule  emph
    I didn't hear about the horse kicking John, (but about) the mule.

Notice that the English translations are the same in both cases. This is because such a distinction cannot be made in an analogous fashion in English. However, English relative clauses do exemplify this point. Consider the following Navajo relative clause and its English translation:

101. ęįį' hanii nabíígo'ęę  ashkii shik'ihodiį'į
    horse neg  3.3.P.throw.REL boy  1.3.P.blame
    It's not the boy whom the horse threw who blamed me.
In (101) the proposition "the boy fell off the horse" is not being negated. On the contrary, it is being presupposed. It is also being presupposed that someone blamed me. What is being denied is that the boy, identified as the one who fell off the horse, did the blaming.

Although there is a focus in the embedded clause, that focus is not excluded from the referential proposition in the /-i/ clause.\(^{20}\) (Recall that /-e\(\acute{\text{e}}\)/ is the past tense variant of the /-i/ complementizer.) It is therefore clear that it is not the presence of a focus within a referential clause which causes the sentence to be ungrammatical, but the division of the clause into two parts.

In summary, it is not only consistent with the semantics of /-i/ that there are restrictions on the placement of particles, but it is necessary for them to be so restricted. A particle cannot separate an element in the embedded clause from the presupposition because the semantics associated with /-i/ requires that the entire clause have the same reference, whether to a fact or to a discourse.

3.5. **Embedded Questions With /-i/ and /-go/**

Having described and contrasted /-go/ and /-i/, I will now turn to Navajo question formation, contrasting the syntactic forms possible with /-go/ to those discussed in Chapter 1 with /-i/, and show how the referential hypothesis and the concept of semantic dominance/subordination account for the facts.
3.5.1. WH Questions In /-go/ Adverbials

Since /-go/ clauses are most commonly adverbs, I will begin the survey of /-go/ questions by examining WH questions from /-go/ adverbials. Consider the following:

102. nizhe' é háágóólá ííyáago nicha
   2.father where.to.Q 3.P.goCOMP 2.cry
   Where did your father go that you are crying?
   Because your father went where, you are crying?

103. háálá áhóót'iídgo ná háchį'
   what.Q 3.3.P.happenCOMP 2.for 3.be angry
   What happened that you are angry?
   Because what happened, you are angry?

104. háágóóshą' díníyáago yínícha
   where.to.Q 2.P.goCOMP 2.P.cry
   Where are you going that you cried?
   Because you are going where, you cried?

Since these sentences have no direct English translation, I have given two approximations. The first one provides the correct meaning in grammatical English, but misrepresents the syntax of the /-go/ clause. The second one gives the proper syntax to the /-go/ clause, but no ordinary English question can be formed.

We know that the /-go/ clause in (102) is adverbial because (102) is analogous to (105), exactly like the adverbials we have already discussed.
105.  kinhánígóó  íiyágo  yishcha
   Flagstaff.to  3.P.comeCOMP  1.cry
   I'm crying because he went to Flagstaff.

(105) in fact is a perfect answer to (102). In addition, we can see that
the /-go/ clause is not being used as either a subject or object by de-
leting it:

106.  yishcha
   I am crying.

As usual, the subject pronoun is deleted. However, there is nothing else
incomplete about (106) as there would be if the /-go/ clause were an ob-
ject rather than an adverbial clause.

These examples are significant for several reasons. For one, these
are the first examples of WH words embedded in indirect discourse sub-
ordinate clauses where both the WH word and the interrogative particle
actually appear. For another, these questions are direct questions rather
than indirect questions. And last, it is important to notice that there
is no direct English translation.

The English translations of (102)-(104) are inadequate semantically
because they don't clarify the full extent of the questions. In (103),
for example, the question is not only "what happened?", but what happened,
and how is its happening connected to your being angry? The closest English
in intent is really, "why are you angry?".

The crucial point is that what is being questioned is not only the
WH word, but its connection to the main clause. This phenomenon is the
same one found by Perkins (1973) in her investigation of /hanii/. As she explains, "in embedded clauses, /hanii/, insofar as its scope is concerned, behaves as if it were actually attached to the whole clause, rather than being a part of the clause" (p. 19). Analogously, insofar as its scope is concerned, the WH word behaves as if it were actually attached to the whole clause, although syntactically it is a part of it. Recall that I defined /-go/ as a logical connective, syntactically subordinating one clause to another and thereby requiring a real world connection between the clauses. That connection, and therefore the /-go/, plays a crucial role in the meaning of the question. That is, the main clause enters into the question insofar as it is connected to the event in the /-go/ clause.

In sum, the fact that it is possible to get a normal WH question in Navajo adverbial clauses is a function of the nature of the /-go/ complementizer. It is furthermore, only because /-go/ is a semantically empty complementizer that the question can have the meaning that it does.

3.5.2. WH Questions With /-go/ As Contrasted To /-í/

Claiming that the WH questions above are possible because of the nature of the /-go/ complementizer entails that such questions should be possible in sentential complements with /-go/ as well as in adverbial clauses. It also implies that such questions should not be possible if /-í/ is substituted for /-go/ (in those environments where both complementizers are normally possible). The following examples substantiate these claims:
107a. Jáan Mary lá háadi deeshnishgo bi ORD beéhózin
   Where does John know Mary to work?

b. *Jáan Mary lá háadi deeshnishígíi bi ORD beéhózin

108a. háílá hóne'é naagháago nil beéhózin
   Who do you know to be walking around inside?

b. *háílá hóne'é naagháhígií nil beéhózin

109a. Mary lá háágóó íiyágo sidínits'áqv
   Where did you hear Mary to be going?

b. *Mary lá háágóó íiyáhígií sidínits'áqv

110a. ha'át'ílá biniinaa Jáan Mary yich'í' haadzíi'go nil beéhózin
   Why do you know John to have talked to Mary?

b. *ha'át'ílá biniinaa Jáan Mary yich'í' haadzíi'ígíí nil beéhózin

111a. hádéé'la Jáan Mary yich'í' haadzíi'go nil beéhózin
   When do you know John to have talked to Mary?

b. *hádéé'la Jáan Mary yich'í' haadzíi'ígíí nil beéhózin

112a. haalá yit'éego Jáan diné bizaad yíhook'áqv go nil beéhózin
   How did John learn Navajo, do you know?

b. *haalá yit'éego Jáan diné bizaad yíhook'éégíí nil beéhózin
The above examples have all the crucial properties of the WH questions from adverbial clauses: they are direct questions; as far as the scope of the WH word is concerned, the WH word is interpreted as if it were a part of the matrix; both the WH word and the interrogative particle are present; and such questions are either impossible or not normal in English. While not apparent in the previous examples, notice also the crucial property that no movement of the WH word or Q particle is required.

Just as /-í/ cannot replace /-go/ in the above WH questions, /-go/ cannot replace /-í/ in the syntactic form required for embedded WH questions with /-í/. I argued in Chapter 1 that embedded WH questions with /-í/ are indirect questions formed through deletion of the WH word and movement of the spatial enclitic, if there is one, to the /-í/. Thus we find the following:

113a. Jáan naanéhíidiísh nil béehózin
    John 3.playCOMPat.Q 2.with 3.be known
    Do you know where John is playing?

Although /-go/ is also a possible complementizer for clauses embedded under /-í béehózin/, it is impossible to substitute /-go/ for /-í/ in the above sentence:

113b. *Jáan naanéegodiísh nil béehózin
3.5.3. **Difference In Meaning**

Why should different complementizers require different syntactic forms for embedded questions? The answer, I believe, is related to a difference in the two types of questions: embedded questions with /-i/ are indirect questions only; those with /-go/ are direct questions. Answers to questions with /-i/ but not with /-go/ require an answer about whether the person knows the information. Contrast the following responses:

114. Q: Ján háágóóla' deeyáago nil bééhózin
    John where.to.Q 3.P.goCOMP 2.with 3.be known
    Where do you know John to be going?

    R: doo deeyahígoóda
    neg 3.P.goCOMPTo.neg
    He's not going anywhere.

115. Q: Ján deeyahígoósh nil bééhózin
    John 3.P.goCOMPto.Q 2.with 3.be known
    Do you know where John is going?

    R: auu' shíl bééhózin. doo deeyahígoóda
    yes 1.with 3.be known neg 3.P.goCOMPTo.neg
    Yes, I know. He's not going anywhere.

(115) is really made up of two questions, the direct yes/no question, "do you know?" and the indirect form of the question "where is John going?". The yes/no question is signified by /-ísh/. Note that there is no /-ísh/ in (114). (114) contains only one question word, /háágóó/, to where.
It is this word which changes form from (114) to (115), from a direct to an indirect question.

The difference between the two syntactic forms should thus be related to the difference between direct and indirect questions. Why should embedded questions be direct with /-go/ but indirect with /-i/?

Once again, I believe that the semantics associated with /-i/ but not /-go/ is responsible for this seemingly strange behavior. Taking first the problem of why direct questions are impossible with /-i/, I claim that it is the semantics associated with that complementizer which precludes well-formed direct questions. Recall that /-i/ clauses are normally semantically subordinate. In a direct question, however, it is the embedded S which is semantically dominant. Since /-go/ clauses, but not /-i/ clauses, can be semantically dominant, it follows that the former but not the latter would contain direct questions.

3.5.4. /-i/ and Deleted WH Words

The dominance relations permitted by the different complementizers explain why we find both direct and indirect embedded questions in Navajo. We still need to ask, however, why we find different syntactic forms, and, more specifically, why the WH word deletes when embedded under /-i/. If the complementizer together with a yes/no question clitic /-ish/ distinguishes between direct and indirect questions, why must the WH word also delete? Deletion of question words is not a particularly common process. It is a difficult thing to do unless the language has another
way of designating what question is being asked. Thus, if we were to delete the WH words in the following English sentences,

116a. Do you know where John went?
   b. Do you know why John went?
   c. Do you know how John went?
   d. Do you know when John went?

(117) would be the result:

117. Do you know John went?

However, the hearer of sentence (117) could only interpret it to mean "do you know that John went?". If (117) were considered to have a deleted WH word, it would be impossible to distinguish among the alternatives in (116).

Navajo has a partial solution to this problem. If a WH word contains a clitic, the clitic does not delete with it, but moves to complementizer position. Thus, the /góó/ in (115) tells us that the deleted question is /hás/ (where). There are, however, many WH words which do not contain clitics, who, what, how, why. In fact, it is only possible to form indirect questions with /-í/ with the first two. Navajo minimizes ambiguity by not forming certain indirect questions.

But why should it be necessary in the first place to delete the WH word and thereby create problems?

Once again, I believe that the semantics associated with /-í/ is responsible for this seemingly strange behavior. Recall that the
referential hypothesis states that everything within the scope of /-i/ must be anaphoric, i.e., referring to either a fact or a discourse context. It is not the case, however, that question words are normally anaphoric from the speaker's point of view. That is, the speaker is not able to identify the reference of the WH word. Notice that claiming a speaker is unable to identify a reference makes no claims about whether the speaker presupposes that there is in fact a reference. The English question (118) is in fact ambiguous (or perhaps vague) about the speaker's assumptions.

118. Do you know where John is going?

It may be used with the knowledge that John is going somewhere. Thus, if Bill and Mary are walking down the street and see John pull out of his driveway, one might turn to the other and utter (118). In this case, the speaker assumes that where does have a reference, but may have no assumptions about the identity of the reference. On the other hand, if Mary is trying to find out what John is going to be doing, she might ask Bill (118) without any assumption that John is in fact going anywhere. In this case, (118) could be paraphrased, "Do you know if John is going anywhere, and if so, where?".

I have no reason to assume that (114) is any different from (118) with respect to the speaker's presupposition about whether there is a unique reference for the WH word. The use of these questions therefore requires a refinement of the term referential. To presuppose that there is a reference is insufficient. It seems that actual knowledge of the
reference is required. It is clear that the speaker does not have knowledge of the reference for where in (118). It is also true that the speaker need not presuppose that his companion has that knowledge in order to ask the question. As in the first situation described above, Bill may assume that where has a reference but have no reason to assume that his companion knows any more than he. It would still be natural to ask Mary (118) in order to find out whether she has any such knowledge. In fact, if Bill presupposes that Mary knows the reference, it is more natural to ask a direct question, either (119) or (120).

119. Where is John going?

120. Where do you know John to be going?

(120) is, of course, more natural in Navajo (cf. (114)).

In sum, I define referential as follows:

An element X is referential if (i) the speaker has actual knowledge of X through the discourse or through real world knowledge or (ii) the speaker presupposes that the hearer has actual knowledge of X.

Now let us return to our consideration of WH words embedded under /-í/. If the WH word were to remain in the embedded S, the semantic interpretation assigned to it by /-í/ would say that the question word does have a reference. Yet we have just said that the question word is to be interpreted without a reference. The sentence would therefore be
ungrammatical by being semantically anomalous. The sentence would not be anomalous if there were no WH word. One possible explanation is that there is a dummy element and not a WH word in the underlying structure. I have argued against this solution in Chapter 1. Since there is a WH word in underlying structure, and its presence presents a potential contradiction, Navajo uses another possibility, deleting the question word. It is because of the potential semantic contradiction that the question word deletes. Notice that when enclitic movement takes place in (115), the spatial enclitic is interpreted as being outside the scope of /-í/. (See the following section for more evidence.) It was thus necessary to define the scope of /-í/ in section 3.3.2 to exclude the spatial enclitic. That is, no part of the question is left in a position requiring a referential interpretation.21

3.5.5. WH Words With Presuppositions

As we have seen, not all questions are neutral questions. We also use questions to elicit more information, as in the situation where John is seen driving out of his driveway. In English it is only the context which elucidates whether or not the speaker is assuming that there is a specific reference. In Navajo different clitics are used with the WH word to convey this information. Thus, in addition to indirect questions with deleted WH words, we find:

121. Jáan ha'at'íshii yiníningiíšní nil bééhózin
John what.1.I don't know 3.3.wantCOMP.Q 1.with 3.be known
Do you know what John wants?
The precise meaning and uses of /-shg/ must still be investigated.\textsuperscript{22} In this particular context, /-shg/ is often translated, "I don't know". Thus (121) could be paraphrased, "John wants I-don't-know-what. Do you know?" /ha'at'ī'ishg/ means something as well as what. Thus, perhaps a better paraphrase is, "John wants something-I-don't-know-what. Do you know?".

From what has been said so far, /ha'at'ī'ishg/ does not seem to be referential. How then can it stay within the scope of /-1/? While I do not have substantial evidence, I claim that /ha'at'ī'ishg/ is in fact referential. The following provides some evidence that /WHshg/ can be used referentially:

If John goes out traveling, I want to know where he is going. In (123) /ha'at'ī'ishg/ is referring to the place John may go to. It is referential because it has been identified by the previous clause. Notice however that since it is not certain in (123) that John will be traveling, /ha'at'ī'ishg/ here does not presuppose that a destination actually exists.
Returning now to (121), I claim that /ha'át'ííshʃfʃʃ/ is referential in the sense that the speaker is indicating that he presupposes that the addressee knows or will know the reference. As discussed earlier, /-ʃʃʃ/ is also used to express a challenge. I suggest that (121) really indicates that John wants something that I cannot identify but I think you can, so will you tell me? Notice that, given this interpretation, sentences like (121) need not be indirect questions at all, but only a yes/no question containing a referential PRO form. The translations are certainly not sufficient proof that they are indirect questions. However, whether or not they are indirect questions is a separate problem from determining whether they are consistent with the referential hypothesis.

Navajo has still another form for what, /ha'át'íída/. Although the facts are not as yet completely clear, it seems that this variant is employed when the speaker not only assumes there exists a reference, but in fact knows what that reference is. Thus, when an indirect question is employed either to discover whether another person shares the speaker's information or to convey that information is being withheld, /ha'át'íída/ may be used. For example:

124. Jáan ha'át'íída nayiisnii'i'giísh nil ñi bë'éhózin? chídí nayiisnii'.
   John what -da 3.3.P.buy.COMP.Q 2.with 3.be known car 3.3.P.buy
   Do you know what thing John bought? He bought a car.

125. Jáan ha'át'íída yiníizinígií Mary bil ñi bë'éhózin, ndi doo él niída
   John what -da 3.3.wants Mary 3.with 3.be known but neg that 3.say.neg
   Mary knows what John wants, but she isn't saying.
There is another, although marginally grammatical, type of indirect question involving a specific reference for the WH word. This type includes cases in which the spatial enclitic movement transformation has failed to move the enclitic out of its own S.

126a. naagá nínéedę́ę́ góó deesháą́
3.come 3.say.pstCOMPfrom.to 1.F.go
I will go to where he said she is from.

b. ?naagháníideé' nínéegoó deesháą́
3.comeCOMPfrom 3.say.pstCOMPto 1.F.go
I'm going to the place where he said she is from.

Sentence (126a) is the predicted output. However, there is a reluctance among some speakers to move a spatial enclitic out of its S when there are two non-identical third persons. Thus, some speakers will accept (126b). However, if good, (126b) means that the place (where) has previously been mentioned. There is, of course, no such constraint on (126a). In other words, if for some reason a spatial enclitic does remain within the scope of /-́/, it will be interpreted by the /-́/ to have a reference, just like anything else within the scope of /-́/.

In summary, there are some types of WH words which appear within the scope of /-́/. These WH words are semantically consistent with the referential hypothesis. And leaving these WH words within the embedded S is also syntactically grammatical. It is the existence of the referential hypothesis within Navajo which prompted an alternate method of indirect question formation.
3.5.6. /-go/ and Indirect Questions

So far I have tried to account for why there are Embedded direct questions with /-go/ but not /-i/ and why the WH word deletes in embedded indirect questions with /-i/. The final possibility to be considered is embedded indirect questions with /-go/.

As already demonstrated, /-go/ is vague with respect to dominance, allowing its clause to be interpreted as either dominant or subordinate. In terms of possible dominance relationships, one would therefore expect indirect as well as direct questions with /-go/. I have already shown that it is impossible to form indirect questions with /-go/ the way they are formed with /-i/ (cf. (113b)). In fact, it is unclear whether it is possible to form the equivalent questions with /-go/ at all. If I ask for a translation from the English, the answer is always a sentence with /-i/23 with one exception. The only indirect question type that is generally accepted is the whether question.

127. ch'e'ëtiingöö naanëegoış nil béëhözín
entrance to 3.playCOMP.Q 2.with 3.be known
Do you know if he is playing in the yard?

128. Jáníšh deeshnishgo nil béëhözín
John.Q 3.P.workCOMP 2.with 3.be known
Do you know if John has started working?

Notice that the above examples do not actually contain a WH word. We know, however, that WH words do not delete within /-go/ clauses. However, there is no reason to postulate an underlying WH word for these cases.
The conditional interpretation is derived from the fact that /-go/ does not require a presupposition. Since /-go/ is vague with respect to presupposition, these sentences should have two possible interpretations, the second being a factive interpretation. In fact, (127) could also be translated "do you know that he is playing outside?". The latter interpretation could also be rendered through the use of /-í/ instead of /-go/. However, because of the semantics associated with /-í/, whether questions are impossible with that complementizer.

Given that deletion of the WH word is impossible with the /-go/ complementizer, there are two other possible ways of forming indirect questions. One is to embed the WH word and Q particle under a yes/no question, as in (129).

129. *Bílísh Mary háádët'ílá yóó' eelwodgo yiyifíini'
    Bill.Q Mary where.from.Q away 3.P.runCOMP 3.3.P.hear

Although not always rejected, I have found no person who consistently accepts (129). I therefore consider (129) ungrammatical.

We know from Chapter 2 that it is possible to have both a yes/no question and a WH question in one sentence if they are in different S's. I believe the problem with (129) is that the embedded question cannot be interpreted as an indirect question. Indirect questions are found in semantically subordinate clauses. However, the WH question particle /lá/ singles out the element it is attached to, thereby requiring that clause to be semantically dominant (recall the discussion in Chapter 2). If the
clause is semantically dominant, the question will be interpreted as a direct rather than an indirect question. This line of reasoning is substantiated by the fact that, when accepted, (129) is not answered /auu'/(yes) or /nda/ (no) as an indirect question would be.

Having two direct questions in one sentence was possible in the direct discourse cases because the questions were from different points of view, i.e., each question was being asked by a different person. Since /-go/ clauses are indirect discourse clauses, the point of view is consistently that of the speaker, just as in English. Thus, (129) is ungrammatical, just as it would be in English. I have given no translation of (129) because there is no English form. A close approximation would be, "*did Bill hear and where that Mary ran away from?".

Recall that the WH question in indirect questions with /-i/ does not contain a question particle: the only question particle is the yes/no particle /-ish/. One might therefore expect that an indirect question with a /-go/ complementizer would be formed with a WH word but no question particle, as in (130).

130. Bílîsh Mary háádë' ñóó' eelwodgo yiyiínii'
   Bill.Q Mary where.from away 3.P.runCOMP 3.3.P.hear

Such sentences are occasionally accepted, but the response rarely includes "yes" or "no". (131) was given as a response to (130).

131. ôlta'dë' ñóó' eelwodígîì yiyiínii'
   school.from away 3.P.runCOMP 3.3.P.hear
   I heard that he ran away from school.
It therefore seems that the yes/no particle is being taken as the WH question particle /-sh/, easy to do since /1sh/ is not a natural cluster, causing a pronunciation almost like that of /lish/. Since the initial question particle /da'/ occurs in yes/no questions, but not WH questions, adding /da'/ to (129)-(130) should clarify whether such double questions are possible. However, the sentences still create confusion. More investigation is thus needed before any real claims can be made.

Pending further investigation, I will assume that indirect questions are impossible with /-go/. It is therefore necessary to explain why such questions are impossible. I will assume that question particles occur with direct questions only, and therefore that (129) is ungrammatical. In other words, I am claiming that if indirect questions were possible with /-go/, they would be formed either by deletion of the WH word (with enclitic raising) as in indirect questions with /-i/, or by leaving the WH word in the embedded clause, but without a particle. It is therefore necessary to account for the fact that these alternatives are impossible.

It is possible to account for the first case either by using some kind of surface filter or by keeping the WH deletion and/or enclitic raising from applying to /-go/ clauses. I opt for using /-i/ to trigger the transformations since I claim that it is the semantics associated with that complementizer which requires the transformation.

The second case is more difficult to account for since WH words do occur embedded under /-go/. They occur in direct questions with the WH question particles. However, so far as I know, WH words do not occur
alone in underlying form. They occur either with an interrogative particle, with /-shitched/, with /-da/, or as a preverbal particle. It may be therefore that indirect questions with /-go/ are impossible because, while WH words require a particle, there is no particle for indirect questions.

There is no compelling explanation for why indirect questions with a WH word embedded under /-go/ are impossible. However, the absence of a clear explanation correlates with our uncertainty as to whether such questions are in face impossible. Since /-go/ is a semantically empty logical connective, there is no semantic reason to rule out these questions. More investigation is required to see what other factors could be involved.

3.5.7. /-go/ and Unbounded Movement

I suggested that the question particle in (130) might be interpreted as the WH question particle. Notice, however, that the particle in (130) is in the matrix, not the embedded S. For (130) to be taken as a direct WH question, it is necessary to allow the question particle to move out of the embedded S, just as it does in the direct discourse cases discussed in Chapter 2. While not everyone who allows movement out of direct discourse S's also allows movement out of /-go/ clauses, those who accepted (130) also accepted the following:

132. Bíl la Mary háddëkk'm yóó' eelwodgo yiyïnii! Bill Q Mary where.from away 3.P.runCOMP 3.3.P.hear Where did Bill hear that Mary ran away from?
133. háadilá Bíl Ján naanéego bił béehózin
Where did Bill hear that John is playing?

134. háágóólá Bíl Mary lìyágo yidiizts'éé'
Where did Bill hear that Mary went?

135. Bíl la háád'éé' Mary yóó' eelwodgo yiyiíníi'
Where did Bill hear that Mary ran away from?

Since /lá/ is clearly a WH question particle, (132) is a clear case of
WH particle movement, leaving the WH word within the embedded /-go/ clause.
(133)-(134) are examples of both the WH word and question particle moving
out of the embedded clause. Note that in (135), the WH word appears to
have moved, but it has not ended up in initial position. In other words,
all the possibilities that occur with direct discourse sentences can also
occur for some speakers with /-go/ clauses. The difference is, of course,
that these are the only possibilities for direct questions from embedded
direct discourse clauses, while the normal method for question formation
from /-go/ clauses is to leave the WH word and question particle within
the embedded clause. While I have no proof, it would not be surprising
to discover that the leftward movement out of /-go/ clauses is a generali-
zation from the movement out of direct discourse clauses. That is, I am
suggesting that unbounded leftward movement exists in Navajo for a reason:
because of the use of direct discourse, it would be impossible for strict
constructionists to ask certain questions without some device to exclude
the WH word from the direct discourse point of view interpretation. I suggest that, whatever the proper formulation of the rule may be, there is a universal question movement rule which is applied in Navajo for just these cases. That rule is not normally used in SOV, COMP-final languages but exists in Navajo, I claim, because of the problem created by the use of direct discourse. However, once a rule is applied in a particular language, there is no reason for it not to be generalized to other cases in that language. What is of interest is that this unbounded movement rule is at times generalized for /-go/ clauses, but never for /-í/ clauses, even though it is the latter which cause problems. This difference should follow from a universal theory of movement. While I cannot provide a complete theory, I will make some claims about such a theory in the Conclusion.
FOOTNOTES TO CHAPTER 3

1. While deletion is impossible, unbounded leftward movement is possible for some people. Also, it is still not clear whether indirect questions exist with /-go/. See section 3.5.6.

2. See Kaufman (forthcoming) for a detailed account of how adverbial clauses are interpreted.

3. See Chapter 1. There is also a form of this complementizer, /-í/ without the /-gif/, which appears in adverbials. Also, /-gif/ does not occur if /-í/ is followed by a spatial enclitic. I will be ignoring such clauses in this chapter.

4. This sentence is grammatical when /-í/ is a relative clause marker. The sentence then means, "the horse you roped my father will buy".

5. Since I argue that not all /-go/ clauses are adverbial, the node ADV does not in fact help to characterize that complementizer. See section 3.3.4.

6. /yi-/ and /bi-/ both occur with the third person subject and object combination. Navajo has a subject object inversion transformation. When the object precedes the subject, /bi-/ instead of /yi-/ appears on the verb. For further discussion, see Hale (1973).

7. The use of the fourth person is much more complicated than my explanation would suggest. The /ho-/ for example, is necessary only
when /la'/ refers to a person. Thus (36) is good with the meaning "I didn't hear one of them".

8. This sentence is good with the relative clause reading, "Mary is afraid of the one who is driving".

9. It is too strong to claim that /-go/ precludes any presuppositions since /-go/ occurs with /-béhézin/. I have no explanation for why it can occur there, but discuss the problem further in section 3.3.4.

10. "Command" is defined as follows: "Node A 'commands' another node B if (1) neither A nor B dominates the other; and (2) the S-node that most immediately dominates A also dominates B" (Langacker (1969a), 167).

Note that as defined, the head of a relative clause is not within the scope of /-i/. Navajo relative clauses can be formed either through deletion of the head NP (preferable) or through backwards deletion of the antecedent. In the former case only the entire relative clause is within the scope of /-i/, yet I know of no differences in meaning. The reason could be that all definite NP's are anaphoric and the head of a relative clause is definite.

It is possible to define the scope of /-i/ to include the head of a relative clause: one could define the scope over an NP instead of an S. I have rejected this approach for several reasons. First, command is a more natural concept because it is found throughout
languages. Second, there is an /-í/ which occurs on some adverbial clauses, which are S's, but not NP's, and I argue that it is the same complementizer. Third and most important, the spatial enclitic that attaches to /-í/ must be considered out of its scope. It would be impossible to include the head of a relative clause and exclude the enclitics.

11. It may in fact be more natural to use /-í/ here because it contains more information. /-go/, however, is certainly not incorrect. I discuss this point further below.

12. I discuss this type of question in section 3.5.1. The English translation is misleading, because the Navajo means, "where did Mary go that you heard?", and not "where do you hear...?".

13. What must be explained is why /-go/ is permitted at all. In other words, what makes /-í bëédzëzin/ different from the true factives which do not allow /-go/ complements? This problem, however, is not peculiar to Navajo. Know in English is identical in behavior. (Ross' "Conjunctive and Disjunctive Questions," talk first given at University of California at Berkeley, Fall, 1971.)

14. While I have been told of such readings by more than one person, there seems to be something strange about them. Many such examples were presented in Vetter (1968), but in checking his data, I found most people I asked disagreed with his translations. Much more work is needed in this particular area.
15. /go'ci/ here is an alternative of /dago/ (neg.COMP).

16. It is not clear whether this sentence in addition has a neutral reading, "did John kick the horse?". Ellavina Perkins is currently working on this problem. Cf. also Perkins (1973).

17. I have probably left out some possible readings. A ? in this case does not mean marginally grammatical so much as do not know whether it is a proper reading. Cf. Perkins (1973) for further information.

18. See Hale (forthcoming A) for a comparison between the scope of /hanii/ and English contradictory intonation. He explains why the scope of /hanii/ must be the entire embedded S. The use of /hanii/ is very similar to the English use of contradictory intonation with negation, for which see Liberman and Sag (1974).

19. It is not clear whether the presence of /hanii/ in the embedded clause forces a presupposition about the matrix clause as well. See Perkins (1973).

20. Notice that these sentences require a new definition of focus and/or presupposition. Chomsky (1969) defines the presupposition so as to exclude the focus from it, i.e., as "an expression derived by replacing the focus by a variable" (26). Since in these cases the focus is part of the presupposition, at least one of the definitions must be changed. (See Chapter 2, footnote 40 for another problem with these concepts.)
21. The other logical possibility is that the WH word itself moves outside the scope of the /-í/. In the Conclusion I discuss some hypotheses concerning the claim that WH words will never move rightward, and try to account for why the WH word does not move leftward out of the scope of /-í/.

22. See the discussion of example (69).

23. This is true if a sentence with /-í/ exists. If not, I am given a direct question with /-go/ as the closest Navajo equivalent. The fact that Navajo has these direct question sentences which cannot be said in English creates added difficulty in sorting out the exact meaning of the questions, and makes it particularly difficult to use translations to determine meaning.

24. It is also not clear whether these sentences can be used temporally as well. (128) has also been translated "Do you know when John will start working?" (see footnote 14).

25. This method is definitely ungrammatical, a fact which must be accounted for even if indirect questions should exist with another formulation.

26. This argument is possible only in a theory in which the question particles are generated with the WH word rather than in a pre-S node.

27. The English translation is misleading because the Navajo is not asking where Bill heard a fact, but where Mary ran away from, according to what Bill heard.
CONCLUSION

I have shown in this dissertation that both unbounded rightward and unbounded leftward movement exist in Navajo. It is therefore necessary for theories of movement like Bresnan's and Chomsky's to be modified to account for their existence. In addition, some new criteria must be found to explain when and in which direction unbounded movement will occur. I believe it is premature to propose any final alternative to Bresnan's Complementizer Attraction Universal which was meant to account for the fact that only unbounded leftward movement had been found in natural languages. Many more verb final languages will have to be investigated before some general principle can be found to describe which languages will evidence unbounded movement. I have claimed for Navajo that the existence of unbounded movement is related to interpretation problems: movement occurs to remove an element from the scope of a governing element (verb or complementizer) which would generate an undesired or semantically anomalous interpretation. Such a requirement is certainly not universal—it does not hold for English, for example. However, it may be that some related requirements will be found for the other SOV, COMP-final languages which have unbounded movement.

On the basis of data now available, it is possible to propose some tentative hypotheses about the direction in which movement will occur. I believe that it is significant that unbounded leftward movement in Navajo is at time acceptable out of /-go/ clauses. Erteschik's condition on extraction states that "extraction can occur only out of clauses or phrases
which can be considered dominant in some context" (27). Since /-go/ but not /-í/ clauses can be dominant, it follows that if there is extraction, it should be from /-go/ but not /-í/ clauses. However, as stated, Erteschik's condition does not differentiate leftward movement from rightward movement. If Erteschik's condition is to be used to account for the fact that unbounded leftward movement does not occur from /-í/ clauses, it must be stated so as to be irrelevant to indirect questions with /-í/ since in that case spatial enclitics may be extracted, but rightward, not leftward. Such an exclusion is most easily accomplished by restricting her principle to leftward extraction. I suggest that such a restriction is not ad hoc, and that the correlation between the concept of semantic dominance and cases of leftward movement is significant. I propose that the following two conditions— one syntactic, the other semantic—are involved in determining whether movement will be rightward or leftward.

(i) The most natural direction for unbounded movement is toward the clause-boundary marker, i.e., COMP position.

(ii) Semantically prominent elements will never move rightward.

Condition (i) is a weaker version of the claims made by Bach, Baker, Bresnan, Chomsky, et al. It says that when semantic factors do not interfere (condition (ii)), the direction of the movement will be determined by word order. Since the COMP in English will always be to the left of an embedded element, movement will always be leftward. In Navajo, however, the COMP will always be to the right of an embedded element.
Condition (i) therefore predicts that if movement occurs in Navajo, it will be rightward. However, as condition (ii) states, there are semantic factors which will keep elements from moving rightward.

Langacker (1974) uses the term "prominence" to describe this intuitive notion, stating that within a P-marker, node A will be more prominent than node B if A commands B asymmetrically, if A precedes B, or if A bears heavier stress than B." Movement rules therefore "have the effect of altering the relative prominence of constituents" (649). Unbounded leftward movement makes node A more prominent because it changes both the primacy relation of "precede" and "command" in a positive fashion. Unbounded rightward movement has little or no effect on prominence because there is a trade-off between "precede" and "command".\(^2\) The concept of prominence is very similar to Erteschik's concept of semantic dominance. Since semantic dominance refers only to the clause out of which an element may move, and not to the element itself, I have introduced the term "prominence" to refer to the element which moves. Combining Erteschik's concept with Langacker's, clauses which are semantically subordinate cannot contain elements which are prominent. Since unbounded leftward movement creates prominence, an element which is not part of a semantically dominant clause cannot be moved leftward. Since unbounded rightward movement does not create prominence, an element which should be prominent cannot be moved rightward.

Considering questions, WH words are more prominent in direct than indirect questions. Or, to put it another way, if a WH word is prominent
within an S (either because of movement or the use of a particle, the Navajo equivalent to English stress), it will be interpreted as a direct rather than an indirect question word.

As has often been noted, in indirect questions in English the WH word moves leftward but not to the matrix S, i.e., not to initial position. In Langacker's terms, WH words in indirect questions are not prominent the way they are in direct questions. As Langacker states, the correct generalization about a questioned NP is that "it is moved to the beginning of the interrogative clause with which it is semantically associated" (Langacker (1969), 81). In more general terms, it marks off the scope of the question. That is, WH words in English move leftward less because of condition (ii) above than because of condition (i). I suggest that what makes COMP position significant is that the COMP is a clause-boundary marker. Moving a WH word to COMP position sets off the scope of the question by marking the beginning of the clause containing the question.

Notice that in English (as in all the classic cases of unbounded movement) both condition (i) and condition (ii) result in leftward movement. Thus, the two conditions were never specifically differentiated.

I hypothesize for Navajo that the two conditions plus the scope factors account for the different syntactic forms found in embedded questions. Thus, in direct discourse sentences, the WH word is always prominent because the WH question is always a direct question (from somebody's point of view). In terms of prominence, movement is not necessary
because the interrogative particle singles out the WH word as prominent (i.e., particles in Navajo are equivalent in this sense to stress in English). However, the semantic interpretation found in direct discourse requires movement to produce certain meanings (e.g., direct questions from the speaker's point of view). The choice of which S a WH question particle will move to is determined by the scope of the verb, since it is the verb which determines the point of view: movement is out of the scope of one verb into that of another. Notice that the element governing the scope determines the extent but not the direction of the movement. Thus, in direct discourse, the verb is the governing element. If movement were toward it, we would find rightward movement, not leftward. It is the prominence factor which causes the leftward movement. Because WH words in direct questions are prominent they cannot move rightward (condition (ii)). Since the WH word must move because of scope factors, it moves leftward.

In questions with /-go/, movement is not necessary because question particles also create prominence. Since /-go/ clauses can be semantically dominant, it is possible for an element to remain within the /-go/ clause and still be prominent. However, since in these cases the entire sentence is within the scope of the question, the WH word may also occur in any S in the sentence. I am not claiming for Navajo that the scope of a question must be delimited by a WH word (as in English), only that a WH word remains within the interrogative segment of the sentence with which it is semantically associated.
Given an underlying form with a WH word embedded in an /-í/ clause, if the non-referential WH word remains, it will be interpreted as referential, creating a conflict. The WH word must therefore be removed from the scope of the /-í/. If the WH word moves unboundedly leftward to initial position, it will be considered prominent, also creating conflicts. The sentence will be interpreted as a direct rather than indirect WH question and the scope of the WH question will be the entire S. Since /-í/ clauses are not semantically dominant, it is impossible for an element within its clause to control the scope of the entire sentence. If the WH word moved leftward to the beginning of its clause, as in English indirect questions, it would still be interpreted as within the scope of the /-í/. That is, Navajo marks the end rather than the beginning of a clause with a complementizer. Since embedded S's are center-embedded, if an element is moved to the front of the lower clause, there is no way of telling whether it is in the embedded S or the matrix S. If NP₁ in (A) is moved to the front of S₁, it could be adjoined either to S₁ as in (B), or to S₂ as in (C)

(A)
producing the same linear string. Since Navajo marks the end rather than the beginning of a clause, when an element is moved rightward it is clear whether or not the element has moved out of the embedded S. For Navajo, condition (i) could be stated either in terms of the verb or the COMP since both are used to mark clauses. (Recall that direct discourse S's have no overt complementizer.) I have chosen to state condition (i) in terms of COMP rather than the governing verb since it is in general COMP position which marks one boundary of an embedded clause. Notice that such a statement does not commit me to postulating underlying COMP's for direct discourse verbs since in those cases movement is always leftward anyway (because of condition (ii)).
Returning to indirect questions, the final factor to consider is, given the rightward movement, why does the WH word delete leaving only the spatial enclitic? One approach would be to say that WH words are by definition prominent and therefore rightward movement is in conflict with the prominence requirement. Another approach is to say that movement beyond the scope of the /-i/ is also movement beyond the scope of the question and a WH word must remain within the interrogative segment of the sentence with which it is semantically associated. These approaches are simply ways of stating that, for whatever reason, unbounded rightward movement of WH words is difficult to process. However discussed, in terms of constraints on possible transformations, constraints on possible derivations, functional sentence perspective, behavioral principles, etc., the fact that certain types of elements tend to occur throughout languages near the beginning rather than the end of a sentence has long been considered significant. So far as I know, no truly formal criteria have been proposed to determine what elements will appear early in a sentence. Solely syntactic criteria are clearly inadequate. On the other hand, concepts such as topic-comment and prominence are really intuitive notions couched in more formal terminology to claim that what comes first sets the stage. Yet, despite their shortcomings, these notions correctly take semantic factors into account. I believe that such considerations are crucial.

In sum, we are as yet unable to predict when a language will use unbounded movement transformations. However, it seems that when conditions
(i) and (ii) are in conflict, the language is less likely to use unbounded rules. There are two major factors which lead to movement, prominence and semantic interpretation due to scope factors. Unbounded rightward movement is less common than unbounded leftward movement because prominence factors require the latter. I suggest that since the most natural movement in SOV, COMP-final languages is rightward (condition (i)), these languages will avoid leftward movement by marking an element as prominent without movement if possible, by using particles for example. However, scope factors sometimes demand movement. In such cases, the direction of the movement is determined by a syntactic criterion, word order. Therefore a universal theory of movement should take into consideration both syntactic and semantic factors. Further refinement of these factors will depend upon examination of movement in a wide variety of languages.
FOOTNOTES TO CONCLUSION

1. Recall the one case where /-í/ clauses were considered dominant (section 3.3.4). I claimed, however, that this case is different from the English cases. In other words, the rider "in some context" is not necessary for Navajo.

2. Langacker says "precede" and "command" neutralize prominence. It seems to me, however, that unbounded rightward movement decreases prominence.

3. I use the notation (NP) to describe the fact that $S_1$ may be either an object or a subject, and when an object, it may or may not be an NP.

4. Recall that in the cases of WH movement in direct discourse sentences, many sentences were ambiguous. I claim that if there were a pre-S COMP, and movement were to COMP position, these sentences would not be ambiguous. The ambiguity therefore argues against generating WH question particles separately in a pre-S node.
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BIOGRAPHICAL NOTE

The author, born in New York, N.Y. on April 23, 1946, lived in Roslyn, N.Y. during her youth and graduated from Friends Academy High School in June, 1964. She attended Brandeis University, graduating magna cum laude in June, 1968 with a major in philosophy and a chronic case of linguistophilia contracted from Jay Keyser and Dave Perlmutter. Under their guidance she began graduate work, taking time off to get married and accompany her husband to the wilds of Belgium and New York before matriculating at M.I.T. in September, 1971. She has taught at the Diné Bi'óito' Association Linguistics Workshop on the Navajo reservation, and hopes for a university career. Her article "Navajo Spatial Enclitics: A Case for Unbounded Rightward Movement," appeared in Linguistic Inquiry (Volume V, Number 4). She is currently rediscovering life with her husband Jay, baby son Ian, and proud canine Waffle after a long hiatus, the product of which you have just read.