5

WORD ORDER PHENOMENON, MOVEMENT AND SCRAMBLING

5.1 Introduction

So far, we have dealt with the unmarked word order in Punjabi. In the unmarked case, a canonical or matrix sentence in Punjabi has the constituent order as Subject-Causative Object-Indirect Object-Direct Object-Verb. Also, we covered the sentences where the Adjuncts could appear either before or after the subject. The Adjuncts which appear before the subject are consumed by the outer Adjunct Rule in IP and those which appear after the subject are taken care of by the inner Adjunct Rule in VP. In the unmarked case, the arguments (external plus internal) appear in the order imposed by the arguments' hierarchy in the Argument Structure of the lexical item under consideration. However, in the marked case, due to focus, intonation, and stylistic considerations, the constituents in a sentence may appear in any order with verb at the end. The arguments, in this case, do not originate in the order specified by the arguments' hierarchy in the Argument Structure. This chapter deals with these cases where the Adjuncts such as emphatic particles, negation particles, adverbials, or Postpositional Phrases may appear in between a head and its internal arguments. The main issue that arises here is whether this change in word order phenomenon in Punjabi be attributed to the concept of movement or to scrambling. The chapter attempts to answer this question. The study argues that this peculiarity in Punjabi be attributed to scrambling, not to the concept of movement in the technical sense. We concentrate on the related issues of Adjacency Requirement on Complements, and present the syntactic structures of sentences falling within the scope. The formulations made in this chapter are primarily based on the concept of movement within GB Theory (such as, for example, Chomsky [1981a, 1986a], Cook [1988], Freidin [1992], Haegeman [1991], Radford [1988], and Riemsdijk and Williams [1986]), and the studies on scrambling on Hindi, German,
Japanese (such as, for example, Corver and Riemsdijk [1994], Gurtu [1985], Mahajan [1990], Saito [1985], Schäufele [1991], Srivastav Dayal [1994], Webelhuth [1987, 1995b]).

Section 5.2 below introduces the concepts of scrambling and that of movement, and compares the two. Section 5.3 discusses the need for movement. Section 5.4 treats sentences not satisfying the Adjacency Requirement. Section 5.5 deals with sentences wherein the order of arguments due to arguments’ hierarchy specified in Argument Structure of the lexical item is not met. Section 5.6 presents the syntactic structure of interrogative sentences. Section 5.7 deals with passive sentences. Section 5.8, finally, concludes the chapter.

5.2 Scrambling vs. Movement

The lexeme ‘scramble’ has been used in discussions of the syntax of a variety of languages with different meanings. ‘Scrambling’ is understood to refer to syntactic processes that result in the ‘reordering’ of NPs without disturbing their integrity. The word has also been used to refer to syntactic processes that result in discontinuous NPs without necessarily ‘moving’ any phrases. Based on the variety of degrees of constituent-order freedom attested in natural languages, the term has been used to refer to word order phenomenon in Free Phrase-Order Languages (FPOLs) - the languages in which the ordering of phrases within a clause is relatively unconstrained, but in which the order of words within phrases and discontinuous phrases are heavily constrained. At times, the term has also been used to refer to word order variation found in Free Word-Order Languages (FWOLs) - the languages in which ordering of words within phrases is relatively unconstrained, with or without constraints on discontinuous phrases. Schäufele warns against such disparate usages of the term (see, Schäufele [1991] and the references sighted therein, and Webelhuth [1995a: 64-9]). Haegeman [1991: 537-51], while analyzing German and Dutch, takes scrambling to mean variation of word order within VP-constituents involving adverbials and the internal arguments of Verb. We, in this study, take scrambling to mean word order phenomenon that allows ‘phrase-order freedom’ but not the ‘word-order freedom’
precisely as in Free Phrase-Order Languages (FPOLs). Scrambling has further been
classified as short-distance scrambling and long-distance scrambling (Mahajan
[1990]), or as presubject scrambling and intermediate scrambling (Srivastav Dayal
[1994]).

The lexeme 'movement' is taken to mean as has been used in standard
literature on GB Theory. It collectively refers to V-movement, I-movement, NP-
movement, and Wh-movement (see, for example, Chomsky [1981a, 1986a], Cook
[1988], Freidin [1992], Radford [1988], Riemsdijk and Williams [1986], among
others). V-movement involves moving V out of VP into an empty finite I position to
acquire the Tense/Agreement properties associated with I. I-movement involves
moving an I containing an Auxiliary into an empty C. NP-movement involves moving
an NP from an A-position into an empty non-θ-marked NP position (A-positions refer
to positions to which θ-roles can be assigned while non-A-positions, also called A-bar
positions, refer to those positions which cannot be assigned θ-roles (Cook [1988: 113-
14], Haegeman [1991: 76]). Wh-movement involves moving a Wh-phrase to the non-
A-position of specifier of CP. The moved element in each of these movements leaves
a trace. The theory of movement lays down restrictions on (a) what elements can be
moved, (b) the positions from where the elements can be moved (the extraction site),
(c) the positions to which the elements can be moved to (the landing site), and (d) how
far the elements can be moved.

Having seen what we mean by scrambling, we need to see which type of
movement the scrambling is attributed to. There are two types movements noted in
the literature named as the A-movement, and the A-bar-movement (also denoted as
A'-movement). A-movement refers to the movement to A-positions (e.g. the one
involved in passives), while A-bar-movement refers to the movement to A-bar
positions (e.g. the one involved in Wh-movement). In a study of scrambling in
Japanese, Saito [1985] argues that scrambling is an instance of A-bar-movement. He
attributes scrambling to 'adjunction operation' (the type of movement where the
internal arguments of V are moved out of VP and are adjoined to VP to the left or to
the right based on the parameter settings of the language under consideration). Gurtu [1985] also analyzes Hindi scrambling as an adjunction operation, thereby conflating it with A-bar-movement. Webelhuth [1989, 1992], however, draws attention to the fact that scrambling in German has, in addition to the properties associated with A-bar-movement, some properties of A-movement. He thus concludes that though scrambling involves adjunction, the adjoined position is both an A- and an A-bar position. Déprez [1989] and Mahajan [1990], while analyzing scrambling in Hindi, add further support to the Webelhuth's stand that scrambling has properties associated with A-movement. Both claim that two types of scrambling exist. One has the properties of A-bar-movement and involves adjunction to maximal projections. The other has properties of A-movement and involves movement into argument positions that are empty at D-structure. The latter option is made possible by the conception of phrase structure proposed by Pollock [1989] and Chomsky [1989] where the subject argument (i.e. the subject of the sentence) is assumed to be generated VP internally. But, Williams [1995: 120] argues against "VP-internal subject" theories. Srivastav Dayal [1994], based on evidence from Binding Theory, concludes that scrambling is an instance of A-bar-movement, not an instance of A-movement (as proposed by Déprez [1989] and Mahajan [1990]) since analyzing scrambling as A-movement makes the incorrect prediction that scrambled objects will behave like arguments with respect to Binding Theory.

It may be observed that scrambling is different from 'movement' (jointly referring to V-, I-, NP-, and Wh-movements). Scrambling involves adjunction, whereas movement involves substitution in the sense that the moved element of V-movement, I-movement, NP-movement, and Wh-movement fills a hitherto unoccupied position. Scrambling does not require any empty position for the constituent to move, while, on the other hand, movement can not take place without an empty position into which the element can move. The only positions available for movement are I, Spec-IP, C and Spec-CP. A constituent is said to have moved only if it goes to one of these positions. In scrambling the moved element gets adjoined to the nearest XP leaving a trace, and moves successive cyclically. So, keeping these
distinctions in mind, scrambling should not be equated with movement (Haegeman [1991: 543-51]).

5.3 The Need for Movement

The question that arises here is why at all we need the movement. In V-movement, the movement of V into empty I position is required in order to acquire the Tense/Agreement properties associated with I. In I-movement, the movement of I containing an Auxiliary into the empty C is required in order for ‘Subject-Auxiliary Inversion’ to form Direct Questions (also called Yes-no questions) in English. In NP-movement, the movement of an NP from an A-position into an empty non-θ-marked NP position is required so that the NP gets Case. In Wh-movement, the movement of an NP from a Case and theta marked position into the non-A-position of specifier of CP is required in order for interpretation to take place. Within GB Theory there is always a reason for movement. Movement must take place if the Case Filter is in danger of being breached. The Case Filter is the reason for all movements of NPs; movement from an A-position to an empty subject A-position follows on the need for each NP to have Case. Movement may also be forced due to the requirements from Theta Theory. Sentences in which we have argument NPs without Case violate the theta criterion. The internal argument of a verb in a passive sentence cannot remain inside the VP because it would fail to be assigned Case, the passive verb having lost its capacity for assigning the structural ACCUSATIVE Case, and hence cannot receive a theta role from the verb, violating the theta criterion. Thus the internal argument is forced to move into specifier position of IP. The movement is further constrained by the Bounding Theory. The Bounding Theory, through principle of subjacency, defines the boundaries for movement and thus determines how far an element can be moved.

Each of NP-movement and Wh-movement has a parameter of variation between languages. Passives in some languages need movement (as in English, for example), while in others they do not (e.g. in Spanish) (Cook [1988: 123-4]). In languages that do not need movement in passives the internal argument stays in place rather than having to move into preverbal subject position. Similarly, some languages (such as
English, for example) require Wh-movement, whereas others (such as Malay and Japanese) do not (Cook [1988: 17-18]). In languages that do not require Wh-movement the question-word remains in place; it does not get moved to the start of the sentence as in English. In such languages, the declarative sentence and the corresponding interrogative sentence have exactly the same word order.

The setting of these movement parameters has a chain of consequences in the grammar. Movement is an interaction of UG principles and sub-theories. It draws on Bounding Theory to define its limits, and on Case Theory to motivate it. Cook stresses that for languages that do not have syntactic movement, the discussion of movement and the concepts related with movement may just be irrelevant (Cook [1988: 146]). The languages that do not use syntactic movement for questions may require another type of movement called LF movement. Even the languages which use the syntactic movement for questions may require LF movement to move multiple Wh-phrases to the beginning of the sentence in order to obtain the correct LF representation.

5.4 Scrambling and the Adjacency Requirement

Let us now focus on sentences in which Adjuncts such as emphatic particles, negation particles, adverbials, or Postpositional Phrases may intervene between a head and its internal arguments. In earlier chapters, we dealt with the cases where Adjuncts in a sentence can appear either immediate before or immediate after the subject. The Adjuncts which appear before the subject are consumed by the outer Adjunct Rule in IP and those which appear after the subject are taken care of by the inner Adjunct Rule in VP.

The adjacency requirement is an important condition on internal arguments of a head. It expects (a) no constituent to intervene between the head and its internal arguments; and (b) the internal arguments to appear adjacent, i.e. closer enough, to the head in the order specified in the Argument Structure for that head. This requirement predicts that the Case assigners must not be separated from the NPs which they case-
mark by intervening material. The adjacency requirement is not a linguistic universal, rather adjacency is one of the parameters of Case Theory specifying whether the Case assigner is adjacent to the Noun Phrase (NP) to which it assigns the Case. Natural languages are subject to parametric variations with respect to this condition. English, for instance, obeys the Adjacency Requirement. Consider, for example:

(1a) She probably drinks wine everyday.
(1b) * She probably drinks everyday wine.
(1c) * She drinks probably wine everyday.

and

(2a) John introduced Mary to the guests.
(2b) * John introduced to the guests Mary.

The sentences (1b) and (1c) are ungrammatical because an adjunct (adverbial) comes in between the Verb 'drink' and its internal argument NP 'wine', thereby prohibiting the NP 'wine' to get case-marked, the violation of the case filter. The sentence (2b) is invalid as the internal arguments of Verb 'introduce' namely the NP 'Mary' and the PP 'to the guests' are not realized in the order specified in the Argument Structure for the Verb 'introduce'. The Verb 'introduce' would not be able to case-mark the NP 'Mary'. Hence, in this case too, the NP 'Mary' will violate the case filter.

English has marked settings with respect to adjacency requirement on Case assignment in case of sentences involving Heavy NP-shift (Haegeman [1991: 382-85]). For example, both of the following sentences are grammatical though none satisfy the adjacency requirement on Case assignment.
(1) John introduced to the guests the famous poet from Calcutta.

(2) My doctor told me to drink every night two glasses of mineral water with a slice of lemon.

Punjabi, for instance, on the contrary, does not adhere to any of the conditions mentioned in Adjacency Requirement. For example, consider the following sentences:

(1a) Mohan kall kitaab kharīdegaa.

Mohan tomorrow book buy-fut.ms

(‘Mohan will buy a book tomorrow.’),

and

(1b) Mohan kitaab kall kharīdegaa.

(‘Mohan will buy a book tomorrow.’);

or

(2a) Mohan ne Ram nuun kitaab dittii.

Mohan ERG Ram DAT book give-pst.fs

(‘Mohan gave Ram the book.’),

and

(2b) Mohan ne kitaab Ram nuun dittii.

(‘Mohan gave Ram the book.’)
All these sentences are acceptable though in (1b) the adverbial 'kall' intervenes between the head 'khariidNaa' and its internal argument 'kitaab', and in (2b) the internal arguments of Verb 'deNaa' are not realized in the order specified in the Argument Structure for the lexical entry of the verb. This phenomenon also occurs, for example, in Hindi, Japanese, Korean, French, German, and Dutch (Cook [1988: 142], Haegeman [1991: 168, 542], and Webelhuth [1995a: 64]). In such languages, the adverbials can intersperse between the head and its internal arguments, and the internal arguments are not always adjacent to the head, and hence not satisfying the Adjacency Requirement.

We have already dealt with sentences like (1a) in earlier chapters. Let us now consider the syntactic structure of sentences like (1b). The syntactic structure for (1b) above is given in Figure 5.1. The treatment formulated here for such constructs is primarily based on scrambling studies on Dutch, German, and Hindi languages (Besten and Rutten [1989], Besten and Webelhuth [1987], Webelhuth [1987], Haegeman [1991: 537-51], Chomsky [1986a: 6], Srivastav Dayal [1994]).
In sentences like (1b) where the constituents in a phrase do not follow the Adjacency Requirement, this is considered to be a derived order. In such a case, internal arguments are taken to the left/ right of Adjunct(s) determined by the parameter settings of the head with a trace at the Complement positions and are adjoined to the XP (Haegeman [1991: 540-43]). It may be noticed that adjunction is possible only to a maximal projection (hence, X") that is a non-argument (Chomsky [1986: 6]). In such a situation, the internal arguments are case-marked via their traces. Moreover, in sentences like (1b), with its S-structure as shown in Figure 5.1, the verb will assign internal theta role to the trace of the moved internal argument, thus satisfying the theta criterion of the Theta Theory. Note that the Cases and the internal theta roles are assigned under the structural relationship of government. The adjoined
position is an A-bar position. The internal argument get moved to a position created for it; the kind of movement used here does not involve substitution like the one required in NP-movement or in Wh-movement. We, therefore, attribute this phenomenon to scrambling, not to movement in the technical sense.

We have already dealt with the sentences like (2a) in which the internal arguments of a head \( X^0 \) uniformly originate in the order specified in the Argument Structure for \( X^0 \). The cases like (2b), where the argument hierarchy due to the Argument Structure of a lexical head is not satisfied, will be dealt with in the next section.

5.5 Scrambling and the Order of Arguments

Let us consider the following canonical sentences.

(1) \textbf{Mohan ne \ Ram nuun \ kitaab dittii.}
(2) \textbf{Mohan ne \ kitaab \ Ram nuun \ dittii.}
(3) \textbf{Ram nuun \ Mohan ne \ kitaab dittii.}
(4) \textbf{Ram nuun \ kitaab \ Mohan ne \ dittii.}
(5) \textbf{kitaab \ Mohan ne \ Ram nuun \ dittii.}
(6) \textbf{kitaab \ Ram nuun \ Mohan ne \ dittii.}

Each of the sentences (1)-(6) is grammatical. Sentence (1) follows the unmarked word order of Punjabi, viz. S-IO-DO-V. Here, all the argument (internal plus external), shown underlined, originate in the order specified by the argument hierarchy due to the Argument Structure of the Verb 'deNaa' ('give'). Sentences (2)-(6) are different instances of sentence (1), they do not stick to the order of arguments mentioned in the argument hierarchy. They signal shifts in emphasis, involve focus and topicalization, and, therefore, have different meanings. We are interested in the syntactic structure for each of the sentences (2)-(6). The syntactic structures for each of the sentences (2) through (6) are shown in Figures 5.2 to 5.6 respectively.
Figure 5.2 The syntactic structure for "Mohan ne kitaab Ram nuun dittii", the case where the arguments do not originate in the order specified by the Argument Structure.
Figure 5.3 The syntactic structure for "Ram nuun Mohan ne kitaab dittii", the case where the arguments do not originate in the order specified by the Argument Structure.
Figure 5.4 The syntactic structure for “Ram nuun kitaab Mohan ne ditti”, the case where the arguments do not originate in the order specified by the Argument Structure.
Figure 5.5 The syntactic structure for "kitaab Mohan ne Ram nuun dittii", the case where the arguments do not originate in the order specified by the Argument Structure.
Figure 5.6 The syntactic structure for "kitaab Ram nuun Mohan ne dittii", the case
where the arguments do not originate in the order specified by the
Argument Structure.
It may be observed that the kind of movement involved in above sentences is different from the one involved in NP-movement and the Wh-movement. The moved position is an A-bar position. The movement involved is successive cyclic; the missing argument of V firstly adjoins at VP, and then at IP if needed. The moved element does not move in one hop. Like in the case of Adjuncts appearing between the head and its internal arguments, the Verb assigns theta role to its traces. The internal arguments are case-marked via their traces. The Verb assigns ACCUSATIVE Case to the Direct Object. The NP in Indirect Object which either may be a Case Phrase or a Postpositional Phrase (like in, for example, ‘Mohan ne Ram laii kitaab khariidi’ (‘Mohan bought Ram a book.’) is case-marked by the respective Case marker or Postposition. The same argument holds for 4-place predicates also. In such cases, the Causative Object is case-marked by the Postposition within the corresponding internal argument.

5.6 Movement and Interrogatives

Let us now consider the syntactic structure of interrogative sentences in Punjabi. There two types of interrogative sentences in Punjabi: (1) Yes-no questions, and (2) Question-word questions (Bhatia [1993]). We discuss each in turn.

5.6.1 Yes-No Questions

Yes-no questions are formed by placement of the question word (Q-Word) kii in the sentence-initial position of a declarative sentence (Bhatia [1993: 4]). Although the placement of the yes-no question word does not introduce any word order changes from a declarative sentence, it does call for a rising intonation at the end of a sentence, especially on the verbal element. Consider the following declarative sentences, marked (a), along with their Yes-no question counterparts marked (b).

(1a) Sucheta Daaktar hai.

Sucheta doctor is

(‘Sucheta is a doctor.’)
(1b) kii Sucheta Daaktar hai?
   Q-word Sucheta doctor is
   ('Is Sucheta a doctor?')

(2a) uh kall biimaar sii.
    he yesterday sick was
    ('He was sick yesterday.')

(2b) kii uh kall biimaar sii?
    Q-word he yesterday sick was
    ('Was he sick yesterday?')

(3a) uh kall aaegaa.
    he tomorrow come-fut.ms
    ('He will come tomorrow.')

(3b) kii uh kall aaegaa?
    Q-word he tomorrow come-fut.ms
    ('Will he come tomorrow?')

(4a) uh gaaNaa gaa sakadaa hai.
    he song sing can is
    ('He can sing a song.')
In each of these sentences, the formation of a Yes-no question in Punjabi from its declarative counterpart does not involve V- or I-movement; the verb or the auxiliary never gets moved to C. The Q-word ہی simply gets added in the beginning of the declarative sentence under consideration. It can be noticed that the corresponding English Yes-no questions require movement of the auxiliary from I to C (called as I-movement). Such a movement is also required for forming Yes-no questions in German (Haegeman [1991: 276-78, 523-27], Cook [1988], Radford [1988]). The structure of a Yes-no question in Punjabi looks as shown in Figure 5.7.
5.6.2 Question-Word Questions

Interrogative sentences with wh-questions words are generally termed as k-questions. Question words do not induce any word order changes in the statement undergoing question formation. Interrogative questions with question words are formed by substituting a question word in place of the questioned constituent in the statement (Bhatia [1993: 9, 27]).

Let us consider some declarative sentences and question-word questions made therefrom.

(1a) Ram ne kitaab khariidii.
     Ram ERG book bought
     (‘Ram bought a book.’)

(1b) kis ne kitaab khariidii?
     Who ERG book bought
     (‘Who did buy a book?’)
(1c) Ram ne kii khariidiaa?
Ram ERG what bought
(‘What did Ram buy?)

(2a) Ram kall aavegaa.
Ram tomorrow come-fut.ms
(‘Ram will come tomorrow.’)

(2b) Ram kadon aavegaa?
Ram when come-fut.ms
(‘When will Ram come?)

(2c) kauN kall aavegaa?
Who tomorrow come-fut.ms
(‘Who will come tomorrow?)

(3a) uh Ram nuun tasviir dikhaaegaa.
he Ram DAT picture show-fut.ms
(‘He will show Ram the picture.’)

(3b) uh Ram nuun kii dikhaaegaa?
he Ram DAT what show-fut.ms
(‘What will he show Ram?’)

(3c) uh kis nuun tasviir dikhaaegaa
he whom DAT picture show-fut.ms
(‘Whom will he show the picture?’)

(3d) kauN Ram nuun tasviir dikhaaegaa
who Ram DAT picture show-fut.ms
(‘Who will show Ram the picture?’)

(4a) uh adhiaapak hai.
he teacher is
(‘He is a teacher.’)

(4b) uh kii hai?
he what is
(‘What is he?’)

(4c) kauN adhiaapak hai?
who teacher is
(‘Who is a teacher?’)

(5a) Mohan dilli jaaegaa.
Mohan Delhi go-fut.ms
(‘Mohan will go to Delhi’)

(5b) Mohan kiththe jaaegaa?
Mohan where go-fut.ms
(‘Where will Mohan go?’)

(5c) kauN dilli jaaegaa?
who Delhi go-fut.ms
(‘Who will go to Delhi?’)

(6a) usdaa naam Amarjit hai.
his name Amarjit is
(‘His name is Amarjit.’)
(6b) usdaa naam kii hai?

his name what is

(‘What is his name?’)

(6c) kis daa naam Amarjit hai?

whose name Amarjit is

(‘Whose name is Amarjit?’)

(7a) Ram ne Mohan nuun uh kitaab dittii.

Ram ERG Mohan DAT that book gave

(‘Ram gave Mohan that book.’)

(7b) Ram ne Mohan nuun kii dittaa?

Ram ERG Mohan DAT what gave

(‘What did Ram give Mohan?’)

(7c) Ram ne kis nuun uh kitaab dittii?

Ram ERG whom DAT that book gave

(‘Whom did Ram give that book?’)

(7d) kis ne Mohan nuun uh kitaab dittii?

who ERG Mohan DAT that book gave

(‘Who did give Mohan that book?’)

(7e) Ram ne Mohan nuun kihRii kitaab dittii?

Ram ERG Mohan DAT which book gave

(‘Which book did Ram give Mohan?’)

(8a) uh bilden sau miitar uccii hai.

that building hundred meters high is
The (a)-sentences in each group above are the declarative sentences. The remaining sentences in each group are the question-word questions obtained from the (a)-sentence by introducing question words at the questioned constituent. It can be observed from above examples that in Punjabi question-word questions the question word (like kii (‘what’), kauN (‘who’), kadon (‘when’), kiihthe (‘where’), kirRhaa/kiihRii (‘which’), etc.) gets substituted in place. It does not involve Wh-movement like the one found in English where the auxiliary at I moves to C and the questioned part moves to specifier position of CP with a trace at the questioned constituent (a Wh-phrase). Like Japanese and Malay, the formation of question-word questions in Punjabi do not require the movement of the question-word to the start of the sentence as must happen in English. The word order, and hence the syntactic structure, in a question-word question in Punjabi remains the same as that in the corresponding declarative sentence, which we have already dealt with.

Though the underlying word order of a question-word question in Punjabi is the same as that of a declarative sentence, due to focus considerations the constituents in a question-word question may permute as in the case of declarative sentences. In other words, the questioned constituent may undergo shifting (We won’t call this as movement in the technically sense.) to other positions in the sentence. Consider, for example, the following sentences:
The question-word question (1b) is formed from the declarative sentence (1a). The sentences (1c) and (1d) are the scrambled forms of (1b). The syntactic structure of each of (1a) and (1b) remains the same as that for a declarative sentence. The syntactic structure for (1c) and (1d) can be obtained by applying scrambling as discussed earlier.

The question-word questions may include multiple question words, as can be seen in the following sentences:

(1) kauN kad aaegaa?
   who when come-fut.ms
   ('Who will come when?')

(2) kis ne kis nuun kii dittaa?
   who ERG whom DAT what gave
   ('Who did give whom what?')

There are no restrictions on the number of constituents in a sentence that can be questioned at one time. The syntactic structure of such sentences is no different from declarative sentences. They do not involve any movement. Due to the focus considerations, the constituents in a multiple question-word question, however, may
not follow the unmarked word order in Punjabi. This can also be handled using scrambling as discussed earlier.

Punjabi, thus, does not involve Wh-movement for forming question-word questions as the questioned constituent (Wh-phrase) remains in its original position. It however, will require LF movement for proper interpretation.

5.7 Movement and Passives

Let us now consider the passive sentences in Punjabi. Here are some example active sentences and their passive counterparts.

(1a) pulis ne Daakuu nuun maariaa.
    police ERG dacoit ACC kill-pst
    ('The police killed the dacoit.')

(1b) Daakuu pulis kolon mariaa giaa.
    Dacoit police by kill-pst.ppl.ms go-pst.ms
    ('The dacoit was killed by the police.')

(1c) Daakuu mariaa giaa.
    Dacoit kill-pst.ppl.ms go-pst.ms
    ('The dacoit was killed.')

(1d) pulis kolon Daakuu mariaa giaa.
    police by Dacoit kill-pst.ppl.ms go-pst.ms
    ('The dacoit was killed by the police.')

(2a) hakiim ne mariiz nuun vekhiaa.
    doctor ERG patient ACC examine-pst
(‘The doctor examined the patient.’)

(2b) hakiim ton mariiz vekhiaa giaa.

doctor by patient examine-pst.ppl.ms go-pst.ms

(‘The patient was examined by the doctor.’)

(3a) parinskiipal kall sakool vic bacciaan nuun inaam vanDegaa.

principal tomorrow school in children DAT prize.mp distribute-fut.ms

(‘Tomorrow, the principal will distribute prizes among children in the school.’)

(3b) kall sakool vic bacciaan nuun inaam vanDe jaaNge.

tomorrow school in children DAT prize.mp distribute-pst.ppl.mp go-fut.mp

(‘Tomorrow, the prizes will be distributed among the children in the school.’)

(4a) Sangita ne Ram nuun kitaab dittii.

Sangita ERG Ram DAT book.fs give-pst.fs

(‘Sangita gave the book to Ram.’)

(4b) kitaab Sangita ton/ kolon Ram nuun dittii gaii.

book.fs Sangita by Ram DAT give-pst.ppl.fs go-pst.fs

(‘The book was given by Sangita to Ram.’)

(4c) Sangita ton/ kolon kitaab Ram nuun dittii gaii.

Sangita by book.fs Ram DAT give-pst.ppl.fs go-pst.fs

(‘The book was given by Sangita to Ram.’)

(4d) Ram nuun kitaab dittii gaii.

Ram DAT book.fs give-pst.ppl.fs go-pst.fs

(‘The book was given to Ram.’)
(5a) Ram kulphii khaavegaa.
Ram ice-cream.fs eat-fut.ms
(Ram will eat the ice-cream.)

(5b) Ram duaaraa kulphii khaadhii jaavegii.
Ram by ice-cream.fs eat-pst.ppl.fs go-fut.fs (passive)
('The ice-cream will be eaten by Ram.')

(6a) Ram amb khaavegaa.
Ram mango.ms eat-fut.ms
(Ram will eat the mango.)

(6b) Ram duaaraa amb khaadhaa jaavegaa.
Ram by mango.ms eat-pst.ppl.ms go-fut.ms (passive)
('The mango will be eaten by Ram.')

(7a) Ram ne kitaabaan khariidiaan.
Ram ERG books.fp buy-pst.fp
(Ram bought the books.)

(7b) Ram duaaraa kitaabaan khariidiaan gaiiaan.
Ram by books.fp buy-pst.ppl.fp go-pst.fp
('The books were bought by Ram.')

(8a) Ram ne khiDaauNe khariide.
Ram ERG toys.mp buy-pst.mp
('Ram bought the toys.')
(8b) Ram duaaraa khiDaauNe khariide gae.
Ram by toys.mp buy-pst.ppl.mp go-pst.mp
(The toys were bought by Ram.)

(9a) uh iththe phal vecdaa hai.
he here fruits sell-prst.ms is
(He sells fruits here.)

(9b) iththe phal vece jaande han.
here fruits sell-pst.ppl.mp go-prst.mp are
(The fruits are sold here.)

The (a)-sentences in each group above represent active sentences. The remaining sentences in each group are the passive sentences obtained from the (a)-sentence by applying the process of passivization. The passive is formed in the following manner: (i) the agent in the active sentence is followed by either of the postpositions ton, kolon, de kolon, and duaaraa (all corresponding to 'by' in English), and (ii) the past participial form of the active verb is used with the explicator jaa ('go'), thus giving the passive form of the active verb. The explicator jaa takes the endings denoting tense, aspect and agreement. The explicator, and hence the passive verb, always agrees with the object in the original active sentence (see, for example, the sentences (5b) and (6b), or the sentences (7b) and (8b) above). In the process of passivization, the agent in the active sentence may optionally be dropped, thus giving the agentless passives (see, for example, the sentences (1c), (3b), (4d), and (9b) above). The agent in the active sentence may or may not be present in its corresponding passive. If present, it always acts as an adjunct.

The D-structure of the passive sentence (1b) above looks as in Figure 5.8.
The passive verb does not assign structural ACCUSATIVE Case to its complement. Thus, the NP *Daakuu* ('dacoit') fails to be case-marked. In order to pass the case-filter, this NP must move to a position where it can receive Case. Since the passive verbs do not assign the external theta role, the (Spec, IP) position is available in passive sentences. The NP *Daakuu* is moved to this empty subject position and is assigned NOMINATIVE Case by INFL (I) (Haegeman [1991: 169-74, 271-3, and 282-95]). Therefore, the S-structure of sentence (1b) looks as given in Figure 5.9.

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Figure 5.8 The D-structure of the passive "*Daakuu pulis kolon mariaa giaa.***"
Figure 5.9 The S-structure of the passive "Daakuu pulis kolon mariaa giaa."
The S-structure of (1c) is given in Figure 5.10. (1c) is an agentless passive: the agent in the active sentence (1a) is suppressed here.

Figure 5.10 The S-structure of the passive “Daakuu mariaa giaa.”
The sentences (1b) and (1d) are different in meaning; the sentence (1b) means that it was the police who killed the dacoit, while (1d) means it was the dacoit not someone else who got killed by the police. The two sentences, therefore, have different D- and S-structures. (1b) has the S-structure as given in Figure 5.9, whereas (1d) has the S-structure as shown in Figure 5.11.

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Figure 5.11 The S-structure of the passive "pulis kolen Daakuu mariaa giaa."
The D- and S-structures for all other sentences can be given on similar lines. The S-structure of the passive (4d) needs a special mention. The D-structure of (4d) is given in Figure 5.12.

Figure 5.12 The D-structure of the passive "Ram nuun kitaab dittii gaii."
The S-structure of (4d) looks as given in Figure 5.13. To get the surface order of the passive (4d), the Indirect Object ‘Ram nuun’ (‘to Ram’) gets moved as discussed in section 5.5. This structure uses NP-movement on the one hand, and scrambling on the other.

Since passive verbs are unable to case-mark their complements, the movement of complement NP is obligatory in view of the case filter. Thus, like English, Punjabi does have NP-movement. In addition, within passives we may come across scrambling as shown above.
5.8 Conclusions

We, in this study, take scrambling to mean word order phenomenon that allows 'phrase-order freedom' but not the 'word-order freedom' precisely as in Free Phrase-Order Languages (FPOLs). Based on two types of movements namely the A-movement and the A-bar-movement identified in the literature, the chapter concludes that scrambling must be differentiated from movement (jointly referring to V-movement, I-movement, NP-movement, and the Wh-movement). Scrambling is an instance of A-bar-movement. On the other hand, while each of V-movement, I-movement, and Wh-movement is an instance of A-bar movement, the NP-movement is an instance of A-movement. In each of V-movement, I-movement, Wh-movement, and NP-movement the moved constituent fills a hitherto unoccupied position whereas in scrambling the position gets created for the moved element. Scrambling involves adjunction, whereas movement involves substitution. Scrambling does not require any empty position for the constituent to move, while, on the other hand, movement can not take place without an empty position into which the element can move. A constituent is said to have moved only if it goes to some empty position. The chapter then focuses on the syntactic structure of sentences wherein, due to focus, intonation, stylistics, topicalization, or emphasis, either the adjuncts can intersperse between the head and its internal arguments, or wherein the arguments do not originate in the order imposed by the arguments' hierarchy specified in the Argument Structure for the lexical item under consideration. This phenomenon of variation in word order is argued to be attributed to scrambling, not to the concept of movement. Afterwards, the chapter considers the interrogative and passive sentences in Punjabi. Unlike English or German, the formation of a Yes-no question in Punjabi from its declarative counterpart does not involve V- or I-movement; the verb or the auxiliary never gets moved to C. The Q-word kii simply gets added in the beginning of the declarative sentence under consideration. The question-word questions in Punjabi are obtained from their declarative counterparts by substituting question words at the questioned constituent. It does not involve Wh-movement like the one found in English where the auxiliary at I moves to C and the questioned part moves to specifier position of CP with a trace at the questioned constituent. Like Japanese and Malay, the formation of question-word questions in Punjabi do not require the movement of the question-word to the start of
the sentence as must happen in English. The word order, and hence the syntactic structure, in a question-word question in Punjabi remains the same as that in the corresponding declarative sentence. Though the underlying word order of a question-word question in Punjabi is the same as that of a declarative sentence, due to focus considerations the constituents in a question-word question may permute as in the case of declarative sentences. This is argued to be handled by scrambling. The question-word questions may also include multiple question words. There are no restrictions on the number of constituents in a sentence that can be questioned at one time. The syntactic structure of such sentences is found to be no different from declarative sentences. They do not involve any movement. Due to the focus considerations, the constituents in a multiple question-word question, however, may not follow the unmarked word order in Punjabi. This again can be handled using scrambling. Punjabi, at the syntactic level, thus, does not involve Wh-movement for forming question-word questions as the questioned constituent (Wh-phrase) remains in its original position. It however, will require LF movement for proper interpretation. In the process of passivization, the agent in the active sentence may optionally be dropped. If present, it always acts as an adjunct. The passive verb does not assign structural ACCUSATIVE Case to its complement. Thus, the object NP (the complement) of the passive verb fails to be case-marked. In order to pass the case-filter, this NP must move to a position where it can receive Case. Since the passive verbs do not assign the external theta role, the (Spec, IP) position is available in passive sentences. The object NP is moved to this empty subject position and is assigned NOMINATIVE Case by INFL (I) as the passive verb always agrees with the object in the original active sentence. Since passive verbs are unable to case-mark their complements, the movement of complement NP is obligatory in view of the case filter. Thus, like English, Punjabi does have NP-movement. Due to focus considerations, the constituents in a passive my get shifted to other positions. These constructs, in addition to NP-movement, involve scrambling. The conclusions made here in this chapter are equally applicable to Hindi language as well.