



Pakistan Languages and Humanities Review www.plhr.org.pk

RESEARCH PAPER

A Comparative Study of Punjabi and English Word Order: SOV Vs SVO

Dr. Abdul Rafay Khan*1 Dr. Ghazala Kausar² Aziz ULLAH Khan³

- 1. Assistant Professor, Department of English, Government Islamia Graduate College Civil Lines Lahore, Punjab, Pakistan
- 2. Assistant Professor, Department of English, NUML, Islamabad, Pakistan
- 3. Assistant Professor, Department of English, University of Science and Technology, Bannu, KP, Pakistan

| *Corresponding Author | abdurrafay.uos@gmail,com |
|-----------------------|--------------------------|
| ABSTRACT | |

This study intends to compare the two languages, Punjabi and English, in terms of their apparently different word orders (i.e., SOV and SVO) under the rubric of Linear Correspondence Axiom (LCA): languages may have a similar underlying word order SVO despite of the apparent variation. In the backdrop of Universal Grammar (i.e., assuming universal principles underlying apparent variation of languages: Principles and Parameters), this study employs the Minimalist framework of Chomsky where LCA is assumed to hold true at least in its empirical conclusions. This study concludes that Punjabi also underlies SVO order at base. Its variation from SVO languages like English is caused by the movement of object to 'specifier'-I position or Spec Agro position, and the movement of verb+ auxiliary complex to I position. Furthermore, SOV languages also exhibit grammatical structures with SVO word order to strengthen the line of reasoning that basic word order for such languages is SVO. A more extensive study into movement operations and possibility of flexible word orders in languages may help the future studies in reaching correct conclusion with respect to word order.

KEYWORDS

English, Minimalist Program, Principles and Parameters, Punjabi, Universal Grammar, Linear Correspondence Axiom

Introduction

Principles and Parameters (P&P) theory of Universal Grammar (Chomsky, 1980) laid the foundation of comparative syntax in true sense. This theory assumed that human beings possess a biologically endowed language faculty which incorporates some finite set of universal principles and parameters capable of producing infinite structures. This language faculty makes it possible for a child to learn a grammar of any language to which he/she is exposed. The introduction of this theory was a landmark achievement towards finding a satisfactory answer to what Chomsky (1964) called 'Plato's problem': What enables a child to learn a language? As this theory stipulates that a child is endowed with universal grammar principles, common to all languages, he/she may acquire a satisfactory level of competence of grammar of any language even at a very early age i.e. two to three years. It is a strange fact that the amount of experience, popularly known as primary linguistic data (PLD), provided to a child is very little until he/she reaches to age of two years or so. It implies that the child acquires a language on the basis of the inborn language faculty which possesses universal principles. The child learns the peculiar properties of his/her language on the basis of the primary linguistic data available to him/her. In this way, with the help of inborn universal grammar principles and parametric setting and with the help of PLD, a child is able to acquire a language.

An instance of a universal grammar principle is Extended Projection Principle (EPP) which imposes a constraint on all clauses that they must have a subject. 'The two principles - the projection principle (every phrase is a projection of a headword) and the requirement that clauses must have subjects constitute what is called the extended projection principle (EPP), (Chomsky, 1986, p. 116). As a universal grammar principle, EPP would govern finite clauses of all possible human languages. For example, the English construction: '*was arrested John' is ungrammatical as it does not contain a subject. Similarly, the Punjabi construction: '* roti khadi sii' (ate bread) is ungrammatical as it violates EPP by containing no subject. Another example of a general constraint on all grammars is binary branching (Kayne, 1984) which suggests that all structures should be binary branched. Minimalist program considers this as an in built condition for all syntactic construction. According to Chomsky (a) the computational system of human language faculty must include a procedure i.e. 'Merge' which would take a pair of syntactic objects (SOi' SOj) and replace them by a new combined syntactic object-SOij. According to this approach the structures in all languages would be produced by selecting two elements from an array of lexical items selected for computation and merging them to replace them into new syntactic objects. This process continues in successive cycles upward unless final maximal projection i.e. a CP is obtained.

Apart from universal principles, there are parameters along which languages vary from one and other. A child has usually one out of two parametric choices. He/she sets the parameters with the help of his / her experience of the language. For instance, a language may be head first language or a head last language. The English learning child would learn with the help of PLD that this language is a head first language while the Punjabi learner would learn with the help of PLD provided to him/her that Punjabi is a head last language. This parameter is known as head parameter which was first proposed by Stowell (1981). According to Huang and Roberts (2017, p. 308), 'this parameter regulates one of the most pervasive and well-studied instances of cross-linguistic variation: the variation in the linear order of heads and complements'. This parameter determines that all languages vary along two possibilities of linear order i.e. head-complement or complement-head. The former possibilities observed by language like English, the Bantu languages, the Celtic languages, and Romance languages etc. On the hand languages like Japanese, Turkic, Korean, and the Darvian observe the latter approach.

Traditionally it was assumed that linear word order was a distinct issue that must be dealt with separately from structural hierarchical relationships among constituents. The precedence (a linear property) and dominance (a hierarchical) property were assumed to have no direct relationship. However, Kayne (1984) introduced Linear Correspondence Axiom (LCM) to formulate a direct link between linear order and hierarchical structural relationship like c-command. In line with this approach, complement-head linear order cannot be generated directly, but by a leftward movement of the complement. So, the universal word order at the base of all human languages is head-complement. It implies that SVO is the universal underlying order. The languages which show a variation in linear word order, e.g. SOV in Punjabi, is obtained by movement of certain constituents.

This research aims to conduct a minimalist comparative analysis of selected syntactic constructions of Punjabi and English i.e. two languages with different surface orders: SOV and SVO respectively. Utilizing minimalist framework of analysis, the

primary focus of this research is to find out how the surface order variation in SOV languages like Punjabi is obtained by virtue of leftwards movement of certain constituents which originate initially as SVO base order. In minimalist framework the Checking Theory (Chomsky, 1993, 1995) captures the phenomenon why elements move from their initial position. According to this theory the elements move to get their uninterpretable features checked off. A particular constituent moves when it has some uninterpretable features. Assuming LCA and Checking Theory of minimalist program, this study analyzes how word order variation may occur because of leftward movement operation of certain constituents.

Literature Review

Radford (2004, p.1) defines syntax as the study of various ways in which different words are combined to structure phrases and sentences and thus addresses questions like What is the structure of construction: 'What's the president doing?' and that deals with the nature of the grammatical operations by making use of which sentences are structured by combining its component words together. With the development of the theory of Universal Grammar, the old taxonomic conceptualization of complex grammatical structures gave way to new simple descriptive and explanatory tools to describe grammars based on universal principles governing the structures in all possible human languages.

The traditional grammar adopted a taxonomic approach for description of syntactic structures in language. It was built on the central traditional assumption that all syntactic units (i.e. phrases, clauses, and sentences) are constituted from a series of constituents each belonging to a specific grammatical category (i.e. noun, verb, adverb, etc) and serving a specific grammatical function (i.e. Subject, Predicate, and Adjunct) (*ibid*, 2004, p.1). The problem with this approach was that it provided a complex apparatus for linguistic description which did not match with the grammar/language acquisition in a child, and therefore could not present universal principles which enable human beings to learn different grammars of the world like their native languages.

In contrast to traditional taxonomic and E-language approach adopted in traditional grammar, Chomsky (in his several works) assumed a cognitive approach to the study of grammar. He considered it the task of a linguist to determine a native speaker's knowledge about his/her language, so that description of a language should correspond with the internalized language faculty which enables human beings to develop a competence of their language since childhood. In this way studying grammar was meant to study internalized I-language. Chomsky's goal was to build up a theory of 'Universal Grammar' which could generalize particular I-languages to grammar of all human I-languages (Chomsky, 1986, pp. 19-56).

The early work on modern generative grammar began with Chomsky's *Syntactic Structures* (1957), and *The Logical Structure of Linguistic Theory* (1955/1975). In these seminal works, developed in reaction to his teacher Harris, he introduced the concept of 'generative' (explicit) description of grammar with the help of Phrase structure rules, described in the form of rewrite rules i.e. $S \rightarrow NP$, VP etc., capable of generating basic structures 'kernel sentences' and transformation rules capable of producing surface structures by altering the basic structures into i.e. passive, negative, or interrogative sentences. Chomsky's (1965) aspect model was remarkable for introduction of competence and performance distinction and 'Deep' and 'Surface' structure as new levels of representation. However, until then grammar was based on phrase structure rules with slight modification of model. One drawback of a grammar based on phrase

structure rules was that that it provided language specific and construction specific rules. This was not an appropriate approach for UG. A landmark was achieved in Chomsky (1970) with the introduction of X-bar theory which, by eliminating phrase structure rules, provided general X' schema i.e. $X' \rightarrow X$ YP. This general schema could generally capture cross-language and cross-construction rules.

A further significant development, within the history of Universal Grammar, was the introduction of Principles and Parameters approach (Chomsky, 1981). This approach introduced general principles which were common to all human languages and parameters which would capture the variation across languages. This model could better explain how a child could acquire a language at a very early stage of his/her life when he had a very little input of experience. So, it could provide explanatorily more adequate grammar. Its earlier model which prevailed during 1980's was Government and Binding model- based on different modules of grammar. Each module i.e. Case theory, Theta Criterion, etc. imposed different constraints on grammar to prevent ungrammatical structures. This theory stipulated four levels of representation: SS, DS, LF and PF. Furthermore, along with general principles e.g. EPP, there were parameters along which languages might vary e.g. headed parameter, wh-parameter, null-subject parameter etc. There were certain problems with GB although its importance can never be ignored as a benchmark theory for its succeeding version of P&P i.e. Minimalist Program (MP) (Chomsky, 1993, 1995). MP further simplified the framework for grammatical description to achieve a further level of explanatory adequacy. Crucially, it eliminated the two levels of representation: DS and SS, and reduced the model of grammar to two levels i.e. LF and PF. Moreover, different modules of grammar were considered redundant and a burden on linguistic theory by assuming that lexical items take the feature with them intrinsically, so there was no need of extra constraints on grammar. MP reduced the mechanism to utmost minimalist apparatus which included a numeration of selected lexical items and a computational procedure which could take lexical items form numeration and combine them by a binary merge operation. At the point where a derivation was complete, it would split from a point known as spell-out to the two interface levels.

Principles and parameters (P&P) model laid the foundation of comparative syntax in true sense. In pre P&P models of grammar, whether within Chomsky's generative grammar or before it, comparative syntax was very burdensome. The language specific rules could not provide a suitable framework for cross linguistic study. The parametric model made the task of cross linguistic study quite easier. For instance, the head parameter provided 'most pervasive and well studied instances of cross linguistic variation' (Huang and Roberts, 2017, p. 308). This parameter was introduced by Stowell (1981), and developed in Huang (1982), Koopman (1984), and Travis (1984). According to this parameter, a language may be either head first language with head-complement linear order or head last language with complement-head linear order. However, Kayne's (1994) Linear Correspondence Axiom (LCA) proposed that complement-head order could not be generated directly; rather it would be obtained by leftward movement of a complement. Chomsky (1993/1995) partially accommodated the basic intuition of Kayne. Hornstien et al. (2005) provided three possible solutions to circumvent any problem occurring for linearization of lexical items regarding ccommand. 'One of the lexical items is phonologically empty; one of the lexical items moves; or the two lexical items are morphologically fused so that only the resulting complex item is subject to the LCA, not its internal parts' (p.232).

In contrast to LCA, there were studies like Takano (1996), Fukui and Takano (1998), and Haider (2012) which proposed that complement-head was the base word

order and head-complement order might be derived by left ward movement of the head. The results obtained by such studies pose some conceptual problems as head is the most essential element in a phrase which is very unlikely to undergo a leftward movement as compared to its complement. The dichotomy between LCA and the counter approaches may be resolved by assuming Chomsky (2013, 2015) where it is suggested that linearization is not a matter of narrow syntax; rather it is to be settled after spell-out to Phonetic component. According to this recent development, the Merge just takes two SOs and combine them into a new SO without ordering them; there ordering is determined after the spell-out of the newly formed SO to the phonetic interface. Hence, any approach for linearization of lexical items is redundant as it may be settled at the parameterization of elements at phonetic interface.

As this study endeavors to find how LCA may be applicable to Punjabi language within a minimalist framework by comparing it to English i.e. a language with canonical SVO word order

, it is important to note that almost all the Punjabi grammars, i.e. from Carey's (1812) to the modern Punjabi grammars of Gill and Gleason (1969, 2013), Bhattia (1993, 2013), and Bhardawaj (1995), and Maan et al. (2011), adopt a traditional approach for describing different grammatical categories and their taxonomic constitution. To the best knowledge of researcher, no endeavor has surfaced to demonstrate a minimalist account of this language. The same is not true for other neighboring languages. For instance, Nayudu (2008) provides a minimalist account of Marhati languages and validates that Kayne's LCA holds true for Marhati. Simpson and Bhattacharya (2003) have argued the same facts for Bengali. Mahajan (2003), on the basis of his analysis of Hindi language, supported SVO base order for both SVO and SOV languages. In the context of the minimalist account of other indo Aryan languages, this study would be significant for providing an initial minimalist account of Punjabi language i.e. the 11th most widely spoken language of the world.

In a recent study on Punjabi language, Butt (2017) claimed that a very little work had been conducted on the grammar of Punjabi language. She viewed Bhattia (1993) and Akhtar (1999) as authentic sources on Punjabi language. Butt viewed that this work is very little as compared to the size of the languages. According to encyclopedia Britannica, in early 21st century, there were some 70 million speakers of Punjabi in Pakistan and about 30 million in India; however, Punjanbi Diaspora is spread across the globe, particularly Punjabis are third biggest linguistic community in Canada and fourth biggest in UK (Shackle, 2018). In the backdrop of current research on grammar, this study identifies a big gap between Universal Grammar and Punjabi language. To the best knowledge researcher, no attempt has surfaced except a recent work by Khan &Kausar (2019) which only attempts to highlight the case marking on T_{def} i.e. non-finite T constructions/derivations. Identifying a palpable gap between UG and Punjabi language, this study aims to analyze a very significant issue i.e. the word order of Punjabi language under minimalist framework i.e. the most recent development of UG research.

Material and Methods

This is a qualitative study which endeavors to compare the syntactic constructions of Punjabi and English for capturing the surface variation in their linear word order i.e. SOV and SVO. The analysis has been conducted under minimalist framework as adopted by Chomsky (1993, 1995) who reduces the phenomenon of syntactic derivation to a computational procedure that operates in the following way.

'Clearly, then, CHL [the computational system of the human language faculty] must include a ... procedure that combines syntactic objects already formed....The simplest such operation takes a pair of syntactic objects (SOi' SOj) and replaces them by a new combined syntactic object SOij. Call this operation Merge' (Chomsky, 1995, p. 226)

Minimalist program simplifies the movement operation by considering it a type of internal merge which combines already existing syntactic objects. This research as other minimalist studies would use the term 'movement' instead of 'internal merge' for the convenience of understanding without altering the actual procedure of internal merge by which constituents move according to Chomsky. Developing movement phenomenon further, Chomsky (1993) introduces checking theory according to which elements may be inserted from lexicon with some features that are un-interpretable at LF. These features must be checked against interpretable features of some other elements. A derivation converges if the un-interpretable features of one element are checked off against the interpretable features of some other element, otherwise the derivation would crash. So, an element moves to get different un-interpretable features, i.e. case or EPP, checked off.

For this study, the acceptance of Linear Correspondence Axiom of Kayne (1994) by Chomsky (1995) is of paramount significance. As Chomsky (1995, p. 313) observes:

'It seems that Kayne's basic intuition can be accommodated in a straightforward way in the bare theory, including the major empirical conclusions, specifically, the universal order SVO and adjunct- target (at least for XP adjuncts). In the bare theory, the LCA gains no support from conceptual arguments and therefore rests on the empirical consequences. We take the LCA to be a principle of the phonological component that applies to the output of Morphology.

In light of Chomsky's acceptance of the basic intuition of Kayne, this study would anchor around the basic assumption of LCA that all languages have universal word order i.e. SVO, the surface order variation is obtained by the leftward movement of certain constituents. The Punjabi constructions are taken from Bhattia (1993/2013) which according to Butt (2017) is one of the significant sources on Punjabi language. The structures taken for analysis are schematically described to capture how they are obtained under minimalist framework.

Results and Discussion

This section presents the analysis of the selected syntactic constructions of Punjabi and English. The analysis is majorly conducted to study the validity of LCA for a Punjabi like language which apparently manifests SOV. If LCA holds true for such languages, the word order variation at surface may be caused by the movement of some constituents. English has a SVO word order while Punjabi has SOV word order. The traditional grammars did not account for the universal aspects of languages. However, with the advent of Universal Grammar, there has been an ongoing tendency to find universal aspects common among languages and also to visualize the variation among languages as a universal phenomenon which can be captured as matter of parametric

variation. The analysis of the sentences would be conducted under minimalist program. Chomsky (1995) views that all structures are constructed by a simple binary operation merge which combines two objects i.e. X and Y to form a new syntactic object. There are two types of 'Merge' i.e. external and internal. The external Merge combines two independent objects while internal merge combines already existing objects in a new structure. The internal merge is what has been known as movement in earlier phases of universal grammar. The Punjabi sentences would be compared with the English sentences to show the basic word order of the two syntaxes.

Punjabi is considered as an SOV language regarding word order according to many traditional studies. This can be demonstrated by (1). English has SVO structure as evident in (2). The structures (1) and (2) would be analyzed according to (3) which is a little extension of the construction of CP provided by Chomsky (1995).

1. Zahid-ne roti khadisii.

S O V

2. Zahid ate bread.

S V O

3. [CP Spec [CC [IP Spec [I' I[vP Spec [v'v[VP]]]]]]]

Application of LCA on the apparently SOV languages is not a straightforward matter. A major conceptual problem occurs regarding c-command. Hornstien et al. (2005) provides solution for the linearization of two lexical items with respect to c-command by suggesting following three possibilities: (i) One of the lexical items is phonologically empty; (ii) one of the lexical items moves; or (iii) the two lexical items are morphologically fused so that only the resulting complex item is subject to the LCA, not its internal parts. These are the options available in a minimalist system and the intrinsic properties of the lexical items or the languages in question will determine which option is chosen.' (p.232)

For the analysis of Punjabi structure (1) in accordance to LCA, option (iii) stands more suitable out of the three options provided by Hornstein et al (2005).

In the Punjabi construction (1), we have to assume, according to option (iii), that two lexical items, the verb: 'khadi' and the auxiliary 'si' are fused to result in a complex [V+Aux]. Initially this complex merges with the object 'roti' according to base VO base order. This VO would merge with the subject in ergative case 'Zahid-ne' to form basic proposition SVO: 'Zahid-ne khadi si roti'. Owing to EPP feature at light verb the object would move to v position while the subject would move to Spec-I position to get its EEP features checked off. As the EPP features of the object could not be checked off completely at the light verb it would further move to Spec-I position to check off the EPP features completely. This would be in accordance with the minimalist assumption that there may be multiple specifiers to satisfy the LCA requirement (Chomsky, 1995). The verb would not sit in the original position because of the auxiliary fused with it. So, the tense features of the auxiliary in the complex [V+Aux: Khadisii] would compel the whole complex to move to I position. Hence, as the subject and object would move to

Spec-I position while the [V+Aux] complex would move to I position. This would result in the linear SOV structure as

mentioned in (1). The whole process of obtaining this structure can be represented in (4) as following.

4. [CP Spec [CC [IPZahi-ne_i roti [I 'khadi+sii_k [vPZahid-ney_i [v rotit_i[VPkhadi+siit_krotit_i]]]]]]

Apart from structural description in (4), some other solutions may be provided to solve the problem of linearization that occurs for Punjabi structure (1). For instance one option is the structure in 5 taken from Chomsky (1995, p. 314)

5. [AgrP Nom Agrs [TP Nom T [AgrP Nom Agro VP]]]

If (1) is analyzed according to (5), the object 'roti' would move out from VP to Spec Agr_o position represented as Nom between AgrP and Agr_o. The subject 'Zahid' would move in steps to Spec Agr_s position. The verb would sit in-situ in VP to preserve the linear order SVO. The SVO order is obtained, but what about the tense auxiliary 'si'. If we still adopt option (iii) from the three options presented by Hornstien et al. (2005), the auxiliary would be morphologically fused with the verb to form [V+Aux]. The problem is not yet solved. This complex should move to T position to get the tense features checked off. The tense features at T would attract this complex as it contains the tense auxiliary. The rightward movement of tense auxiliary by lowering movement is conceptually problematic. To solve the problem of auxiliary we have to assume that the complex obtained by morphological fusion of verb and auxiliary would move to T covertly.

As compared to the Punjabi construction (1), the English construction (2) involves less number of movements owing to the fact that the English surface is in line with the basic SVO which can be shown in (6). Another difference is that English verb 'ate' moves covertly to I as compared to Punjabi verb 'khadi' which moves overtly to I position.

6.
$$[CP Spec [CC]_{IP} Zahid_i]_{I} 'ate_i [VP Zahid_i]_{VP} Zahid_i]_{I} 'ate_i [VP Zahid_i]_{I} 'ate_i [VP Zahid_i]_{I} 'ate_i]_{I} 'ate_i [VP Zahid_i]_{I} 'ate$$

The English structure, as schematized in (6), involves lesser number of movements i.e. from V to I of the verb 'ate' and from Spec-v to Spec-I position of the subject 'Zahid'.

Apart from the analysis schematically described in (4) which is in line with LCA by virtue of minimalist move (i.e. internal merge) operations, there are some structures of Punjabi and other languages with SOV surface order which demonstrate canonical SVO word order. This is evident from the multi-clause Punjabi structure in (7).

The syntactic structure (7) shows an instance of a straight forward SVO surface structure in an otherwise SOV structure language. The embedded clause 'ki o aavegaa (that he will come)'occupies the structural position of object of the matrix verb 'aakhia'.

The question arises why this embedded clause fails to move like other objects of the language. The answer is not very complicated. The presence of the complimentizer blocks the movement of the embedded clause to the position which would be possible in the absence of complimentizer as evident in (1). In any case, the availability of SVO surface word order in SOV languages is very stronger evidence in favor of Kayne's argument that SVO is base order for all languages.

Unlike the SVO word order of (7), the multi-clause Punjabi structures constructed of non-finite clauses manifest the usual SOV surface word order as observed by mono-clause simple structure in (1). This is obvious in (8) and (9), and (10) below.

8. O- ne ki kardain e aakhia.

He-Erg what doing this said.

Doing what, did he say this?

9. Muneeb-ne menu kitaab pardian e aakhia.

Muneeb-Erg to me book reading this said.

Muneeb said me this while reading book/ Reading book Muneeb said me this.

10. O- ne kiday who naal jandian e aakhia. (Bhattia, 1993, p. 17)
(m) said.
He-Erg with going this

Going with whom, did he say this?

The above three structures contain non-finite clauses as compared to the finite clause in (7). The non-finite clauses of these structures do not hinder the object to move to the pre verbal position. For instance, (8) contains a direct object i.e. the demonstrative 'e' (this) and an indirect object 'menu' (to me). Both these objects occur according to SOV word order. It implies that intervening non-finite clause 'kitabparhdian' ((while) reading book) does not block the movement of both the object to preverbal position. The non-finite clauses in (8), (9), and (10) might be a matter of Adjunction which has been the most inconvenient structural constituent for the researchers of Syntax; however, this is beyond the scope of this paper to delve into the structural position of these constituents. Relevant here is the fact, evident from all these structures, that in the absence of a blocking category e.g. a complimentizer'ki' as in (7), the object would move to pre verbal position to demonstrate SOV word order.

The results obtained by the current analysis of Punjabi are in line with other studies on Indo-Aryan languages e.g. Nayudu's (2008) analysis of Marhati. Providing a minimalist account of Marhati language, Nayudu supports Kayne's (1994) assumption of LCA. Marhati, like Punjabi, is a SOV language at surface level. This is evident from (11) and (12) below.

11. Tyaa-ne pustak vaachali

3. S. M-ERG book-3. S. F read-PAST. 3. S. F

`He read the /a book. (Nayudu, 2008, p. 15)

12. Tini dzaada-varchadhali

T. 3.S.F tree-onclimb-PAST3. .s

`Tini climbed the/ *a tree. '(Nayudu, 2008, p. 15)

Seeking evidence from data of Hindi language Mahajan (2003) supports the argument that both SVO and SOV languages are generated from SVO base structure. However, the mechanism provided by him for leftward movement of constituents, in both SVO and SOV languages, is problematic. He assumes that in SVO languages object moves to the left of VP and VP moves to the left of 'I' to Spec I position. In SOV languages the object moves to left of VP, but remains within VP. The whole VP further moves to the Spec I position to the left of I. (Nayudu, 2008, p. 56) This mechanism movement for both SOV and SVO is problematic in that V cannot get its tense features checked off until it moves to T or I position. Therefore, the assumption that the whole VP moves to Spec I position is not acceptable. Secondly, it is not possible to move the whole VP along with object, at its left, to the Spec I position. Hence, the mechanism provided by Mahajan for obtaining linear SVO and SOV orders in different languages is vulnerable to criticism.

The results obtained by this study are unexpected for the two approaches which contradict LCA. The first approach, as proposed by Takano (1996), Fukui and Takano (1998), and Haider (2012), maintains that the base word order is complement-head OV instead of head-complement. This study finds evidence from Punjabi language where the surface word order SVO may also be obtained against the more usual SOV linear order of the language which poses problems for SOV base order. The second approach, which contradicts LCA on more conceptual bases, is assumed by Chomsky (2013, 2015) that linearization is not a matter of Narrow Syntax where the primary operation 'Merge' takes two SO's and converts them into a new SO. The ordering of the two objects is determined at phonetic component. The findings of this study pose problems for Chomsky's recent assumption that if two different surface orders are obtained in one language how can it be parameterized under one parametric option under Principles and Parameters approach. However, some further research is needed to check the conceptual possibility of parametric variation of multiple word orders within the same language.

Conclusion

The minimalist analysis of selected structures from Punjabi and their comparison with English reveal that the surface order of variation of the two languages i.e. SOV and SVO respectively is derived by leftward movement of different constituents. For observing universal word order i.e. SVO at base, in accordance with Linear Correspondence Axiom, there are certain structural or morphological adjustments allowed. According to this study, the SOV of Punjabi may be obtained by different possible solutions. One solution is the fusion of verb and auxiliary by a morphological operation to form a complex which can as a whole move to I or T position to get the tense features checked off. The object would move to Spec I position like subject resulting in multiple Spec I position. This is in line with Chomsky's (1995) view that multiple-specifiers help solving the problems caused by linearization and Adjunction. There are other possible structural solutions to the problem of linearization

in SOV languages. The object may move to Spec Agr_o and [V+Auxiliary] complex can overtly remain in-situ while covertly it may move to I or T position.

In any possible solution, this study disagrees with Mahajan's (2003) framework for derivation of SVO and SOV linear orders. The framework is fallible for assuming that a whole VP moves to Spec I/T position. This is in no way possible as V can't move to Spec I/T position to get the tense features checked off. Spec I position contains EPP features or case features which may attract subject an object to satisfy these features, but not V or VP. So, Spec I/T is in no way a potential landing site for V or VP.

References

- Akhtar, R. N. (1999). Aspectual complex predicates in Punjabi, PhD Thesis. University of Essex. Bhatia, T. K. (1993/2013). Punjabi: A congnitive-descriptive grammar. New York: Routledge.
- Bhardawaj, M. R. (1995). *Colloquial Punjabi: A complete language course*. London, United Kigdom: Routledge.
- Bhatia, T. K. (1993). *Punjabi: A congnitive-descriptive grammar*. London, United Kingdom: Routledge.
- Butt, M. (2017). Hindi/Urdu and related languages. In The oxford handbook of ergativity (pp.734-755).
- Chomsky, N. (1955/1975). The logical structure of linguistic theory. Published 1956 version in part (1975) with Chomsky's introduction. New York: Plenum Press, and University of Chicago Press (1985). 1955 manuscript currently available as PDF document on Internet.
- Chomsky, N. (1957). Syntactic Structures. The Hague: Mouton.
- Chomsky, N. (1964). Current Issues in Linguistic Theory. The Hague: Mouton.
- Chomsky, N. (1965). Aspects of the Theory of Syntax. Cambridge, Mass.: MIT Press.
- Chomsky, N. (1970), Remarks on nominalization. In R. Jacobs and E. Rosenbaum (eds.), Readings in English Transformational Grammar. Waltham, Mass.: Ginn, 184-221.
- Chomsky, N. (1981), Principles and parameters in syntactic theory. In N. Hornstein and D.Lightfoot (eds.), *Explanations in Linguistics*. London: Longman.
- Chomsky, N. (1986), Knowledge of Language: Its Nature, Origin and Use. New York: Praeger.
- Chomsky, N. (2013). Problems of projection. Lingua, 130, 33-49.
- Chomsky, N. (2015). Problems of projection: Extensions. In E. Domenico, C. Hamann, & S. Matteini (Eds.), *Structures, strategies and beyond: Studies in honour of Adriana Belletti* (pp. 1-16). Amsterdam, The Netherlands: John Benjamins.
- Fukui, N., & Takano, Y. (1998). Symmetry in syntax: merge and demerge. *Journal of East Asian Linguistics*, 7, 27-86.
- Haider, H. (2012). *Symmetry breaking in syntax*. Cambridge, United Kingdom: Cambridge University Press.
- Hornstein, N., Nunes, J., & Grohmann, K. K. (2005). *Understanding Minimalism*. Cambridge, United Kingdom: Cambridge University Press.
- Huang, C. J., & Roberts, I. (2017). Principles and parameters of universal grammar. In I. Roberts (Ed.), *The Oxford handbook of universal grammar* (pp. 304-350). Oxford: Oxford University Press.

- Kayne, R. S. (1994). The antisymmetry of syntax. Massachusetts, MA: MIT Press.
- Koopman, H. (1984). *The syntax of verbs*. Dordrecht, The Netherlands: Foris.
- Mann, G. S., Singh, G., Shah, A. P., Schreffler, G., & Murphy, A. (2011). *An introduction to Punjabi: Grammar conversation and literature*. Patiala, India: Publication Bureau Punjabi University Patiala.
- Nayudu, A. (2008). Issues in the syntax of Marathi- A minimalist approach (Unpublished doctoral dissertation). University of Durham, Durham, United Kingdom.
- Travis, L. (1984). *Parameters and effects of word order variation* (Unpublished doctoral dissertation). MIT, Massachusetts, MA.
- Radford, A. (2004). *English syntax: An introduction*. Cambridge, United Kingdom: Cambridge University Press.
- Simpson, A., & Bhattacharya, T. (2003). Obligatory overt wh-movement in a wh-in-situ language. *Linguistic Inquiry*, 34, 127-142.
- Stowell, T. (1981). *Origins of phrase structure* (Unpublished doctoral dissertation). MIT, Massachusetts, MA.
- Takano, Y. (1996). *Movement and parametric variation in syntax* (Unpublished doctoral dissertation). University of California, Irvine, CA.