

Wh-Movement Pattern in the Spoken Discourse of Teachers: A Syntactic Analysis

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Abstract

This study investigates the syntactic structures of spoken discourse of teachers in academic discourse. The knowledge of syntactic structure of a language helps in understanding the spoken discourse. So, the study identifies the wh-Movement in the syntactic structures of teachers in English classroom sessions. The data was collected from two universities of Federal government, Pakistan. The one was Air University Islamabad and the second was National University of Modern Languages Islamabad. The data was collected through the recording tool where the English classroom sessions of the teachers were audio-recorded and transcribed. The analysis of data was quantitative and qualitative in nature. The frequency of wh-movement in the structures of recorded English spoken data was analysed quantitatively. In qualitative analyses, the transcribed data was analysed syntactically, keeping in view minimalist perspective, with the help of parsing rules and figures. The analyzed data shows that the teachers at undergraduate level use language where wh-movement is employed in syntactic structure of English used in classroom sessions. They move wh-expression into other slots like internal merge and pied-pipe. However, the minimalist parametric unit, wh-movement, was found in the sentence structures of the teachers in the delivery of classroom sessions. So, the minimal pairs of sentence structure impacts different level of language.

Key Words:

Academic Discourse, Classroom, Minimalism, Spoken Language, Syntactic Structures, Wh-Movement

Introduction

Hornstein, Nunes and Grohmann (2005) describe context free and phrase structure rules component which is based on a variation. The phrase structure rules analyse a sentence structure where a sentence is denoted with 'S' expands to noun phrase (NP) Auxiliary (Aux) and verb phrase (VP), as shown in Figure 1. Similarly, verb phrase expands to verb along with a category of optional noun phrase and

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prepositional phrase and sentence complements. It also expands the noun phrase into determiner, noun, preposition and sentence complements. However, this shows that the phrase makers generate no lexical node(s) at terminals.

1) Basic phrase-structure rules

- a. $S \rightarrow NP \text{ Aux VP}$
- b. $VP \rightarrow V (NP) (PP) (S)$
- c. $NP \rightarrow (\text{Det}) N (PP) (S)$

This is further elaborated in figure (1) where the sentence is divided into three major branches like noun phrase, auxiliary and verb phrase. The noun phrase and verb phrase have further division and binarity but auxiliary is ended after one projection. However, this is violating the rules of binarity principle of syntax.

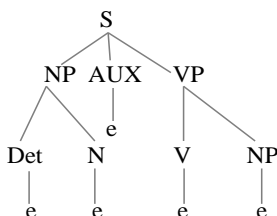


Figure 1: Basic Phrase-Structure Rules

The figure (1) presents the parsing rules of the syntactic analysis which were called immediate constituents (IC Analysis). It is more elaborated with the help of example which is presented in tree figure 1. This states that the auxiliary has no further branching which violates binarity rules prescribed by Chomsky in minimalist program.

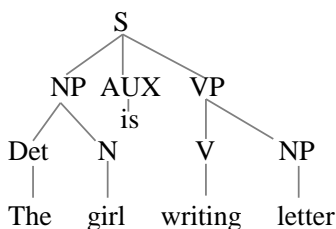


Figure 2: Basic Phrase-Structure Rules Example

Additionally, it is further states that X bar theory was proposed to eradicate the redundancy by allotting of phrase structure. This adjusts the projections of specifier in a sentence structure which is the adaptation of binarity principle for the sentence unit allotment. It also specifies the incorporation of maximal projection of the head word in the sentence structure. X' theory made the sentence structure

to accommodate the units and categories of sentence. Similarly, the X' in the figure 3 makes the adjustment of complement, adjuncts, modifiers and specifiers. Finally, the maximal projection is XP in the structure of the sentence.

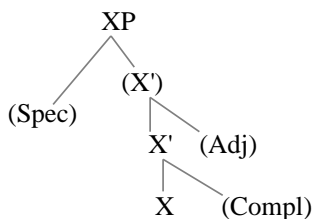


Figure 3: X'-Theory

Moreover, the minimalist syntactic analysis is discussed in detail. As the current study is in generative syntax, Etymological perspective; the term “syntax” is from Greek language which means “arrangement” while in Linguistic it means more specifically the study of arrangements in language (Lockwood, 2002). In addition, syntax is important in terms of practical skill in syntactical problems for understanding the spoken or written language should be evident to every teacher (McSpadden, 1950). As in English language has word classes which are divided in two major categories. These categories are lexical words and functional words. Lexical words have complete meanings and considered as the base of sentences while for grammar purposes functional words are used like with morphemes, conjunctions and different types of links. Moreover, this is not the only way to apply distinction in generative grammar, the four main types of words in generative grammar literature, considered as the skeleton of syntax are: verbs, prepositions, nouns, adjectives (Hornstein et al. 2005).

Wh – Movement

Wh is word which starts with ‘W’ or ‘H’ which makes a sentence as interrogative on nature which is generally named as ‘wh’ sentence. Wh-movement means that when the ‘wh’ word moves from one place to another within a syntactic structure. In Wh-movement the wh-word leaves its original slot and takes new slot in the syntactic structure. In this study, I analysed the sentence where the teacher has used the phenomenon of wh-movement which has affected the syntactic patterns of sentence(s). Wh-movement has types through which ‘wh’ and its movement is recognized in the syntactic structure. The types of wh-movement are; merge, agree and pied-pipe. As merge is defined that the movement is a kind of merger operations mean a merge which do involve the taking of an item in lexical merging (Chomsky & Collins, 2001). Pied-pipe is the dragging of wh-word where the

movement of a wh-quantifier to spec-Complementiser takes place within syntactic patterns of a sentence (Radford, 2009b).

Furthermore, the above mentioned three major areas are discussed and analysed qualitatively and quantitatively. This thesis explores the syntactical structures of the teachers at university level in Islamabad (Pakistan). This research studies the syntactic structures of teachers in academic discourse. As the academic discourse is about the surroundings of academics and sessions are central to academic enterprise and it provides material to knowledge creation and education (Hyland, 2009). In Pakistani context, some scholars have worked on syntax in academic discourse such as Parvaiz and Khan (2010), Abbas, Zia and Khan (2014), Lunsford (2001), Sultan (2015), Ngangbam (2016) and Zanuttini, Pak and Portner (2012). But all of them have worked on syntactic error analyses. The missing area is syntactic analysis with minimalist perspective of Wh-movement analysis.

Research Objectives

- To identify the wh-Movement in English classroom sessions for undergraduate level.

Research Questions

- How do teachers employ wh-movement in English classroom sessions at undergraduate level?

Theoretical Framework

Minimalist Program is successor to the government and binding model. He defines minimalism that it questions the language properties with two interrogative perspective of what and how. So, it states not only what the properties of language are but also how those properties are that way. It further elaborates that a structure follows two principles, the one is Headedness Principle which means that a syntactic structure has a projection of a head word and the second is Binariness Principle where a syntactic structure is binary-branching (Radford, 2009).

However, in linguistics the minimalist program started early 1990s within the study of generative grammar which was promoted with a paper of Noam Chomsky in 1993. It is essential to compare Minimalist program with earlier models in the generative method of grammar. Chomsky developed a theory having a number of independent sub-theories having their own rules and exemptions including Case Theory for assigning cases to nominal, Binding Theory to deal with anaphors, Control Theory to deal with implied nominal, Bounding Theory to deal with wh-movement. The previous theories could be replaced by another model of syntax which was suggested by the Minimalist program. The generic principles are not

restricted to specific principles of grammar through which Morphemes are allocated to syntactic nodes. Except of keeping the morphemes in detailed rules, they are categorized shortly. For doing this, many syntactic structures are suggested sometimes every structure expresses its own semantic feature. Each morpheme will accommodate many syntactic structures in an expectable way. The syntactic structure does not refer Minimalistic, but how morphemes get assigned.

Literature Review

Syntactic analysis is one of the linguistic analyses where the sentence structures are analysed. In the current study, it is objected to the field of syntax which indicates the syntactic level of research analyses. The present study presents the syntactic analysis of teachers' discourse in English classroom sessions with the minimalist perspective of Chomskian approach to syntax. Similarly, many researchers have contributed to this area of research in different context like the below quoted research.

Additionally, Pătruț (2012) has contribution to the field of research. He conducted his research at phrasal level of the syntactic analysis. Further, his syntactic analysis of phrases in Romanian, the natural processing of language is a significant process. It suggested an actual solution, grounded on the knowledge of using some word(s) that indicate grammatical class. He developed a system (DIASEXP); it can implement a dialogue in natural language with assertive and interrogative sentences. They did talk about definite clause grammar and context free grammar. Each grammar rule is interpreted as a definite clause in Horn's logic (Perreira & Warren, 1986). It is founded that complex phrases will be a problematic for the classic chart parsers. The distinguishing structures of the Romanian language linked to the morphology of words or the way in which adverbials are made can be effectively used in the syntactic analysis by using a system centred on arrangements.

However, the above work is worth mentioning contribution where a system (DIASEXP) was developed for the analysis of the syntactic level of Romanian. He talked about definite clause grammar and context free grammar which are relevant to my study. It could help in my research to know the grammatical category of the utterances and their structures.

Similarly, the syntax has certain regularities in the structure of the sentence. Analysis of sentence is split into two phases; syntactic analysis (parsing) and semantic interpretation. The syntactic analysis is further elaborated in linguistic technique called immediate constituent analysis. With modification, Chomsky has come up with a new approach of Minimalist Program to analyse a sentence (Mellish, 1989). According to Rose (2000), he conducted a research in the field of engineering that the clarification is important for errors to know about their deceptive nature to be measured.

In addition, I quoted the recognition of syntactic error which is still difficult for the students to understand and comprehend, because they face problems in it. Likewise, many failures in the field of engineering and their success are because of the syntactic errors. It is due to the weak level of their spoken and written syntactic patterns. It is further noticed that in the side of commerce, it is criticized that the curriculum has faults in its nature. Therefore, Rose conducted research to know the views of the students. He made a quiz which contains many questions of syntax. It is shown that students made many errors in syntax of their language; the reason was their less knowledge of syntactic structures. The students said that in the quiz the difficult area was that of syntax which was difficult for to understand and solve. The students said that they had tried their level but could not get success in their objective of attempting the appropriate wording of syntax.

As Rose (2000), said that concept of syntactic and its analyses of errors are introduced to advanced level of students to improve their critical skills. The mixing of these kinds of difficulties may enhance the elaborating methodologies within their syllabus. Furthermore, Crowhurst (1980) conducted research to improve the area of syntax. Marion Crowhurst researched the syntactic complexity in narration and argument. He conducted his research in writings of the participants. The narrative form of writing gives an impression to produce syntactic structures in lesser complexity in comparison of other argumentative and expository writing. The reason could be form of narration contains large number of writing comparatively. He conducted at three grade levels in order to crack for the syntactic complexity in lower level, in order to determine the result of manner of discourse, narration and argument, on the syntactic complexity of compositions written by sixth, tenth, and twelfth graders from four elementary schools and two high schools in Brandon. There were substantial changes between Grades 6 and 10, and between Grades 10 and 12 in the syntactic complexity of compositions written in each mode. However, he comes with the result that the more the student is exposed to the syntactic patterns; the better will be his understanding and production. Second he talks about the practices of the appropriate use of sentence structure.

In the above research of Rose, it is explained that the different level of students in the context of syntactic analyses; firstly, he just took a single composition and analysed the students with that perspective, secondly, he did not specify the syntactic level of the individuals. This is relevant to my research in a sense that students of grade 6 to 12 are analysed with traditionally syntactic model. As my research is the analysis of undergraduates with minimalistic perspective.

Written Syntactic Analysis

Language has written discourse and spoken discourse where written syntax is researched with minimalist perspective. The researchers conducted on written

syntactic analysis are presented in this literature survey in order to bridge my study. In the written syntactic analysis, the Ngangbam (2016) had conducted research which is an investigation of English language syntactic difficulties determined in the written presentation of fresh students of English language classroom of Mutah University Kingdom Saudi Arabia. There were sixty native Arabic language subjects. In these only fifteen groups of errors were categorized to catch out the reasons of syntactic error writing compositions. According to Ngangbam (2016), “The features in syntactic error in this study were discussed into these sources; Arabic Interference, Failure in separating meaningful sentences, Performance error, Developmental error, Overuse” (p.8).

This research finds that the enactment difficulties committed in this study were because of mother tongue intrusion, misuse sentence section, overuse, and deficiency of grammatical familiarity. It shows the error analyses of different level of students at university level in Saudi Arabia. We could see that many of the researchers conducted research at error analyses level within the syntactic field. It is shown clearly that syntax is a problem for many of the students. Similarly, in my current research it is intended to know the minimal pairs of the syntactic patterns within the domain of syntax.

Spoken Syntactic Analysis

The spoken form of language has equal patterns of syntactic structures with written form of language, it is different in pragmatics. As Gahl and Garnesy (2004), the grammar contains knowledge of syntactic structures with some likelihoods, this brings variations in the language structure. According to Schuchardt (1885), the frequently words used is said to be shorten in nature but does not mean different syntactic patterns. Additionally, with the passage of time or with the societal modification within the grammatical rules of a language affects the utterances level.

Further, according to Gahl and Garnesy (2004), the syntactic patterns and its parts like noun phrase and verb phrase are discussed which shows the fundamental result is/was that appropriate possibility of a syntactic pattern affected the pronunciation of words in structures. Moreover, it is believed that the cognitive representation of language is affected by the way language is used (Bybee, 2001). The variation of pronunciation exposes the effects of possibilities of syntactic structures in dependable with the observation that production of language and formed by the exposure of speakers.

In the same area of study Levelt (2001) conducted research and presented in form of research paper. In the research paper, the area is chosen that is spoken data. In this research, it is tried to cover the spoken of a language with respect to lexical theory. Although, it was a productive research but it was very much confined to the lexeme level of the correspondent.

Further, Leech (2000) said that the spoken grammar had corpora in over period of time. In the spoken corpora, it has given value and discussed with good attitude that spoken is part of pure language. In written language, the traditional grammatical modals were modified and brought into the use of spoken language. It was found that “spoken and written English share the same grammatical repertoire, but with different frequencies” (p.713). Moreover, he investigated through a corpora that the incomplete and inappropriateness of different syntax elements is the exploitation of the sentence structures in spoken grammar. Whatever we speak is the result of the language knowledge practiced and learned. Therefore, the completeness of actual thought lies in the appropriateness of the grammatical structures like syntactic pattern. The spoken language and written language has communal between the syntactic structures of its part. In the research, the results showed that the spoken language is supported by the electric corpora which can raise the comprehension of spoken language. The characteristics of sameness and differentiates belong to the mentality. However, the teacher should make the mentality of spoken and written are alike.

In addition, Burt (1975) has researched the errors made by the adult learners of English as a Foreign Language in their classrooms. It analyzed their errors at local and global levels. As Global errors mean those errors which are affecting the overall organization of the sentence. While local errors mean the single element of the sentence, usually do not hinder communication. The teachers of EFL are regularly trained to correct these errors.

In another research, according to Quirk (1960), the spoken language and its grammar have its day in this modern world. Similarly, it improves the rate of oracy skill of the speakers of a language. As in the field of corpora, the spoken first corpus is credit to London–Lund Corpus in the time of pre-computer. Similarly, the study of corpus is enriched and developed the speaking level and its grammar. The massively engorged room of corpora of the spoken language is inclined to support the structure in huge spoken corpora such as British National Corpus. For the purpose of improving the dictionaries of English, the corpus is used.

Hence, the discussed researches showed that syntactic patterns are important. It is also discussed that in many ways the spoken and written are the same form of language. It is valuable to me that the syntactic patterns will be the same for spoken. In my opted theoretical framework, it is investigated that some minimal categories are neglected which affect the structure and meaning of a sentence. In the support of this, the sentence structure means to fill all the slots of the syntactic structure which will be helpful and meaningful for the comprehending agent.

Phrase Structure

In the field of syntactic structure, the sentence is analysed with the help of parsing. Parsing is a technique for the investigation to fill every appropriate slot of the

sentence accordingly. The German grammar is carried out in parsing method. According to Tallerman (2009), for the recognition of phrase structure and its category, the syntactic framework is used.

According to Sanders (1991), Analysis of students' errors is parser-based writing students of language. The grammatical analyses, German students is marked as the main source of the current research where discusses and compositions approaches to provide the analysis of students' committed errors in their written language of German. The study was made easy by using the Miami corpus of approximately 400 pages of second year German language. The German syntactic parser is applied as the basis of a writing aid for language students. Hence, the parsing is used in data analysis to show the minimal units of the syntactic structure. In the above mentioned research the parsing method is used in qualitative data analysis.

Wh-Movement

As wh-movement also known as wh-fronting, is one of the parameters in syntax. It concerns special rules of syntax, where it is focused on the placement of interrogative words. The research conducted on wh-movement is presented in this part. Abedi, Moinzadeh, and Gharaei (2012), have objected to find out the wh-movement in English and Persian language. He used Chomsky's government and binding theory as theoretical framework for the study. It was found that wh-movement operation in English is up to some extent similar with Persian language. He applied theta criterion, case filter principle over wh-movement. The interrogative sentences of Persian and English do have similarities and differences. It is said that case-generator, case filter principle and theta criterion over WH-word are counted in similarities. The wh-movement nature of mandatory in English is opposed to Persian language nature of optional, it is said to be among differences. This research shows the comparative study of two languages. A study was researched, to compare English and Persian in terms of Wh-Movement. The researchers have made the conclusion that wh- movement is somehow similar in both languages.

Additionally, Btoosh (2010) researched the study of wh-movement in Standard Arabic has been studied with the help of Optimality Theory framework. It is resulted that wh-movement does exist in Arabic language. In addition, a research was conducted by Batet (1993) where he tried to find out the reason for the no insertion of wh-phrase in the language of children. It is argued that children are using such language that they do not take yes/no or wh-movement in their language. They are growing through different stages of their language development. A child can speak and ask but without insertion of wh-phrase in the start. It is found that till the age of 26 months it is difficult to find the wh-question in the language of a child. As example is quoted from the text, mummy doing? The

child wants to say that what is mummy doing? This happens in pre-functional stage (19-24 months) where the child cannot recognize questions. In functional stage (26-months) the child says like what mummy doing? The child is still leaving the slot of auxiliary empty. This stage is and in the second they miss some slots to be filled.

However, the presented researches show that wh-movement phenomenon of Chomskian has applications in several languages. The gap is created by the literature survey that English classroom sessions of university's teachers has not been researched, so the current study is aimed to analyse the wh-movement of university's teachers of their classroom recorded sessions.

Pakistani Context

In Pakistan, many researchers have been conducted research in syntax of English language where the researchers have worked upon the different aspect of the syntactic patterns including written and spoken form of language. Pakistan is a heterogeneous country in the context of culture and language. There are six major and fifty-nine small languages are spoken, 98% languages are spoken in Pakistan are Indo Iranian (Rahman, 2003).

As, Sultan (2015) published a research article where the syntactic errors predominant in Pakistani undergraduate students' written English has been investigated. The population was selected from intermediate board Karachi. The syntactic and other grammatical levels were analysed qualitatively. It suggests that the grammatical accuracy becomes the lifeblood of writing.

According to Sultan (2015)

“They have not used connectors, clear and comprehensive sentences, and punctuations where necessary” (p.256).

Similarly, Abbas, Zia & Khan (2014) worked on the syntactic and semantic analyses of the modal verbs of Urdu language. They have used the Xerox Linguistic Environment (XLE) parsers, a form of optimality theory. They have concluded that modals govern the case of sentence. It was also founded that models are agree either subject or object in Urdu language.

Moreover, in the written syntax, Pervaiz & Khan (2010) researched the syntactic errors committed by the students who are studying science subjects like chemistry, physics and mathematics. As they were not the students of English language, there were high ratio of mistakes and errors. In order to make the study, the researcher took data from students of BS degree program from the University of Sargodha. According to Pervaiz & Khan (2010) “The result showed that errors of verb i.e.33 % .The other two variables like tense and SVA are also related to the verb” (p.278).

Furthermore, the research of Pervaiz & Khan (2010) shows the syntactic level analysis at university level where the written form of language is analyzed only

and spoken form is left. Another aspect is that, the research is conducted only on the students of university; again the analysis of the sentences used by the teacher is not analyzed.

Research Methodology

Research Design

The study is based on mixed method approach where the data analysed both qualitatively and quantitatively. The collected data is transcribed for the purpose of analyses where the sentences are analysed qualitatively. In qualitatively analysis of sentences, the sentence structures is shown through parsing where every possible and appropriate slot of the sentence structures is shown through figures. The sentences are analysed with respect to the minimalist perspective where the categories are shown with symbols in the figures. Every analysed syntactic structure is discussed in a possible way. In quantitatively analysis of the transcribed data, the number of occurrences of every single unit of this research is shown in tabulations. In each category the table is presented to show the number of occurrences of syntactic element in the discourse of the teachers. However, I analysed the syntactic patterns of the recorded English classroom sessions from the two universities. Additionally, I manually counted the occurrences of each classroom sessions which is presented through tabulations with each part. Hence, the occurrences of each teacher are analysed quantitatively from their syntactic patterns.

Population and Sample

The population for the current research is selected from university level studies. The classroom recorded sessions were selected from Department of English of selected universities through convenience sampling. In spoken data, ethical issues matter that is why I have chosen the convenient sampling technique for the data collection. To maintain balance, seven teachers were asked for audio recording of their classroom sessions from one university and seven teachers were asked for audio recording of their classroom sessions from another university. However, seven sessions recorded from each selected universities and total number of sessions is fourteen which is shown in the table 1. The recorded data was transcribed for syntactic analysis of their syntactic structures with the perspective of minimalism. Every recorded session is transcribed for the analysis purpose. In the analysis, parsing method (tree figure) is used to explain every sentence.

Table 1. Number of Universities and Recorded Classroom Sessions

S	Name of University	Classroom Sessions
1	Air University Islamabad	7
2	National University of Modern Languages Islamabad	7
Total		14

Transcription of Recorded Data

The linguistic definition of transcription is to present symbolically and systematically the utterance of any language. The transcription of the data is aimed to know that whether others can study the recording in transcribed material or not. Transcription is highlighted by Pirie (1996) that the recorded material could be transcribed to understand the actual data. I transcribed the recorded material manually. Firstly, I categorized the session i.e. male and female. Secondly, I started listening of the sessions where Groove music player is used to listen the sessions, the player was useful in many features. It was a hectic and time consuming task while listening every word and sentence clearly. Finally, I transcribed the audio recorded data manually which are presented in appendices (see appendix-A). The transcription of data made my analysis easy to know every sentence and analyse quantitatively.

The qualitative method, I analysed the occurrences of sentences which are transcribed into written discourse. In data transcription process, I listen with keen attention and we write the every single uttered word(s) of the spoke man. This activity makes the analyses process to unpack the structure of sentences into the framework of minimalism transcription is the process of changing original spoken language into written form for further analyses (Bird, 2005). In the process of transcription, symbols are used to make the transcription for the syntactic analyses, symbols are presented below.

Used Symbols in Transcription

The process of transcription helps to identify each unit and minimal pair of the syntactic structure. In order to make the transcription more specific I have used symbols to display the linguistic features which were the parts of the teachers discourse in their classroom sessions. However, the table (2) presents the symbols used in the process of transcribing the data of the audio-recorded material.

Table 2. Used Symbols in Transcription

/T/	Teacher
/S/	Student
/NC/	Not clear
/SQ/	Student question
/TQ/	Teacher question
.....	Silence
/SD/	Students Discussion
/i/	Inaudible
/r/	Repetition

Italicized	Urdu language words utterance
Times New Roman	English Language words
(...)	In brackets utterance shows spoken expression

Analysis

Wh-Movement

The syntactic analysis based on minimalist perspective has null categories which were discussed and movements which contain wh-movements. Likely, wh-movement is a kind of movement operation which also named as wh-fronting. It was traditionally termed as wh-movement in syntactic studies. The wh-expressions are words which starts with ‘w’ or ‘h’ like who, what, which, when, where, how. Moreover, the syntactic categorisation is who makes DP, what makes DP, which makes DP, when makes AdvP, where makes AdvP, how makes AdvP (Radford, 2009a). Additionally, words like what, why, when, where, who, whom, how are the basic units for the wh-movement in syntax. In the transcribed data the teachers have used such structures where wh-word appeared in different positions and slots of the sentence structure. However, the wh-movement is divided in three types of movement which are Merge, Agree & Pied-pipe.

Merge

Merge is first kind of wh-movement where the phenomenon of merger operation takes place. Further, it is divided into two types that are internal and external merge. Merge occurs in the syntactic structures of the teachers in academic discourse. The syntax of the teachers made it different in nature in the spoken data when the merge takes place in the teachers’ syntactic patterns.

Internal Merge

The first type of merge that is internal merge is discussed and analysed with the help of tree figures and tabulations of the data analysed. The sentence (1) has been taken from the transcribed text of the teachers selected from the universities

- 1) The concept of soldier is what?

The positioning of wh-word/expression is not in the start of the sentence structure which makes the internal merge in wh-movement phenomenon. The teacher makes an interrogation but he/she positioned it in a different slot(s). Similarly, the wh-word is then followed by helping verb and subject. In this case wh-word comes

after determiner and tense. However, it is further explained with the help of tree figure 4.

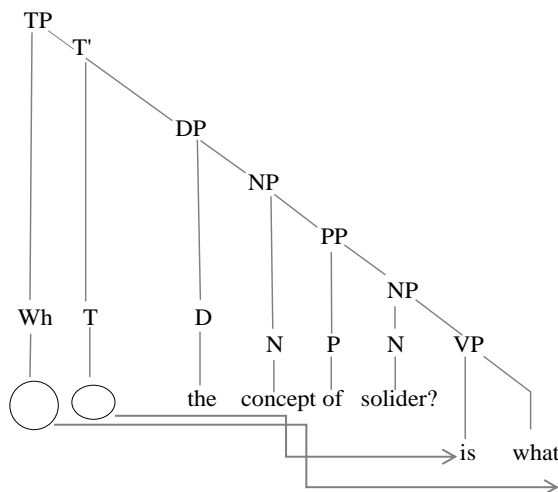


Figure 4. Internal Merge Wh-Movement Example

As in tree figure 4, the structure has verb phrase (VP-V- is what) noun phrase (NP-N-soliders), prepositional phrase (PP-P-of), noun phrase (NP-N- concept), Determiner phrase (DP-D-the), tense with T bar (T'-internal merged), wh-expression (moved) and maximal projection, as tense projection (TP) with specifier wh-word (what-moved). In minimalism, wh-word is moved from the slot where it needs to be allotted as shown in the figure 4. Moreover, the internal merge of wh-movement is found the data recorded and transcribed.

Table 3. Detailed Table of Occurrence of Internal Merge Wh-Movement

Classroom Sessions	Male	Female	Occurrences	Total
Session-1	✓		3	3
Session-2	✓		6	9
Session-3	✓		7	16
Session-4	✓		5	21
Session-5	✓		9	27
Session-6	✓		2	33
Session-7	✓		3	36
Session-8	✓		4	40
Session-9		✓	1	41

Session-10		✓	6	47
Session-11		✓	3	50
Session-12		✓	Nil	50
Session-13		✓	6	56
Session-14		✓	5	61

Table 3 shows the male and female teachers whose audio sessions were recorded for research data for the purpose of syntactic analyses. The number of sessions are fourteen where eleven sessions contain internal merge wh-movement. The occurrences are shown in figure and the transcribed material of males and females are analysed quantitatively where the occurrences are counted manually. It is found that the number of utterance of internal merge of wh-movement are searched which show that the total number of internal merge wh-movement is 61 times in the written material of the recorded data. This confirms the teachers' sentence structures which contain internal merge of wh-movement. However, the internal merge in wh-movement noted in the transcribed material which makes the different positioning of wh-word within the syntactic patterns.

Pied-Pipe

The second type of wh-movement is pied piping where the 'wh' quantifier moves to Complementiser (spec-C), then its complement are pied-piped. In the sentence (2), the wh-movement pied piped that is explained in figure 5.

2) You asked which one?

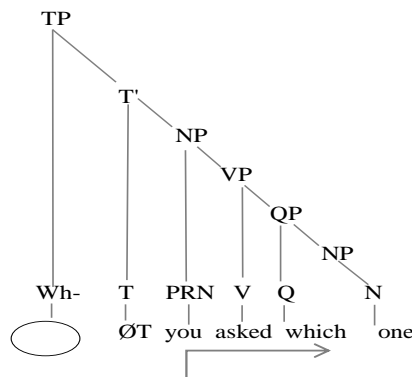


Figure 5. Pied-Pipe Wh-Movement Example

As in tree figure 5, the structure has noun phrase (NP-V- one) quantifier phrase (QP-Q-wh-expression), verb phrase (VP-V-asked), noun phrase (NP-PRN- you),

tense with T bar (T-null), wh-expression (moved-pied piped) and maximal projection i.e. tense projection (TP) with Specifier wh-word (what-moved). According to minimalism, wh-word is moved from the slot where it needs to be allotted as shown in the figure 5. This is pied piped wh-movement.

Table 4. Detail of occurrence of Pied Piped Wh-Movement

Classroom Sessions	Male	Female	Occurrences	Total
Session-1	✓		2	2
Session-2	✓		1	3
Session-3	✓		5	8
Session-4	✓		3	11
Session-5	✓		4	15
Session-6	✓		3	18
Session-7	✓		6	24
Session-8	✓		1	25
Session-9		✓	3	28
Session-10		✓	4	32
Session-11		✓	5	37
Session-12		✓	2	39
Session-13		✓	3	41
Session-14		✓	5	45

The table (4) shows the participation of male and female teachers. In the table the number of sessions is fourteen where twelve sessions have pied piped wh-movement and two sessions (session 4 & session 11) do not have pied piped wh-movement. The occurrences are listed in a figure the transcribed data of spoken material of males and females are analysed quantitatively which is presented through tabulation. It is revealed that the number of utterance of pied piped wh-movements is forty five (45) times in the written material of the recorded data. This shows that the teachers have spoken sentences which are pied piped wh-movement. The teachers use such language structures which contain wh-movements, further internal merge movement and pied-piped movement. However, due to the delimitations of this study, the two types of wh-movements discussed.

In the above wh-movement part, I analyzed the mentioned categories of wh-movement. In the analyses, it came to know that the English subject teachers used wh-movement in their language during the sessions. The analyzed categories of wh-movements are; internal merge, and pied-pipe. It was found that the teachers'

language contains the syntactic pattern which contains different kind of wh-movements. I provided examples from the transcribed material of the data in order to show the wh-movements. However, the analyzed data showed that wh-movements exist in the language of the mentioned samples. The wh-movement affected the syntactic patterns of the language used in the sessions.

Conclusion

The element of minimalism analyzed that is wh-movement. Every word has its own slot in a sentence in order to make it grammatical likewise; wh-word comes in the start of a sentence to make the sentence as interrogative one. The movement of 'wh' word from its slot to another is called wh-movement. The total number of frequency of wh-movement is displayed in table (5).

Table 5. Detailed Frequency of Wh-Movement in Total Recorded Sessions

S.No	Name of wh-Movements	Frequency
1	Internal Merge	61
2	Pied-pipe	45
Total		106
Total number of words of transcribed data		42158

The table 5 shows the frequency of wh-movement in the transcribed data. In column one it shows the types of wh-movement that is two. In the second column it shows the name of all the mentioned wh-movement. The third column displays the frequency of word(s) occurred in the transcribed material. The second last row shows the total number of word(s) and its total frequency which is one hundred and six (106). The last row shows the total number of words in the transcribed material, the data of the research that is forty two thousand one hundred and fifty eight words (42158). Similarly, this movement also affects the semantic field of a specific sentence domain. This is used for stress purpose of the sentence, but again the students will be taught with ambiguous syntactic structure and, of course, its slots of the word.

Furthermore, written syntax and spoken syntax relation is a debatable issue to decide its similarities and differences of the syntactic structures. I agree upon and support that both are similar in terms of minimalistic view. The difference what we feel and come across with is just because of the involvement of pragmatics. The context helps to make word to convey message for a complete sentence. Similarly, in the discipline of linguistics and language classes the students need to learn and improve the language and its syntactic patterns. In other discipline of

studies language is used for communication purpose. However, student should be taught with appropriate syntactic structures.

In addition, the class the student is in the circle of two approaches, behaviourist and mentalist. At the same time the student is busy with mental process of the language production. Noam Chomsky proposed innateness and generativeness. Similarly, the student is using his /her cognition in order to develop the understanding level of their mental, but at the same time they are imposed to the domain of behaviourist as well like they are imitating their teacher. Whatever grammatical and syntactic structure is used by the speaker, the student will be imitating. The empty slots of syntactical structure are less effective in terms of comprehension and imitating of the teachers' syntactic structure.

Future Research

The analyses of the transcribed data suggest that areas need to be researched in future in order to develop the field of study. The following are the recommendations for further research.

- The wh-movement might be analysed in detailed with its all types defined by Chomsky in book 'Minimalist Program'.
- This area and data could be elaborated with the perspective of error analysis which will show the errors made by the teachers in their classroom sessions at the time of delivery of the sessions.
- A study could be carried out pragmatically to show the meaning of the syntactic structures in the context it uttered in.

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