PARAMETRIC VARIATIONS ACROSS PASHTO, URDU AND ENGLISH: A CROSS-LINGUISTIC SYNTACTIC STUDY

BY

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NATIONAL UNIVERSITY OF MODERN LANGUAGES

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Candidate of **Master of Philosophy** at the National University of Modern Languages do hereby declare that the thesis **Parametric Variations across Pashto, Urdu and English: A Cross-Linguistic Syntactic Study** submitted by me in partial fulfillment of MPhil degree, is my original work, and has not been submitted or published earlier. I also solemnly declare that it shall not, in future, be submitted by me for obtaining any other degree from this or any other university or institution.

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ABSTRACT

Title: Parametric Variations across Pashto, Urdu and English: A Cross-Linguistic Syntactic Study

Variations across languages have been extensively studied; however, Pakistani languages have received comparatively limited scholarly attention. Keeping this gap in view, the study aims to explore the parametric variations between Pashto and Urdu, and between Pashto and English by using X-bar theory as an analytical framework. It has been observed that Pashto first-language speakers do not have the same command on Urdu and English which can be attributed to the parametric variations between Pashto and Urdu, and between Pashto and English. Keeping this in view, this study sets out to explore the aforementioned languages in terms of head-position parameter, null-subject parameter and wh-movement parameter. Purposive sampling is used to collect a total of forty-five phrases and sentences from selected grammar books of Pashto, Urdu and English. Chomsky's (1981) Principles and Parameters theory is used as a theoretical framework. After analyzing the collected data with the help of X-bar theory, major findings of the study are: 1) English is head-first language while Pashto and Urdu are head-last languages with one exception in the prepositional phrases of Pashto language where it can serve as head-first language as well, 2) English is a non-null subject language; Urdu is null-subject language whereas Pashto is a partial null-subject language, 3) and English allows wh- movement but Pashto and Urdu do not allow wh-movement. Based on the findings, the study recommends that language instruction and curriculum design for Pashto-speaking learners of Urdu and English should explicitly address differences in head-position, subject omission, and wh-question formation. Also, teacher training and language materials should incorporate cross-linguistic syntactic comparisons to reduce transfer errors and improve multilingual proficiency. In addition to exploring an under-researched area, this study aims to enhance cross-linguistic understanding by analyzing parametric variations between Pashto and Urdu, and between Pashto and English. By highlighting both the similarities and differences in these syntactic features, the study contributes to a broader appreciation of linguistic diversity and deepens insights into syntactic variation. However, future research should examine spoken data and additional syntactic parameters to further enhance understanding of cross-linguistic variations in under-researched Pakistani languages.

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LIST OF ABBREVIATIONS

NP	Noun Phrase
PP	Prepositional Phrase
Adj P	Adjective Phrase
Adv P.	Adverb Phrase
VP	Verb Phrase
P&P	Principles and Parameters
UG.	Universal Grammar
CP	Complementizer Phrase
TP	Tense Phrase
DP	Determiner Phrase

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DEDICATION

I dedicate this research article to my loving mother and brother whose prayers and support made it possible.

CHAPTER 1

1. INTRODUCTION

Language, a unique human attribute and an essential part of their existence, is primarily used for communication. Human language is an intricate system governed by complex rules. Languages across the world display remarkable diversity in their structures while also sharing universal traits that bind them as systems of human communication. Each language adheres to a set of rules governing syntax, morphology, and phonology, yet these rules vary significantly across linguistic families and regions (Yule, 2020). For example, while some languages exhibit rigid word order patterns, others allow for flexibility based on contextual emphasis. Despite these variations, all languages share the fundamental goal of enabling speakers to convey thoughts, emotions, and information. This interplay of similarity and difference forms the basis for comparative linguistic studies, shedding light on how diverse systems achieve the same communicative objectives.

One of the key dimensions of variation lies in word order, which determines how subjects, verbs, and objects are arranged in a sentence. While some languages, such as English, follow a fixed subject-verb-object (SVO) order, others, including many South Asian languages, prefer a subject-object-verb (SOV) order (Finegan, 2019). Furthermore, the positioning of modifiers, auxiliary verbs, and prepositions varies, reflecting deeper parametric differences among linguistic systems. Despite these structural distinctions, languages often adapt their rules to prioritize clarity, emphasis, or cultural preferences. Such variations, while making languages distinct, reveal common strategies for encoding grammatical relationships and organizing meaning (Crystal, 2003).

These linguistic similarities and differences are shaped by a combination of cognitive, social, and historical factors. Universal principles, such as the need to establish syntactic relationships, are parameterized differently in each language, resulting in unique grammatical systems (Chomsky, 2002). At the same time, cultural and historical contexts influence the evolution of languages, embedding them with distinct features that reflect the identities of their speakers (Rahman, 2011). Every language of the world has syntactic categories such as nouns, verbs, adjectives, etc. This is a universal principle. Arrangement of these lexical items in a chain or sentence

is decided by the specific rules or parameters of a particular language. These principles must be backed up by parameter settings. These parameters are set by children after being exposed to the language. As a result of these parameters, languages are different from one another. Chomsky (1981) calls this framework Principles and Parameters (PP) model. By exploring the parametric variations between Pashto and Urdu, and between Pashto and English, this study aims to contribute to a deeper understanding of how universal linguistic principles manifest differently across diverse linguistic landscapes.

The three parameters that this study explores in Pashto, Urdu and English are head-position parameter, null-subject parameter and wh-movement parameter. Head-initial languages are the languages in which the head of a phrase comes before its complement. Head-final language is a language in which the head follows its complement (Schdmidt, 2010). According to Radford (2004), null-subject or pro-drop languages are languages which drop the subject pronoun in sentences, while non-pro-drop language is a language in which subject cannot be deleted; for example, Italian is a pro-drop language. Moreover, wh-movement parameter refers to the movement of wh-words in interrogative sentences to the beginning of the sentence. In English, the wh-words are who, what, when, and where which appear in the beginning of interrogative sentences in English.

Pashto first-language speakers face challenges in achieving the same command in Urdu and English languages due to significant parametric variations between Pashto and Urdu, and between Pashto and English. This study is imperative for both Pashto first-language learners and teachers who encounter these languages in different settings; therefore, the researcher sets out to carry out this study on the parametric variations between Pashto and Urdu, and between Pashto and English.

Whereas several researches have been conducted to study the parametric variations in diverse languages across the globe, there is a dearth of comprehensive investigations in Pakistani languages from the perspective of Principles and Parameters. Therefore, the present study is an attempt to address the gap by comprehensively analyzing the aforementioned parameters between Pashto and Urdu, and between Pashto and English.

1.1 Background of the Study

The study of parametric variations across languages has become a crucial area of exploration within the field of linguistics. Researchers have shown significant interest in these language-specific variations as they provide key insights into the nature of language in general and the syntactic structures in particular. The investigation into parametric variations allows scholars to examine how languages differ in terms of word order, sentence construction, and the presence or absence of certain elements such as subjects or wh-words. Over the years, numerous linguists have contributed to this field, offering detailed analyses that highlight the underlying principles guiding language variation. By focusing on parameters such as the position of heads in phrases and sentences, the behavior of subjects in sentences, and the movement of wh-elements in different sentences, this research not only attempts to enhance the understanding of syntactic theory but also sheds light on the diverse ways in which Pashto, Urdu, and English organize their structures.

A prominent scholar in this field is Andrew Carnie, whose work *Syntax: A Generative Introduction* (2013) offers an in-depth analysis of various parameters within the generative framework, including the head-position parameter, the null-subject parameter, and the wh-movement parameter. Carnie highlights the significance of understanding head-final structures, especially in languages such as Japanese and Turkish, where the head of a phrase generally appears at the end. His investigation into the syntactic hierarchy and the role of heads in shaping phrase structures provides a foundational approach to analyzing the head-last parameter. Additionally, his exploration of the null-subject and wh-movement parameters offers key insights that form the basis for this study.

Tallerman (2015) and Radford (2004) provide thorough examinations of the aforementioned parameters, drawing on examples from various languages to offer a deeper understanding of syntactic variation. Their work contributes significantly to the field by exploring how these parameters—such as the head-position, null-subject, and wh-movement parameters—manifest in different linguistic contexts. By analyzing data from languages with distinct syntactic features, such as those with head-final structures or null-subject phenomena, Tallerman and Radford highlight the diverse ways in which these parameters function across languages. This comparative approach offers a valuable foundation for the current study, enriching the theoretical framework and

providing relevant examples to support the analysis of parametric variation within the generative model.

Uzair et al. (2020) examined the null-subject parameter by comparing Urdu and English, focusing on Urdu as a pro-drop language. Their qualitative, descriptive study uses observational research methods, including dialogues between a teacher and a mother, and questionnaires for data collection. Using the minimalist program for analysis, they conclude that Urdu is a null-subject language, unlike English.

Rustam and Rahman (2021) explored the impact of L1 Hindko head-parameter setting on learning Urdu and English as second languages. Their longitudinal, exploratory study tracked the language development of a 3-year-old Hindko-speaking girl over 12 months. The study found that English, a head-first language, posed challenges for the child, while Urdu and Hindko, both head-last languages, were easier to learn due to the similarity in head-parameter setting. The research highlighted that the child's acquisition of English was more difficult because it required adjusting the language acquisition device (LAD) to accommodate a head-first structure.

Maqsood et al. (2018) conducted a comparative study on wh-movement in Urdu and English from a minimalist perspective. They concluded that wh-movement is obligatory in English, with wh-expressions always moving to the beginning of a sentence to form interrogatives. In contrast, Urdu allows wh-phrases to occupy three different positions in interrogative sentences. Additionally, while the movement of tense markers is mandatory in English, it is optional in Urdu. This study, focusing on a single parametric variation between Urdu and English, provides valuable context for this research.

Building on existing research and the broader literature on parametric variations, this study focuses on analyzing the differences between Pashto and Urdu, as well as Pashto and English, in terms of three key parameters: the head-position parameter, the null-subject parameter, and the wh-movement parameter. Anchored within Chomsky's Principles and Parameters theory (1981), this research aims to synthesize insights from prior studies while employing a rigorous theoretical framework to examine selected phrases and sentences. The goal is to identify both universal syntactic principles and language-specific variations across these parameters.

Moreover, many researches have been conducted on the parametric variations across the globe and have made valuable contributions; however, a comprehensive study has not been conducted to explore the parametric variations namely head-position parameter, null-subject parameter, and wh-movement parameter between Pashto and Urdu, and between Pashto and English. Therefore, the present study is an attempt to address the gap by comprehensively analyzing the aforementioned parameters between Pashto and Urdu, and between Pashto and English. By exploring the parametric variations between Pashto and English, and between Pashto and Urdu, the research aims to deepen the understanding of universal grammar in general and language-specific phenomena in particular.

Moreover, this study has the potential to enhance broader linguistic theory and language processing models. By examining the parametric variations related to the head-position parameter, null-subject parameter, and wh-movement parameter, this research intends to contribute to the understanding of linguistic universals.

1.2 Statement of the Problem

Pashto first-language speakers' difficulty in acquiring the same command on Urdu and English can be attributed to differences in grammatical features of the three languages. According to the theory of Universal Grammar, certain grammatical features are similar across languages which are known as principles. However, parameters vary from language to language and are, therefore, responsible for the distinct grammatical features each language possesses. The variations in grammatical features between Pashto (L1) and Urdu (L2), and those between Pashto (L1) and English (L3) make it difficult for the Pashto speakers to have equal command in the three languages as they have to readjust the parameters for their L2 and L3. The purpose of this study is to bring to light the parametric variations between L1 and L2 and those between L1 and L3 in the light of Principles and Parameters model, propounded by Chomsky (1981) in his Universal Grammar theory. By outlining the parametric variations between Pashto and Urdu, and between Pashto and English, the study hopes to facilitate the learning of Urdu and English for the native speakers of Pashto.

1.3 Research Objectives

The objectives of the research are:

1) To identify the parametric variations between Pashto and Urdu, and between Pashto and English.
2) To analyze the parametric variations between Pashto and Urdu, and between Pashto and English with the help of Universal Grammar theory.

1.4 Research Questions

The researcher will find answers to the following questions:

1) What parametric variations can be identified between Pashto and Urdu, and between Pashto and English?
2) How does the Universal Grammar theory help explain the parametric variations between Pashto and Urdu, and between Pashto and English?

1.5 Significance and Rationale of the Study

This research holds significance in several key areas. Firstly, it is highly imperative for native speakers of Pashto. The findings of the study have the potential to sensitize Pashto speakers about the parametric variations between their language, Urdu, and English. This heightened awareness can play a pivotal role in facilitating their learning of Urdu and English by helping them understand the structural differences and similarities among the three languages. As a result, Pashto speakers can approach language learning with greater clarity and confidence, leading to more effective language learning.

Secondly, this research is crucial for language teachers who teach Urdu and English to Pashto-speaking learners. A comprehensive understanding of the parametric variations between Pashto and Urdu, and between Pashto and English enables teachers to reassess and refine their teaching methodologies. By incorporating insights from this study, teachers can design more targeted and effective instructional strategies, ensuring that their students grasp the complexities of Urdu and English grammar more easily. This, in turn, enhances the overall teaching-learning process, making it more engaging and productive.

Finally, the study's findings contribute to the broader field of linguistic research by providing valuable insights into the syntax of Pashto, Urdu, and English. This work serves as a foundation for other researchers interested in exploring cross-linguistic syntactic variations. Future researchers can use the methodology and findings of this study as a model to examine regional languages and their comparisons with dominant global languages. By expanding the scope of cross-linguistic studies, researchers can uncover unique patterns and relationships that further enrich our understanding of language diversity and structure.

1.6 Delimitation

The study is delimited on the following grounds:

I. Firstly, the study is delimited to three languages: Pashto, Urdu and English.
II. Secondly, it has been delimited to three parameters: 1) head-position parameter, 2) wh-movement parameter, and 3) null-subject parameter although there may exist other parametric variations between Pashto and Urdu, and between Pashto and English as well.
III. Thirdly, the study has been delimited in terms of data collection. The researcher has selected a total of five phrases/sentences from each language for each of the selected parameters.
IV. Finally, this research has not taken into account the grammatical gender, case, number, and person of Pashto and Urdu as it is a syntactic study whereas grammatical gender is a morphosyntactic feature.

1.7 Structure of the Study

This study about the parametric variations between Pashto and Urdu and between Pashto and English has been divided into five chapters. The chapter breakdown for the remaining chapters is mentioned below:

Chapter 2

The second chapter of this study, titled "Literature Review," provides a comprehensive overview of various learning theories relevant to language acquisition and learning such as structuralism, behaviorism, innateness theory, Generative Grammar, Universal Grammar, and principles and parameters. It also examines previous research conducted on parametric variations across different languages, highlighting the contributions of

various scholars in this area. By reviewing these studies, the chapter establishes a theoretical foundation for the current research, identifies gaps in existing literature, and contextualizes the study within the broader framework of linguistic inquiry.

Chapter 3

Chapter 3, titled "Research Methodology," outlines the detailed approach adopted for this study. It describes the research design and method, explaining how the data was collected and the sampling techniques used. Additionally, it elaborates on the method of data analysis and the theoretical framework that guided the study, ensuring a systematic and structured examination of the research objectives.

Chapter 4

This chapter focuses on the examination and analysis of the collected data using the X-bar theory as the analytical framework. This chapter presents the findings of the research and provides a detailed discussion of the results, highlighting key insights and their implications in light of the study's objectives.

Chapter 5

This chapter offers a brief summary of the research findings related to the head-position parameter, null-subject parameter, and wh-movement parameter between Pashto and Urdu, and between Pashto and English. It concludes by highlighting study's contribution to the field, the limitations encountered, implications of the study, and suggestions for future research directions.

CHAPTER 2

2. LITERATURE REVIEW

This chapter is divided into four main sections. The opening section provides an introduction to structural linguistics, followed by behaviorism and arguments challenging it. The second section examines innateness theory and its criticisms of behaviorism. Following this, the third section provides an overview of Generative Grammar, Universal Grammar, and Principles and Parameters theory. Finally, the concluding section reviews relevant literature, focusing on the contexts of both Pakistan and other countries.

2.1 Structural Linguistics

Structural linguistics is a linguistic theory that emerged in the early 20th century, primarily influenced by the work of Ferdinand de Saussure. It is based on the idea that language is a structured system of signs that can be studied independently of their historical context or the intentions of individual speakers (Tyson, 2006). A key aspect of structuralist theory is the distinction between *langue* and *parole*. *Langue* refers to the shared language system that we all use unconsciously when we communicate, while *parole* denotes the actual individual expressions we produce (Carter, 2006). Carter argues that the focus of structuralists is on understanding the underlying structure of a language as a whole, rather than focusing on the use of language in specific instances

Structural linguistics profoundly impacted various fields, including anthropology, psychology, and literary theory, by reshaping the understanding of language. Its influence is evident in the development of numerous language studies and theories. One significant example is Noam Chomsky's transformational-generative grammar, which both builds upon and diverges from structuralist principles.

Chomsky's transformational-generative grammar, introduced in the mid-20th century, extended the structuralist focus on language systems to include a deeper exploration of syntax. Chomsky (1965) proposed that the ability to generate infinite sentences using a finite set of rules is inherent in human language. His approach emphasizes the innate aspects of language, positing a universal grammar underlying all human languages. This contrasted with structural linguistics, which mainly focused on

the structures and functions within specific languages without delving deeply into universality or innate aspects.

Furthermore, in *Syntactic Structures,* Chomsky (1957) highlighted that structural linguistics focused primarily on surface structures, which are the observable aspects of language such as sounds and word order. Chomsky argued that this approach overlooked the underlying syntactic structures (deep structures) that generate these surface forms. He posited that understanding these deeper structures was crucial for a true understanding of language.

Moreover, Chomsky (1957) challenged some core structuralist ideas, particularly the behaviorist notion that language learning is purely a matter of external stimuli and social conventions alone. Chomsky argued for an innate language faculty, and suggested that the complexity and richness of language could not be fully explained by external stimuli and social conventions alone, a concept not present in traditional structural linguistics. Therefore, it is imperative to provide an overview of behaviourism in the following section and the evidences that challenge this theory of learning.

2.1.1 Behaviourism

Harley (2014) is of the view that the empiricist perspective on language acquisition, influenced by the philosophical ideas of Locke and Hume, holds that all knowledge, including language, is derived from experience. According to this view, newborns enter the world as a tabula rasa, or blank slate, without any pre-existing knowledge or linguistic structures. Harley argues that this perspective leans heavily towards 'nurture' in the nature versus nurture debate, suggesting that environmental factors and experiences are crucial in the development of language. Over time, this theory has influenced and developed into behaviorist viewpoints, which emphasize the role of reinforcement and conditioning in learning. Additionally, it plays a significant role in the Piagetian perspective, which focuses on the stages of cognitive development and the acquisition of knowledge through interaction with the environment.

Skinner's book *Verbal Behavior* (1957) presented a functional perspective on understanding human language behaviour. Skinner's approach, grounded in behaviorist principles, emphasizes operant conditioning as a key mechanism in learning. Operant conditioning, a learning process developed through rewards and punishments, is

applicable to language learning, according to Skinner, who argued that language could be considered like other forms of cognitive behavior.

Skinner (1957) posited that language learning is essentially a process of habit formation, characterized by trial and error. During this phase, the child tries and fails to use correct language until it succeeds. The role of the environment, particularly human role models, is crucial in providing the necessary stimuli and rewards for operant conditioning. For instance, an infant's babblings which resembles appropriate words will be positively reinforced by caregivers through smiles or applause. This reinforcement encourages the repetition of similar vocalizations, eventually leading to the formation of syllables and words.

In the initial stages of language development, children primarily engage in listening, absorbing the sounds in their environment. They learn to associate specific sounds with contexts, such as the sound of a mother's voice during feeding, which becomes intrinsically pleasurable. Attempting to replicate these sounds can draw the attention of caregivers, and if the child's vocalizations are sufficiently close to adult language, they are often met with positive reinforcement, thus initiating the operant conditioning process in language acquisition (Skinner, 1957). However, there are significant evidences challenging this viewpoint which are discussed below.

2.1.2 Arguments against Behaviourism

- Adults typically only correct the factual accuracy and the semantic content of children's statements, rather than their grammatical structure (Brown & Hanlon, 1970, as cited in Harley, 2014).

- The theory of language learning as a conditioning process is contradicted by the observation that certain words, like "no!", are understood by children well before they begin to use them themselves (Harley, 2014).

- Language consists of a set of structures or principles that cannot be fully deduced merely by replicating individual utterances (Saville-Troike, 2006).

- Saville-Troike (2006) contends that children often find it challenging to mimic an adult's speech, particularly when it involves grammatical structures they have not yet begun to use.

- According to Saville-Troike (2006), children's language development patterns do not directly mirror the language they are exposed to, as the timing of when they begin using certain language features does not align with their prevalence in spoken input.

Overall, Skinner's behaviorist view suggests that language, like other learned behaviors, is learned through a combination of environmental interaction and reinforcement mechanisms. However, on the other hand, proponents of the nativist theory emphasize the innate and biological aspect that help in the acquisition of the language.

2.2 Innateness or Nativist Theory

Harley (2014) contends that the rationalist perspective on language acquisition, rooted in the philosophical ideas of Plato and Descartes, posits that humans are born with certain foundational concepts already ingrained in their minds. This viewpoint argues that the capacity for language is an innate human attribute, present from birth. Central to this theory is the emphasis on the inherent, biological aspects of language development, positioning it firmly on the side of 'nature' in the ongoing nature versus nurture debate. Over time, this perspective has evolved into what is known today as innateness or nativist theory, named after Chomsky, who further developed the idea that language acquisition is pre-wired within humans.

Chomsky's Nativist theory, also known as the innateness theory, proposes that children are born with an innate language acquisition capability, which is a distinct and biologically determined faculty (Aitchison, 2011). According to Aitchison, by innate, Chomsky means genetically programmed. He doesn't literally believe that children are born with a language ready to be spoken. Instead, he argues that there is a "blueprint" present from birth. This blueprint becomes active as the child reaches a certain stage in their development. With this blueprint, the child can more easily understand the language they hear around them, compared to if they were entirely unprepared for the unfamiliar sounds of human speech.

This theory aligns with the perspective that language is a fundamental human trait, integral to what makes us human, and that its acquisition is a natural aspect of human growth and maturation. Under this framework, it is believed that the human brain evolves with neural circuits preloaded with linguistic information. This inherent

predisposition for language learning is activated upon exposure to speech, enabling the child's brain to process and interpret linguistic inputs based on pre-existing cognitive structures and principles.

Central to Chomsky's theory is the concept of the Language Acquisition Device (LAD), which posits that children are biologically predisposed to acquire language (Chomsky, 1968). Chomsky (1965) argues that with the help of the Language Acquisition Device (LAD), any child can easily learn any language. Without this innate ability, learning a language would be impossible. Chomsky argues that all human languages, despite their apparent diversity, share certain common principles, such as the presence of sounds, verbs, and nouns. As children mature, they gradually uncover and understand these universal elements of language. Further extending this idea, Chomsky introduced the concept of Universal Grammar (UG), suggesting that the structure of grammar is a universal characteristic of all human languages, inherently understood by infants. This theory implies that the ability to acquire grammar is innately programmed in humans.

Additionally, Nativist theorists, including the linguist, Eric Lenneberg, emphasized the existence of a critical period for language acquisition. This critical period is a specific developmental timeframe during which the child's innate language faculties are most receptive to environmental stimuli, facilitating language development (Lenneberg, 1967, as cited in Harley, 2014). Lenneberg proposed that this critical period lasts till puberty, beyond which language acquisition, if not initiated, might not occur in a normal and functional sense.

The critical period hypothesis is often cited to explain why it becomes more challenging for older children and adults to learn a second language. Johnson and Newport (1989, as cited in Harley, 2014) explored how this hypothesis might explain second language acquisition. They identified two specific theories under this hypothesis: 1) maturational state hypothesis 2) the exercise hypothesis. Johnson and Newport claim that according to the maturational state hypothesis humans naturally have a heightened ability to learn languages early in life, but this ability diminishes as they mature, independent of other influences. Similarly, Johnson and Newport posit that the language learning capacity must be exercised early in life; otherwise, it will fade; this is known as the exercise hypothesis. Both these hypotheses imply that children will have an advantage over adults in learning a first language. Adults often

retain a foreign accent when learning a new language, suggesting that there may be a critical period for the development of phonology, or sound systems (Flege & Hillenbrand, 1984, as cited in Harley, 2014). This leads to significant critiques of behaviorism, particularly by Chomsky which is discussed in the following section.

2.2.1 Criticism on Behaviourism

Chomsky critiqued the behaviorist theory on the following grounds:

2.2.1.1 Inadequacy in Explaining Language Acquisition

Noam Chomsky's critique of the behaviorist theory, particularly its application to language acquisition, was profound and influential. Chomsky (1959) contended that the behaviorist notion, which suggests that language learning happens primarily through reinforcement and conditioning, falls short in explaining the multifaceted nature of how humans acquire language. According to behaviorist theory, language development in children occurs as a result of environmental stimuli and responses, where positive reinforcements shape language behaviors. However, Chomsky found this explanation to be significantly lacking.

Chomsky (1972a) emphasized the creative aspect of language. According to Chomsky, the “creative aspect of normal language is one fundamental factor that distinguishes human language from any known system of animal communication” (p. 100). Chomsky highlighted that children possess an astonishing ability to comprehend and articulate sentences that they have never been exposed to previously. A key aspect of Noam Chomsky's critique of behaviorist theory in language acquisition is his concept of an "innate language faculty," which he also describes as Universal Grammar. This revolutionary idea suggests that every human being is born with a natural, intrinsic capacity for language acquisition, a capacity that extends beyond the simple frameworks of learning through external stimuli and reinforcement as proposed by behaviorist theories like those of B.F. Skinner. This capability extends beyond mere imitation of heard phrases, suggesting that there is more at play than the simple mechanisms of conditioning and reinforcement proposed by behaviorists. He argued that this phenomenon indicates an inherent, possibly biologically rooted, capacity for language understanding and production. This inherent capacity enables children to generate novel sentences, understand complex grammatical structures, and rapidly

acquire the linguistic rules of their native language, all without explicit teaching or reinforcement for every new sentence they encounter.

Furthermore, children often make syntactic errors that cannot be attributed to mimicry, as these errors are not typically present in the speech they hear around them (Chomsky, 1957). This observation further undermines the behaviorist view that language learning is solely a product of environmental influence and mimicking observed speech. Instead, these errors suggest an active, internal processing of language rules, even if imperfect, indicating an innate language faculty at work. Additionally, when children attempt to replicate the language they hear, they cannot succeed unless they already possess the necessary grammatical framework (Harley, 2014).

2.2.1.2 Poverty of the Stimulus Argument

Chomsky (1965) proposed that children develop a set of linguistic rules or grammar that they cannot fully acquire from their surroundings alone. Harley (2014) is of the view that the language input children receive is flawed in several ways. Firstly, the speech they encounter often includes errors, such as slips of the tongue, false starts, hesitations, and merged sounds that make it difficult to discern individual words. Secondly, the linguistic environment does not provide enough examples of grammatical constructions for children to figure out the rules of grammar on their own. Specifically, children rarely encounter examples of incorrect sentences that are explicitly identified as wrong. These challenges are central to what has been termed as the "poverty of the stimulus" argument (Berwick, Pietroski, Yankama, & Chomsky, 2011, as cited in Harley, 2014).

2.2.1.3 Syntax and Structure in Language

Noam Chomsky was a vocal critic of Skinner's behaviorist theory. Chomsky (1959) argued that Skinner's approach neglected the crucial importance of syntactic knowledge in language competence. There is a fundamental difference between competence and performance. Competence refers to the “speaker-hearer’s knowledge of his language whereas performance is the actual use of language in concrete situations” (Chomsky, 1965, p.4). Chomsky placed significant emphasis on the importance of syntax and structure in language. He argued that the behaviorist approach, which largely focused on learning through stimulus-response conditioning, was inadequate in explaining how individuals comprehend and apply the intricate syntactic structures inherent in

language. According to Chomsky, the capacity to understand and utilize grammatical rules is a central component of language acquisition, a component that cannot be fully accounted for by the behaviorist paradigm of mere conditioning and reinforcement.

Chomsky's (1959) argument highlights that human languages are composed of complex rules that govern sentence structure, known as syntax. These rules determine how words are combined to form meaningful sentences, and they vary significantly among different languages. Chomsky posited that the ability to learn and apply these syntactic structures is not something that can be simply developed through external reinforcement or mimicry, as proposed by behaviorists. Instead, he suggested that there is an inherent cognitive mechanism at play, enabling individuals, especially young children, to intuitively grasp and apply these rules, even without explicit instruction (Chomsky, 1972).

Chomsky's (1959) focus on syntax and structure in language learning also led to questioning the extent to which language learning can be equated with other forms of learning studied in behaviorism, like animal training. Chomsky argued that the unique complexities of human language, particularly the creative and generative use of syntax, suggest a specialized and innate cognitive capacity that distinguishes language learning from other types of learning.

2.2.1.4 Lack of Empirical Evidence

“Much of the experimental work responsible for this advance has been carried out on other species, but the results … can be extended to human behaviour without serious modification” (Skinner, 1957, p.3). Chomsky (1959) criticized behaviorism for its lack of empirical evidence in the context of language learning. He pointed out a significant shortcoming in behaviorist theory: its reliance on laboratory experiments with animals, which he argued were not adequate for understanding the complexities of human language. Chomsky emphasized that the principles derived from animal studies, often involving conditioning and reinforcement, did not adequately translate to the complexities of human language acquisition and use. Chomsky contended that human language is a unique phenomenon, characterized by its intricate syntax, rich semantics, and the capacity for creative expression. These aspects of language, he argued, cannot be fully explained by stimulus-response theories that are derived from animal behavior. He pointed out that the behaviorist approach did not account for the inherent ability of humans, especially children, to acquire any language they are exposed to, and to

generate an infinite number of sentences, including those they have never heard before. This generative aspect of language, according to Chomsky, was a critical component that behaviorist experiments with animals could not address. He urged for a reevaluation of the principles of language acquisition, proposing that they should be grounded in studies that take into account the unique cognitive and linguistic capabilities of humans.

In short, Chomsky's contributions, while rooted in the structuralist tradition with its emphasis on systematic and rule-governed aspects of language, markedly diverged by incorporating notions of inherent linguistic ability and a universal grammar. Chomsky opened the door to a new understanding of language acquisition. He shifted the focus from a purely behaviorist model, reliant on observable stimuli and responses, to a model that incorporates an inherent linguistic capability. This capability allows for the internalization and manipulation of complex language structures, a process far more sophisticated than what could be accounted for by behaviorist principles alone. This critique was imperative in the field of linguistics and cognitive science, leading to a greater appreciation of the innate cognitive structures involved in language learning. This paradigmatic shift marked a significant evolution in linguistic theory, leading to further developments in psycholinguistics and cognitive science. The nativist theory, rooted in the rationalist perspective, gives rise to an umbrella term-generative grammar.

2.3 Generative Grammar

Generative grammar, a concept introduced by Noam Chomsky in the 1950s, has been a fundamental part of linguistic theory, particularly in the study of syntax. The key focus of generative grammar is to describe the rules and principles that govern the structure of sentences in any given language. Generative grammar is a finite set of rules that can generate an infinite number of sentences in a language (Chomsky, 1957). This concept emphasized the creative aspect of language use and the inherent grammatical knowledge that allows speakers to construct and understand new sentences.

Chomsky (1965) argues that technically, generative grammar is mentalistic as it focuses on exploring the mental processes that form the basis of language use. Chomsky is of the view that although observed linguistic behavior can offer insights into these mental processes, they do not define the core subject of linguistics. Generative grammar aims to describe the intrinsic competence of an ideal speaker-

hearer. If the grammar provides a clear analysis of the reader's contribution without assuming their intelligence, it can be referred to as a generative grammar. However, it is quite challenging for both the linguist and language-learning child to determine the inherent rules (the rules that have been mastered) from the data of performance (Chomsky, 1965). It is imperative to mention that an individual's self-reported insights and perceptions regarding their linguistic behaviors and competence can be subject to inaccuracies. Consequently, the objective of a generative grammar is to delineate the actual linguistic knowledge possessed by the speaker, rather than relying on their subjective declarations about such knowledge (Chomsky, 1965).

Generative grammar is a set of limited number of rules that can generate an infinite number of grammatical sentences (Chomsky, 1965). Following the syntactic rules of a language, a user may use language creatively and productively: s/he may use the never-heard utterances. Chomsky contends that native speakers of different languages, despite the structural differences across languages, acquire their native languages in the same way and in the same time. Modern linguist Tallerman (2020) argues that the variation among different languages of the world are not random but systematic. Within generative grammar, it is imperative to discuss Universal Grammar- a theory that states that the limited number of rules which can generate infinite number of sentences are innate to the human brain and common to all human languages. The following section sheds light on the Universal Grammar.

2.3.1 Universal Grammar

Cook and Newson (2007) are of the opinion that Universal Grammar (UG) is a theory of knowledge focusing on the mind's internal structure, specifically how its computational system associates sounds with meanings. Since the 1980s, it has been posited that this knowledge is based on universal principles applicable across all languages, alongside parameters that vary among different languages. According to Chomsky (1976, as cited in Widdowson, 1995), there is a set of principles, conditions, and rules that serve as fundamental elements or characteristics of all human languages. These are expressed as highly abstract principles, some of which are universally fixed, while others are parameterized. Thus, acquiring a language involves understanding how these universal principles are applied in a specific language and determining the correct settings for each of its unique parameters. Every principle or parameter in UG represents a significant statement about the cognitive processes in the speaker's mind

and the fundamental aspects of how language is learned, rather than merely being a description of an individual language (Cook & Newson, 2007). The significance of Universal Grammar theory lies in its continuous effort to harmonize the elements of grammar, the workings of the mind, and the aspects of language.

The aim of Principles and Parameters theory within Universal Grammar is to "describe the knowledge of language that the speaker has acquired, and to give a plausible account of how they acquired it" (Kuiper & Nokes, 2014, p. 90). It seeks to explain the mechanisms behind language acquisition, suggesting that certain aspects of language are inherently present from birth. Since the 1950s, Noam Chomsky and his proponents have argued that the linguistic competence the individuals have of their native language is due to a genetic predisposition inherent to all humans (Troike, 2006). According to Widdowson (1995), proponents of generative linguistics contend that without an inborn knowledge of linguistic principles and parameters, a young child could not successfully acquire their first language. Chomsky (2002, as cited in Widdowson,1995) refers to this inherent knowledge as the language faculty, which he believes is an innate aspect of the human mind, physically manifested in the brain and integral to our biological endowment. Saville-Troike (2006) argues that the language input children receive is insufficient for them to deduce the full complexities of grammar on their own. This input fails to provide the necessary details to define the constraints of grammatical structures. This argument is known as the 'poverty of the stimulus' (Kuiper & Nokes, 2014). Therefore, if language exposure alone cannot account for the acquisition of a first language, what else might explain it? This is because of the logical problem of language acquisition. The proposed solution is that children must possess the language faculty, which guides them in learning the specific grammar of their language (Saville-Troike, 2006). This is because its existence implies that children come into language learning with an already complex linguistic framework. According to Chomsky (2002, as cited in Widdowson,1995), children wouldn't need to acquire this underlying system from scratch but would instead expand on it using their other inner resources, even with minimal and fragmentary exposure to language. It is asserted that this intrinsic knowledge manifests as Universal Grammar.

Chomsky (2000a) contends that the Principles and Parameters theory transcends specific syntactic models, serving instead as a theoretical lens for linguistic analysis. This theory conceptualizes language knowledge as a combination of fixed, unchanging elements and some narrowly defined variables, allowing for diverse implementation

methods. The main assertion of language knowledge being comprised of universally applicable principles and language-specific parameter values represented a significant departure from the pre-1980 syntax perspective. This earlier view predominantly conceptualized language in terms of 'rules' or 'structures', under the assumption that language variation was limitless.

Cook and Newson (2007) argue that language knowledge is now understood not as a set of explicit rules, but rather as a collection of underlying principles from which specific rules emerge. This shift in perspective, away from the previously dominant rule-centric view of linguistic knowledge, instead emphasizing a more universal framework that underlies all languages represents a significant evolution in Chomskyan theory (Kuiper & Nokes, 2014). Chomsky (1995b) contends that the Principles and Parameters theory assumes no traditional linguistic rules and grammatical constructions for languages such as relative clauses and passives, except as taxonomic artifacts. This transition from a rules-based framework to one centered on principles marks a critical development in linguistic theory. However, this paradigm shift may not be fully recognized in fields like psychology and others, where Chomsky's theories are still often perceived as primarily rule-based. Chomsky (1982) highlighted a progressive transition in linguistic research, moving away from an emphasis on rule systems, which have come to be seen as somewhat limited, towards an exploration of principle systems. These systems of principles are now viewed as playing a more pivotal role in defining the nature and diversity of human languages.

In Universal Grammar (UG) theory, what were once considered individual rules are now understood as manifestations of broader principles that influence the entire rule system (Cook & Newson, 2007). These rules result from the interaction between universal principles and the lexical elements of a language. Cook and Newson argue that UG theory shifts focus away from specific syntactic structures like 'passive', 'relative clause', or 'question', viewing them not as independent constructions but as outcomes of the complex interplay between principles and parameters. According to Cook and Newson, this approach sees such constructs as interconnected, each influenced by and influencing various aspects of syntax. Chomsky (1995 b) posits that a language should not be viewed as a collection of rules, but rather as a series of parameter specifications within a constant framework of Universal Grammar (UG) principles.

Till late 1970s, proponents of Universal Grammar (UG) believed that children learn language by forming rules specific to a language from their linguistic environment, with UG guiding this process (Saville-Troike, 2006). However, the exact mechanics of this process were largely unexplained. Saville-Troike is of the opinion that significant shift in understanding language acquisition emerged with Noam Chomsky's 1981 reconceptualization of UG within a Principles and Parameters framework. Departing from his earlier Transformational-Generative (TG) theory, Chomsky revised his view on language acquisition. He proposed that rather than inducing language-specific rules from input, language acquisition involves selecting options from a set of very broad, universal principles of UG (Troike, 2006). Thus, discussing the Principles and Parameters theory is essential within the framework of Universal Grammar.

2.3.2 Principles and Parameters

Universal Grammar asserts that native speakers of a language know some principles, which are universal across languages, and some parameters, which vary across languages but within limits (Schdmidt, 2010). Universal Grammar takes a cognitive approach to language.

Saville-Troike (2006) contends that since children are born with the knowledge of principles and parameters, they are thought to naturally interpret and subconsciously process the language they hear to form their L1 grammar. This process is strictly guided by Universal Grammar (UG), which is why children can quickly and consistently acquire their native language successfully. Saville-Troike argues that in first language (L1) acquisition, principles and parameters themselves are not learned, as they are believed to be pre-installed in the Language Acquisition Device (LAD) that we are born with. This innate facility enables children to rapidly learn and understand their native language based on minimal input. Saville-Troike argues that this concept might also partially apply to some extent to adults learning a second language (L2). However, for these older learners, being conscious of the parameter settings in an L2 can help direct their attention to the linguistic input they receive, potentially making it easier to learn the language.

Native speakers of a language not only know how to form grammatically well-formed sentences, but also know which ones are ungrammatical as well as unacceptable. This is when Universal Grammar plays a key role. Universal Grammar

tells native speakers of a language what options are possible and what ones are not. Some aspects of language are universal; others are language-specific. Variation across languages is not haphazard. It follows a pattern; languages differ along certain lines called parameters. For instance, different languages have different word orders. Some languages are SVO languages; some are SOV and some OVS (Chapelle, 2013). Language faculty incorporates a range of universal principles and parameters; however, it is not the case that all variations of grammar are universal. Language acquisition is limited to parameters of grammar, which are different across languages. Some languages, for instance, are head-initial, while others are head-final. English is head-initial, while German is head-final (Radford et al. 2009). It is argued that in first language acquisition, the grammar of a child consists of principles and open parameters. As a child receives input in his first language, the open parameters are fixed for that language and the child's L1 grammar results. One such parameter is pro-drop parameter also called null-subject parameter. This parameter tells us whether we can drop the subject or not in declarative sentences. Arabic and Italian have subject-less declarative sentences and are hence called pro-drop languages whereas English, French and German are non-pro-drop languages. (Schdmidt, 2010). Similarly, English is head-first language, whereas German is head-last language (Radford et al. 2009). In order to know more about the nature of the afore-mentioned parameters, the following section deals with the relevant literature.

2.4 Cross-Linguistic Studies in Parametric Variations

This section aims to contextualize the current study within the existing body of literature. It is divided into two parts. The first part reviews studies conducted on languages other than the regional languages of Pakistan. Similarly, the second part focuses on literature relevant to the context of Pakistan, specifically addressing studies on its regional languages.

2.4.1 Studies in Parametric Variations across the Globe

A number of studies have been conducted on parametric variations across languages. One such study is the parametric variation between English and German. English is head-first language within verb phrase and tense phrase, whereas German is head-last language (Radford et al., 2009). In other words, complements are positioned after verbs and auxiliaries in VP in the English language. However, the complements come before verbs and auxiliaries in German. This is illustrated in the following example:

has written a book (English language)

a book written has (equivalent of above construction in German language)

This variation is termed as Head Position Parameter- the order of heads in terms of the complement.

Gazali (2021) investigated the parametric variation in noun phrase (NP) structures in English and Kanuri using the Principles and Parameters framework and Chomsky's Minimalist Approach. This study identified English as a head-initial language and Kanuri as head-final, with adjectives and quantifiers occurring pre-nominally in English and post-nominally in Kanuri. Despite their genetic differences—English being Indo-European and Kanuri Nilo-Saharan—the study found morphological similarities in plural formation and agreement features. By focusing on NP structure, the research offers valuable insight into how syntactic parameters manifest in typologically distinct languages. However, the study's scope was limited to noun phrases, leaving the head position parameter unexamined in other types of phrases such as verb phrases and prepositional phrases. This creates a gap in understanding the full range of head-directionality within each language. Additionally, while the comparison between English and Kanuri was insightful, the study did not address regional languages of South Asia, particularly those spoken in Pakistan. In this context, the research provides a useful model for analyzing syntactic variation across unrelated languages and supports the relevance of extending parametric studies—especially on head position—to languages like Pashto, Urdu, and English within the Pakistani linguistic landscape.

Ahmed (2020) studied wh-elements in Central Kurdish (CK) within the Minimalist Program (MP) framework and examined how CK aligns with the wh-parameter**,** showing variation between overt movement, in-situ positions, and optional movement. He highlighted that CK wh-elements do not behave uniformly, as some trigger movement to spec, CP satisfying the Extended Projection Principle (EPP)**,** while others violate it. After the analysis, the study revealed that CK exhibits parametric diversity in the behavior of wh-elements. This focused exploration of the wh-movement parameter in CK provides a valuable context for my study, which extends the scope by examining wh-movement alongside null subject and head position parameters**.** By comparing Pashto with Urdu and English**,** this research aims

to explore how these three parameters interact across languages, offering a broader typological and theoretical perspective within the Universal Grammar.

The study by Manda (n.d.) offered valuable insights into the syntactic structure of wh-questions in the Basà language, a member of the Kainji family spoken across several states in North Central Nigeria. Manda's investigation revealed that Basà follows a wh-movement strategy wherein wh-elements move from their in-situ positions to the specifier of the CP (SPEC-CP) to form interrogative structures. This movement leaved behind an empty category at the extraction site, which was syntactically bound to the moved wh-phrase, sharing its features. The study employed a combination of native speaker intuition, discourse observation, and staged conversations, ensuring both empirical richness and syntactic clarity in the analysis. While Manda's (n.d.) study provides a detailed analysis of wh-movement in the Basà language of Nigeria, it leaves a significant gap in understanding how similar syntactic phenomena operate in the regional languages of Pakistan. This gap provides the context and rationale for the present study, which aims to explore wh-movement in these understudied South Asian languages.

Mowarin and Oduaran (2014) conducted a study on Wh-questions in English and Nigerian Pidgin by using two theoretical frameworks: 1) minimalism and 2) principles and parameters theory. This scholarly work adopts a pedagogical approach, thoroughly investigating Nigerian Pidgin which is creolised in the Niger Delta region of Nigeria. Data for the study were gathered from various sources which includes postgraduate and undergraduate English students, fluent Nigerian Pidgin (NP) speakers in Warri, Effurun, and Sapele, introspection of the researchers, and existing research and published works. The research utilized qualitative methods for data collection and employed a phonetically based linguistic orthography for Nigerian Pidgin. The researchers have explored the structural and typological differences in Wh-questions between English and Nigerian Pidgin. The study focused on the usage and behaviors of Wh-words and phrases. The findings of the study demonstrate that English and Nigerian Pidgin display distinct behaviors concerning wh-interrogatives, posing challenges for Nigerian speakers who are learning these structures in English as a second language. The researchers believe that the difficulties in mastering English faced by students in the Niger Delta region can be alleviated if English instruction incorporates contrastive analysis.

Abedi et al. (2012) conducted a comparative investigation of Wh-expression movements in English and Persian. They used Government and Binding Theory from 1982 as the theoretical foundation for their investigation. The findings revealed that English and Persian share commonalities as far as Wh-movement is concerned. However, there are major distinctions between English and Persian:

- The movement of wh-word is obligatory in English while it is not obligatory in Persian.
- In English, there are syntactic triggers; however, in Persian, there are pragmatic triggers.
- For wh-expressions in English, there is fixed position in the CP, which differs from the positioning in Persian.

In his study, Malhotra (2009) explored the notable presence of intervention effects across various natural languages, a topic that has stirred considerable debate within semantic and syntactic research. The study aimed to critique and expand upon previous models concerning intervention effects and Wh-movement, advocating for a new interpretation in the movement of head. The researcher also introduced another approach to Wh-movement specifically tailored to languages that demonstrate intervention effects, particularly in the context of languages that are Wh-in-situ. The study posited that the features of Wh-movement in languages under consideration significantly influence interactions between Wh-quantifiers. To support this hypothesis, Malhotra did the analysis of data from several languages, including Hindi, English, and Chinese, to better understand the dynamics of Wh-movement and its potential to predict both intervention and Island effects.

A recent study by Kothakonda (2025) investigated the status of null subjects in Tulu, a lesser-studied Dravidian language predominantly spoken in parts of Karnataka and Kerala. The paper explored how Tulu fits within the typology of null subject languages—namely, consistent, expletive, discourse, and partial—and highlighted that Tulu permits the omission of subjects in finite clauses regardless of agreement. Additionally, it found that Tulu allows the omission of objects and other constituents under discourse conditions. Despite recent work on null subjects in Dravidian languages like Tulu, there remains a significant gap in comparative studies involving Indo-Aryan and Iranian languages such as Urdu and Pashto. Little research has examined how the Null Subject Parameter operates across these languages in relation

to English, leaving unexplored the typological and syntactic contrasts in subject omission.

One influential approach to understanding the acquisition of null and non-null-subject languages involved a learning model grounded in the Borer-Chomsky Conjecture (BCC). This framework, as outlined by Bertolino (2024), posits that variation in the presence of null subjects across languages—ranging from consistent and partial to semi and non-null-subject languages—can be explained through the presence or absence of definiteness-features in functional heads, in conjunction with Extended Projection Principle (EPP)-related features. A key hypothesis of this BCC-based model was that children acquire the pattern of subject realization in their language by attending to the morphological properties of functional elements. Empirical evidence from cross-linguistic acquisition studies supported this claim, suggesting that children demonstrate early sensitivity to the relevant morphosyntactic cues. Importantly, the studies reviewed report no evidence of parameter missetting, reinforcing the model's compatibility with developmental data. As such, the BCC-based model presented a compelling theoretical account for the typological variation and acquisition of (non-)null-subject languages. While the Null Subject Parameter has been extensively studied across a range of languages, comparative research specifically examining its behavior in Pashto in relation to Urdu and English remains limited. There is a lack of empirical investigation into how Pashto speakers navigate null subject patterns when acquiring or using structurally different languages like Urdu (a partial null-subject language) and English (a non-null-subject language).

The reviewed literature explores the head-position parameter and -wh movement parameter across various languages. Research comparing English and German concludes that English is a head-first language, while German is head-last. Studies on the -wh movement parameter include comparisons between English and Nigerian Pidgin, using Chomsky's minimalist theory and theory of principles and parameters, as well as between English and Persian. Additionally, the Intervention Effect and movement of wh-expressions in Hindi, English, and Chinese are examined. These studies focus on languages outside the regional languages of Pakistan, highlighting a research gap and providing a relevant context for this study.

2.4.2 Studies in Parametric Variations in Pakistan

Uzair et al. (2020) have studied Urdu and English from the perspective of null-subject parameter and explores Urdu language as a null-subject/pro-drop. Their study is qualitative and descriptive in nature. The data has been collected through observational research method to carry out the study. Dialogue between the teacher and the mother of the girl, and the questionnaires were used as tools for data collection. Moreover, the minimalist program was used for the analysis of the collected data. After the analysis of the data, it has been concluded that Urdu is a null-subject language as it drops the subject unlike English. This study is a relevant literature for my thesis as it analyzes Urdu and English in terms of null subject parameter; however, this study takes into account only one parameter- null subject and compares only Urdu and English language. The present study is different in the sense that it analyzes not only null-subject parameter but also wh- movement and head-position parameter. In addition, the present study has explored and analyzed the parametric variations between Pashto and Urdu, and between Pashto and English.

Ahmad et al. (2022) conducted a study on Balochi language in order to explore Balochi as a pro-drop language. The study demonstrates that the subject and object in the Balochi language can be dropped but it can be recovered through morphological inflections in Balochi language. The data was collected in the form of semi-structured interviews from two native speakers of Balochi language. This study is qualitative which is descriptive, analytical and explanatory in nature, as it tends to explore, describe, and analyze Balochi as a pro drop language. The researchers have used convenience sampling technique for the collection of the data. Three theoretical frameworks have been used to explore and analyze Balochi as a pro-drop language. These theoretical frameworks include Chomsky's (1981a) Principles and Parameters theory, the Extended Projection Principle (Haegeman, 1994), and the Recoverability Condition (Haegeman, 1994). The findings of the study reveal that Balochi language is a pro-drop language as it drops both subject and object but they can be recovered through rich morphological inflections. This study has analyzed only one parameter in Balochi language and it provides a relevant literature for my thesis. However, a major lacking of the study is that the article has not glossed the sentences taken for the analysis, which make it difficult for non-Balochi speakers to understand.

Qurrat-ul-Ain and Hussain (2025) investigated the null-subject parameter within the Principles and Parameters framework by comparing Urdu and French, revealing that Urdu functions as a pro-drop language while French does not. Through an analysis of conversational data, the research demonstrated that Urdu allows the omission of overt subjects without loss of grammatical coherence, aligning it with other null subject languages. In contrast, French required explicit subject presence, confirming its classification as a non-pro-drop language. This contrast supports the binary nature of the null subject parameter and contributes to typological insights within Universal Grammar, particularly with regard to South Asian language structures. However, the study had a limited scope by focusing solely on one parameter (null-subject) and comparing only two languages. It did not address how other core syntactic parameters—such as head-position and wh-movement—interact with or differ across these languages. Moreover, the exclusion of languages like Pashto and English leaves a gap in understanding the broader parametric behavior of South Asian and Germanic languages. The present research addresses this gap by examining all three parameters across Urdu, Pashto, and English, offering a more comprehensive cross-linguistic analysis within the Universal Grammar framework.

Muhammad et al. (2018) studied the acquisition of English wh-questions by Pashto speakers who are learning English as a second language. This study also addressed the issue of access to Universal Grammar in the acquisition of wh- questions in English. The participants were L1 Pashto- speaking adults who were doing undergraduate level degree in English from Hazara University Mansehra. In order to gather the data, non-random, purposive, and convenience sampling technique was used. In addition, the study was cross-sectional and Grammaticality Judgment Task and an Elicitation Task was used to collect the data. The results of the study show that Pashto speakers who are learning English as a second language, to some extent, observe UG principles and constraints on wh-movement in English. Furthermore, in terms of comprehension, they reveal more knowledge of constraints on wh-movement in English wh-questions. But as far as the production is concerned, the same level of knowledge is missing when it comes to wh- questions in English. In addition, the researchers concluded that they have partial access to Universal Grammar in the acquisitions of wh-questions in English. The researchers have conducted this study from the dimension of acquisition of wh- questions in English by Pashto speakers. This study does not take into account the parametric variations of Pashto and English

language as far as wh-movement is concerned; therefore, my study aims at filling in this gap by comparing Pashto with Urdu and English.

Rustam and Rahman (2021) studied the phenomenon of head-parameter setting. They wanted to study the impact of L1 Hindko head-parameter setting on the learning of Urdu and English as second languages. The study was longitudinal and the data was collected over a period of 12 months from a 3 years old girl whose first language was Hindku. This study was exploratory in nature as the researchers wanted to explore the impact of Hindi on the learning of Urdu and English in terms of head-parameter setting. The findings of the study showed that English is a head-first language whereas Urdu and Hindko are head-last languages. The researchers also concluded that child's language learning was excellent in case of Urdu because of the sameness of the head position in both Urdu and Hindko languages. However, in English, the learning was poor as compared to Urdu because English is head-first language while Urdu and Hindko are head-last languages. In case of learning the English, the child had to shuffle the language acquisition device (LAD) so that she could access the universal grammar; therefore, learning in English was comparatively difficult than Urdu. This study has studied only two types of phrases: prepositional phrases and verb phrases. In this regard, this article provides a research gap and a relevant context for my thesis to be conducted. It is vital to focus on the other types of phrases as well such as adjective phrase, and adverb phrase.

Apart from this, Chomsky (1986) contends that the study of one language can provide important evidence about the structure of another language. To study this phenomenon, Ali (2021) conducted a study on the syntactic structures of Binding theory in Pashto and the English language. The researcher analyzed three principles of the Binding Theory and applied them on Pashto language. The findings of the study revealed that all the three principles of the Binding Theory in the Pashto language conform to English language with slight variations. The variations can be found in the Principle A of Binding Theory; English has one morphological form, whereas Pashto has two morphological forms.

Maqsood et al. (2018) have done a comparative study of wh-movement in Urdu and English from a minimalist perspective. The study concluded that the movement of wh-expression varies across Urdu and English. wh-movement is mandatory in English whereas it is not the case in Urdu. Wh- expression always moved to the specifier of CP

in the formation of a question in English language. On the other hand, in Urdu, wh-phrase was having three different positions to construct an interrogative sentence. In addition, the study found that the movement of tense marker is obligatory in English along with the movement of wh-expression; however, it is optional in Urdu. This study has done the comparative analysis of Urdu and English in terms of just one parameter, which contextualize my study within the contemporary scholarship. Also, the study creates a research gap for the researcher to conduct a study from the dimension of parametric variations between Pashto and Urdu, and between Pashto and English.

Saddiqa (2018) explored the syntactic properties among Pashto, Urdu, and English, examining the benefits and challenges faced by Pashto speakers when learning English, as well as assessing Urdu's influence in this context. Data was gathered from 19 undergraduate students enrolled in three universities in Lahore, Pakistan. The research employed purposive and snowball sampling techniques to collect data, which was comprised of sentences. The researcher designed eight sentences, carefully crafted to express various syntactic properties. Participants were tasked with translating these sentences from Urdu and Pashto into English, a process aimed at identifying the influence of both languages on English language acquisition. To analyze the data rigorously, qualitative content analysis was utilized. The findings indicate that Pashto does not significantly facilitate English language learning, and the impact of Urdu (L2) remains uncertain.

Khan et al. (2018) studied the parametric settings of the children acquiring Urdu language. This research, situated in the domain of language acquisition, adopted Chomsky's Principles and Parameters theory (1981) as its theoretical framework. Focusing on the acquisition of Urdu, the study analyzed data consisting of typical utterances by children aged 24 to 30 months who were in the process of learning Urdu. The investigation delved into the parametric settings and adjustments evident within these child utterances. Findings revealed a consistent adherence to a non-null subject parameter and a head-last principle, whereas instances of wh-fronting were infrequently observed in the children's speech. This study thus provides an insight into the specific linguistic patterns and developmental tendencies in early Urdu language acquisition.

Khudadad et al. (2022) conducted a study on the movement patterns of wh-questions in Urdu and English. This study aimed to explore the characteristics and

extent of driven overt wh-movement by comparing Urdu and English languages. It argues that both languages use similar components in constructing questions: wh-expressions' tendency to appear before the verb, the possibility of overt long movement, and the placement of Wh-expressions before the verb. The research employed a descriptive design for qualitative analysis, focusing on Pakistani English L2 learners with Urdu as their first language. The investigation centered on the differences in acquiring wh-questions in English and Urdu, particularly examining wh-movement's nature and patterns in both languages. Findings indicate that Urdu is an in-situ language, maintaining the wh-word in its canonical position, while English typically positions the wh-word differently, except in certain cases like polar questions, multiple wh-word questions, and echo questions. The study hypothesizes that the way wh-questions are acquired in Urdu influences the learning of wh-expressions in English among these L2 learners.

2.5 Research Gap

The reviewed literature shows that several studies have explored the head-position parameter, null-subject parameter, and wh-movement parameter across various languages. Researchers have studied null-subject parameter between English and Urdu, between Urdu and French, and between Persian and English. Similarly, studies have explored the nature of wh-movement parameter in Urdu language, Central Kurdish (CK), and Basà language. In addition, researchers have studied the impact of L1 Hindko head-parameter setting on the learning of Urdu and English as second languages. The above-cited literature sheds light on the syntactic and parametric variations across different languages. The review of literature not only highlights a research gap for this study, but also provides the relevant context for conducting this study. To the best of the researcher’s knowledge, no research has so far been published on the parametric variations between Pashto and Urdu, and between Pashto and English. This study intends to identify and analyze the parametric variations between Pashto and Urdu, and between Pashto and English in terms of three parameters: 1) head-position parameter, 2) null-subject parameter and 3) wh-movement parameter.

CHAPTER 3

3. RESEARCH METHODOLOGY

This chapter is divided into three sections. The first section offers an in-depth explanation of the theoretical framework utilized in this study. Subsequently, it outlines the research design that includes data for the study, research sampling technique and research method. Lastly, this chapter discusses the analytical framework in detail.

3.1 Theoretical Framework

The study employs the Principles and Parameters theory (1981), which is propounded by Noam Chomsky. This theory is an extension of Chomsky's Universal Grammar (UG) theory, which contends that all human languages share a fundamental structural foundation and that language acquisition is an innate to humans. Principles and Parameters theory has two parts: 1) principles and 2) parameters. Chomsky (1981) contends that every language in the world has a set of principles, which relate to all languages of the world and a set of parameters that can vary from one language to another with some limitations. In other words, the principles are the universal grammar rules that apply to every language, such as the existence of nouns, verbs, adjectives, and prepositions etc. These principles are considered to be the invariant foundation of human language, present in the mind of every native speaker regardless of the specific language they speak. On the other hand, according to Chomsky (1986), the parameters are variables or switches that can be adjusted to at least two positions through experience which determine the syntactic differences between languages. Chomsky describes the process of language acquisition in children as one of setting parameters. He argues that once the parameters are set, then the system becomes functional. These parameters are determined by the child's exposure to a specific language. This concept suggests that the Language Acquisition Device (LAD) does not dictate details of specific languages. Instead, it establishes constraints on the possible forms that acquired languages may take; thus, languages are not infinitely variable but are subject to certain limitations (Harley, 2014).

The Language Acquisition Device (LAD) resembles a collection of switches that determine the range of grammars a child can learn. Chomsky (1986) is of the view that as a child is exposed to a particular language, these switches are set accordingly.

According to Chomsky and others who believe that language learning involves learning a grammar that is fundamentally innate, learning a language means adjusting these inbuilt switches (parameters) to their proper settings. According to Harley (2014), a notable issue with this perspective is the slow and error-prone nature of language development. Harley raises the question that why does adjusting these switches take so much time? There are two main theories to explain this. The continuity hypothesis suggests that although all principles and parameters are present from birth, they cannot be immediately utilized due to other constraints. For instance, a child must first learn to categorize words and maintain longer sentences in memory long enough to analyze them (Clahsen, 1992, as cited in Harley, 2014). The second theory proposes that children do not have instant access to all their innate knowledge. Rather, this knowledge gradually becomes accessible as they mature (Felix, 1992, as cited in Harley, 2014).

One important parameter is the head position parameter, which determines whether the head of a phrase (such as the verb in a verb phrase) precedes or follows its complement. For example, English is head-first language, whereas German is head-last language (Radford et al., 2009). It illustrates that in English language, head word comes before the complement while head word comes after the complement in German language. In short, based on principles, all the languages of the world are similar while they show marked differences due to parameters.

Furthermore, language depends on the structural relationship between different elements in a sentence. Therefore, it is significant to take into account the parametric study as different languages have different structures to follow; for example, English is a head-initial language while Japanese is a head-last language (Radford et al., 2009). Radford (2004) states that though there are universal principles to guide a child to acquire grammar of any language but not all the aspects of grammar of all the languages in the world are same. According to him, grammatical learning is limited to those aspects of grammar, called parameters of grammar, which are subject to variation across languages.

With the help of Principles and Parameters theory (1981), the researcher analyzes the collected data to study the parametric variations between Pashto and Urdu, and between Pashto and English.

3.2 Research Design

The research design utilized to study the parametric differences between Pashto and Urdu, and between Pashto and English is covered in this section. According to Bhattacherjee (2012), a research design is a detailed framework that outlines how data will be gathered and analyzed in an empirical study. It serves as a strategic plan or roadmap that guides the entire research process, ensuring that the investigation effectively addresses the research questions or tests the proposed hypotheses. In order to carry out the study, the study employs qualitative approach. Qualitative research deals with the narrative and visual data to study a particular phenomenon of interest (Gay et al., 2012). The researcher has purposively taken the data in the form of phrases and sentences from different grammar books to conduct this study. Moreover, this research uses content analysis as a research method and X-bar theory as an analytical framework.

Furthermore, this research is descriptive and exploratory in nature. Burns and Grove (2003) define exploratory research as a type of research conducted to get new insights, explore new ideas and/or enhance the knowledge of a phenomenon. This study is exploratory in nature because it explores the parametric variations between L1 and L2, and between L1 and L3 in terms of three parameters: 1) head position, 2) null subject and 3) wh-movement. The researcher took a total of 45 phrases and sentences for this study from different grammar books of Pashto, Urdu, and English. Firstly, the selected data was systematically categorized according to three key syntactic parameters: head position, null subject, and wh-movement. Secondly, each set of examples under a given parameter—such as head position—was then examined to identify structural variations between Pashto and Urdu, as well as between Pashto and English. Finally, the categorized data was analyzed within the framework of X-bar theory to provide a deeper syntactic interpretation of the observed structures. For the purpose of this study, the exploratory approach is deemed appropriate because it helps to explore the phenomenon under investigation.

3.2.1 Data for the Study

Data for the above-mentioned parameters has been taken from Pashto, Urdu and English grammar books. Data for Pashto language has been taken from the following books:

1) Introduction to Pashto by Qazi Rahim Ullah Khan
2) Pashto Grammar by Noor Ullah.
3) Descriptive Grammar of Pashto and its Dialects by Anne Boyle David

Data for Urdu is taken from the following books:

1) قواعد اردو از مولوی عبدالحق
2) قواعد املا وانشا از اختر حسین فیضی مصباحی
3) Urdu Essential Grammar by Ruth Laila Schmidt

Similarly, the researcher has taken the data for English from the following books:

1) High School English Grammar and Composition by Wren and Martin
2) Practical English Usage by Michael Swan
3) Advanced Grammar in Use by Martin Hewings

These books have been purposively selected for the data for this research on the basis of their widespread readership and for the suitability of their content for the purpose of this study. Many of these texts are frequently recommended in numerous academic and educational circles, notably within the Central Superior Service (CSS) exams. Additionally, the richness of the phrases/sentences provided in them significantly aligns with the aims of this study, rendering them particularly suitable for the intended analysis. Most importantly, these books have been taken into consideration for data collection under the supervision of professors of NUML from the respective departments (Pashto, Urdu and English).

The researcher could not analyze all the relevant content from these books; therefore, the researcher has purposively selected five phrases/sentences from each language for each of the selected parameter. The sentences and phrases were rich in syntactic information directly relevant to the parametric analysis guided by the Principles and Parameters framework. Since the central aim of this research was to identify and compare parametric variations—specifically head position, null subject, and wh-movement parameters— between Pashto and Urdu, and between Pashto and English, it was essential to select linguistic data that clearly exhibited these syntactic phenomena. In short, a total of forty-five phrases/sentences have been taken to conduct this study. The data for this study has been the content that is more relevant to the area of investigation. The phrases and sentences from English and Urdu are translated into

Pashto. Similarly, data from the Pashto language is translated into both Urdu and English. Moreover, data in the form of Phrases and sentences from Pashto and Urdu is glossed.

3.2.2 Research Method

Content analysis has been used as a research method for this study "Content analysis is a research technique for making replicable and valid inferences from texts (or other meaningful matter) to the contexts of their use" (Krippendorff, 2004, p.18). He argues that the written text is most frequently used as a data source for content analysis. Furthermore, content analysis can be qualitative as well as quantitative in nature. Quantitative content analysis emphasizes the frequency of words to describe any phenomenon under investigation. On the other hand, qualitative content analysis entails the interpretation of the content from the text data subjectively (Hsieh & Shannon, 2005). In this study, the researcher has utilized qualitative content analysis.

3.3 Framework for Data Analysis

The researcher has used X-bar theory as an analytical framework for this study. An analytical framework refers to a coherent system of concepts, theories, and methods that researchers use to systematically analyze data and interpret findings within a particular context (Maxwell, 2013). It is important to mention that content analysis of the text data is carried out using X-bar theory. X-bar theory was first presented by Chomsky in 1970. Then X-bar theory was further refined by Jackendoff in 1977 in his seminal book *X-bar Syntax.* In this study, the researcher has used Jackendoff's idea of X-bar theory as a analytical framework for the data analysis as it is the updated version of X-bar theory. X-bar theory is a revision to the theory of Phrase Structure Rules. The Phrase Structure Rules:

1) Capture the relationship between constituents
2) Explain the order and distribution of categories
3) Explain the modification of relationships including ambiguity

However, the Phrase Structure Rules, according to Carnie (2013) are inadequate in two ways: 1) Phrase Structure Rules create flat structures 2) there is no single rule that can be applied to all the phrases. In order to deal with such inadequacies, X-bar theory came with generalizations (Carnie, 2013). X-bar theory introduces a logical, systematic approach to understanding sentence structure. X-bar theory introduces the idea of

intermediate level in its rules in order to address the issue of flat structure. Flat structure refers to a syntactic structure where all the elements of a phrase are on the same level in hierarchy with the head word; one cannot distinguish between them in terms of dominance and c-command (Carnie, 2013). Moreover, X-bar theory eliminates the need for numerous specific rules for different types of phrases, replacing them with a generalized schema that applies across categories. For instance, the same structural principles that apply to noun phrases also apply to verb phrases and other types of phrases, providing a unified theory of phrase structure.

According to X-bar theory, syntactic structures are organized into three levels: maximal, intermediate, and minimal. The maximal level encompasses the entire phrase, including elements like specifiers, adjuncts, and complements. The intermediate level, characterized by its recursive nature, allows for the inclusion of many adjuncts, thereby creating complexity in phrases and sentences. At the minimal level, found at the base of the syntactic hierarchy, only complements are positioned. The identification of these three distinct levels has facilitated the formulation of the following general rules within X-bar theory.

Specifier Rule: XP → (YP) X' or XP → X' (YP)

Adjunct Rule: X' → X' (ZP) or X' → (ZP) X'

Complement Rule: X' → X (WP) or X' → (WP) X. (Carnie, 2013)

These rules serve as variables that encompass generalizations across categories. To constrain these rules and to account for linguistic diversity, Carnie (2013) suggests parameterizing the options within these rules. This approach allows speakers of different languages to choose the options that align with the grammatical structures of their respective languages (Carnie, 2013). With the help of the X-bar theory, tree diagrams of the phrases/sentences of the selected data have been drawn. The tree diagrams have helped the researcher to explain the constituency relationships and the distribution and order of categories of different examples.

In conclusion, this study employs Principles and Parameters theory (1981) as its theoretical framework. It utilizes content analysis as research method, selecting sentences from various grammar books through purposive sampling. Additionally, X-bar theory has been chosen as the analytical framework for this study.

CHAPTER 4

4. DATA ANALYSIS

This chapter aims to analyze the selected data from the languages: English, Pashto and Urdu from the dimension of three parameters: head-position, null-subject and wh-movement. For this purpose, it has been divided into five main sections: head-position parameter, null-subject parameter, wh-movement parameter, findings, and discussion. The first section analyses the position of the head word in the English, Pashto and Urdu languages; that is why, it has been divided into three sub-sections: head-position parameter in English, head-position parameter in Pashto, and head-position parameter in Urdu. Similarly, the second section is divided into three sub-sections: null-subject parameter in English, null-subject parameter in Pashto, and null-subject parameter in Urdu which explores whether these languages allow the subject to be omitted or deleted from different sentences. The third section explores the nature of English, Pashto and Urdu in terms of wh-movement parameter. That is why, this section is divided into three sub-sections: wh-movement parameter in English, wh-movement parameter in Pashto, and wh-movement parameter in Urdu. The fourth section outlines the major findings of the study while the final section provides the discussion of the findings.

In order to carry out the analysis, the researcher has collected data in the form of phrases and sentences. A total of 45 phrases and sentences have been taken from English, Pashto and Urdu languages. The phrases and sentences which have been taken from Pashto and Urdu are glossed; however, the target language has not been glossed in this study. Moreover, tree diagrams have been drawn for the collected data from all the three languages. Then all the phrases and sentences have been analyzed in the light of the X-bar theory.

4.1 Head-Position Parameter

This section deals with the head-position parameter in English, Pashto and Urdu. Firstly, the head-position parameter in English has been explored. Then, it is followed by the analysis of head-position parameter in Pashto and Urdu language respectively. Different phrases and sentences have been taken from the grammar books of English, Pashto and Urdu languages and they have been translated into Pashto, English and Urdu, and Pashto language respectively.

4.1.1 Head-Position Parameter in English

This section examines the head-position parameter in the English language. To do so, examples from various English grammar books are selected and translated into Pashto. The analysis is performed using the analytical framework of X-bar theory. The following examples illustrate this analysis:

1(a) The book lies on the table

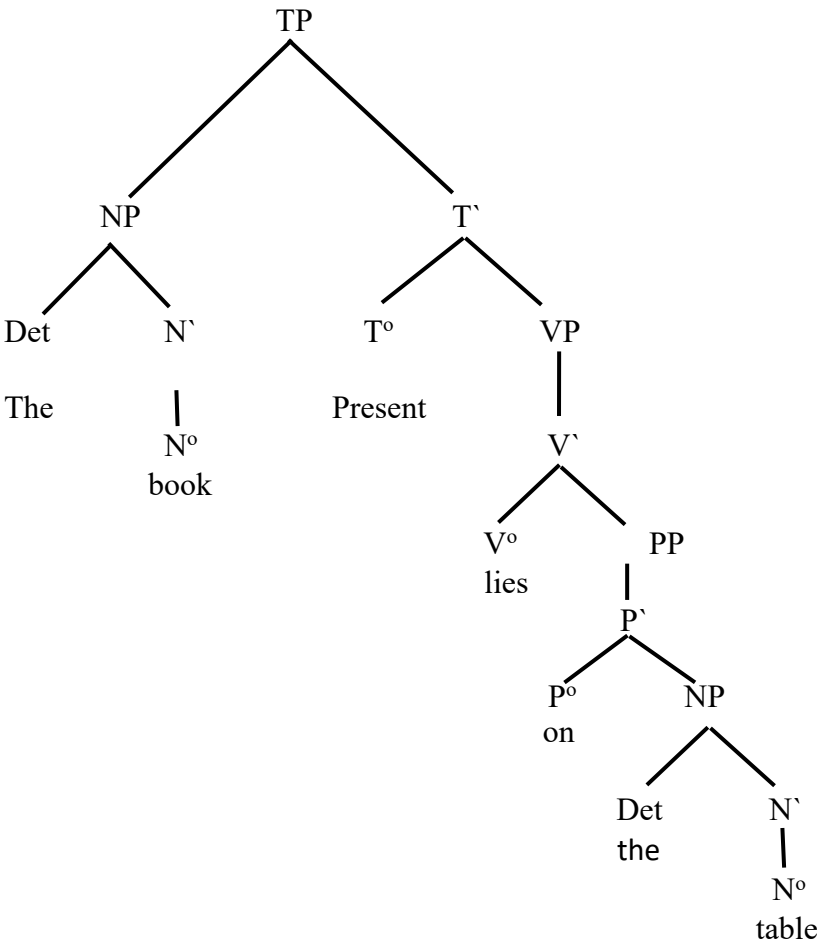

Figure 1(a): Head-position parameter in English

In figure 1(a), NP *the table* combines with the head preposition *on* to form PP *on the table. The* is a determiner and it takes the place of the specifier as it is sister to N` and daughter to NP. This PP in turn combines with a verb *lies* to form VP *lies on the table.* "Complement is sister to a head and a daughter of a single bar level" (Carnie, 2013, P.176). PP *on the table* is a complement of V° *lies* as it is sister to V° and daughter to V`. Moreover, the word lies is a head verb and it precedes the complement in the English example. VP *lies on the table* then combines with T° to form T` and this T°

shows the present tense. Similarly, T` combines with an NP *the book* to get TP. *The* is a determiner and it takes the place of the specifier. Carnie contends that specifier is sister to single bar level and daughter to phrase. In the given NP, *the* is sister to N` and daughter to NP. From the given figure 1(a), it is clear that English is head-first language because in the PP *on the table, on* is the head word and it precedes the complement *the table.* Also, *on the table,* which comes after the head verb *lies*, is the complement of the head verb.

1 (b) کتاب په میز باندې پروت دی (Pashto Translation)

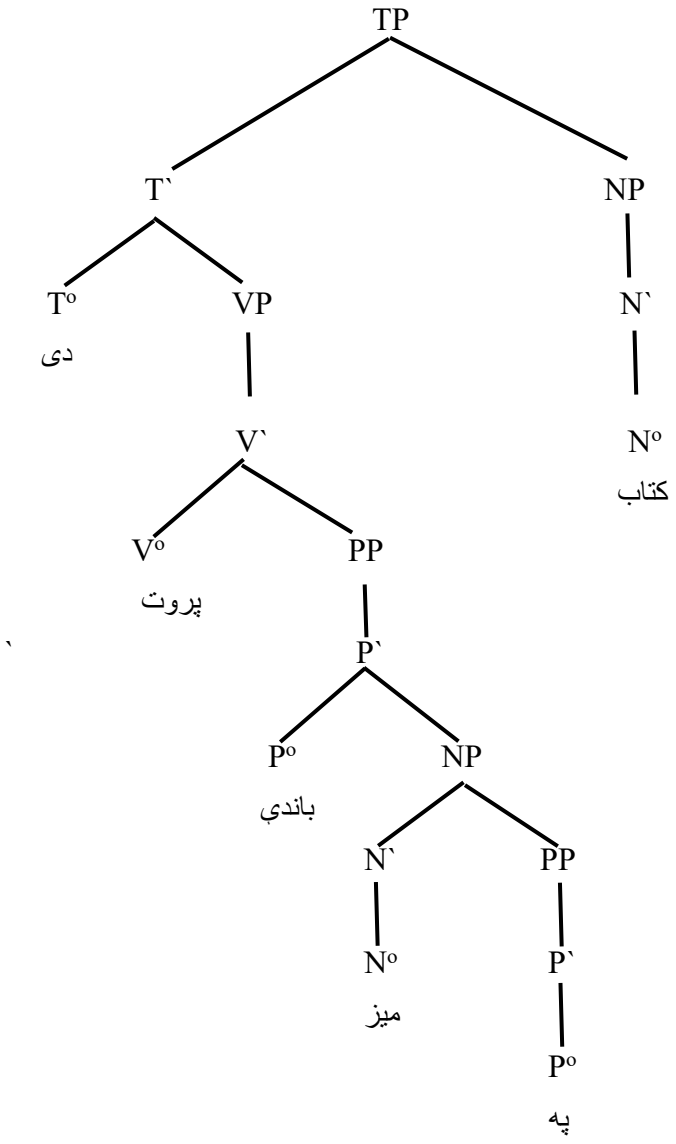

Figure 1(b): Head-position parameter in Pashto

On the other hand, in figure 1(b), دی is T^o and it combines with VP په میز باندی پروت to form T`. The preposition په combines with the noun میز to form an NP په میز. In this NP, the preposition په takes the position of a specifier as it is a sister to N` and daughter to NP. This NP then combines with the head P^o باندی to form PP په میز باندی. "The head of a phrase is the element that the phrase is centered on (Burton-Roberta, 2022, P.28)". This example shows that the head of the given PP comes after the complement. The nature of preposition in Pashto is very complex as evident from this PP. Pashto has both preposition and postposition as it is clear from the example under discussion. In English, there is just a preposition. This shows variation between Pashto and English in terms of the nature of the preposition. This PP in turn merges with V^o پروت to form VP په میز باندی پروت. Similarly, an NP کتاب merges with T` په میز باندی پروت دی to form TP کتاب په میز باندی پروت دی. From the given figure 1(b), it is clear that Pashto is head-last language because the head postposition باندی follows its complement په میز. The tree diagrams show that there is clear syntactic variation between English and Pashto language in terms of head-position parameter. English is head-first language as head is positioned before the complement in English whereas Pashto is head-last language because head comes after the complement.

2 (a)fond of music

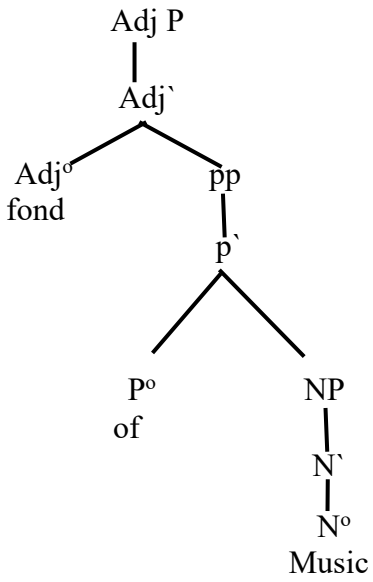

Figure 2(a): Head-position parameter in English

In the figure 2(a), the head word *fond* merges with the PP *of music* to form an adjective phrase. In the given figure 2(a), the head word is an adjective *fond*, and it controls the whole phrase, thus the phrase is known as adjective phrase. It is important

to consider the position of the complement in the given phrase. According to Carnie (2013), complement is sister of a head and daughter to bar level. *Of music* is complement of the head word *fond* and it is sister of a head word *fond* and daughter of Adj`. Similarly, in the PP *of music,* the head word is *of* and it precedes its complement. Thus, the complement comes after the head word in the given English phrase.

2 (b) ده موسیقۍ شوقي (Pashto Translation)

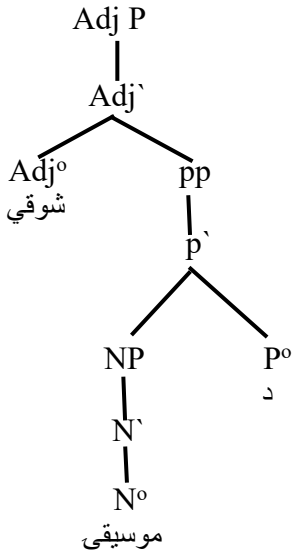

Figure 2(b): Head-position parameter in Pashto

On the other hand, in figure 2 (b), د موسیقۍ which is the direct translation of *of music*, is a complement of the adjective شوقي. In Pashto phrase, unlike in English, the head word follows the complement. However, in the given PP د موسیقۍ, the head is د and it comes before its complement موسیقۍ. Keeping in mind the analysis, it is concluded that English is head-first language as it places the head before the complement consistently while Pashto is head-last language because the head comes after the complement. However, in Pashto, there is one exception. In PP of Pashto when there is just a preposition, then the head word precedes its complement as shown above in the tree diagram.

3 (a)He gave me a bunch of grapes

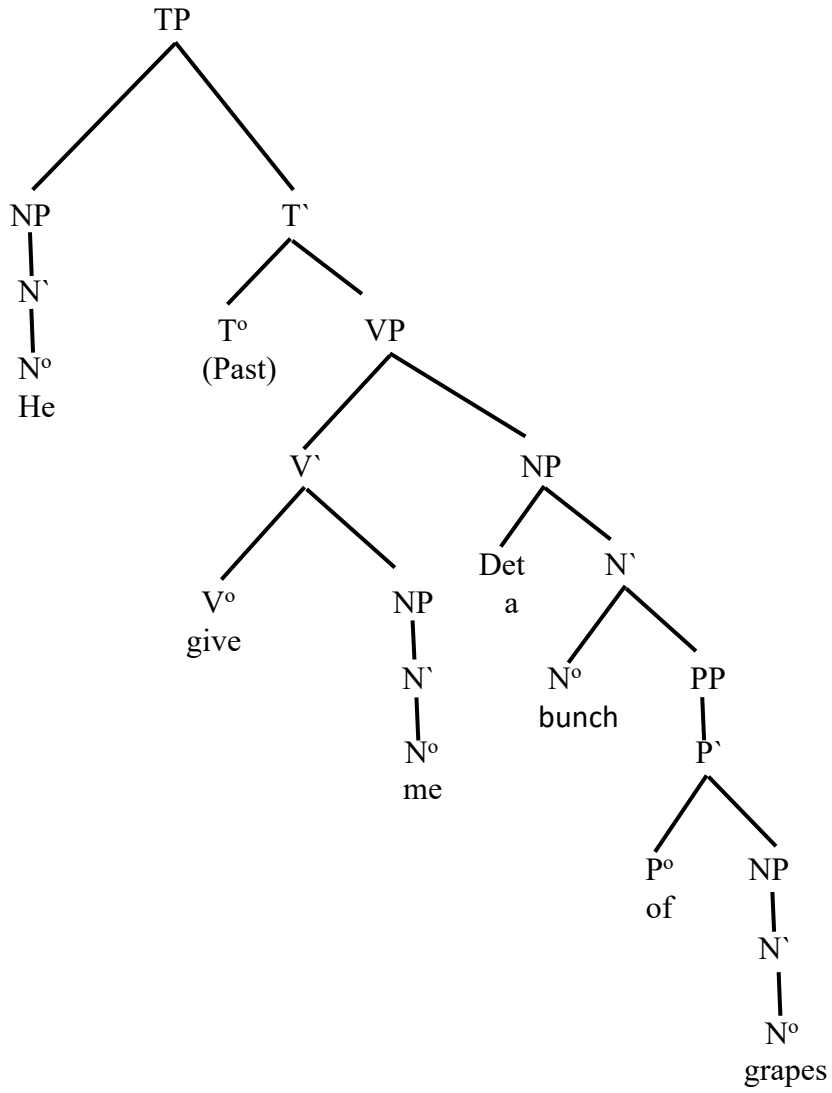

Figure 3 (a): Head-position parameter in English

In figure 3(a), *of grapes* is PP and it is a complement of the head word *bunch.* "The head is the most important word in the phrase because it determines the meaning of the entire phrase" (Tallerman, 2015, p.114). The grammatical category of bunch is noun and that is why a bunch of grapes is a noun phrase. *A* is a determiner which takes the place of specifier. The noun phrase *a bunch of grapes* merges with the V` pronounced as vee bar to form a verb phrase (VP). V` is an intermediate structure which is branched into the minimal level Vº and NP. In the V`*give me*, *give* is the verb and serves as the head word and it takes *me* as a complement which is an NP while a bunch of grapes is not a complement. Then the VP merges with the Tº to form T`. Similarly, T` merges with *he*- an NP that functions as a subject in the given figure and results in

TP that is *He give me a bunch of grapes*. In figure 3(a) as mentioned above, me is a complement of the head word give that comes after the head word. Similarly, *of grapes* which is complement of the head noun *bunch* comes after the head in the English language. Thus, English is categorized as head-first language.

3 (b) هغه ماله د انګورو یو غونچک راکو (Pashto Translation)

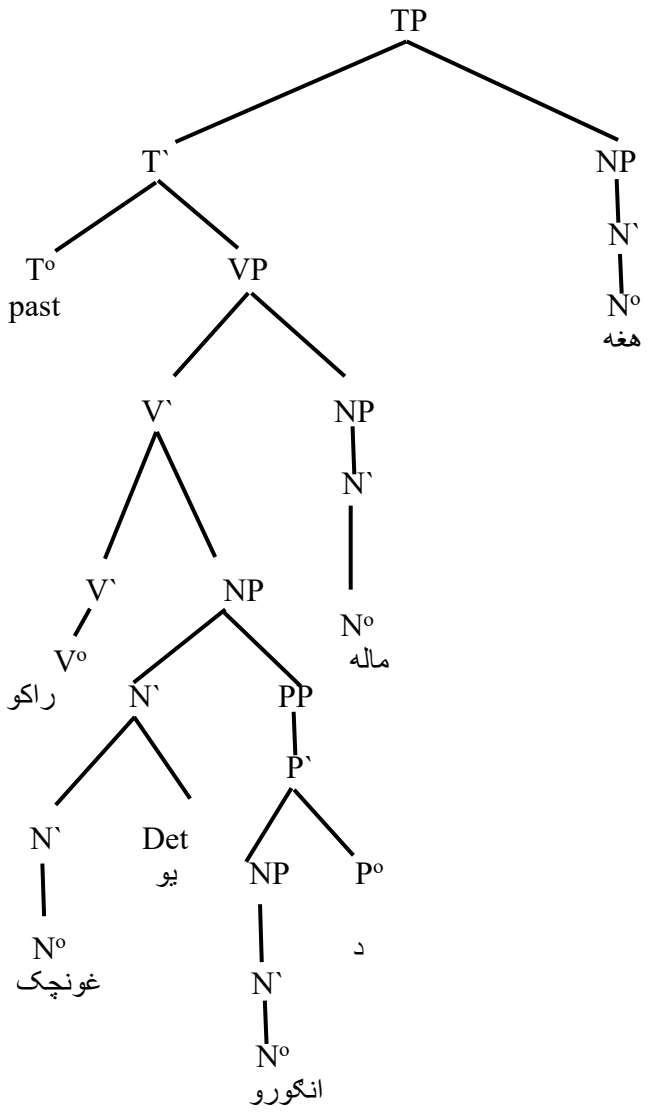

Figure 3 (b): Head-position parameter in Pashto

On the other hand, figure 3(b) is a Pashto translation of *He give me a bunch of grapes*. In this figure, د انګورو یو غونچک is a constituent and it is an NP which can be further broken down into a PP that functions as a specifier, into a determiner یو and into a noun غونچک. د is the preposition and انګورو is the noun but the head is د so it is a PP.

Also, the head word comes before the complement. This noun phrase merges with the verb and thus makes a larger constituent that is, V`. This V` merges with an NP مالـه and forms VP. In turn, the VP merges with T^{o} to form T`. Finally, T` merges with an NP هغه to get a TP. In figure (3b), د انګورو یو غونـچک is an adjunct of the head verb (راکو) and it comes before the head verb راکو. Furthermore, Carnie (2013) contends that a complement should be sister to head and daughter to bar level. It is quite clear in the figure (3a) in which PP *of grapes* is a complement of the head *bunch* in the English language. However, in Pashto language as in figure (3b), a PP takes the place of a specifier because it is daughter of phrase and sister to an N`. In other words, the specifier یو intervenes between the PP and N^{o} and thus it is not a complement of the head word. In short, English consistently places its head before the complement, so it is classified as head-first language. On the other hand, Pashto is head-last language with one exception in the PP where the preposition (head word) comes before the complement. Also, Pashto language challenges X-bar theory as in figure 3(b) the PP acts as a specifier rather than a complement.

4 (a) the new idea of the boss

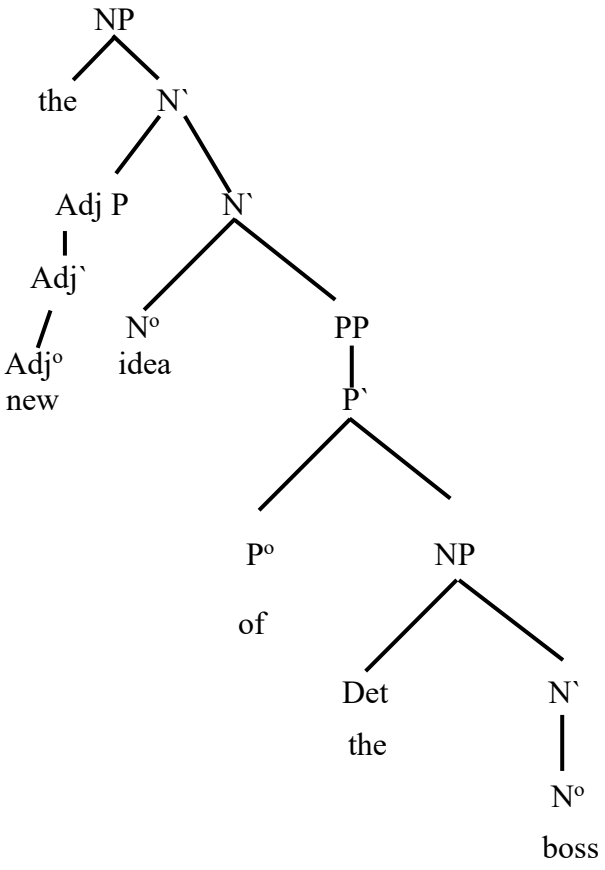

Figure 4 (a): Head-position parameter in English

In figure 4(a), an NP *the boss* which is a complement of the head word *of* merges with P^{o} *of* to get PP. This is PP as *of*, a head preposition, controls the whole phrase. This PP further merges with N^{o} *idea* to get an N`. Structurally, *of the boss* is a PP which is complement of the N^{o} *idea* and it comes after the head word which is *idea* in the given example. However, *of the boss* modifies the head word i*dea* and *idea* is a noun so it performs the functions of an adjective. Keeping in mind the function of the given phrase, it can be categorized as an adjective phrase. Moreover, N' *idea of the boss* combines with adjective *new* to form an NP *the new idea of the boss.* Adjective *new* takes the position of the adjunct; it is daughter to phrase level and sister to bar level (Carnie, 2013). In the phrase, the head word *idea* precedes its *complement of the boss.* Similarly, the head preposition *of* precedes its complement *the boss*. This example shows that English places the head word consistently before the complement, so English is categorized as head-first language.

4 (b) د مشر نوي خبره (Pashto Translation)

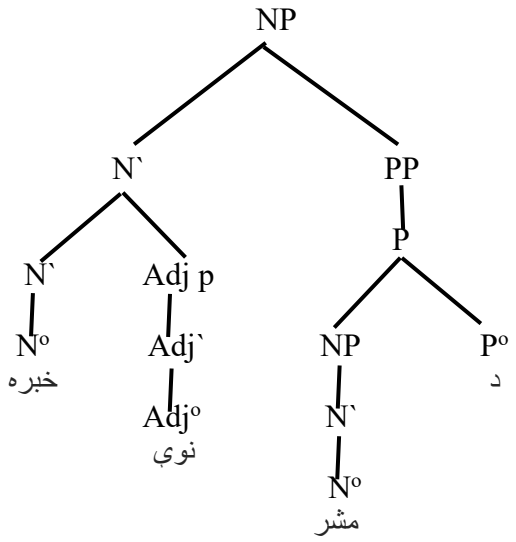

Figure 4 (b): Head-position parameter in Pashto

On the other hand, example 4(b) is a direct translation of 4(a) in Pashto Language. In the following figure, P^{o} د combines with a noun to form a larger constituent that is, PP دمشر. This PP could have been a compliment in the given phrase. However, in Pashto language, this PP takes the place of the specifier as it is daughter to NP and sister to N'. This PP acts as a specifier because the adjective phrase نوی comes in between the PP and the N^{o}. That is why, this PP دمشر in the Pashto language

challenges the X-bar theory because X-bar theory claims that complement should be sister to head and daughter to bar level (Carnie, 2013). Furthermore, PP دمشر combines with the N` نوی خبره to form a longer constituent دمشری نوی خبره which is a NP because the head word in this phrase is a noun خبره. Unlike in figure 4(a), PP دمشر comes before N` that is, نوی خبره in the Pashto NP. Moreover, the head preposition د comes before its complement مشر in the PP دمشر . The analysis shows that English is head-first language because the head word comes before the complement in the given example. On the other hand, Pashto is usually a head-last language but the given PP shows that the head preposition comes before its complement. Also, the equivalent for the complement of English example in Pashto challenges the X-bar theory because the so-called complement in Pashto is not sister to head and daughter to bar level.

5 (a) The elite of the country

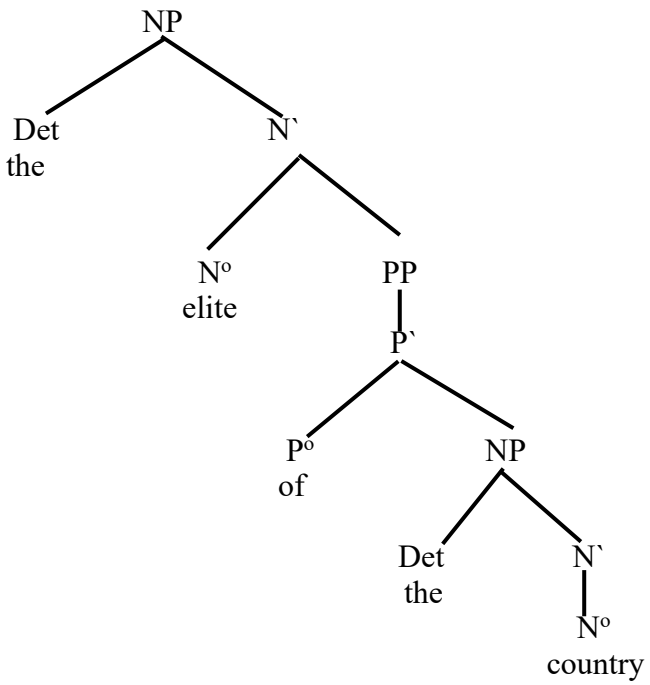

Figure 5 (a): Head-position parameter in English

In the given figure of 5(a), NP *the country* combines with P° *of* to form PP *of the country*. This PP in turn combines with N° *elite* to form an N`*elite of the country*. This N` further combines with the determiner *the* to construct a larger constituent NP that is, *the elite of the country*. *Of the country,* a sister to head and daughter to bar level, is a PP and it modifies the head word *elite*. *Of the country functions as a complement of* N° *elite* which comes after the head word *elite* in the given example. In turn, *the*

country serves as a complement to the head preposition *of* and it comes after the head word. Moreover, *the* is a determiner which takes the place of a specifier and it is daughter to NP and sister to N` in the given figure. According to X-bar theory, specifier is daughter to phrase XP (variable for any phrase) and sister to X`(a variable) (Carnie, 2013). This tree diagram shows that English is head-first language as the head comes before the complement consistently.

5 (b) د هیواد اشراف (Pashto Translation)

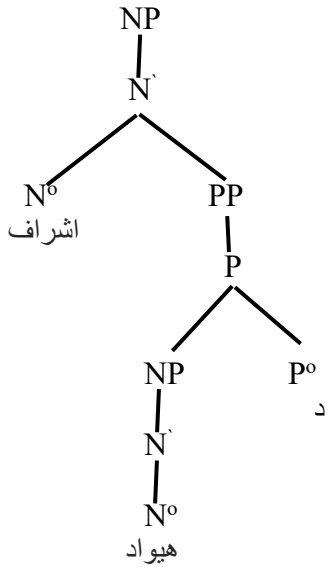

Figure 5 (b): Head-position parameter in Pashto

However, figure 5(b) shows structural variations which is the Pashto translation of *the elite of the country.* In figure 5(b), P° د combines with NP *هیواد* to form a PP *.دهیواد* د is equivalent of *of* and *هیواد* is Pashto translation of *country.* PP *دهیواد* then combines with N° *اشراف* to form a larger constituent of NP. In figure 5(b), PP *دهیواد*, unlike English, comes before the head word *اشراف*. These two figures show the parametric variation between Pashto and English in terms of head-position parameter. Though, within the PP, the head preposition comes before its complement, so it is an exception. In English, the head word precedes the complement while, in Pashto, the head word mostly follows its complement.

4.1.2 Head-Position Parameter in Pashto

This section focuses on the head-position parameter in the Pashto language. Various phrases and sentences have been drawn from Pashto grammar texts, and they have been translated into both English and Urdu. Additionally, the Pashto phrases and sentences

have been glossed. Glossing offers a literal translation, important in allowing researchers to compare and analyze the differences and similarities in word order between Pashto and English, as well as Pashto and Urdu. The glosses are organized into four lines: the first line shows the original Pashto sentence, and the second line presents the equivalent sentence in Roman form for enhanced readability. The fourth line provides an English translation, offering readers a fundamental comprehension of the sentence's content, however it does little to elucidate the structure of Pashto. The third line, the gloss, is the most significant. In this context, every significant component of the original sentence is translated, regardless of its direct correspondence to an English word, facilitating a more profound comprehension of the Pashto language structure (Tallerman, 2015). Consider the following examples:

6. د زرسانګي زوی

da zarsangi zoy
of zarsanga son
The son of Zarsanga

6 (a) د زرسانګي زوی

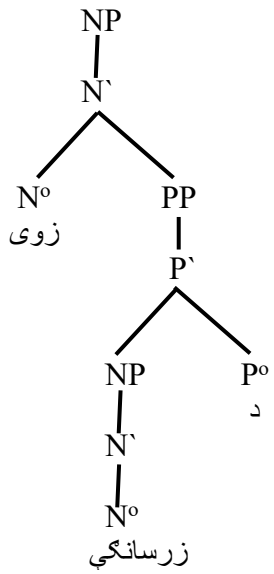

Figure 6(a): Head-position parameter in Pashto

In the figure 6 (a), Pº د combines with an NP *زرځانګي* to a form a PP *د زرځانګي*. This PP *د زرځانګي* then combines with Nº *زوی* to form an NP *د زرځانګي زوی* . "Every syntactic structure is a projection of a head word" (Radford, 2004, p.154). This is an

example of noun phrase because the head word is زوی and it is a noun. Moreover, "every phrase has a head word which determines the nature of the overall phrase" (Radford, 2004, p.19). In the Pashto noun phrase in 6 (a), The noun زوی follows its complement د زرځانګي, and within this complement, which is a prepositional phrase, the preposition دcomes before its complement زرځانګي. This pattern of placing the head after its complement in NP shows that Pashto is a head-final language. However, the nature of adpositions are complex in Pashto. In the PP of this example, the head preposition precedes its complement. So, this is an exceptional case to the nature of Pashto as head last-last language.

6(b) The son of Zarsanga (English Translation)

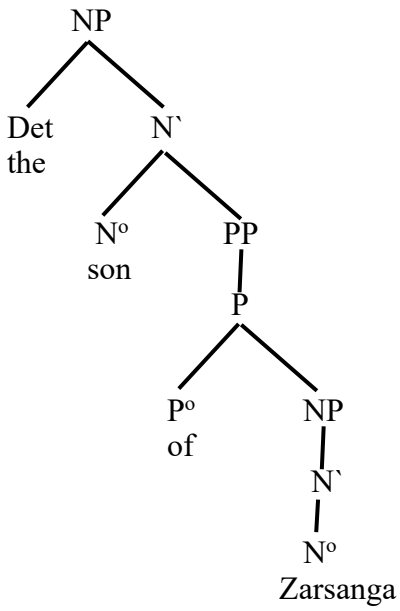

Figure 6(b): Head-position parameter in English

On the other hand, figure 6 (b) can be translated as *the son of Zarsanga* in English. An NP *Zarsanga* merges with Pº *of* to form PP *of Zarsanga*. This PP in turn merges with Nº *son* to form N` *son of Zarsanga*. Similarly, N` combines with the determiner *the* to form NP *the son of Zarsanga*. In this English noun phrase, *of Zarsanga* is the complement of the head noun *son* as it is sister of a head noun and daughter to N`(Carnie, 2013). The head noun *son* comes before its complement *of Zarsanga.* Within the prepositional phrase *of Zarsanga*, the head preposition *of* also comes before its complement *Zarsanga.* This shows that English consistently places head before its complements, thus it is classified as a head-first language.

6(c) زرسانگہ کا بیٹا (Urdu Translation)

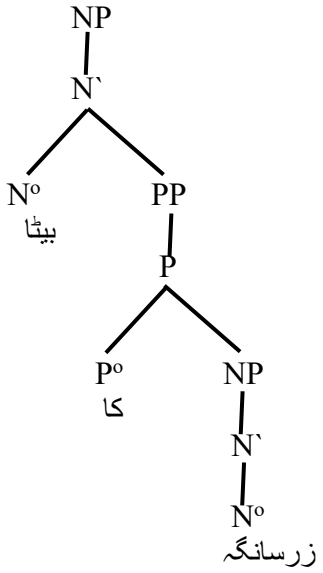

Figure 6(c): Head-position parameter in Urdu

Moreover, figure 6 (c) is a direct translation of *د زرخانګي زوی* in Urdu language. In the given example, an NP *زرسانگہ* merges with Pº کا to form PP *زرسانگہ کا*. This PP then merges with Nº *بیٹا* to form an NP *زرسانگہ کا بیٹا*. In the Urdu noun phrase *زرسانگہ کا بیٹا* from 6 (c), the head noun *بیٹا* appears after its complement *زرسانگہ کا*. The complement *زرسانگہ کا* is, in fact, a prepositional phrase where the head preposition *کا* follows its complement *زرسانگہ*. This pattern of placing the head noun after its complement, and the preposition following its complement within the prepositional phrase, demonstrates that Urdu consistently follows a head-last structure. Therefore, based on this regular placement of heads after their complements, Urdu is classified as a head-last language.

په دي کتاب کي7

pa di kitab ki

in this book in

in this book

په دي کتاب کي(a) 7

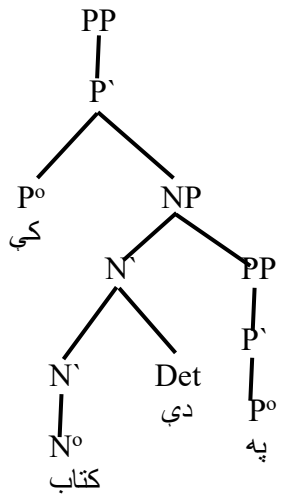

Figure 7(a): Head-position parameter in Pashto

The given example 7 (a) suggests another feature of grammar in Pashto that is adposition. Preposition and postposition are two different types of adposition (Radford, 2004). In figure 2(a) Preposition *په* combines with N` *دی کتاب* to form a noun phrase *په دی کتاب*. This NP in turn combines with the postposition Pº *کی* to form a larger constituent, PP *په دی کتاب کی*. In the given figure, *په* is a preposition which takes the place of the specifier. A specifier is daughter to phrase and sister to bar level (Carnie, 2013). In the given example, *په* is daughter to NP and sister to N` and it is not acting as head word. Similarly, *دی* is a determiner and it takes the place of the adjunct as it is daughter to N` and sister to N`. In addition, the postposition *کی* comes after its complement *په دی کتاب* in the example under consideration. As Pashto places the head word after its complement, so Pashto is classified as head-last language.

7(b) in this book (English Translation)

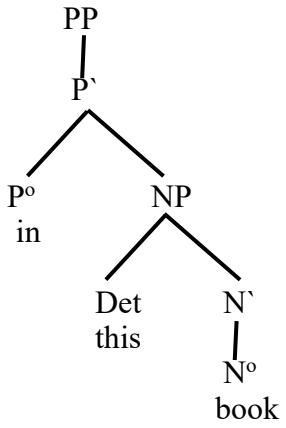

Figure 7(b): Head-position parameter in English

On the other hand, English translation *in this book* shows marked syntactic variations from Pashto language. In the given figure, the noun *book* combines with the determiner *this* to form a noun phrase *this book*. In turn, the noun phrase then combines with the preposition *in* to form prepositional phrase. In the English prepositional phrase, the head preposition *in* precedes its complement *this book* unlike Pashto language where the nature of prepositions is complex. In other words, English consistently places the head word before its complement. This parametric variations in terms of the placement of its head is known as head position parameter. Keeping in mind the above example, English is head-initial language. On the other hand, Pashto places its head word after the complement, so it is termed as head-final language.

7 (c) اس کتاب میں (English Translation)

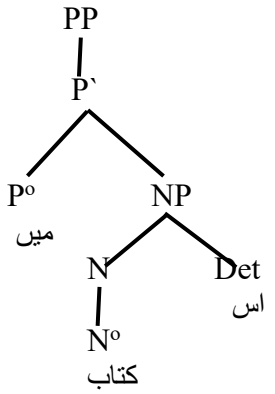

Figure 7(c): Head-position parameter in Urdu

In figure 7(c), the determiner *اس* combines with Nº *کتاب* to form a noun phrase *اس کتاب*. This NP in turn combines with the postposition Pº *میں* to form a larger

constituent, that is PP *اس کتاب میں*. In the given figure, *اس* is a determiner which takes the place of the specifier as it is daughter to NP and sister to N`(Carnie, 2013). In addition, the head postposition *میں* is daughter to P`and sister to NP and it comes after its complement *اس کتاب*. This shows that Urdu is head-final language as it places its head after the complement. Keeping in mind the above analysis, it is clear that Pashto and Urdu places the head word after the complement, so they are known as head-last languages. On the contrary, English is head-first language because the head word consistently precedes its complement.

8 له ټولو نه دير ستړي مېلمه

La tolo na der stary melma

From all from very tired guest

The most tired guest of all

8 (a) له ټولو نه دير ستړي مېلمه

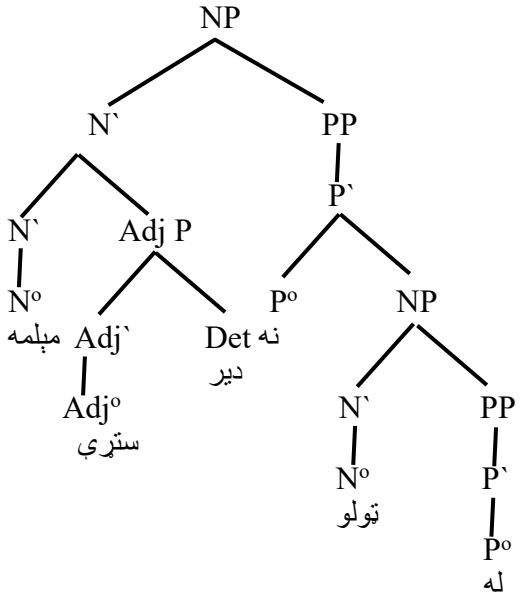

Figure 8(a): Head-position parameter in Pashto

In figure 8(a), PP *له* combines with N° *ټولو* to form a noun phrase ټولو له. This NP in turn combines with the head postposition P°*نه* to form a larger constituent, PP *له ټولو نه*. In the given figure, *له* is a preposition which takes the place of the specifier. A specifier is daughter to phrase and sister of a single bar level (Carnie, 2013). In the given example, *له* is daughter to NP and sister to N` and it is not acting as head word. The head word in the given PP is the postposition *نه* as shown in the figure. This head

postposition is daughter of a P` and sister of an NP. Moreover, in the given figure, دير is a determiner as it is sister to Adj` and daughter to Adj P. This determiner combines with the Adj^{o} سترې to form an Adj P دير سترې. This adjective phrase then merges with N^{o} مېلمه to get a N` دير سترې مېلمه. This N` then merges with PP له تولو نه to get a larger constituent, that is NP له تولو نه دیرسترې مېلمه. This is an example of the noun phrase because the head word, in this example, is a noun مېلمه and it controls the whole phrase. "The *head* of a phrase is the word that gives its category to the phrase" (Carnie, 2013, P.100). The head word comes after the prepositional phrase which is not actually acting as a complement because the adjective phrase intervenes. That is why, the adjective phrase takes the role of the modifier as it is sister to N` and daughter to N`. Moreover, له تولو نه is a PP and it consists of both preposition له and postposition نه. However, the head word in the given figure is the postposition نه and it comes after the complement NP له تولو. Also, the preposition in the given example acts as a specifier as it is sister to N` and daughter of an NP. In a nutshell, Pashto is head-last language as it places the head word after the complement.

8 (b)The most tired guest of all (English Translation)

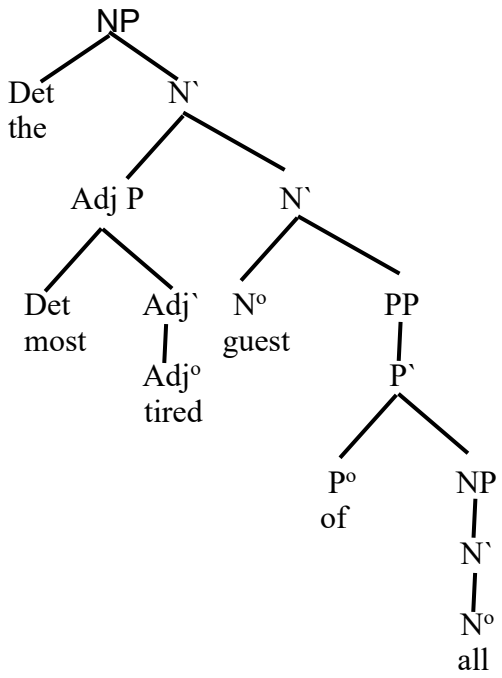

Figure 8(b): Head-position parameter in English

On the other hand, figure 8(b) can be translated as *the most tired guest of all* in English. An NP *all* merges with P^{o} *of* to form PP *of all*, which in turn merges with N^{o} guest to form N` guest of all. Similarly, Adj$^{o}$ *tired* combines with the determiner *most* to form AdjP *most tired*, which in turn merges with N` *guest of all* to form higher level N` *most tired guest of all*. This N` then combines with the determiner *the* to get an NP *the most tired guest of all.* In figure 8(b), *the* and *most* are determiners but they act as specifiers as they take the place of a specifier. The and most are daughters to NP and Adj P but sisters to N`and Adj`respectively. According to Carnie (2013), specifier is daughter to phrase XP (variable for any phrase) and sister to X`(a variable). In the English noun phrase *the most tired guest of all,* PP *of all* is a complement and it comes after the head word that is, *guest*. Similarly, *of all* is a PP and the head word *of* comes before its complement *all*. As English places the head word before the complement on consistent basis, so English is termed as the head-first language.

8 (c) سب سے زیادہ تھکا ہوا مہمان (Urdu Translation)

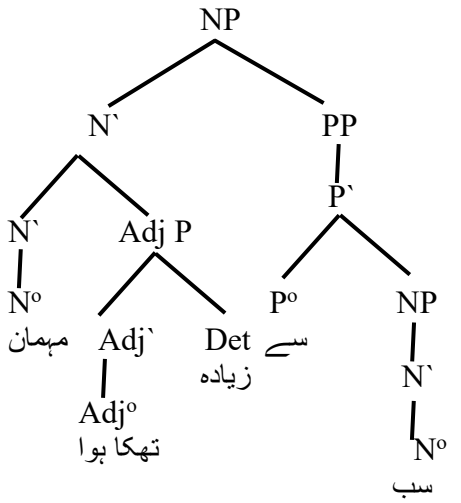

Figure 8(c): Head-position parameter in Urdu

Figure 8 (c) is an equivalent of *the most tired guest of all***.** In this figure, NP سب combines with the head postposition P^{o} سے to form PP سب سے. NP سب acts as the complement of P^{o} سے as it is sister to its head P^{o} سے and daughter to P`. Similarly, determiner *زیادہ* merges with the adjective *تھکا ہوا* to form adjective phrase *زیادہ تھکا ہوا* which in turn merges with the noun *مہمان* to form N`*زیادہ تھکا ہوا مہمان* . This N` then combines with the PP*سب سے* to get a higher level NP constituent *سب سے زیادہ تھکا ہوا مہمان*. The tree diagram in the given figure of 8 (c) illustrates that the postposition *سے* is the head word and it comes after its complement سب. However, unlike English

example in 8 (b) where PP *of all* is the complement of the head word *guest*, Noun مہمان , which is an equivalent of *guest,* is not acting as the head word of PP سب سے because the adjective phrase *زیادہ تھکا ہوا* intervenes between the noun and the PP. The analysis shows that Urdu is head-last language as the head word follows its complement.

Based on the analysis, it is clear that English is head-first language. On the other hand, Pashto and Urdu are head-last languages as the head word comes after its complement. The analysis of Pashto and Urdu examples also challenges the X-bar theory as the head word noun in both Pashto and Urdu examples is not sister to the PP and adjective phrase intervenes between the noun and the PP. Moreover, Pashto example illustrates irregularity in terms of having both preposition and postposition where the preposition acts as the specifier while postposition as the head word.

9 زما ورور په کوټه کې ناست دي

zma wror pa kota ki nast day
1SG brother in room in sit is.PRESENT.FEM.SG
My brother is sitting in the room.

9 (a)زما ورور په کوټه کې ناست دي

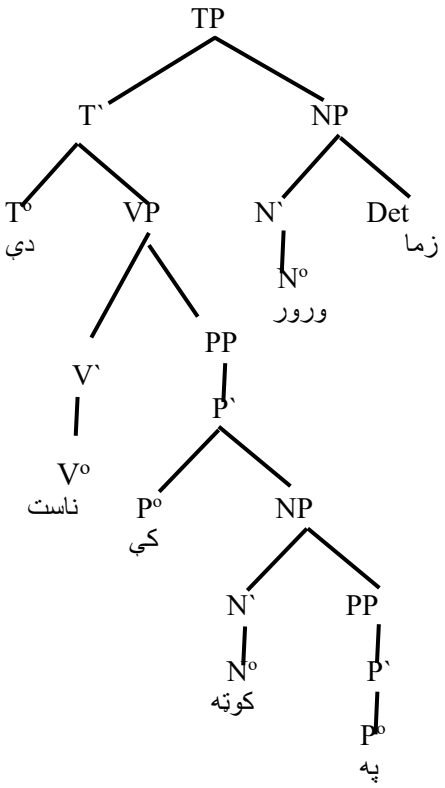

Figure 9 (a): Head-position parameter in Pashto

In figure 9(a), PP په combines with N^{o} کوټه to form a noun phrase په کوټه, which in turn combines with the postposition P^{o} کې to form a larger constituent, PP په کوټه کې This PP then combines with V^{o} ناست to form VP په کوټه کې ناست. This VP then combines with T^{o} دی to form T` په کوټه کې ناست دی which in turn merges with an NP زما ورور to form TP زما ورور په کوټه کې ناست دی. In this figure, په کوټه کې ناست is a VP; it is complement and comes before the head word دی. Furthermore, in this VP, په کوټه کې comes before the head verb ناست but it is an adjunct. په is a preposition which takes the place of the specifier. A specifier is daughter to phrase and sister to bar level (Carnie, 2013). In the given example, په is daughter to NP and sister to N` and it is not acting as head word. The head word in the given PP is the postposition کې as shown in the figure 9(a). In the PP په کوټه کې *the* complement is په کوټه and it comes before the head preposition کې. In other words, په کوټه is sister to head P$^{o}$ and daughter to P`. Pashto, as shown in the above figure, places the head word after the complement, so Pashto is termed as the head-last language.

9 (b) My brother is sitting in the room

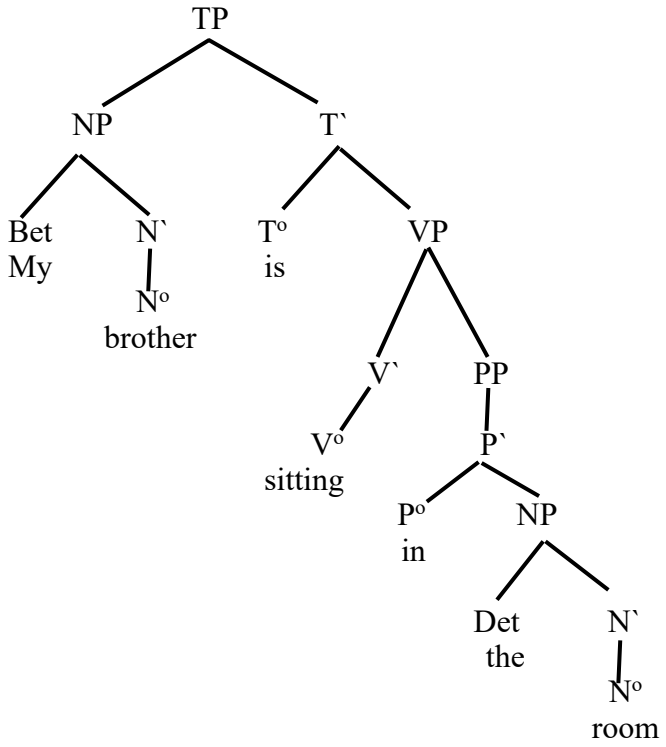

Figure 9 (b): Head-position parameter in English

Figure 9(b) is a direct translation in the English language of figure 9(a). In the given figure, the noun *room* combines with the determiner *the* to form a noun phrase

the book, which in turn combines with the preposition P^{o} *in* to form prepositional phrase *in the room*. *The* is a determiner but it acts as a specifier that is why it a sister *to* N` and daughter to NP. Then this PP combines with V$^{o}$ *sitting* to form VP *sitting in the room, which in turn combines with* T$^{o}$ *is* to form T` *is sitting in the room.* Similarly, this T` merges with an NP *My brother* to form TP *My brother is sitting in the room*. *My* is a determiner but it acts as a specifier that is why it a sister to N` and daughter to NP. In this figure, *is sitting in the room* is a TP. In this TP, *sitting in the room* is an adjunct and it comes after the head word *is.* Similarly, PP *in the room* is a complement of the head verb *sitting* and comes after the head verb. Moreover, in the PP *in the room, the room* is a complement and it comes after the head preposition in. In other words*, the room* is sister to head P^{o} and daughter to P`. As English consistently places the head word before the complement, so English is termed as the head-first language.

9 (c) میرا بھائی کمرے میں بیٹھا ہے

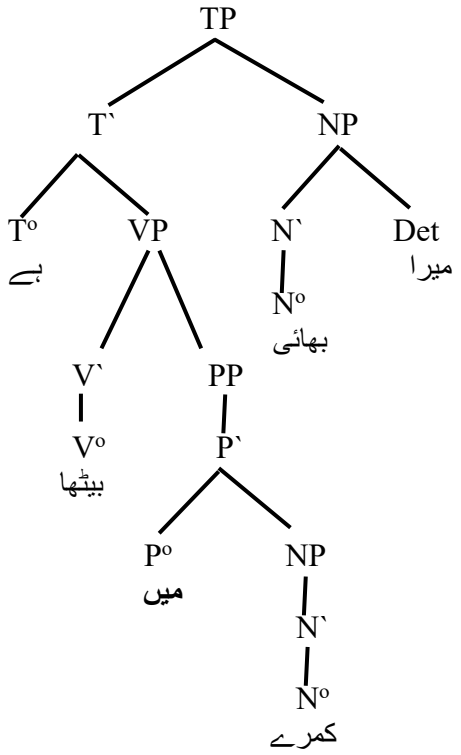

Figure 9 (c): Head-position parameter in Urdu

Figure 9 (c) is analysed in the light of the X-bar theory. The tree diagram shows syntactic similarity with Pashto language in terms of head-position parameter with one exception. Like Pashto example, کمرے میں بیٹھا is a complement of the T^{o} and it comes before the head T^{o}. Similarly, within the PP of the given tree diagram 9 (c), the head

postpostion میں comes after its complementکمرے . According to Carnie (2013), complement is sister to the head word and daughter to the bar-level. Figure 9 (c) shows that in PPکمرے میں, the complement is کمرے and it is sister to Pº and daughter to P`. The aforementioned analysis of the tree diagrams demonstrates that Urdu and Pashto consistently position the head word after the complement, so they are known as head-last languages. However, English is head-first language as the head-word precedes its complement.

10 ده ژوند نه تنګ

Da jwand na tang

Of life from tired

tired of life

10(a) د ژوند نه تنګ

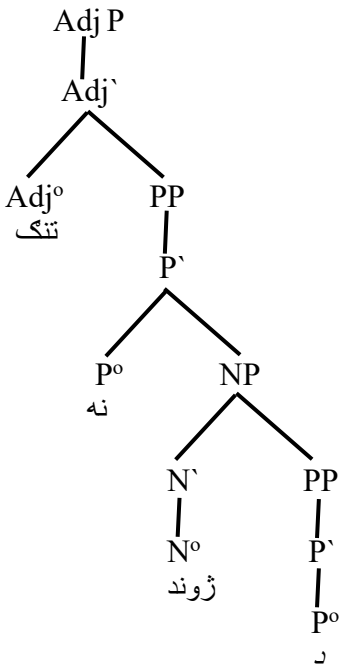

Figure 10 (a): Head-position parameter in Pashto

In figure 10 (a), PP دcombines with Nº ژوندto form a noun phrase دژوند, which in turn combines with the postposition Pº نهto form a larger constituent, PP دژوند نه. This PP then merges with adjective تنګto form an adjective phrase دژوند نه تنګ. In the given figure, د is a preposition which takes the place of the specifier. According to Carnie (2013), a specifier is daughter to phrase and sister to single bar level. In the

given example, د is daughter to NP and sister to N` and it is not acting as head word. The head word in the given PP is the postposition نه as shown in the given figure. The complement NP د ژوند is sister of a head word نه and daughter to P`. Most importantly, the complement د ژوند comes before the head postposition in the given example. Similarly, PP د ژوند نه is a complement of the head adjective تنګ and it precedes the head word. As Pashto consistently places the head word after the complement, so Pashto is termed as the head-last language.

10 (b) tired of life (English Translation)

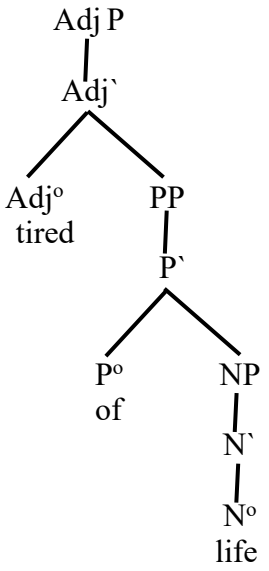

Figure 10 (b): Head-position parameter in English

The adjective phrase *tired of life* is an equivalent of تنګ نه د ژوند. An NP *life* merges with Pº *of* to form PP *of life*, which in turn merges with Adjº *tired* to form Adj P *tired of all.* "The category of the head of a phrase determines the category of the phrase (Burton-Roberta, 2022, P.28)". Figure 10 (b) is an example of adjective phrase as the head word *tired* is an adjective and this head word gives category to the whole phrase. In the given Adj P *tired of life, of life* is a complement and it comes after the head adjective *tired.* In other words, the complement *of life* is sister to head Adjº and daughter to Adj`. The complement *of life* is in turn a prepositional phrase in which the head preposition *of* likewise precedes its complement *life.* As English consistently places the complement after the head word, so English is termed as the head first language.

10 (c) زندگی سے تنگ (Urdu Translation)

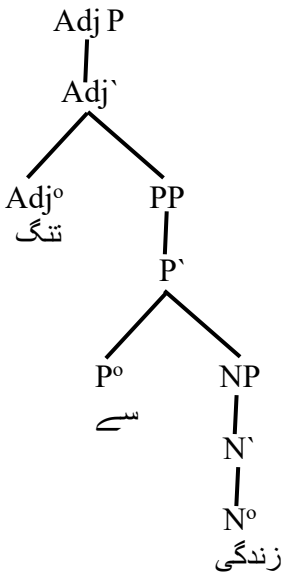

Figure 10 (c): Head-position parameter in Urdu

On the other hand, in figure 10(c), which is a direct translation in Urdu of ډزوند نه تنک. زندگی is an NP and it combines with the head Pº سے to form PP زندگی سے. This in turn merges with Adjº تنگ to form adjective phrase تنگ سے زندگی. In the given Adjective phrase زندگی سے تنگ, زندگی سے is a complement and it comes before the head adjective تنگ . According to Carnie (2013), complement is sister to head word and daughter of a bar level. In this figure 10 (c), the complement زندگی سے is sister of head Adjº and daughter to Adj`. Similarly, the complement زندگی سے is in turn a prepositional phrase in which the head postposition سے comes after its complement زندگی. As Urdu consistently places the head word after its complement, so Urdu is termed as the head-last language.

The above examples show the syntactic variation between Pashto, Urdu and English in terms of head-position parameter. In Pashto and Urdu, the head word follows the complement, so they are termed as head-last languages. However, Pashto also behaves as a head-first language in case of prepositional phrase in the absence of any postposition. On the contrary, English is head-first language because the head word precedes the complement consistently in English.

4.1.3 Head-Position Parameter in Urdu

In this section, different phrases and sentences are taken from Urdu grammar books. They are glossed and translated into Pashto language as well. Then they are analyzed for the head-position parameter. Consider the following examples:

11 کتاب کی قیمت

Kitab ki qeemat

Book of price

The price of the book

11(a) کتاب کی قیمت

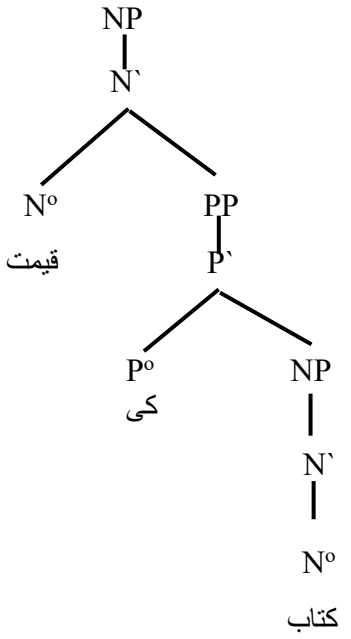

Figure 11 (a): Head-position parameter in Urdu

In figure 11(a), *کتاب* is an NP and it combines with the head Pº *کی* to form PP *کتاب کی*. This PP in turn merges with Nº *قیمت* to form a noun phrase *کتاب کی قیمت*. In the given NP *کتاب کی قیمت*, *کتاب کی* is a complement and it comes before the head noun *قیمت*. Complement is sister to a head and a daughter of a single bar level (Carnie, 2013). In this figure, the complement *کتاب کی* is sister to head Nº and daughter to N`. Similarly, the complement *کتاب کی* is in turn a prepositional phrase in which the head preposition

کی comes after its complement کتاب. As Urdu consistently places the head word after its complement, so Urdu is termed as the head-last language.

11 (b) د کتاب قیمت (Pashto translation)

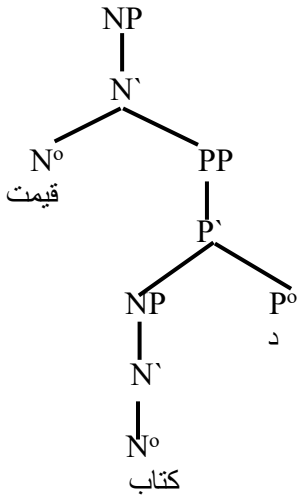

Figure 11 (b): Head-position parameter in Pashto

On the other hand, figure 11(b) is translation of کتاب کی قیمت in Pashto language. In the given figure 11 (b), Pº د combines with NP کتاب to form a prepositional phrase د کتاب, which in turn combines with Nº قیمت to form an NP د کتاب قیمت. As shown, the PP د کتاب is a complement and it comes before the head noun قیمت. In other words, the complement د کتاب is sister to head Nº and daughter to N`. The complement د کتاب is a prepositional phrase, where the head preposition د precedes its complement and this is an exceptional case in Pashto. In other words, د is the preposition that governs the phrase and comes before its object, which is کتاب. As Pashto places the head word after its complement, so Pashto is known as the head-last language. However, in the above PP, the head word comes before the complement which is an exception to the above explanation of treating Pashto as head-last language. In short, both Pashto and Urdu are head-last languages as the head word comes after the complement in these languages with one exception in PP of Pashto د کتاب , where the head word precedes its complement.

12. اس دوکان میں

is dukan main

this shop in

in this shop

12 (a)اس دوکان میں

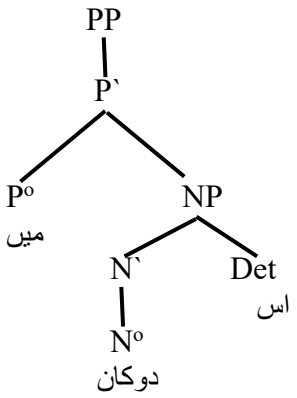

Figure 12 (a): Head-position parameter in Urdu

In figure 12(a), *اس* is a determiner and it combines with the noun *دوکان* to form an NP *اس دوکان*, which in turn merges with the postposition میں to form a PP *اس دوکان* میں. According to Carnie (2013), a specifier is sister to a bar level and daughter of a phrase. The determiner *اس* takes the place of the specifier as it is sister to N` and daughter to NP. Moreover, *اس دوکان* is a complement as it is sister to the head postposition *میں* and daughter to P` and it comes before the head word in the given Urdu example. This placement of head word after the complement categorises Urdu as head last language, unlike English.

12(b) په دي دوکان کي (Pashto translation)

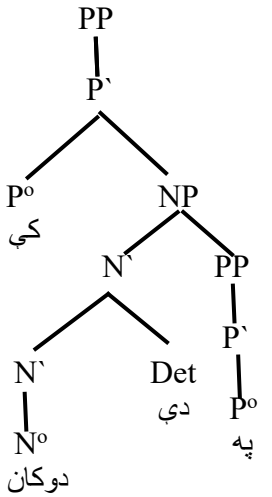

Figure 12 (b): Head-position parameter in Pashto

12(c) دي دوکان کي (Pashto translation)

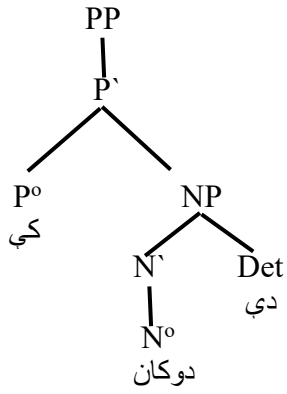

Figure 12 (c): Head-position parameter in Pashto

Figure 12(b) and 12(c) are the two possible translations of *اس دوکان میں* in the Pashto language. In figure 12(b), the determiner *دی* combines with the noun *دوکان* to form an N` *دوکان دي* , which in turn merges with the preposition په to form an NP دوکان په دي . This NP then combines with head postposition کي to form PP *دوکان دي په* کي. In the given figure, determiner دي takes the place of an adjunct as it is both sister and daughter to N`. Similarly, په is a preposition but it takes the place of the specifier. Carnie (2013) contends that specifier is daughter of a phrase and sister to a bar level. In the given example, په is daughter to NP and sister to N` and it is not acting as head word. The head word in the given PP is the postposition کي as shown. The complement NP *دوکان دي په* is sister to head postposition کي and daughter to P`. Most importantly, the complement *دوکان دي په* comes before the head postposition in the given example. As Pashto places the head word after the complement, so Pashto is termed as the head last language.

On the other hand, in figure 12(c), the determiner دي combines with the noun *دوکان* to form an NP *دوکان دي* , which in turn merges with the postposition کي to form a PP *دوکان دي کي*. In this figure, دي is a determiner and it takes the place of the specifier. In the given example, دي is daughter to NP and sister to N`. Moreover, in this case, we have just postposition and there is no preposition like in the figure 12(b). دوکان دي is a complement of the postposition and it comes before the head postposition کي in the given example. In Pashto, we place the head word after the complement, so Pashto is termed as the head-last language. In short, both Pashto and Urdu are head-last

languages as shown above because the head word comes after the complement in these languages.

13. کچھ تصویریں میز پر ہیں

kuch tasweerain maiz par hain

some pictures table on is.PRESENT

Some of the pictures are on the table.

13 (a) کچھ تصویریں میز پر ہیں

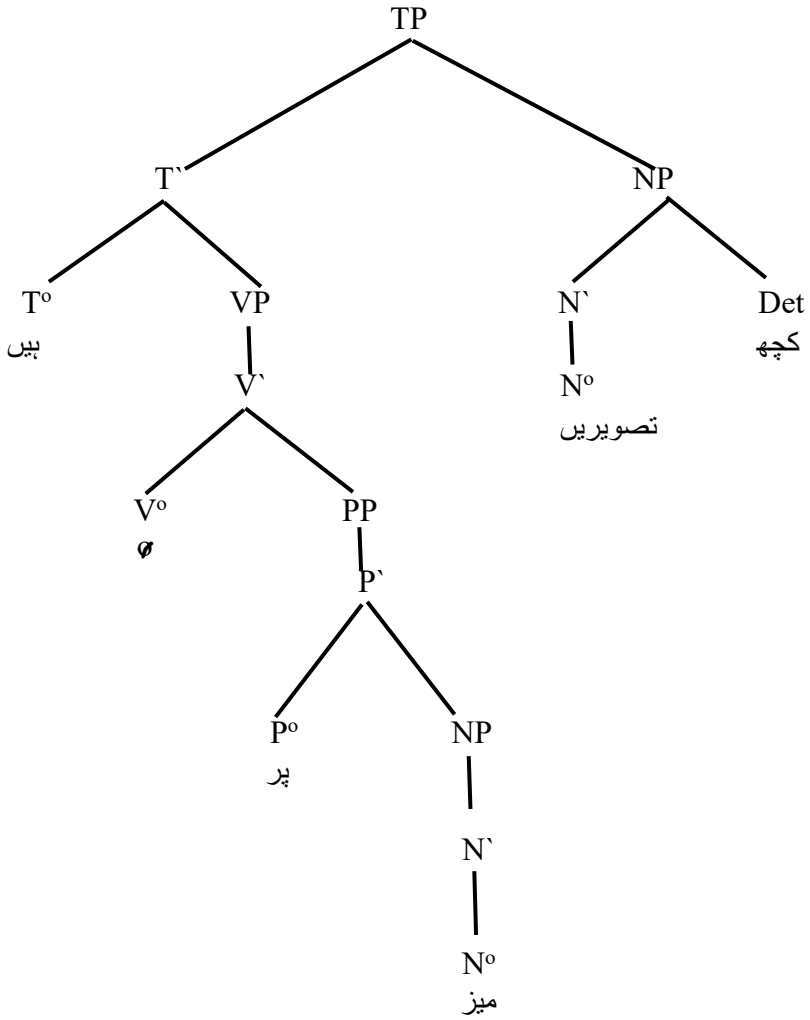

Figure 13 (a): Head-position parameter in Pashto

In figure 13(a), an NP میز combines with postposition Pº پر to form a postpositional phrase میز پر, which in turn combines with the null Vº to form a larger constituent VP میز پر. This VP then combines with Tº ہیں to form T` میز پر ہیں. This T`

then combines with NP *کچھ تصویریں* to form TP *کچھ تصویریں میز پر ہیں*. This NP *کچھ تصویریں* further consists of the determiner *کچھ* and N^{o} *تصویریں*. The determiner takes the place of the specifier. According to Carnie (2013), a specifier is daughter to phrase and sister to bar level as given in the tree diagram. In this figure, *میز پر* is a PP and it comes before the head verb *ہیں* . Moreover, in the PP *میز پر*, *the* complement is *میز* and it comes before the head postposition *پر* In other words *میز* is sister to head P^{o} and daughter to P`. As Urdu consistently places the head word after the complement, so Urdu is termed as the head-last language.

13(b) څه انځورونه په میز دي۔ (Pashto translation)

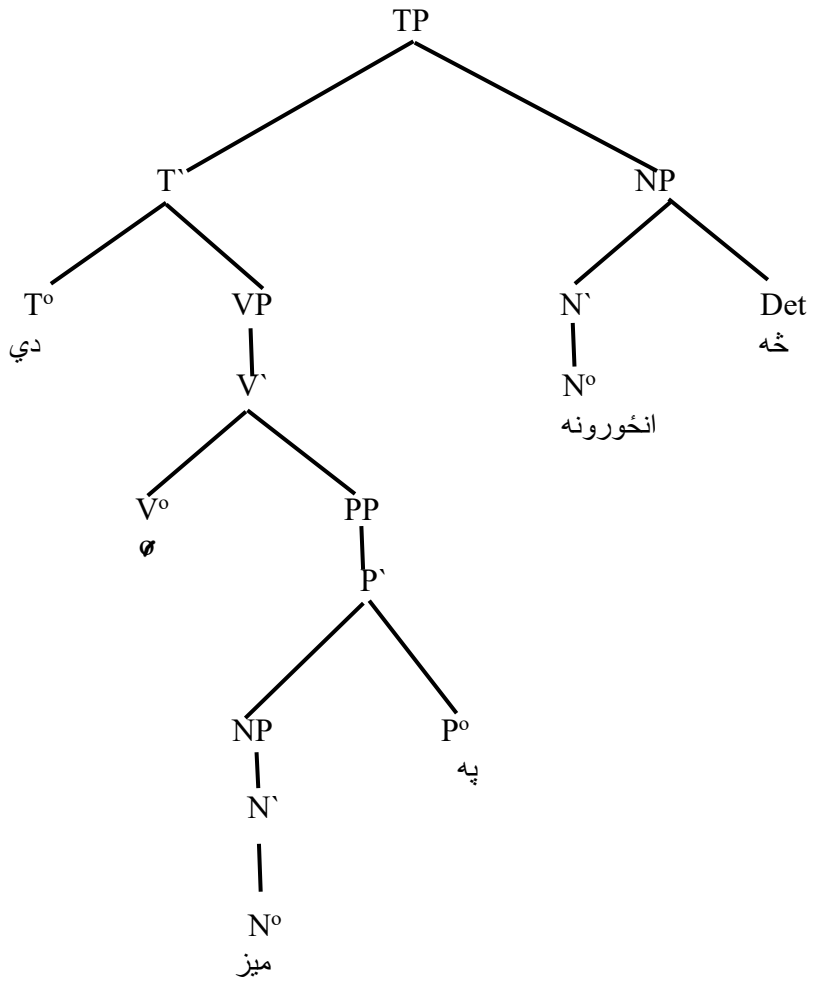

Figure 13 (b): Head-position parameter in Pashto

13(c) څه انځورونه په میز باندې دي (Pashto translation)

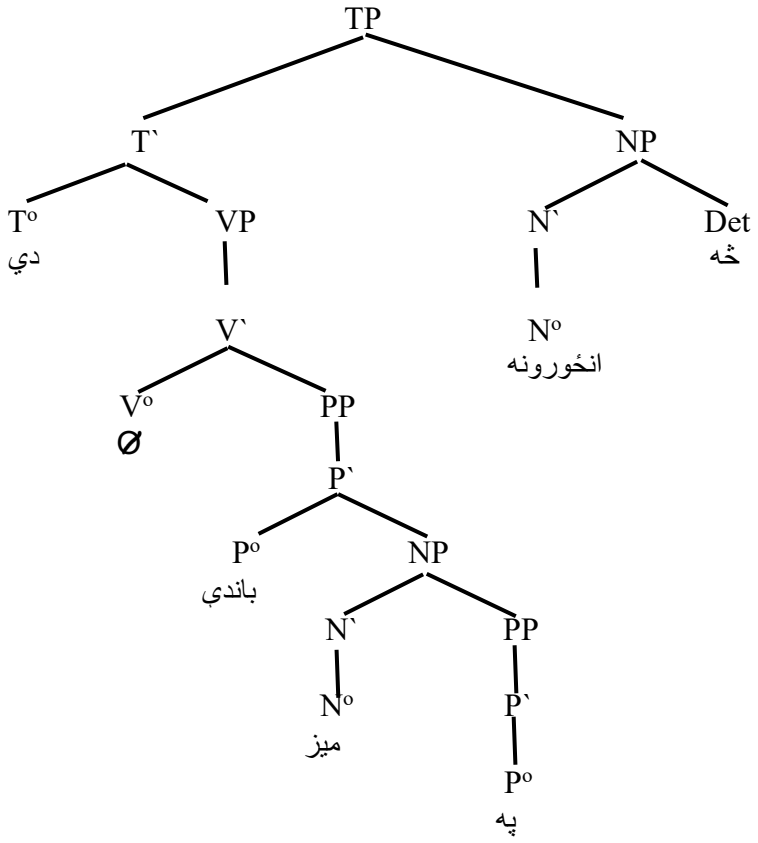

Figure 13 (c): Head position parameter in Pashto

Tree diagrams 13 (b) and (c) have been analysed in the light of the X-bar theory. Both trees are the two possible translations of figure 13 (a). However, there is a slight difference between the two sentences in the PP. In the PP of figure 13 (b), there is only a preposition which acts as the head word of the PP, and it precedes its complement NPمیز. On the other hand, in figure 13 (c), the PP has both preposition and postposition. In this case, the preposition is not the head word rather it functions as a specifier since it is sister to N` and daughter of NP. The head word is the postposition which controls the whole phrase. Moreover, it is imperative to mention that the head word in figure 13 (c), unlike 13 (b), comes after the complement NP میز . In Pashto, it is usual to put the head word after its complement, that is why, Pashto is termed as head-last language. However, figure 13 (b) is an exceptional case where the head word precedes its complement.

14. انگریزی کے چند الفاظ

Anghrezi ke chand alfaz

English of few words

few words of English

14 (a) انگریزی کے چند الفاظ

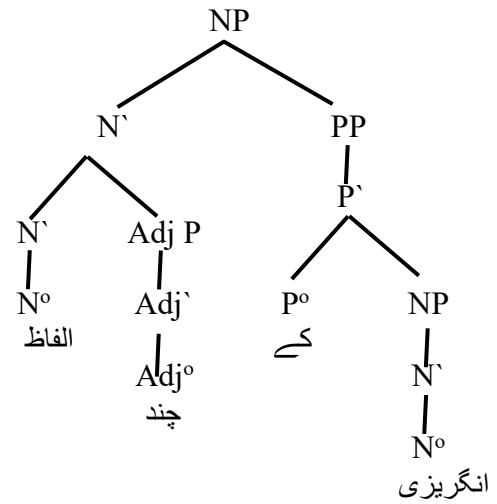

Figure 14 (a): Head-position parameter in Urdu

In figure 14(a), NP *انگریزی* combines with postposition P°*کے* to form a prepositional phrase *انگریزی کے*, which in turn combines with the N` *چند الفاظ* to form an NP *انگریزی کے چند الفاظ*. The N` further consists of an adjective *چند* and N° *الفاظ*. "Adjunct is sister to a single bar level and a daughter of a single bar level" (Carnie, 2013, P.176). The adjective *چند* acts as an adjunct as it is sister to N` and daughter to N`. "Complement is sister to a head and a daughter of a single bar level" (Carnie, 2013, P.176). In this figure 14 (a), *انگریزی کے* could have been the complement as it would be in the English example. However, the adjunct *چند* intervenes between the PP and the head word so the so-called complement takes the place of the specifier instead of the complement and it comes before the head word as in other cases of Urdu examples. Moreover, in the PP of the given tree diagram, the head word is a postposition and it comes after its complement *انگریزی*. The given tree diagram is an example of the noun phrase because the head word is a noun and it controls the whole phrase. This example shows that the complement is not sister to head noun *الفاظ* and thus it violates the X-

bar theory. According to the complement rule, the complement should be sister to phrase and daughter to X' (Carnie, 2013). The above example from the Urdu language challenges the X-bar theory. Also, Urdu consistently places the head word after the complement, so Urdu is head-last language.

14 (b) د انګليسي يو سو ټکي (Pashto translation)

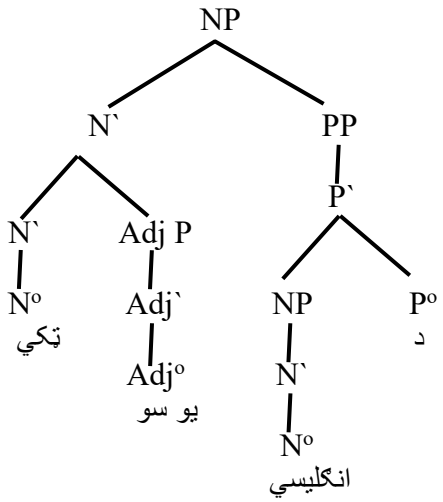

Figure 14 (b): Head-position parameter in Pashto

In figure 14(b), the preposition Pº د combines with NP انګليسي to form a prepositional phrase *د انګليسي*, which in turn combines with the N` *يو سو ټکي* to form an NP *د انګليسي يو سو ټکي*. The N` further consists of an adjective *يو سو* and Nº *ټکي*. The adjective *يو سو* acts as an adjunct as it is sister to N` and daughter to N`. According to Carnie (2013), an adjunct is both a sister to and a daughter of a single bar level. In the PP of the given tree diagram, the head word is a preposition and it comes before its complement *انګليسي*. The given tree diagram is an example of the noun phrase because the head word is a noun and it controls the whole phrase. However, the complement is not sister to the head noun *ټکي*. In other words, it takes the place of the specifier and thus it violates the X-bar theory. According to the complement rule, the complement should be sister to phrase and daughter to X' (Carnie, 2013). The above example from the Pashto language thus challenges the X-bar theory as it violates the complement rule. Moreover, Pashto language is typically head-last language but in the given PP of figure 14 (b), the head preposition *د* comes before its complement *انګليسي*.

15. حالات سے باخبر

Halat sy ba khabar

Situations of aware

aware of situation

15 (a) حالات سے باخبر

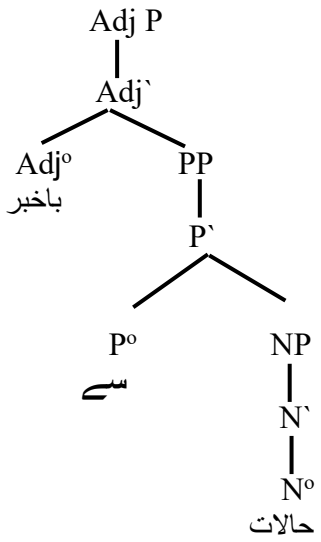

Figure 15 (a): Head-position parameter in Urdu

Figure 15(a) is an Urdu example of adjective phrase. "Every phrase has a head word which determines the nature of the overall phrase" (Radford, 2004, p.19). The given example is adjective phrase because the head word in this phrase is adjective *باخبر*. In the given tree diagram, an NP *حالات* merges with postposition Pº *سے* to form PP *حالات سے*, which in turn merges with Adjº *باخبر* to form Adj P *حالات سے باخبر*. In the given Adj P *حالات سے باخبر*, *the complement* is *حالات سے* and it comes before the head adjective *باخبر*. In other words, the complement *حالات سے* is sister to head Adjº and daughter to Adj`. "When a head demands a further expression, that further expression is said to complement the head (Burton-Roberta, 2022, P.32)". The complement *حالات سے* is in turn a prepositional phrase in which the head postposition *سے* likewise comes after its complement *حالات*. As Urdu consistently places the head after the complement, so Urdu is termed as the head-last language.

15 (b) د حالاتو نه خبر (Pashto translation)

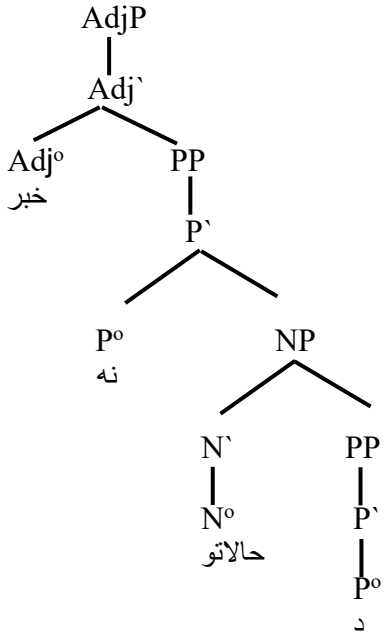

Figure 15 (b): Head-position parameter in Pashto

15 (c) حالاتو نه خبر (Pashto translation)

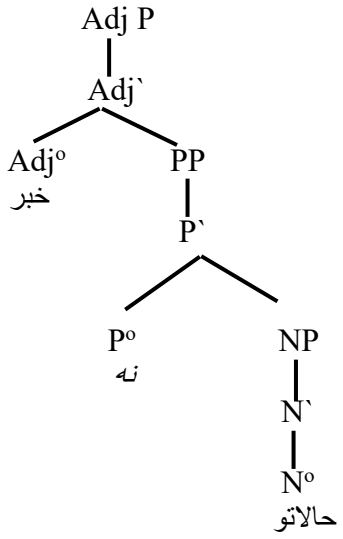

Figure 15 (c): Head-position parameter in Pashto

Figure 15(b) and 15(c) are the two possible translations of Urdu example *حالات سے باخبر* in the Pashto language. In figure 15(b), PP *د* combines with Nº *حالاتو* to form a noun phrase *د حالاتو*. This NP in turn combines with the postposition Pº *نه* to form a larger constituent, PP *د حالاتو نه*, which in turn merges with the Adjº *خبر* to form Adj P *د حالاتو نه خبر*. In the given Adj P *د حالاتو نه خبر*, *the complement* is *د حالاتو نه* and it comes

before the head adjective خبر. In other words, the complement دحالاتو نه is sister to head Adj° and daughter to Adj`. The complement دحالاتو نه is in turn a postpositional phrase in which the head postposition نه comes after its complement د حالاتو. It is imperative to mention that the preposition in the given figure is taking the place of the specifier as it is sister to N` and daughter to NP. On the other hand in figure 15(c), the only difference from 15(b) is in terms of the preposition. In figure 15(c), there is no preposition, so in this case the complement of postposition نه is just حالاتو and it is a noun. In short, Pashto places the head after the complement, so Pashto is termed as the head-last language.

After the analysis, this section finds that English is head-first language as the head word precedes its complement, while Urdu is head-last language because Urdu consistently places the head word after the complement. Most importantly, Pashto is generally a head-last language but it has also been observed that it can act as a head-first language in the case of prepositional phrases.

4.2 Null-Subject Parameter

Another type of parametric variation among languages, relevant to this study, is the null subject parameter. Macdonald (2016) describes the null-subject or pro-drop parameter as a concept grounded in the Principles and Parameters theory of Universal Grammar (UG). This phenomenon is also commonly referred to as pro-drop. This section explores the null-subject parameter in English, Pashto and Urdu in the light of X-bar theory.

4.2.1 Null-Subject Parameter in English

This section explores and analyses the null-subject parameter in English language. For this purpose, examples are taken from different grammar books of English and then they are translated into Pashto language. The data is analyzed in the light of the X-bar theory. Consider the following examples:

16(a) We went to Spain.

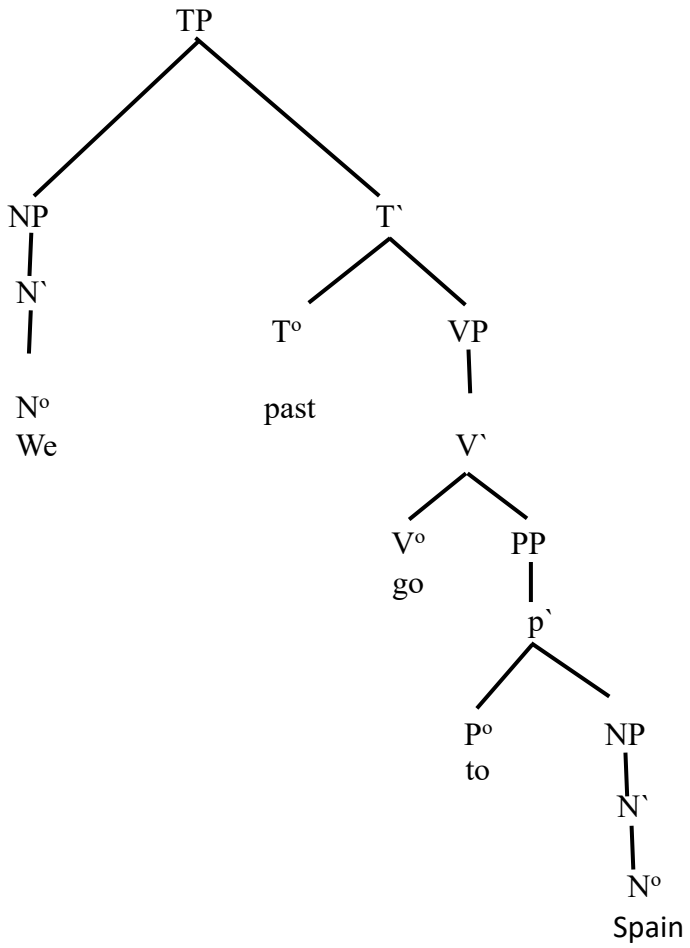

Figure 16 (a): Null-subject parameter in English

In figure 16 (a), NP *Spain* combines with the preposition *to* to form PP *to Spain,* which in turn merges with the verb *go* to form VP *go to school*. This VP then combines with the T° (showing past tense) to form T` *go to school,* which in turn merges with an NP *we* to form TP *We went to school*. It is important to analyze the phenomenon of null subject in the above example. Nordquist (2019) defines a null subject as the absence or apparent absence of a subject in a sentence. In the given figure of 16(a), the subject is *we* and it takes the place of the specifier as it is sister to T` and daughter to TP. Moreover, the subject *we* in the given figure of English is overt rather than covert and it is morphologically realized. Put simply, the subject *we* possesses not just grammatical and semantic characteristics, but is also clearly expressed in terms of its morphological aspects. If we drop the subject *we* from the given sentence, then the sentence will become ungrammatical and it will not be acceptable to the native speakers or any other

proficient speakers of English language because it will not make sense to them. Based on the analysis, it is clear that English does not allow to drop any subject because it will leave the sentence ungrammatical.

16(b) اسپانیه ته لاړو- (Pashto Translation)

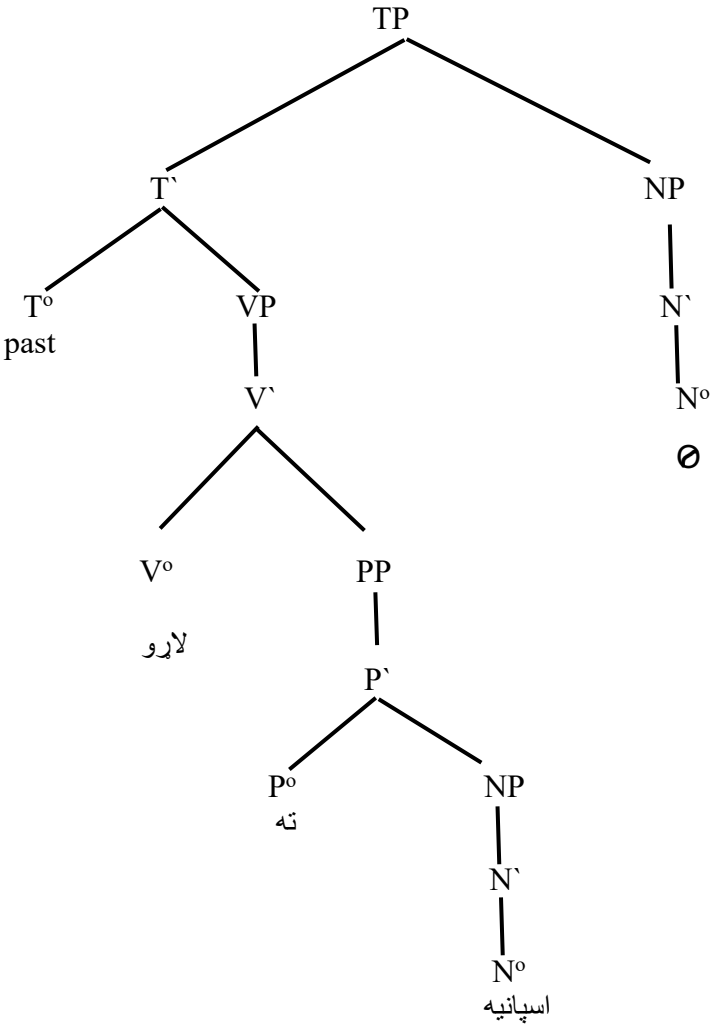

Figure 16 (b): Null-subject parameter in Pashto

In figure 16(b), NP *اسپانیه* combines with the postposition ته to form PP *اسپانیه ته*, which in turn merges with the verb لاړو to form VP *اسپانیه ته لاړو*. This VP then combines with the Tº (showing past tense) to form T` *اسپانیه ته لاړو*, which in turn merges with an NP *that is null* to form TP *اسپانیه ته لاړو*. Examining the null subject phenomenon in the given example is crucial. "The subject of a clause in a NSL can also be overt" (D'Alessandro, 2014, p.1). In the given figure of 16(b), the subject is *null* and it is covert rather than overt. In other words, the subject is not realized phonologically. If we drop the subject from the given sentence, even then the sentence is grammatical and it is acceptable to the native speakers or any other proficient speakers of Pashto

language as it makes sense to them. The missing argument in the Phonetic Form (PF), or surface structure, can be restored in the Logical Form (LF), which represents the underlying structure of the sentence (Chomsky, 1988, as cited in Ahmed et al., 2022). In the given example of Pashto language, the absence of an argument (such as the subject) can be deduced by examining the verb's inflection. Therefore, the possible pronoun that could be used in the above Pashto sentence for *we* would be مونږ and it is both meaningful and grammatical. Based on the analysis, it is clear that Pashto allows to drop the subject, that is why, Pashto is pro drop language or null subject language.

17(a) There is a cow in the garden

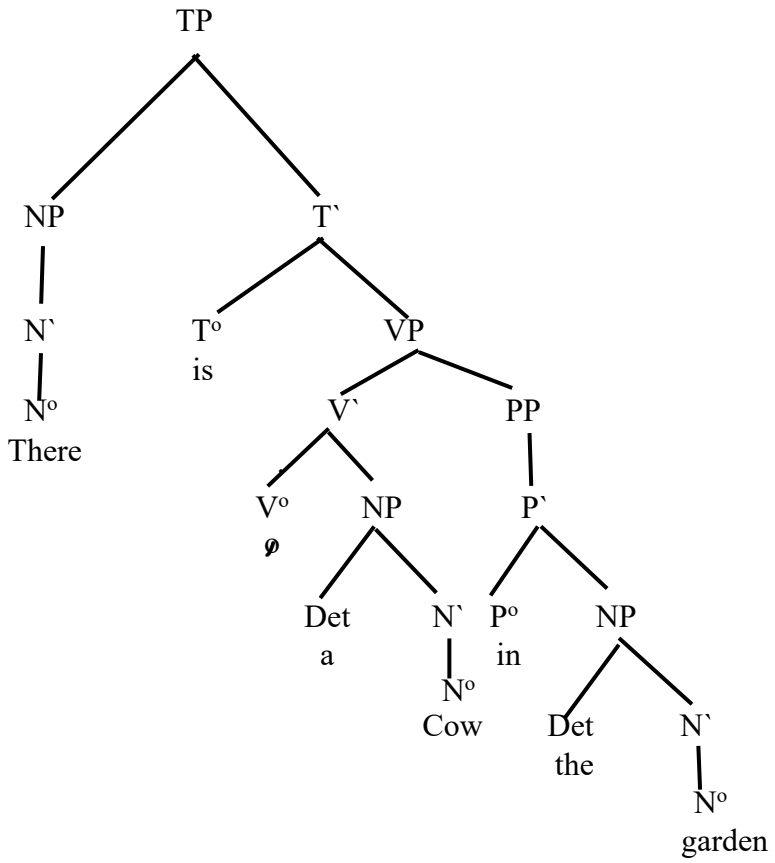

Figure 17 (a): Null-subject parameter in English

In figure 17 (a), the noun *garden* combines with the determiner *the* to form NP *the garden,* which in turn merges with the preposition *in* to form PP *in the garden.* This PP then merges with the V` *a cow* to form VP *a cow in the garden*. *This VP then combines with the* T$^{o}$ *is* to form T` *is a cow in the garden,* which in turn merges with an NP *there* to form TP *There is a cow in the garden*. It is important to analyse the

phenomenon of null subject in the above example. In the given figure of 17 (a), the subject is *there* and it takes the place of the specifier as it is sister to T` and daughter to TP. Moreover, the subject *there* in the given figure of English is overt rather than covert and it is morphologically realized. In other words, the subject *there* has not only grammatical properties but is also morphologically overt. This sort of subject is known as dummy subject. They do not have any semantic significance in the sentence. But it is important to be there grammatically. If we omit the subject from the sentence, it will become ungrammatical and unacceptable to native or proficient English speakers, as it would not make sense to them. The analysis shows that English does not permit subject omission, as it would result in an ungrammatical sentence.

17(b) په باغ کي غوا ده (Pashto Translation)

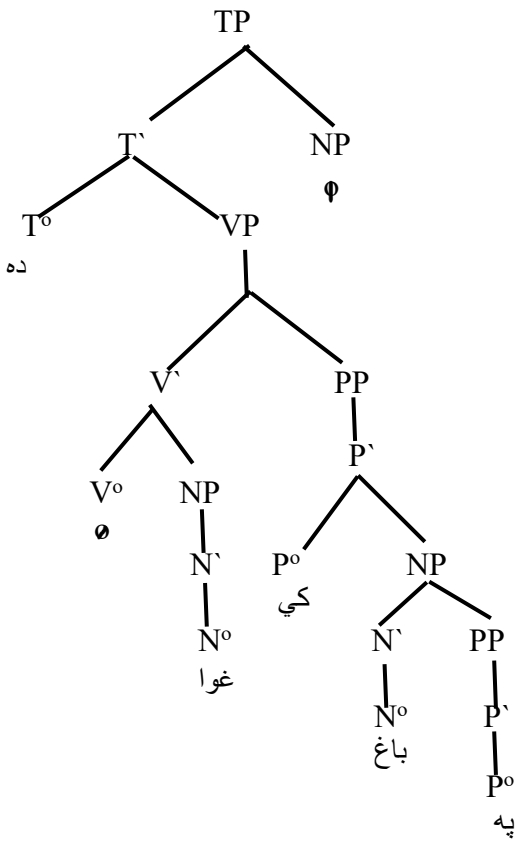

Figure 17(b): Null-subject parameter in Pashto

In figure 17(b), the preposition په combines with the noun باغ to form NP باغ په which in turn merges with the postposition کی to form PP په باغ کي *This PP then combines with the* V` to form VP په باغ کي غوا which in turn merges with a T° ده to form T` په باغ کي غوا ده. *This* T` then combines with t*he* null subject to form TP باغ کي غوا ده

پ"Null-subject languages (NSLs) are those languages that can leave the subject of a sentence unexpressed" (D'Alessandro, 2014, p.1). In the figure of 17(b), the subject is absent. This means the sentence lacks any explicit subject that carries semantic meaning, and it is not morphologically marked. Despite the absence of a subject, the sentence remains grammatically sound and is perfectly understandable to native or fluent Pashto speakers. The sentence still effectively communicates meaning without the need for an overt subject. This characteristic shows that Pashto allows the omission of subjects, which is why it is considered a pro-drop or null-subject language.

18 (a) I bought three oranges.

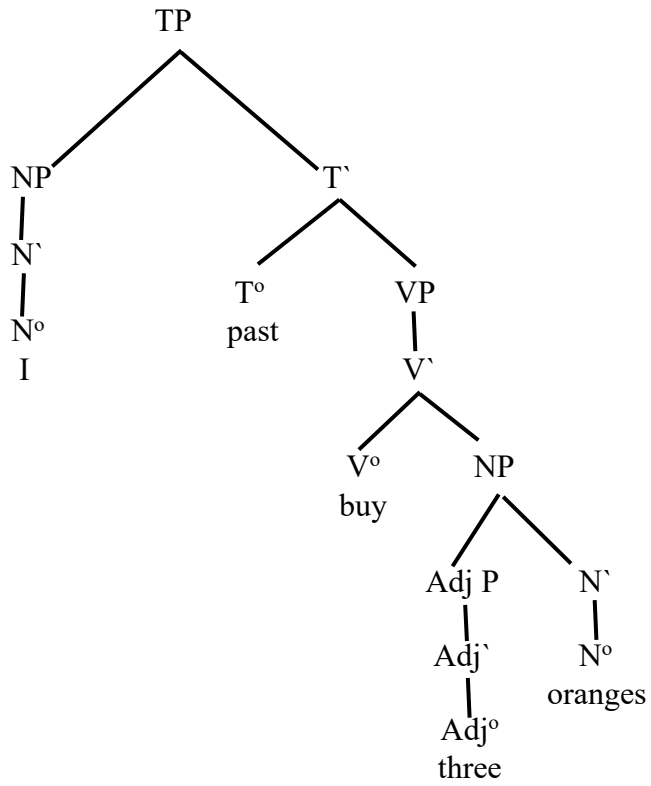

Figure 18 (a): Null subject parameter in English

In figure 18 (a), NP *oranges* combines with the adjective *three* to form an NP *three adjectives,* which in turn merges with the verb *buy* to form VP *buy three oranges*. *This VP then combines with the* Tº (showing past tense) to form T` *buy three adjectives,* which in turn merges with an NP *I* to form TP *I bought three adjectives.* In the given figure of 18 (a), the subject is *I* and it takes the place of the specifier as it is sister to T` and daughter to TP. The subject *I* in given English sentence is not only essential in terms of grammar and meaning, but also has clear phonological and morphological presence.

If the subject *I* were to be removed from a sentence, the structure would become grammatically incorrect, making the sentence unclear or unacceptable to native and proficient speakers of English. This lack of clarity stems from the fact that without an explicit subject, the sentence would not convey who is performing the action. Therefore, it would no longer make sense to the listener or reader. This analysis highlights that English requires the subject to be explicitly stated in order for a sentence to be grammatically correct.

18 (b) ما دری مالتي وا غستی- (Pashto Translation)

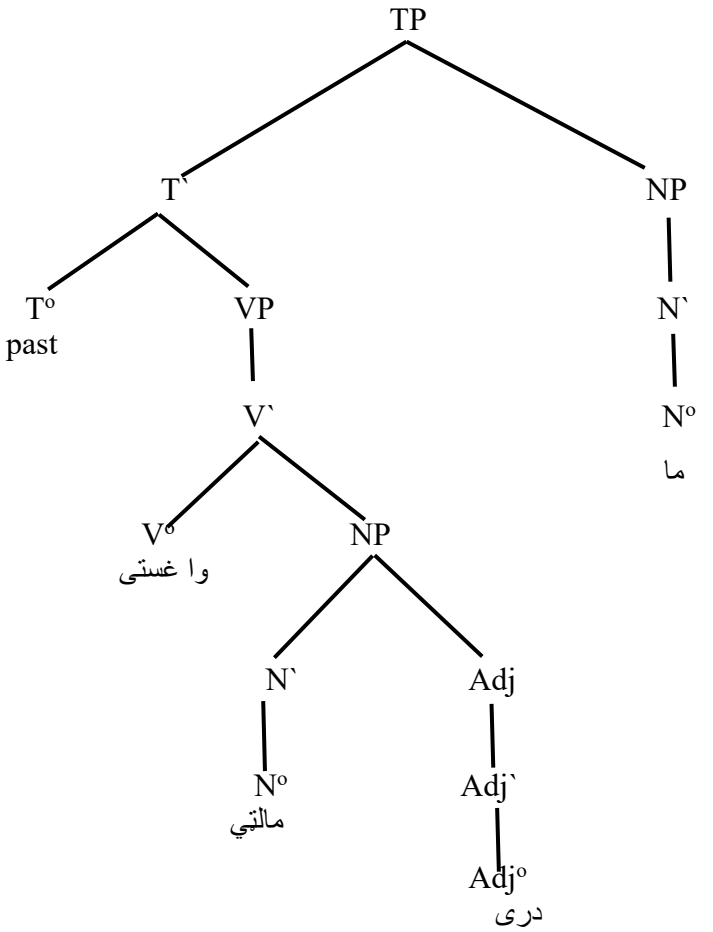

Figure 18 (b): Null-subject parameter in Pashto

In figure 18(b), adjective *دری* combines with the noun *مالتي* to form an NP *مالتي دری,* which in turn merges with the verb *وا غستی* to form VP *دری مالتي وا غستی*. This VP then combines with the Tº (showing past tense) to form T`*دری مالتي وا غستی* , which in turn merges with a subject ما and forms TP *ما دری مالتي وا غستی* "Empirical evidence shows that pure NS languages are rare, and that there are a number of partial NSLs" (D'Alessandro, 2014, p.1). Even though Pashto is generally considered a pro-drop

language, this particular sentence in question does not permit the omission of the subject. That is why, Pashto is not a full null-subject language rather it is a partial null-subject language. In Pashto, sentences of this type typically require the presence of a subject, as it would not be acceptable to native Pashto speakers if the subject were omitted. If the subject ما is removed from this sentence, it would result in an ungrammatical structure that would be unclear and confusing, just as it would be in English. Native speakers of Pashto, as well as proficient users of the language, would find such a sentence unacceptable, as it would not convey a complete or understandable meaning. Therefore, the null NP would serve as placeholders for the subject. However, dropping the subject entirely would make the sentence ungrammatical and unacceptable to native Pashto speakers.

This highlights an important distinction within pro-drop languages like Pashto. While subjects can often be omitted in many sentence structures without losing clarity, there are certain contexts—like the one in this example—where the subject is crucial for grammatical correctness and comprehension. The need for an explicit subject in such cases arises because, without it, the meaning of the sentence becomes ambiguous or incomplete, failing to meet the grammatical expectations of Pashto speakers.

19 (a) It is raining.

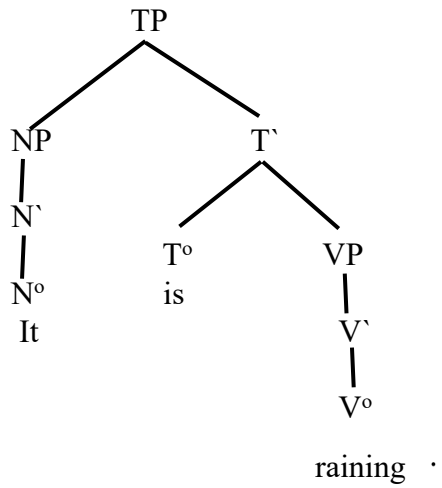

Figure 19 (a): Null-subject parameter in English

In figure 19 (a), the verb *raining* combines with T° *is* to form T` *is raining*, which in turn merges with an NP *it* to form *it is raining*. In the given figure of 19 (a), the subject is *it* and it takes the place of the specifier as it is sister to T` and daughter to

TP. In the given sentence, the subject *it* is explicit rather than implied, and it is morphologically present in the sentence structure. This means that *it* not only fulfills a grammatical function but is also phonologically and morphologically visible. Such a subject is referred to as expletive or pleonastic pronoun. According to Carnie (2013), expletive pronouns usually take the subject position and they do not refer to anything in the sentence. It does not carry any actual semantic meaning or contribute to the content of the sentence. However, it plays an essential role in maintaining the grammatical integrity of the sentence. If the subject *it* is removed, the sentence would become grammatically incorrect, making it unclear and unacceptable to native or proficient English speakers. This is because *it* serves as a placeholder that is necessary for the sentence to adhere to English grammatical rules, even though it doesn't have a specific meaning in this context.

This analysis underscores a key characteristic of English: it requires an overt subject to be present in sentences, even if the subject lacks meaningful content. The omission of the subject *it* would disrupt the sentence structure, leading to ungrammaticality. This distinguishes English as a non-pro-drop language, meaning that subject omission is not permissible.

19 (b) باران وريږي- (Pashto translation)

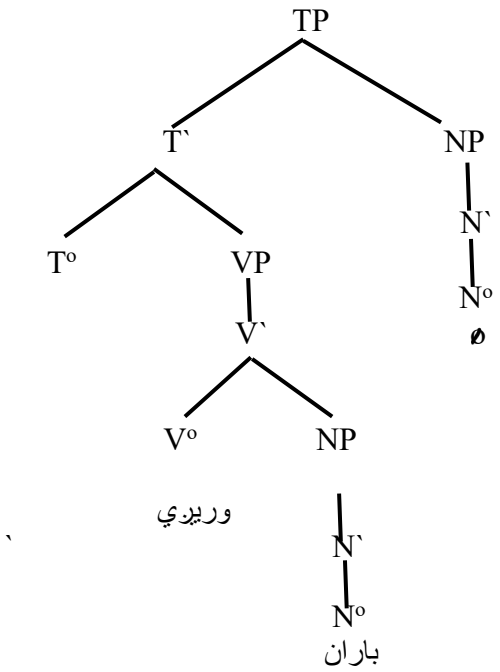

Figure 19 (b): Null-subject parameter in Pashto

In figure 19 (b), NP *باران* merges with V^{o} *وريږي* to form VP *باران وريږي*, which in turn merges with T^{o} to form T`. This T` then merges with an NP which is a null subject to form TP *باران وريږي*. In Figure 19 (b), the subject is absent, meaning it lacks any semantic, phonological, or morphological realization. Despite the absence of a subject, the sentence remains grammatically correct and is understood by native speakers or proficient Pashto speakers. This indicates that, in Pashto, the subject can be omitted without affecting the meaning or structure of the sentence. Therefore, Pashto qualifies as a pro-drop or null-subject language, where the subject does not need to be explicitly stated because the language allows its omission. Hence, the omission of the subject in Pashto is permissible, demonstrating its nature as a pro-drop language.

20 (a) I work

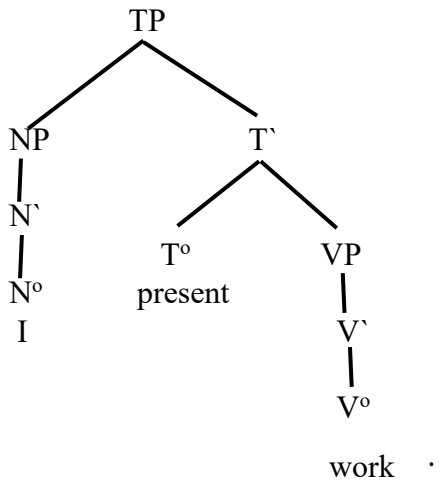

Figure 20 (a): Null-subject parameter in English

In figure 20 (a), the verb *work* combines with T^{o} (indicating the present) to form T` *work*, which in turn merges with an NP *I* to form *I work.* In Figure 1(a), the subject *I* occupies the specifier position, functioning as the sister to T' and the daughter to TP within the syntactic structure. The subject *I* in this English sentence is explicitly expressed, meaning it is overtly present both phonologically and morphologically. If the subject *I* is removed from the sentence, it would result in an ungrammatical structure that native English speakers or proficient users of the language would find unacceptable, as the sentence would no longer make sense. This demonstrates that English does not permit the omission of the subject, as its absence would disrupt the sentence's grammatical integrity. Unlike pro-drop languages, where the subject can be inferred from context or verb morphology, English requires the subject to be overtly stated for the sentence to be complete and understandable. Therefore, English is classified as a

non-pro-drop language, meaning the subject must always be present for a sentence to be grammatically correct. The subject's obligatory presence ensures clarity and completeness in communication, which contrasts with languages like Pashto that allow subject omission based on context or verb inflection.

20 (b) ـکوم کار (Pashto translation)

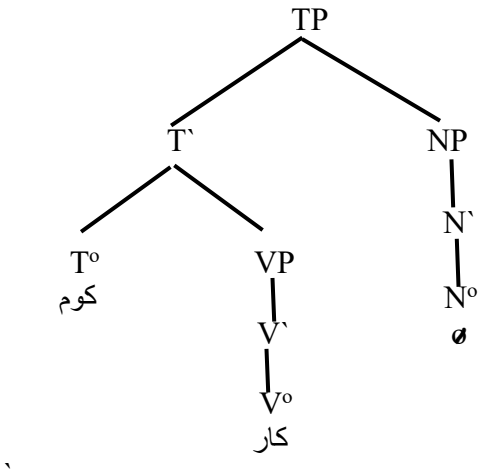

Figure 20 (b): Null-subject parameter in Pashto

In the figure of 20 (b), the subject is not explicitly present, making it covert rather than overt. This means that while the subject carries semantic meaning, it is not expressed through phonological forms. Despite the absence of a clearly stated subject, the sentence remains grammatically correct and fully acceptable to native Pashto speakers or any proficient users of the language. They are able to infer the subject from the verb's morphological features. In this particular case, the verb's morphology indicates that the subject could be ـنه. This analysis highlights how Pashto speakers rely on the form of verbs to interpret the subject, even when it is not explicitly mentioned. This feature of the language demonstrates that Pashto permits subject omission, as the necessary information is embedded in the verb conjugation. This ability to drop the subject without affecting grammaticality is a key reason why Pashto is classified as a pro-drop or null-subject language. This is different from non-pro-drop languages like English, where a subject is usually required for a sentence to be grammatically complete.

4.2.2 Null-Subject Parameter in Pashto

This section investigates the null-subject parameter in the Pashto language by drawing on examples from different Pashto grammar books, which are then translated into Urdu

and English language. The collected data from Pashto language is also glossed to make it comprehensible to the non-native speakers of Pashto language. Then, the analysis of the data is carried out within the analytical framework of X-bar theory. Consider the following examples:

21. د کوره را غلم۔

Da kora raghlam

From home come.PAST.MASC.SG

I came from home.

21 (a) د کوره را غلم۔

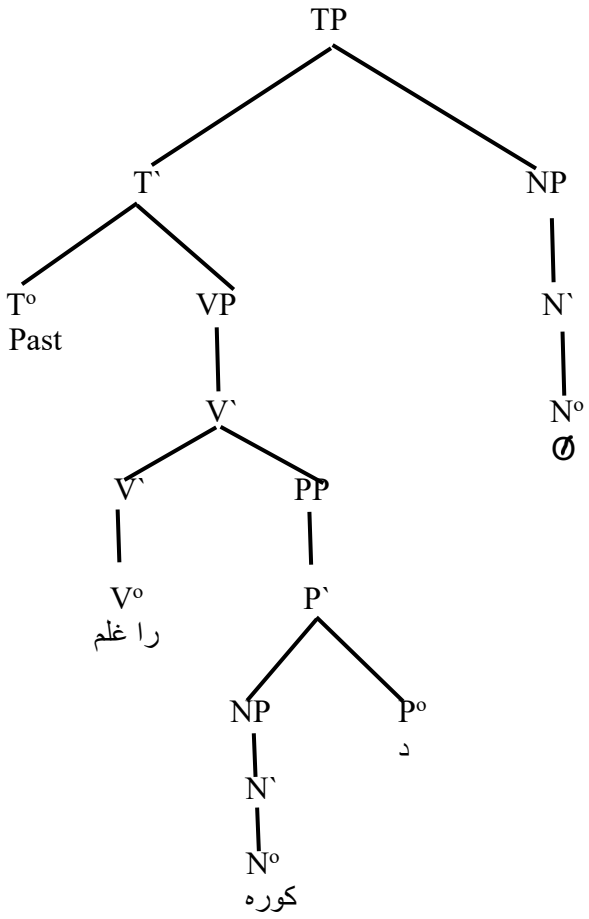

Figure 21(a): Null-subject parameter in Pashto

21 (b) گھر سے آیا (Urdu translation)

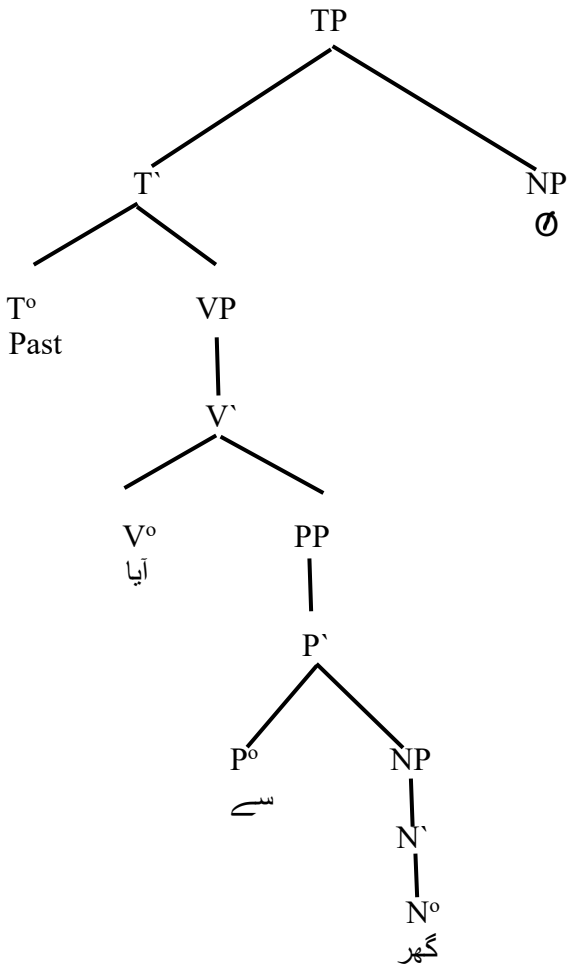

Figure 21 (b): Null-subject parameter in Urdu

In figure 21 (a), the preposition د combines with an NP کوره to form PP د کوره, which in turn merges with the verb *راغلم* to form VP د کوره*راغلم* . This VP then combines with Tº to form T` د کوره*راغلم* . This T` then combines with the null subject to form TP. In the same way in figure 21 (b), the different constituents combine together to form TP *گھر سے آیا*, but the only difference is that of preposition د in the Pashto sentence and postposition سے in Urdu example. In the examples from figures 21(a) and 21(b), the subjects are not explicitly stated; they are null or covert. This means that although the subjects carry meaning (semantic properties), they are not expressed phonologically and morphologically. In other words, while the subject is implied, it is not written out in the sentence. Despite this omission, the sentences remain grammatically correct and fully understandable to native speakers or fluent users of Pashto because they can

deduce the subjects from the given sentences from the verbs' morphology. They can still interpret the meaning clearly without the need for an explicit subject.

This analysis shows that both Pashto and Urdu allow for the omission of the subject, as sentences in these languages can still be interpreted correctly without it. This characteristic makes them pro-drop or null-subject languages, where the subject can be inferred from the context or verb conjugation. This linguistic feature is typical of languages where the grammatical structure doesn't always require the subject to be overtly present, but rather, it can be understood implicitly.

21(c) I came from home (English translation)

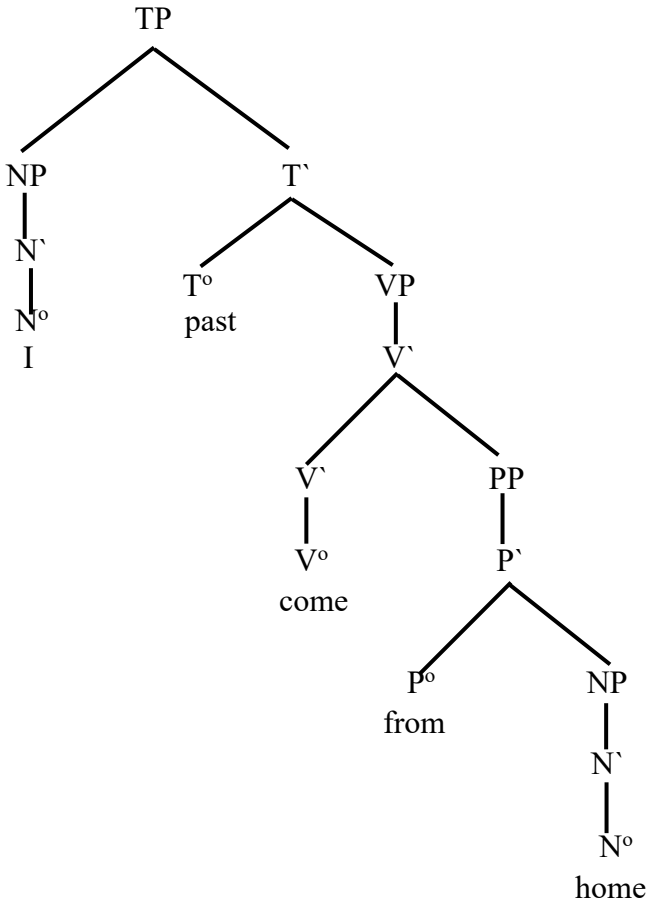

Figure 21 (c): Null-subject parameter in English

In figure 21(c), NP *home* combines with the preposition *from* to form PP *from home,* which in turn merges with the verb come to form VP *come from home*. This VP then combines with the T° (showing past tense) to form T` *come from home,* which in

turn merges with an NP *I* to form TP *I come from home*. In the given figure of 21(c), the subject is *I* and it takes the place of the specifier as it is sister to T` and daughter to TP. In the given example of English, the subject *I* is explicitly present, meaning it is overt and is realized both phonologically and morphologically. In other words, the subject *I* carries not only grammatical and semantic roles but is also expressed clearly in the sentence. If we remove the subject *I* from the sentence, the sentence would become ungrammatical and would not be acceptable to native speakers or proficient users of English. This is because, without the subject, the sentence would lack the necessary structure and meaning, making it unclear or nonsensical to English speakers. From this analysis, it is evident that English does not permit subject omission (unlike pro-drop languages like Pashto or Urdu). In English, every sentence typically requires an overt subject for it to be grammatically correct and understandable. This is a key distinction between English and pro-drop languages, where the subject can often be implied or understood without being explicitly stated.

22. ډير توتان مي وخوړل-

Der tutan me waxural

Many mulberries ISG eat.PAST

I ate many mulberries.

22 (a) ډير توتان مي وخوړل-

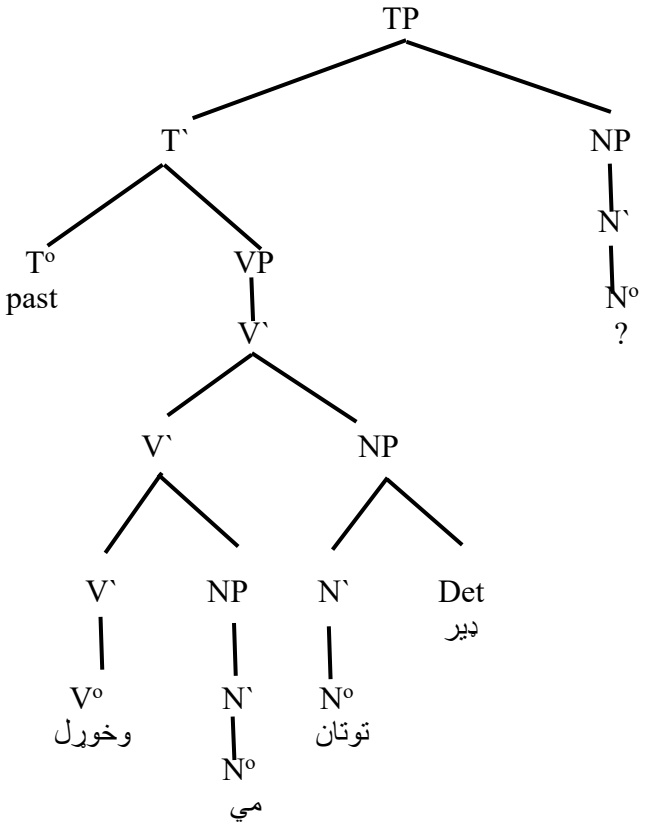

Figure 22 (a): Null subject parameter in Pashto

In figure 22 (a), the determiner *ډير* combines with the noun *توتان* to form an NP ډير توتان, which in turn merges with V`*مي وخوړل* to form VP *ډير توتان مي وخوړل*.This V` can further consists of an NP *مي* and verb *وخوړل*. The VP then merges with the Tº (indicating past tense) to form T`, which in turn merges with an NP which is indicated by a question mark to form TP. The usual place for a subject according to X-bar is the place of an NP; however, in figure 22 (a), this place is indicated by the question to raise a question. In the given figure, the subject is *مي* which is an NP and it is actually the constituent of the V`. The subject in this example takes the place of the adjunct as it is

sister to V` and daughter to V` rather than taking the place of the specifier as observed in the rest of the sentences. Moreover, the subject مي in the given figure of Pashto is overt rather than covert and it is morphologically realized. Another way of placing the subject would be in the place of an NP which is marked by the question mark in the beginning of the sentence. But the subject in this case will take different form that is ما Although Pashto is pro drop language, the above sentence does not allow to drop the subject. According to D'Alessandro (2014), there are many partial null-subject languages as well because full null-subject languages are very rare. In Pashto, it is not common to have sentences of such nature without the subject because it is not acceptable to the native speakers of the Pashto language. If we drop the subject مي from the given sentence, then the sentence will become ungrammatical and it will not be acceptable to the native speakers or any other proficient speakers of English language because it will not make sense to them. On the basis of this analysis, it is clear that Pashto is partial null-subject language.

22 (b) بہت سارے شہتوت کھائے۔ (Urdu translation)

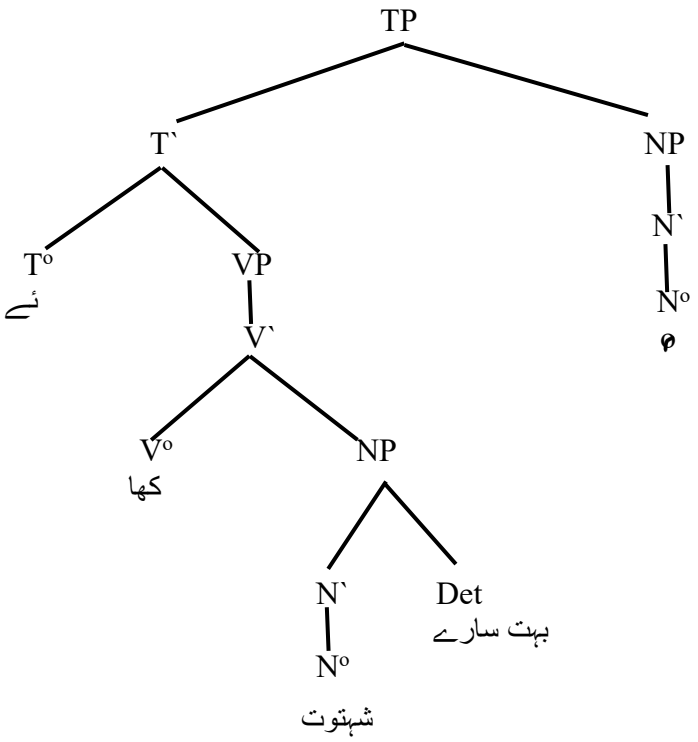

Figure 22 (b): Null-subject parameter in Urdu

In figure 22(b), the determiner *بہت سارے* combines with the noun *شہتوت* to form NP *بہت سارے شہتوت* , which in turn merges with the verb *کھا* to form VP *بہت سارے*

شہتوت کھا . This VP then combines with the Tº ئےto form T`, which in turn merges with an NP which is null to form TP بہت سارے شہتوت کھائے. In the given figure of 22 (b), the subject is *null* and it is covert rather than overt. To put it simply, the subject possesses semantic characteristics but is not expressed phonologically or morphologically. If we drop the subject from the given sentence, even then the sentence is grammatical and it is acceptable to the native speakers or any other proficient speakers of Urdu language as they can deduce the subject from the verb and would make sense to them. Then possible pronoun that could be used in the above Urdu sentence for *I* would be میں نے and it is both meaningful and grammatical. Based on the analysis, it is clear that Urdu allows to drop the subject, that is why, Urdu is pro- drop language or null-subject language.

22 (c) I ate many mulberries. (English translation)

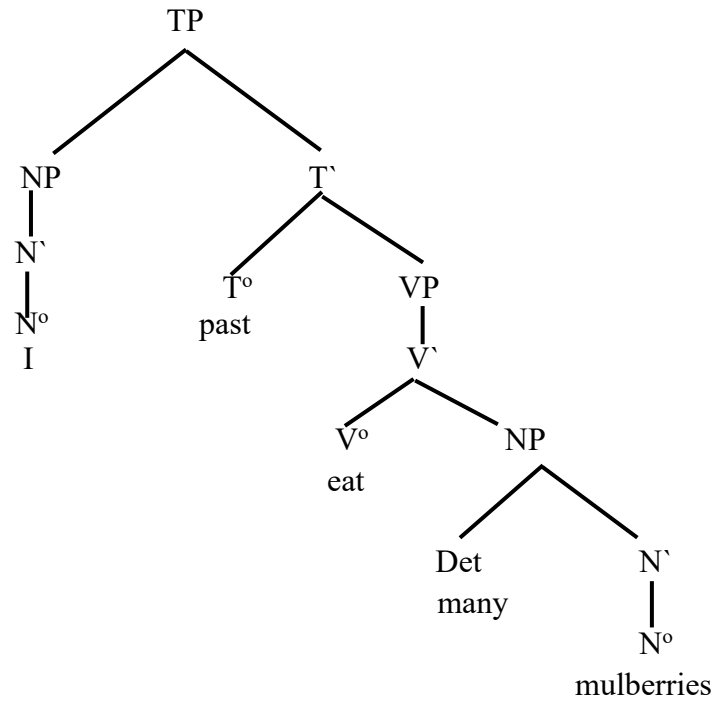

Figure 22 (c): Null-subject parameter in English

In figure 22(c), the noun *mulberries* combines with the determiner *many* to form NP *many mulberries,* which in turn merges with the verb eat to form VP *eat many mulberries*. This VP then combines with the Tº (showing past tense) to form T` *eat many mulberries,* which in turn merges with an NP *I* to form TP *I eat many mulberries*. In the given figure of 22 (c), the subject is *I* and it takes the place of the specifier as it is sister to T` and daughter to TP. In the given English example, the subject *I* is overt,

meaning it is explicitly stated and morphologically realized. In other words, *I* is visible in the structure of the sentence, contributing both grammatically and semantically. If we were to omit the subject *I* from the sentence, it would become ungrammatical and unacceptable to native or proficient English speakers, as the sentence would lose its clarity and no longer make sense. This analysis highlights that in English, every complete sentence typically requires an overt subject to maintain its grammatical integrity. Without an explicit subject, the sentence structure would be broken, leaving it incomplete and unintelligible to English speakers. English is a language that strictly adheres to the need for explicit subjects, largely due to its reliance on subject-verb agreement and the absence of rich inflectional markers that can independently convey subject information.

23. په وهلو وهلو مړ شو-

Pa wahalo wahalo mar sho

By beat beat death happens. PAST.MASC.SG

He was beaten to death

23 (a) په وهلو وهلو مړ شو-

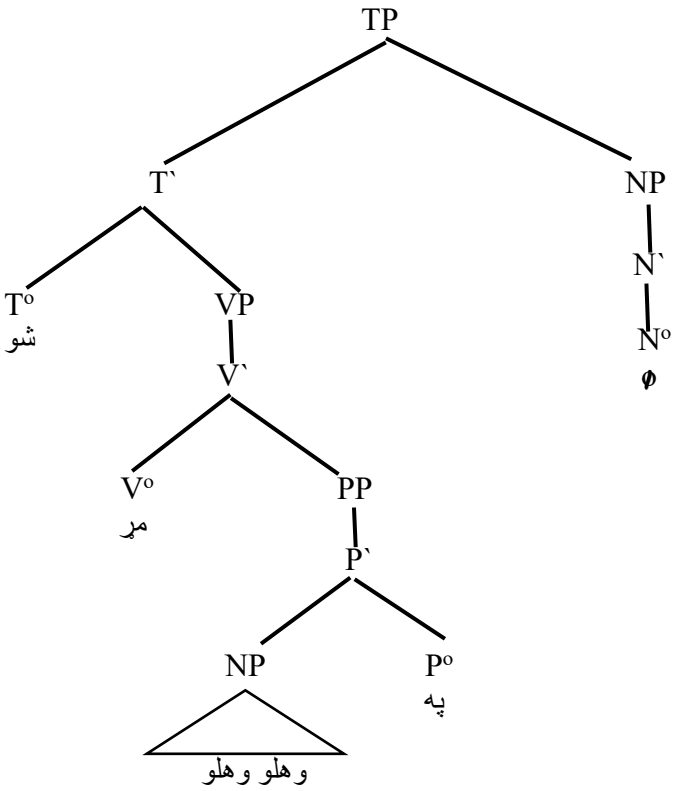

Figure 23 (a): Null-subject parameter in Pashto

In figure 23(a), the preposition په merges with an NP وهلو وهلو to form PP په وهلو وهلو which in turn merges with the verb مړ to form VP په وهلو وهلو مړ. This VP then combines with T^{o} شو to form T` په وهلو وهلو مړ شو, which in turn merges with an NP which signifies null subject. This sentence is an example of passive voice. In Pashto, passive constructions like this can omit the subject, yet the sentence remains understandable to native and proficient speakers. Even though the subject is not explicitly stated or pronounced, speakers can infer its presence from the context of the sentence. In the given Pashto example, the absence of the subject in this case can be understood by analyzing the verb's inflections and agreement patterns. In the Phonetic Form (PF), the argument may be omitted or deleted, but it can still be interpreted based on the inflectional markers and agreement features present in the verb (Chomsky, 1988, as cited in Ahmed et al., 2022). Thus, the meaning remains clear even without the subject being overtly expressed. Thus, Pashto serves as a pro-drop language because the subject can be skipped from the sentence.

23(b) مار مار کر ہلاک کیا گیا۔ (Urdu translation)

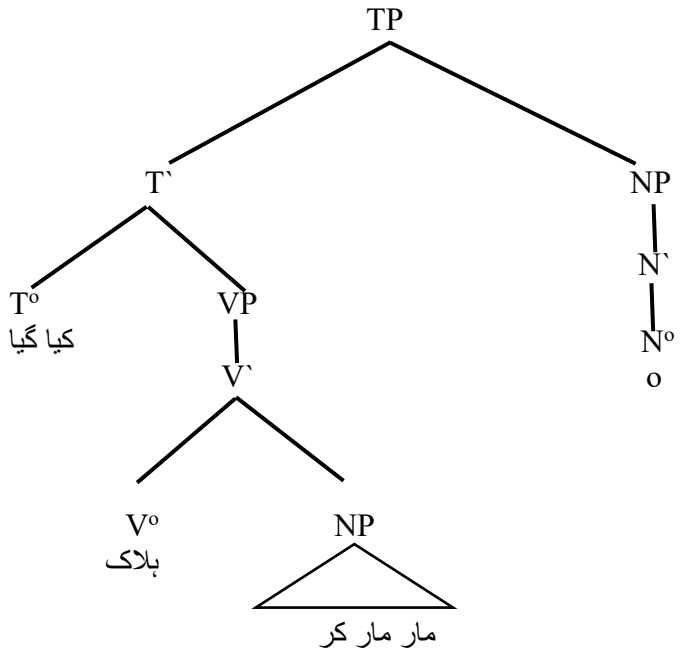

Figure 23 (b): Null-subject parameter in Urdu

In figure 23(b), an NP مار مار کر combines with the verb ہلاک to form VP مار مار کر ہلاک, which in turn merges with T^{o} کیا گیا to form T` مار مار کر ہلاک کیا گیا. This T` then combines with an NP which is actually null-subject. In the given figure 23 (b), the subject is *null* and it is covert rather than overt. To put it simply, the subject is not

expressed phonologically or morphologically. If we drop the subject from the given sentence, even then the sentence is grammatical and it is acceptable to the native speakers or any other proficient speakers of Urdu language as it makes sense to them. The missing or deleted subject from the given sentence can be traced from the verb as the verb in the null-subject languages such as Urdu conveys much information about the missing subject. In this case, the possible pronoun that could be used in the above Urdu sentence for *he* would be اسے/and it is both meaningful and grammatical. Based on the analysis, it is clear that Urdu allows to drop the subject, that is why, Urdu is pro-drop language or null-subject language.

23 (c) He was beaten to death. (English translation)

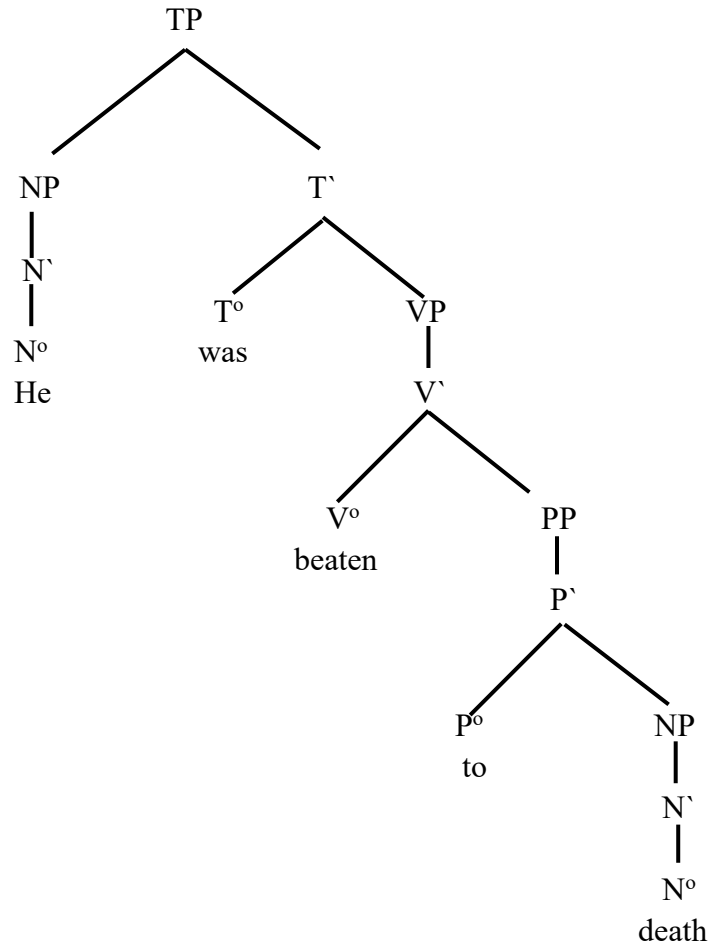

Figure 23 (c): Null-subject parameter in English

In figure 23(c), NP *death* combines with the preposition *to* to form to death, which in turn merges with the verb *beaten* to form VP *beaten to death*. This VP then combines with the T^{o} *was* to form T` was *beaten to death,* which in turn merges with an NP *he* to form TP *He* was *beaten to death*. In the given figure of 23 (c), the subject

is *he* and it takes the place of the specifier as it is sister to T` and daughter to TP. In the given English example, the subject *he* is explicitly present, meaning it is overt and morphologically expressed. This means that the subject *he* carries both grammatical and semantic roles, and it is also clearly represented. If we were to remove *he* from the sentence, the sentence would become grammatically incorrect and incomprehensible to native or proficient English speakers because it would lack the necessary structure and clarity. This analysis shows that English does not permit the omission of subjects. The absence of the subject *he* would render the sentence ungrammatical, as English requires overt subjects for sentences to be well-formed and meaningful.

24. کتاب رانه هیر شو۔

Kitab ra na kher sho

book 1SG from forget happen.PAST.MASC.SG

I forgot the book.

24 (a) کتاب رانه هیر شو۔

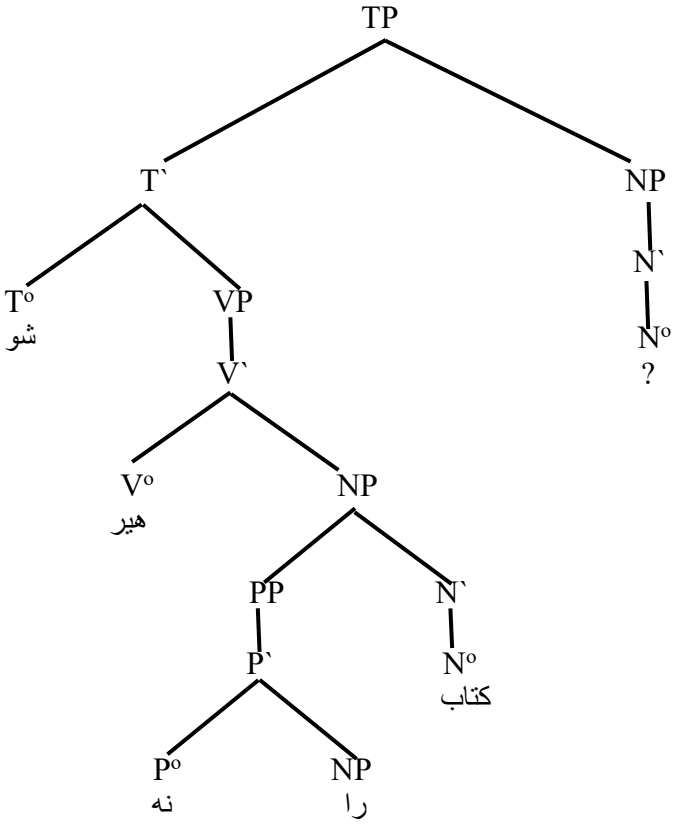

Figure 24 (a): Null-subject parameter in Pashto

In figure 24(a), the NP *را* combines with the postposition *نه* to form PP *رانه*, which in turn merges with the noun *کتاب* to form NP *کتاب رانه*. This NP then merges with the verb *هیر* to form *VP کتاب رانه هیر*, which in turn merges with T^o *شو* to form T` *کتاب رانه هیر شو*. This T` then merges with an NP which is shown having a question mark. According to X-bar theory, this is the usual place to have a subject (Carnie, 2013). However, in the given sentence, the PP *رانه* behaves like a subject. That is why, the usual place for a subject, that is NP is indicated by a question mark. In sentences like this, it is very unusual to drop the subject as the absence of the subject results in an ungrammatical sentence. Therefore, in this case, Pashto does not allow to drop the subject as it will not be acceptable to the native speakers of Pashto. Therefore, Pashto behaves as a partial null-subject language in such case as the structure does not allow to drop the subject.

24 (b) کتاب بھول گیا۔ (Urdu translation)

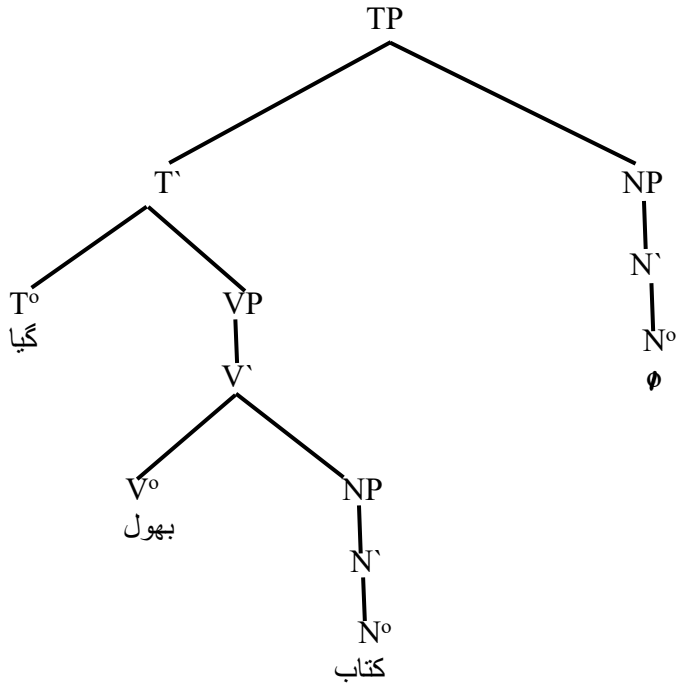

Figure 24 (b): Null-subject parameter in Urdu

In figure 24 (b), an NP *کتاب* combines with the verb *بھول* to form VP *کتاب بھول*, which in turn merges with T^o *گیا* to form T` *کتاب بھول گیا*. This T` then combines with an NP which is actually null subject. In figure 24 (b), the subject is absent, making it covert rather than overt. In simpler terms, the subject is not expressed phonologically. Despite this omission, the sentence remains grammatically correct and fully

understandable to native Urdu speakers. They can infer the subject from the verb's inflection, which provides enough information to convey the meaning clearly. The appropriate pronoun for *I* in the Urdu sentence would be میں, and including it would still make the sentence grammatically correct and meaningful. This analysis demonstrates that Urdu allows the omission of the subject without causing grammatical errors. This characteristic makes Urdu a pro-drop or null-subject language, where subjects can be left out but the sentence still retains its meaning and structure.

24 (c) I forgot the book. (English translation)

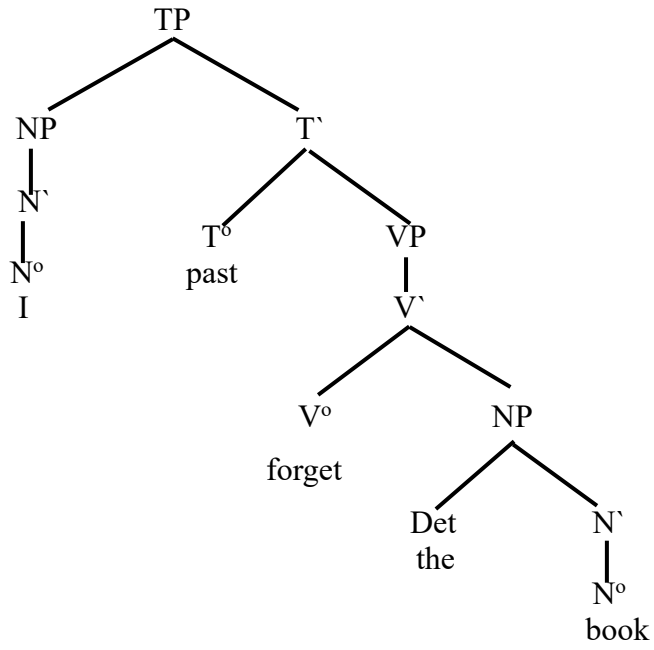

Figure 24 (c): Null-subject parameter in English

In figure 24(c), the noun *book* combines with the determiner *the* to form NP *the book,* which in turn merges with the verb forget to form VP *forget the book*. This VP then combines with the T° (showing past tense) to form T` *forget the book,* which in turn merges with an NP *I* to form TP *I forgot the book*. In the given figure of 24(c), the subject is *I* and it takes the place of the specifier as it is sister to T` and daughter to TP. In the provided English example, the subject *I* is explicitly present, meaning it is overt and morphologically expressed. If the subject *I* is removed from the sentence, the sentence will become ungrammatical and will not be understood or accepted by native or proficient English speakers because it would no longer make sense. This shows that English does not allow the omission of subjects. Leaving out the subject *I* would result in an incomplete and incorrect sentence, as English requires a subject to maintain

grammatical correctness and clarity in meaning. Without the subject, the sentence structure would break down, making it incomprehensible. Thus, English is classified as a non-pro-drop language, unlike Pashto and Urdu.

25. او به سکم

Oba skam

Water drink

I drink water

25 (a) او به سکم

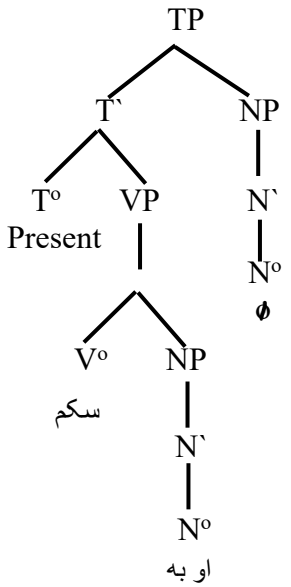

Figure 25 (a): Null-subject parameter in Pashto

25 (b) - پانی پیتا ہوں (Urdu translation)

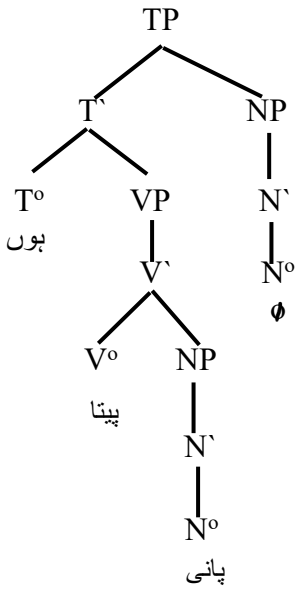

Figure 25 (b): Null-subject parameter in Urdu

In figure 25 (a), noun *او به* combines with verb *سکم* to form VP *او به سکم*, which in turn combines with Tº (indicating the present) to form T`*او به سکم*. This T` *اوبه سکم* in turn merges with a null subject to form TP. Similarly, in figure 25 (b), NP *پانی* merges with verb پیتا to form VP *پانی پیتا*, which in turn combines with Tº*ہوں* to form T` *پانی پیتا ہوں* - . This T` *پانی پیتا ہوں* - in turn merges with a null subject to form TP. In figures 25(a) and 25 (b), the subjects are not directly stated and are instead implied or hidden. This means that although the subjects have semantic importance, they are not expressed phonologically and morphologically. In other words, the subject is understood but not

explicitly written in the sentence. Even without an overt subject, the sentences remain grammatically correct and easily understood by native or fluent Pashto speakers. This is because the verb's morphology provides enough information for the subject to be inferred. This demonstrates that both Pashto and Urdu allow the subject to be omitted while still conveying the intended meaning. Such languages are referred to as pro-drop or null-subject languages, where the subject can be understood from the context or the verb's conjugation. This linguistic trait is characteristic of languages where an explicitly stated subject is not always required for clear communication.

25 (c) I drink water. (English translation)

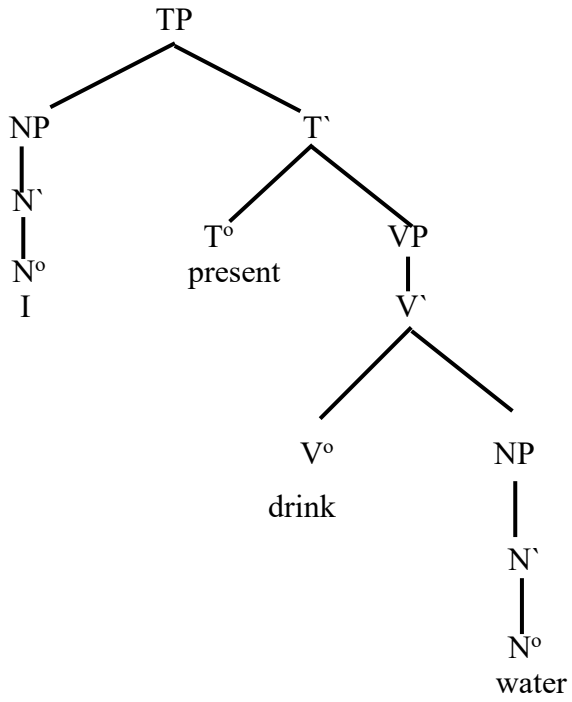

Figure 25 (c): Null-subject parameter in English

In figure 25 (c), noun *water* combines with verb drink to form VP *drink water*, which in turn combines with T° (indicating the present) to form T` *drink water*. This T` then merges with a subject NP *I* to form TP *I drink water.* In Figure 25(c), the subject *I* occupies the specifier position, functioning as the sister to T' and the daughter to TP within the syntactic structure. In this English sentence, the subject *I* is explicitly stated, meaning it is clearly present both in terms of form. If the subject *I* were removed, the sentence would become ungrammatical and unacceptable to native English speakers or proficient users, as it would lose its meaning. This highlights that English does not

allow the omission of the subject because its absence disrupts the grammatical structure of the sentence. Unlike pro-drop languages, where the subject can be inferred from context or verb conjugation, English requires the subject to be explicitly stated for the sentence to remain complete and understandable. As a result, English is categorized as a non-pro-drop language, where the presence of the subject is essential for grammatical accuracy. This requirement ensures clarity and completeness in communication, distinguishing English from languages like Pashto (with exceptions) and Urdu, where subjects can be omitted depending on the context or verb morphology.

4.2.3 Null-Subject Parameter in Urdu

This section presents various sentences extracted from Urdu grammar books, which are then glossed and translated into Pashto. The analysis of these examples is conducted in relation to the null-subject parameter. Consider the following examples:

26. بارش ہوگی

Barish hogi

rain future

It will rain.

26 (a) بارش ہوگی

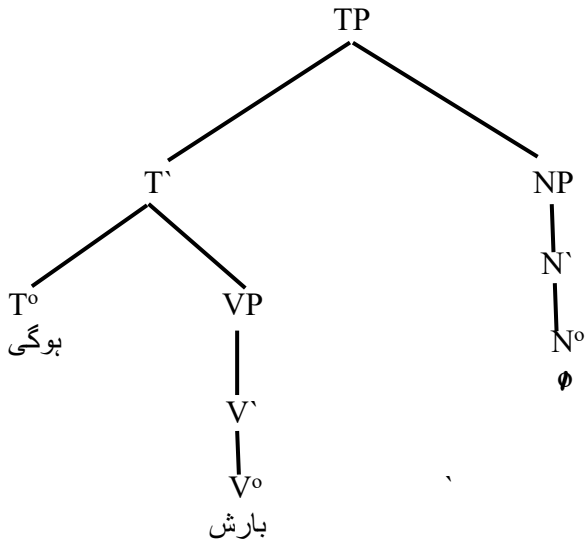

Figure 26 (a): Null-subject parameter in Urdu

26(b) باران به کیگی۔ (Pashto translation)

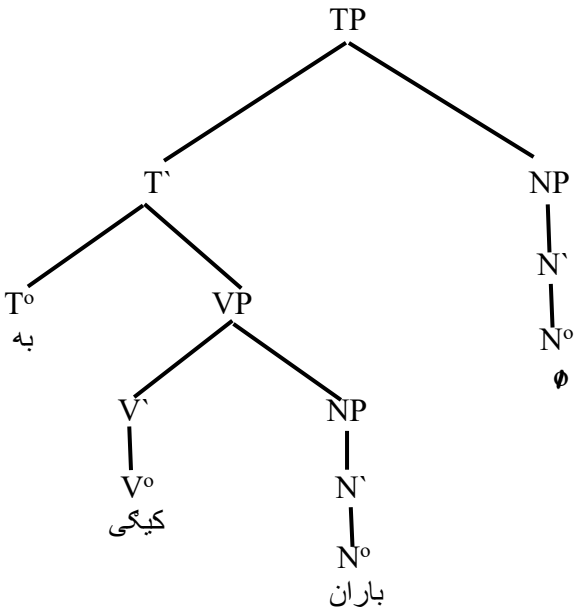

Figure 26 (b): Null-subject parameter in Pashto

In figure 26 (a), VP *بارش* merges with Tº *ہوگی* to form T` *بارش ہو گی*. This T` then combines with an NP which indicates null subject. Similarly, in figure 26(b), the noun phrase is *باران*, the verb is *کیگی* while *به* shows the future aspect. The given Pashto sentence cannot be represented using the X-bar theory's tree diagram, as it doesn't align with its structure. In both examples, the subjects are absent. These missing subjects do not carry any semantic meaning and are not represented phonetically or morphologically. Despite the absence of explicit subjects, the sentences are grammatically correct and fully understandable to native speakers of Pashto and Urdu, as well as proficient speakers of these languages. This indicates that both Pashto and Urdu allow subject omission while still maintaining meaningful communication, making them examples of pro-drop or null-subject languages. In pro-drop languages, it is common for subjects to be omitted, particularly when the context makes it clear who or what is being referred to. Pashto and Urdu exhibit this trait by allowing sentences to function without explicitly stated subjects, relying on verb inflections or contextual clues to provide meaning. This flexibility contrasts with non-pro-drop languages, such as English where subjects must be explicitly mentioned for the sentence to remain grammatical.

27. قرآن کی تلاوت کرتا ہوں۔

Quran ki tilawat krta hoon

Quran of recitation do PRESENT.MASC.PL

I recite Holy Quran.

27(a) قرآن کی تلاوت کرتا ہوں

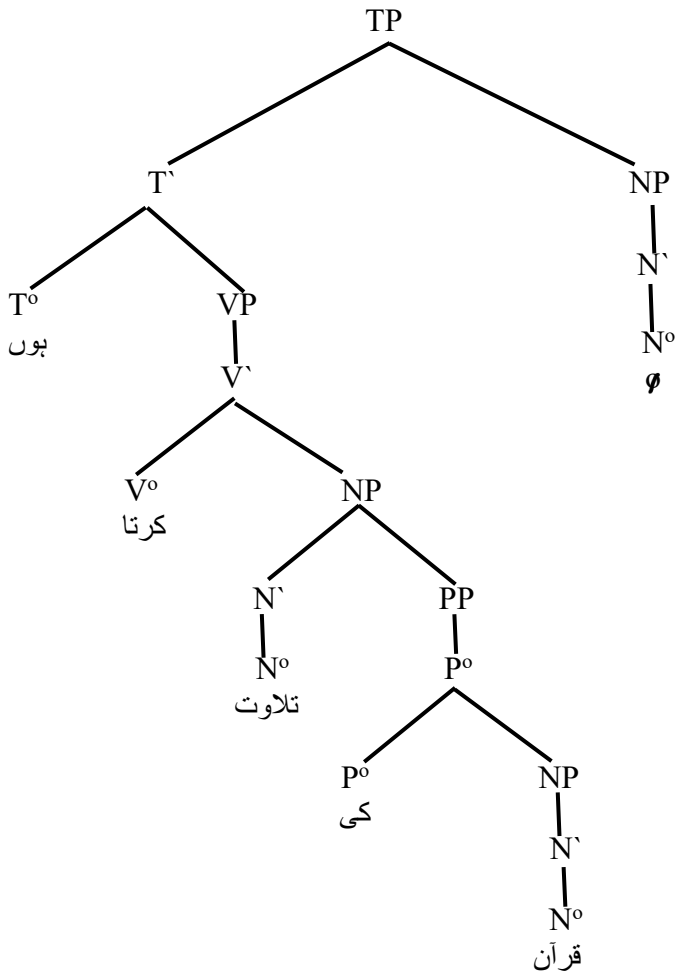

Figure 27 (a): Null-subject parameter in Urdu

27 (b) د قرآن تلاوت کوم (Pashto translation)

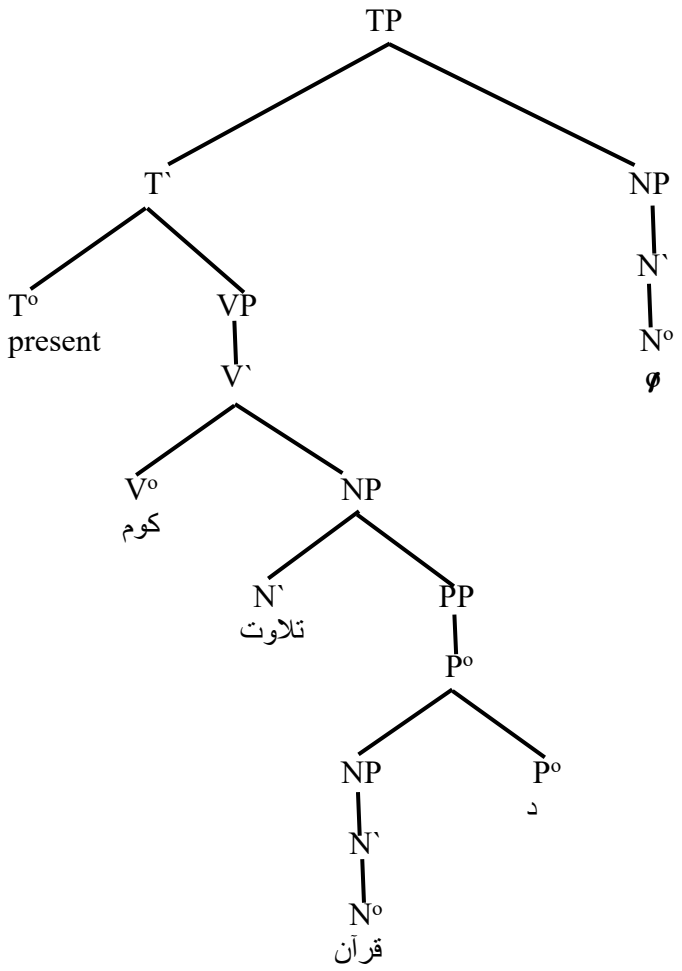

Figure 27 (b): Null-subject parameter in Pashto

In figure 27(a), *قرآن* is an NP and it combines with the head postpostion P° *کی* to form PP *قرآن کی*. This PP in turn merges with N° *تلاوت* to form a noun phrase *قرآن کی تلاوت*.This NP then merges with the verb *کرتا* to form VP *قرآن کی تلاوت کرتا*, which in turn merges with T° *ہوں* to form T` *قرآن کی تلاوت کرتا ہوں*. This T` then combines with an NP, that is null subject to form TP *قرآن کی تلاوت کرتا ہوں*. Similarly, in figure 27 (b), the preposition *د* merges with an NP *قرآن* to form PP *د قرآن* which in turn combines with the noun *تلاوت* to form an NP *د قرآن تلاوت*. This NP then merges with the verb *کوم* to form VP *د قرآن تلاوت کوم*, which in turn merges with the T° (indicating present) to form T`. This T` then combines with an NP that is null subject to form TP *د قرآن تلاوت کوم*. In both of these sentences, the subjects are absent or null, meaning they are not explicitly stated. However, they are still understood through the verb inflections. Even without

clearly expressed subjects, the sentences remain grammatically correct and comprehensible to native speakers of Pashto and Urdu, or those proficient in these languages. This is because the verbs in these languages carry enough information through their inflections to allow the listener or reader to infer the missing subject, that is زه in Pashto sentence and میں in Urdu sentence.

The ability to omit the subject without losing grammaticality shows that Pashto and Urdu are examples of pro-drop or null-subject languages. In such languages, the subject can be dropped from a sentence because the verb forms themselves provide clues about who or what the subject is. For instance, verb conjugations often change depending on the subject's number or person, making it clear who is performing the action even when the subject is not directly stated. This feature of Pashto and Urdu languages are different from English as English is a non-pro drop language and it does not allow subjects to be dropped.

28. استاد کو سلام کیا۔

Ustad ko salam kia

Teacher to greet do.PAST

I greeted the teacher.

28 (a) استاد کو سلام کیا

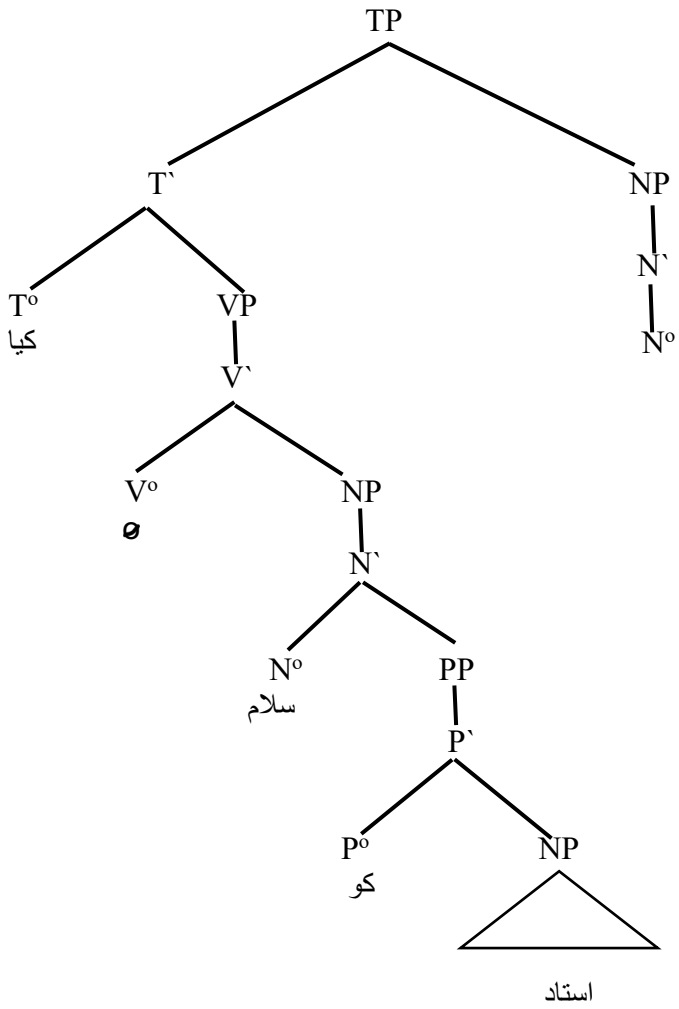

Figure 28 (a): Null-subject parameter in Urdu

In figure 28 (a), *استاد* is an NP and it combines with the head postpostion P° *کو* to form PP *استاد کو*. This PP in turn merges with N° *سلام* to form a noun phrase *استاد کو سلام*. This NP then merges with the verb which is null to form VP *استاد کو سلام*, which in turn merges with T° *کیا* to form T` *استاد کو سلام کیا*. This T` then combines with an NP,

that is null subject to form TP. In the diagram shown in figure 28(a), the subject is not explicitly stated, making it covert rather than overt. This implies that, although the subject carries semantic significance, it is not expressed in a phonological form. Despite the lack of a directly stated subject, the sentence remains grammatically sound and is fully understood by native speakers of Pashto or those proficient in the language. This is because the morphological features of the verb provide sufficient information for the reader to deduce the subject.

In this particular instance, the verb's morphological structure offers clues about the subject. For example, the verb might change based on the subject's person, number, or gender, allowing the speaker to infer the identity of the subject without it being explicitly stated in the sentence. Therefore, the verb's form suggests that the subject could be *os ne*, even though it is not overtly present. This ability to infer the subject from the verb's morphology is a key characteristic of pro-drop languages like Urdu, where the omission of subjects does not hinder grammaticality or understanding.

28 (b) ما استاذ ته سلام اوکو۔

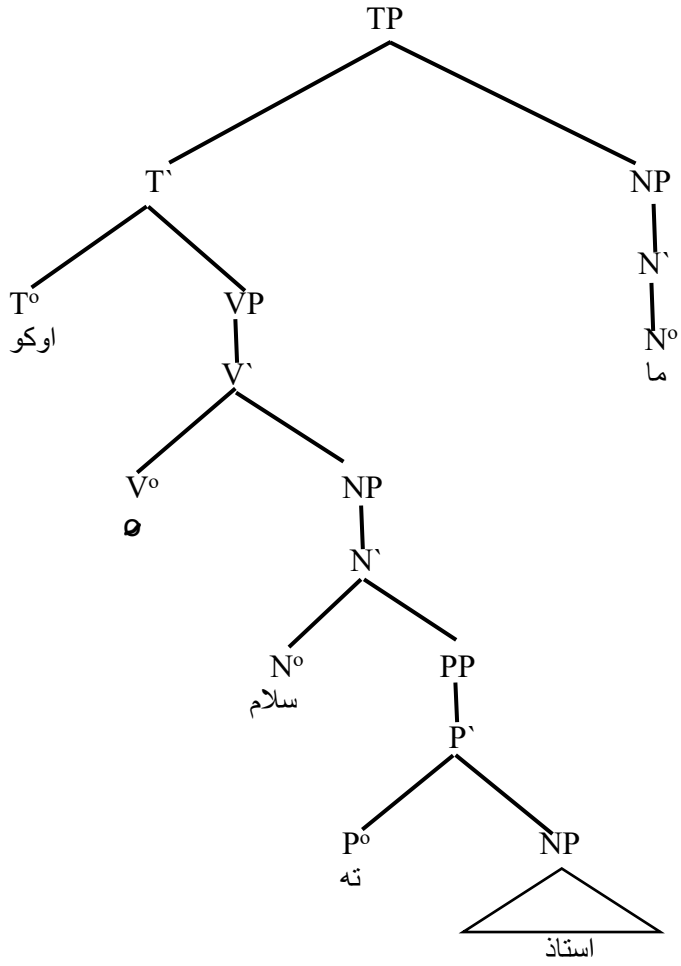

Figure 28 (b): Null-subject parameter in Pashto

In figure 28 (b), *استاذ* is an NP and it combines with the head postpostion Pº *ته* to form PP *استاد ته* . This PP in turn merges with Nº سلام to form a noun phrase استاذ ته سلام .This NP then merges with the verb which is null to form VP *استاذ ته سلام*, which in turn merges with Tº *اوکو* to form T` *استاذ ته سلام اوکو* . This T` then combines with an subject NP *ما* to form TP *ما استاذ ته سلام اوکو* . Pashto is generally a pro-drop language, meaning that subjects can be omitted if they are understood from the context. However, in this specific case, omitting the subject makes the sentence ungrammatical and unacceptable to native Pashto speakers. In other words, even though Pashto often allows subject omission, this particular sentence requires the subject to be explicitly stated for the sentence to be grammatically correct. This is because the omitted subject leads to ambiguity, and the structure of the sentence relies on the subject for clarity or completeness. Native speakers would intuitively sense this, making them

uncomfortable with the omission in this context. This suggests that even in languages like Pashto that are typically pro-drop, some sentences still depend on explicit subjects to maintain meaning or grammatical correctness. That is why, Pashto is treated as partial null-subject language.

29 ؟ کیا کرو گے

Kya karo gy

What do FUTURE.FEM.SG

What will you do?

29 (a) ؟ کیا کرو گے

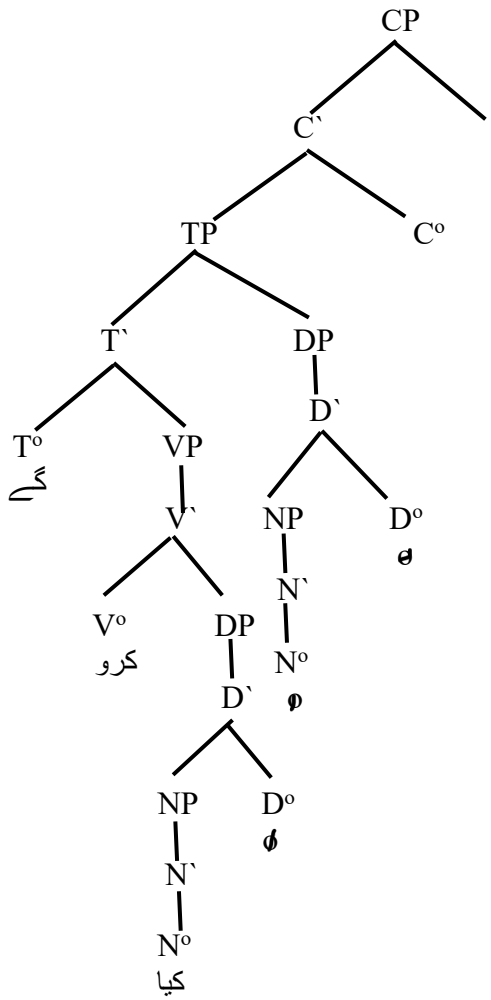

Figure 29 (a): Null-subject parameter in Urdu

29(b) ؟ خۀ به کي (Pashto translation)

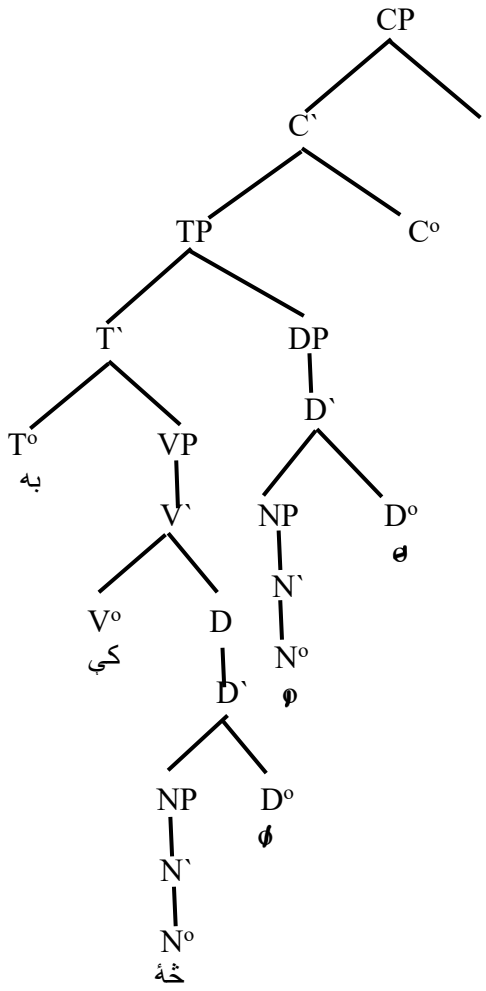

Figure 29 (b): Null-subject parameter in Pashto

Figure 29 (a) and (b) have been analyzed in the light of the X-bar theory to study the null-subject parameter in Urdu and Pashto language. The analysis demonstrates that both Urdu and Pashto are null-subject languages as they allow to drop or delete the subject without affecting the grammaticality of both the sentences and it is clear from the given tree diagrams. According to Chomsky (1988, as cited in Ahmed et al., 2022), the argument may be deleted in the Phonetic Form (PF) but it be recoverable from the verb's inflections. The missing subjects in the given figures can be recovered from the forms of the verbs in both Urdu and Pashto. The subject in the Urdu example could be آپ and in Pashto it could be تاسو which are equivalents of *you* in the English language. Thus, the analysis shows that both Urdu and Pashto are pro-drop languages as the subject can be deleted in these languages without resulting in any ungrammatical structures. However, tree diagram 29b demonstrates that X-boats theory is unable to

generate a tree diagram for څۀ به کې. If the tree diagrams based on the X-bar theory is considered, the given sentence is read as څۀ کې به which is ungrammatical. This reveals that X-bar theory may not be successful to generate tree diagrams for all sentences of Pashto Language.

30 - ادهر آؤ

Idher ao

Here come. PRES

Come here

30 (a) - ادهر آؤ

30(b) دلته راشه (Pashto translation)

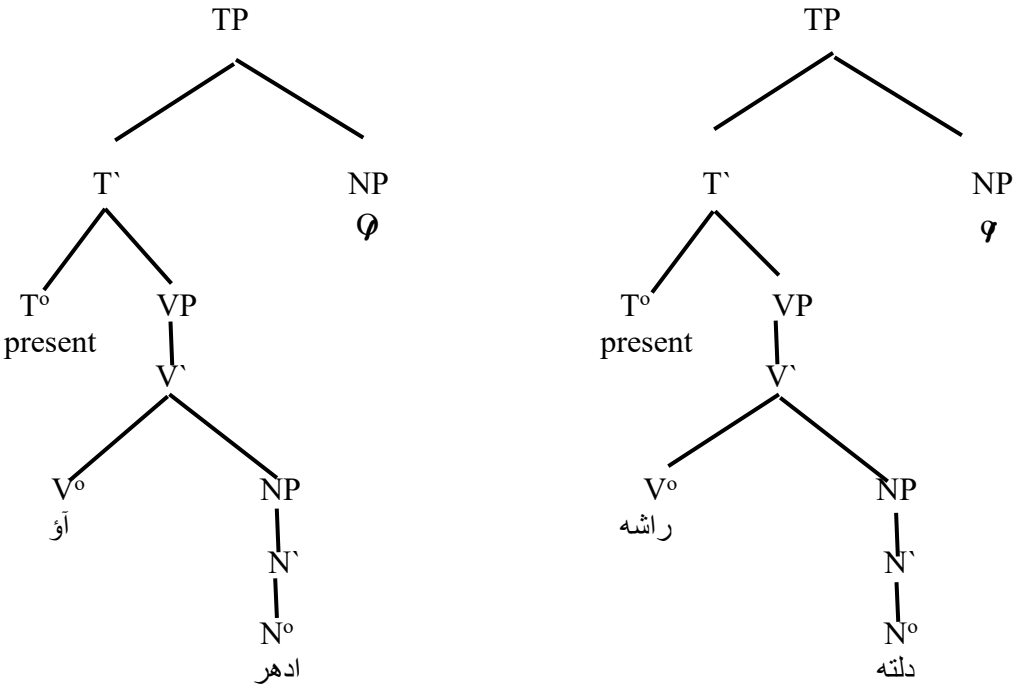

Figure 30 (a): Null-subject parameter in Urdu

Figure 30 (b): Null-subject parameter in Pashto

In figure 30 (a), noun ادهر combines with verb آؤ to form VP ادهر آؤ, which in turn combines with Tº (indicating the present) to form T` ادهر آؤ. This T` ادهر آؤ in turn

merges with a null subject to form TP. Similarly, in figure 30 (b), NP دلته merges with verb راشه to form VP دلته راشه, which in turn combines with T^{o} , indicating present tense, to form T` دلته راشه . This T` دلته راشه in turn merges with a null subject to form TP. Both figure (a) and (b) are examples of imperative sentences and they do not have subjects. They behave like the imperative sentences of English because imperative English sentences also do not have subject. In both figures, the subjects are not explicitly stated, making them implicit rather than overt. This implies that while the subjects carry semantic significance, they are not represented through phonological forms. Even without an explicitly mentioned subjects, the sentences remain grammatically correct and fully understandable to native speakers of Pashto and Urdu or proficient users of these languages. This is because the subjects can be inferred from the morphological structure of the verbs.

This observation illustrates how Pashto and Urdu speakers interpret the subject based on verb conjugation, even when it is not directly expressed. The ability to omit the subject without compromising grammaticality is a defining feature of these languages, unlike English which is non-null-subject language, classifying them as pro-drop or null-subject languages. However, it has been observed that in some circumstances Pashto does not allow the deletion of subject as it affects the grammaticality of the sentence. Therefore, it is better to classify Pashto as partial null-subject language.

Based on the analysis, it is clear that English is a non-null-subject language, requiring overt subjects in sentences. Urdu, by contrast, is a null-subject language, allowing subject omission which is contextually clear. However, Pashto falls in between as a partial null-subject language, generally permitting subject drop while still often retaining explicit subjects, especially for clarity and grammaticality of the sentence.

4.3 Wh-movement Parameter

Wh- movement parameter is another parameter which is integral to this study. Wh-movement parameter refers to the movement of the wh-word from its original position to the specifier of CP. In this section, sentences are taken from English, Pashto and Urdu and they are translated into Pashto, Urdu and English, and Pashto respectively. Moreover, examples from Pashto and Urdu languages are glossed to facilitate the understanding of the non-native speakers of Pashto and Urdu. Then all the examples

from the aforementioned languages are analyzed for wh-movement parameter in the light of X-bar theory.

4.3.1 Wh-movement Parameter in English

This section investigates the wh-movement parameter in the English language. To achieve this, examples from various English grammar books are selected and translated into Pashto. The analysis is carried out within the framework of the X-bar theory. The following examples illustrate the discussion:

31(a) What did you do?
You did what?

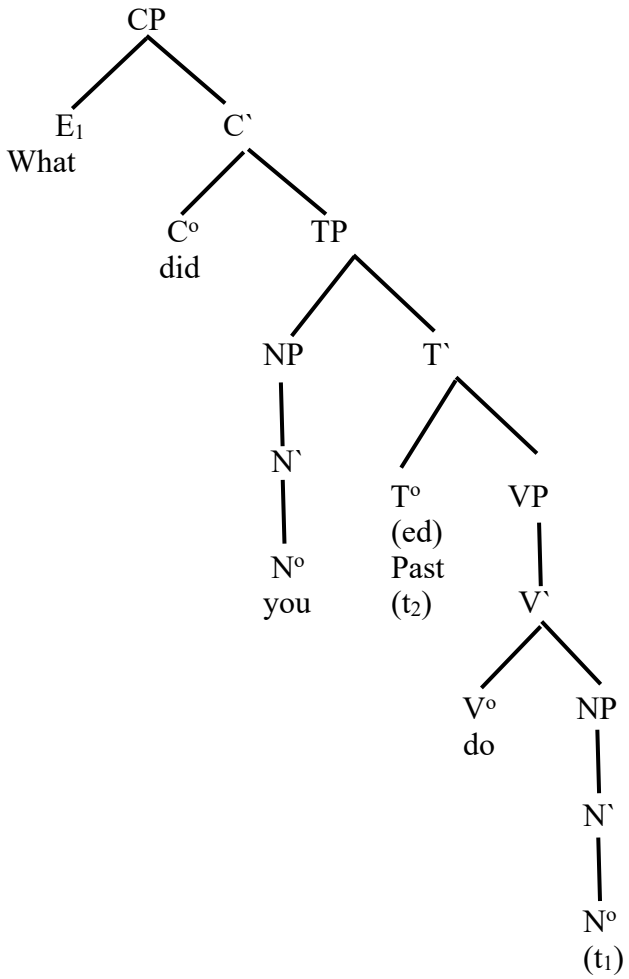

Figure 31 (a): Wh-movement parameter in English

In figure 31 (a), the noun combines with V^o to form VP which again combines with T^o, indicating past tense, to form T`. Then T` merges with an NP *you* to form TP

that combines with C^o *did,* which has been moved to this position leaving a trace t_2 behind, to form C`. Moreover, this C` merges with E_1 *what* to get CP. According to Chomsky (2001), the movement of wh-expression is triggered by the EPP feature to the specifier position of CP. Thus, in the given figure, when the wh-word *what* moves to the specifier position, so it leaves a trace t_1 behind. "Wh-movement involves T to C movement" (Carnie, 2013, p.360). In the given figure, the wh-word attracts the helping verb *did* to the position of C^o and leave a trace t_2 behind because it has the features of tense marker, +WH and EPP which necessitates that the helping verb should move to the C^o position. Similarly, C^o requires the presence of the wh-word *what* at the specifier position of CP. The wh-word must move to the beginning of the sentence in the given English example because, in case of moving it to any other position in a sentence, it affects the grammaticality of the sentence which will not make sense to the native or any proficient speaker of English language. In other words, it is obligatory for the wh-word in English to move to the beginning of the sentence.

31 (b) تاسو څه وکړل؟ (Pashto Translation)

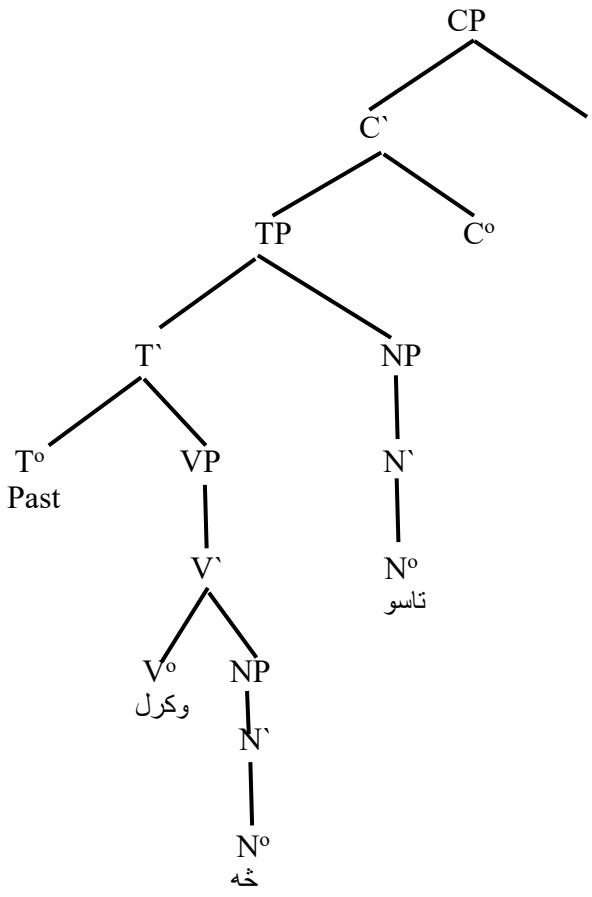

Figure 31 (b): Wh -movement parameter in Pashto

In figure 31 (b), the noun څه combines with V^o وکړل to form VP that again merges with T^o that indicates past tense, to form T` څه وکړل that once again combines with an NP تاسو to get TP تاسو څه وکړل؟. This TP merges with a null $C^o$ to get C` that ultimately form CP. In this figure څه which means what remain in-situ. In other words, it does not move from its original position to any other position in a sentence. According to Tallerman (2014), when the Wh-word does not move in a sentence, then a technical term, Wh-in-situ, is used for it. As the given Pashto sentence does not show the movement of څه, so Pashto is termed as Wh-in-situ language, unlike English language.

32 (a) Why are you crying?

You are crying why

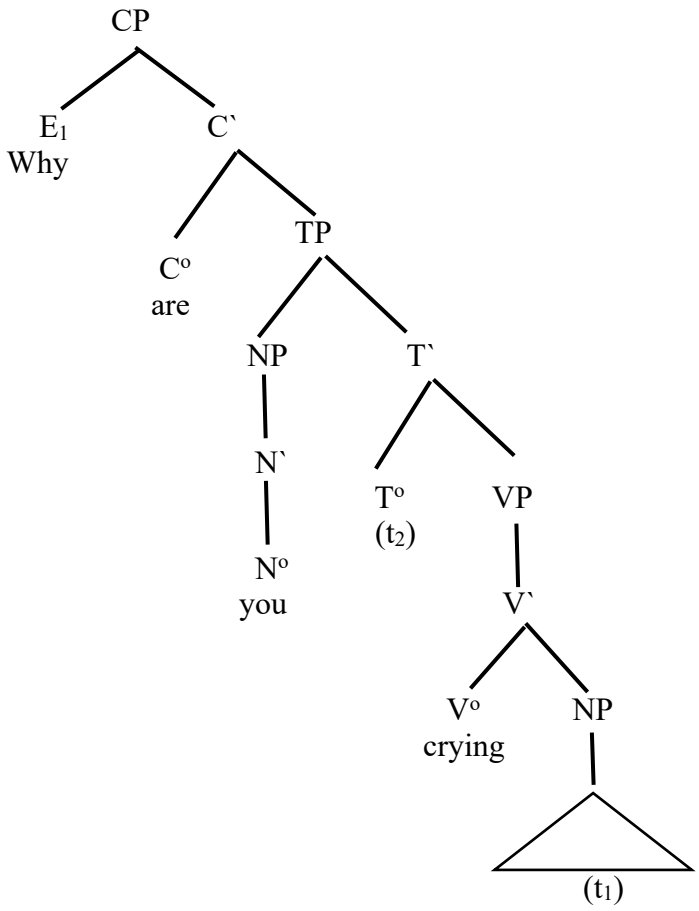

Figure 32 (a): Wh -movement parameter in English

In the above figure 32 (a), an NP (t_1) combines with V^o *crying* to make VP which further merges with T^o (t_2) to form T`. This T` then combines with an NP *you* to

make TP which in turn joins with C^{o} *are* to get C`. This C` further combines with E1 *why*, that has moved from its actual position to get CP. The tree diagram shows the actual syntactic position of the wh-word *why* in an English sentence, where it functions as the complement of the head verb. In the sentence structure, *why* undergoes wh-movement to the front of the sentence, leaving behind a trace, labeled t_1. This movement also triggers the auxiliary verb *are* to move from the tense position to the complementizer position, creating another trace, t_2. This demonstrates that English grammar permits wh-movement to the front of a sentence. Placing the wh-word elsewhere leads to ungrammatical constructions that are not accepted by native English speakers.

32 (b) ته ولي ژاري؟ (Pashto Translation)

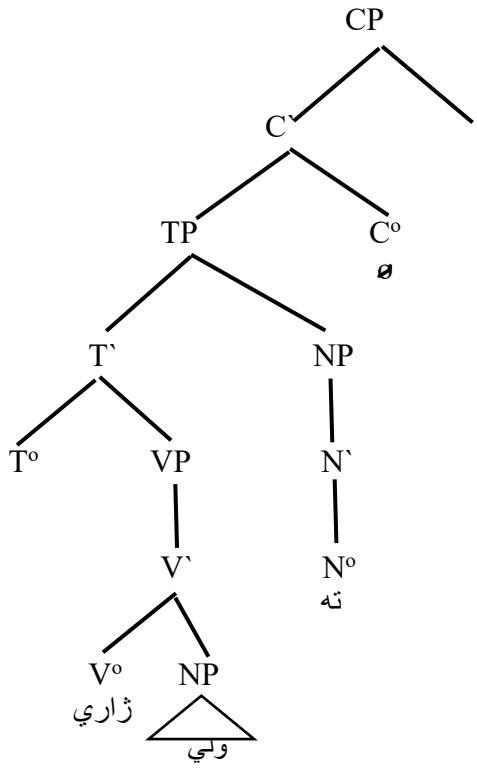

Figure 32 (b): Wh -movement parameter in Pashto

In figure 32(b), NP *ولي* combines with V^{o} *ژاري* to form VP that merges with a null T^{o} to form T`. This T` combines with NP *ته* to form construct TP that once again merges with a null C^{o} to get C` and it ultimately results in CP. The given figure shows that the wh-word does not move from its original position. Rather it remains in-situ. In-situ is a Latin phrase which means that the phrase remains in the actual position

(Tallerman, 2014). Another variation that is evident from the given figure is the absence of the helping verb in the Pashto sentence. In English example, the helping verb moves to the position of C^o. However, there is no as such helping verb in figure 32(b). The aforementioned analysis illustrates that Pashto is an in-situ-language as it does not allow wh-movement. On the other hand, English does allow the movement of wh-phrase from its actual position to the beginning of the sentence.

33 (a) Who wanted a cup of coffee?

Who wanted what.

Who what wanted*

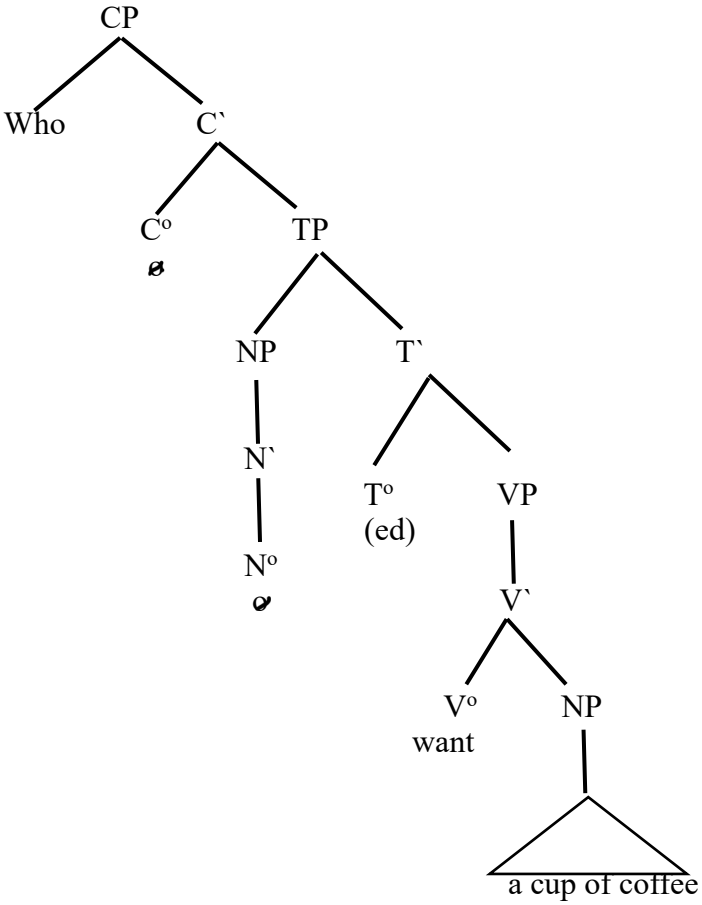

Figure 33 (a): Wh -movement parameter in English

In figure 33(a), NP *a cup of tea* combines with a V^o *wanted* to form VP that merges with T^o, indicating past tense, to make T`. This T` then merges with a null NP to form TP which further merges with a null C^o to construct C`. This C` combines with *who* to form CP. "English is a language with *wh*-fronting" (Tallerman, 2014, p.273).

However, the question is whether it is possible to have multiple fronting in the English language. In the given figure 33 (a), the wh-word that can be used to question an NP *a cup of coffee* is *what*. As a result of this, the question becomes *who wanted what*. In this example, we now have too examples. Only one of the two phrases is fronted, that is *who* is fronted while the other wh-word remains in-situ. In other words, only one wh-word such as *who* in the given example takes the specifier position of CP. If we front both of the wh-phrases in the given example, then the resulting sentence becomes *who what wanted** which is completely ungrammatical. The asterisk indicates the ungrammaticality of the sentence. Thus, this analysis illustrates that although English is a wh-fronting language, it does not allow multiple fronting as it results in ungrammatical sentences. On the contrary, the Pashto allows multiple fronting as shown in the following tree diagram.

33 (b) چا یوه پیالی کافي غوښتله؟ (Pashto Translation)

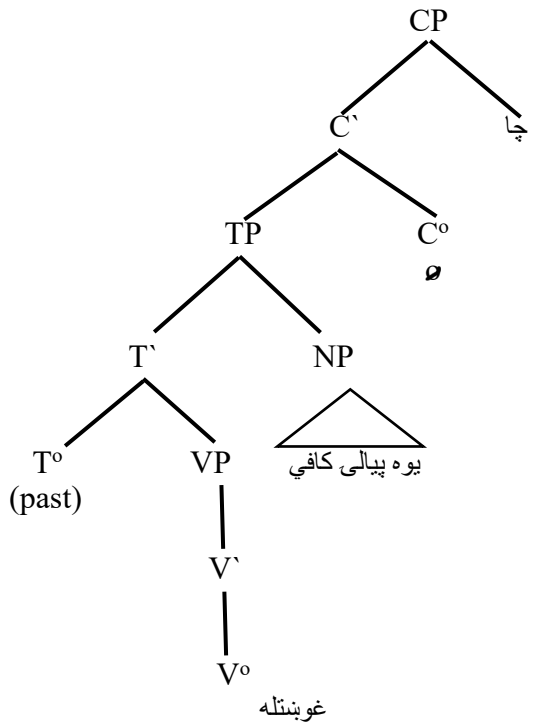

Figure 33 (b): Wh -movement parameter in Pashto

In figure 33(b), VP *غوښتله* combines with Tº that indicates past tense to form T` which again merges with an NP*کافي یوه پیالی* to form TP*یوه پیالی کافي غوښتله* . This TP further merges with a null Cº to form C` which merges with چا all over again to form

CP. In the given figure of 33 (b), چا is a direct translation of who in Pashto which takes the specifier position of CP. Similarly, the wh-word (sa) is used to question an NP یوه پیالی کافي. In this example, it is clear that both the question words come in the beginning of the sentence. In other words, both question words are fronted. This shows that Pashto allows multiple fronting which is not possible in English as it leads to ungrammatical sentence.

34 (a) Where did you buy umbrella?

You bought umbrella where

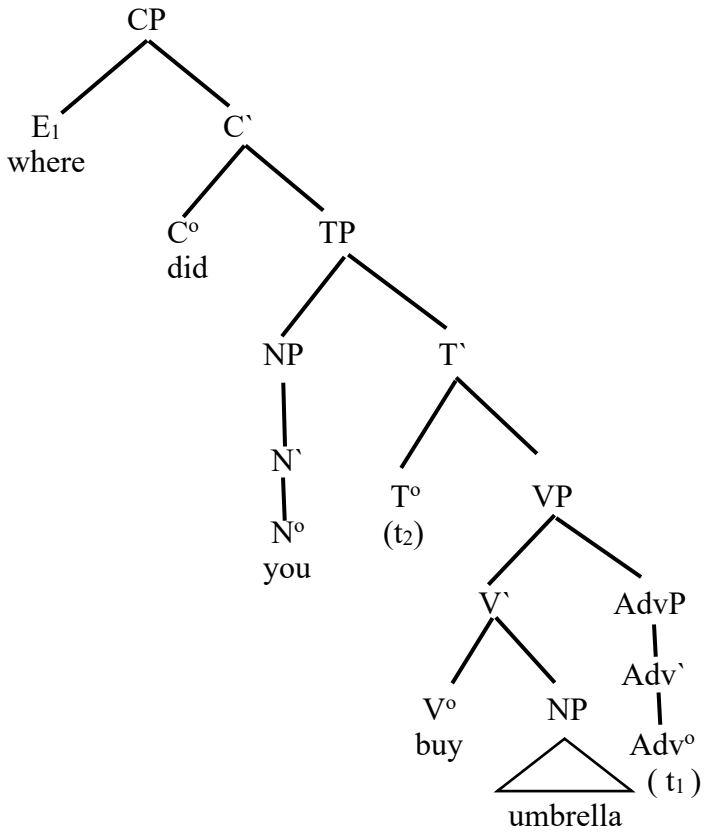

Figure 34 (a): Wh -movement parameter in English

In figure 34(a), an NP *umbrella* combines with V^o *buy* to form V` which again combines with AdvP $t_1$ to form VP. This VP then merges with $T^o$ that indicates past tense to form T`, which in turn combines with an NP *you* to construct TP. The aforementioned TP then combines with C^o *did* to form C`. This C` finally combines with E_1 *where* to form CP. In the given tree diagram, the actual position of the wh-word *where* is AdvP which is sister of V`and daughter to VP. However, in forming the

question, it moves to the beginning of the sentence and leaves a trace t_1 behind. Furthermore, the movement of *where* to the front of the sentence also drags the helping verb *did to* C^o from T^o position which results in trace t_2. The given tree diagram shows that English allows wh-movement to the front of the sentence. If the wh-word is moved to any other place, then the resulting sentence will become ungrammatical which is not acceptable to the native speakers of the English language.

34 (b) تا چترۍ چېرته واغسته؟ (Pashto Translation)

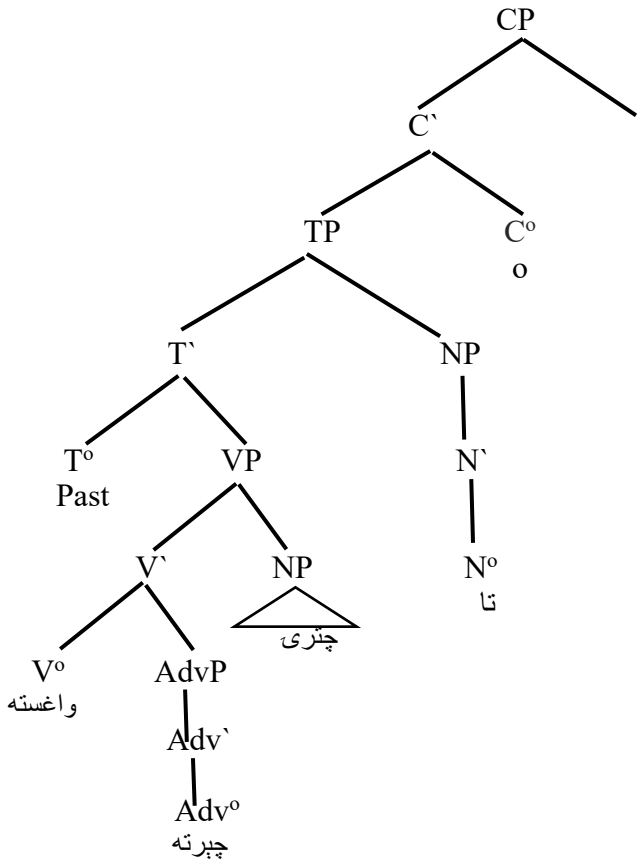

Figure 34 (b): Wh -movement parameter in Pashto

In figure 34(b), AdvP *چېرته* combines with V^o *واغسته* to form V` that again merges with an NP to construct VP. This VP is once more combined with $T^o$ that incicates past tense to form T` that further combines with an NP *تا* to construct TP. This TP then merges with a null C^o to get C` that ultimately results in CP. The translation of the wh-word *where* in Pashto is *چېرته*. The original position of *چېرته* is AdvP and it remains in-situ. In other words, it does not move to any other place place. This categorises Pashto as an wh-in-situ language. Pashto is unlike English because it does allow the movement of wh-word to the beginning of the sentence.

35 (a) She asked me where I found it.

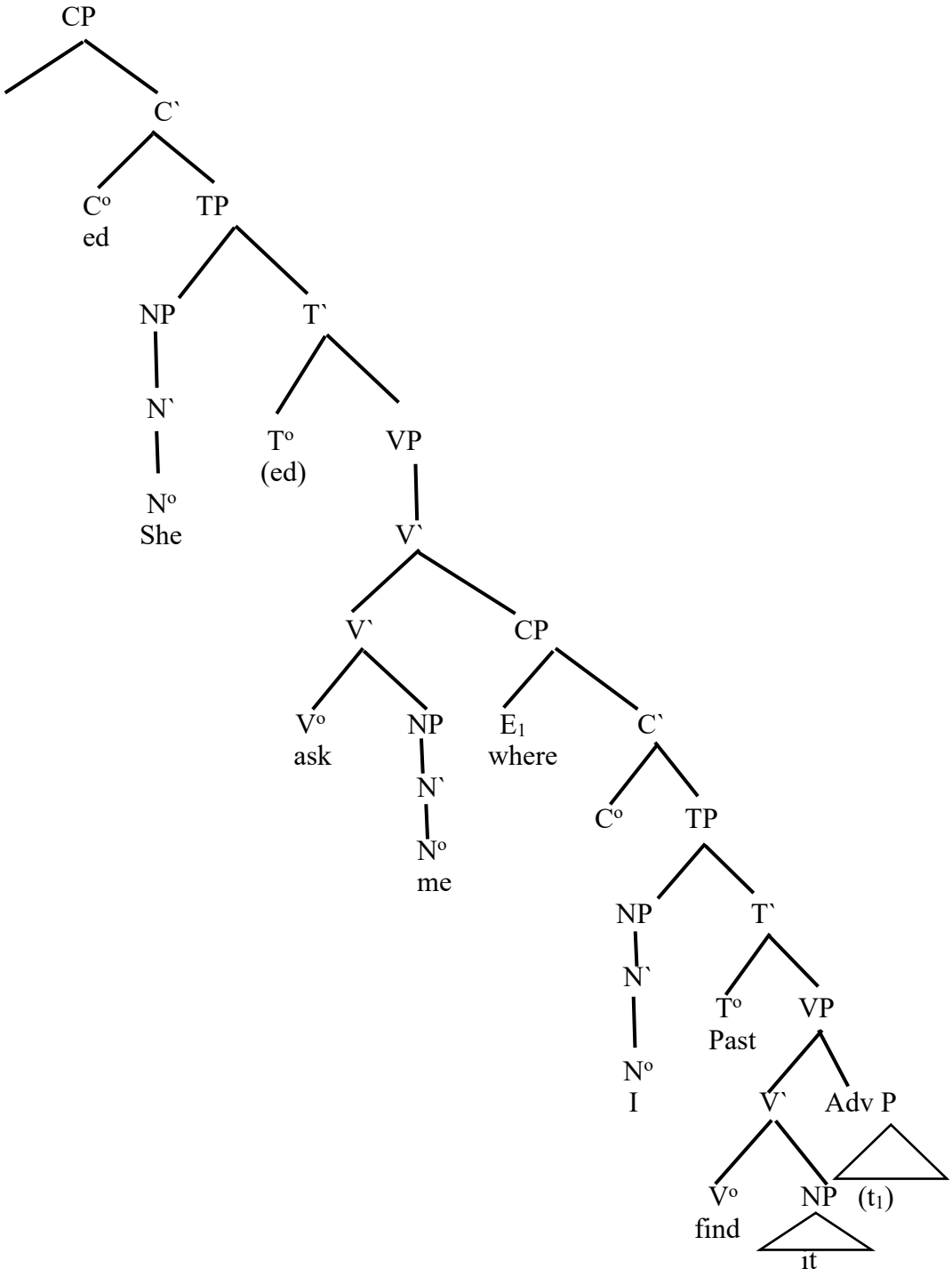

Figure 35(a): Wh-movement parameter in English

In figure 35(a), NP *it* combines with Vº to form V` that once again combines with AdvP to form VP. This VP then merges with Tº, that indicates past tense to construct T` which further merges with an NP *I* , to form TP. This TP then combines with a null Cº to make a C` which in turn merges with *where* to get CP. The CP again combines with another V` that constitutes Vº *ask* and an NP *me*, to form a VP. This VP

then combines with another T^o, indicating past tense, to make a T` which afterwards combine with an NP *she* to form TP. This TP then merges with $C^o$ *ed* to get C` that at last results in CP. The given English example has two clause: main clause and embedded clause. In the given tree diagram, it is clear that wh-movement takes place in the embedded clause. "*Wh*-movement does not just apply in root clauses, but also applies in embedded clauses" (Tallerman, 2014, p.271). The wh-word *where* moves from the AdvP position of VP to the specifier position of CP. Moreover, unlike other examples that are discussed above, the subject/auxiliary inversion does not take place in figure 35 (a) because the wh-word *where* moves within the embedded clause. "Subject/auxiliary inversion generally only applies in root clauses" (Tallerman, 2014, p.271). Thus, the given example shows that wh-movement is possible in both root clause and embedded clause in English.

35 (b) هغي ما نه تپوس اوکو چېرته دي اومندو؟ (Pashto translation)

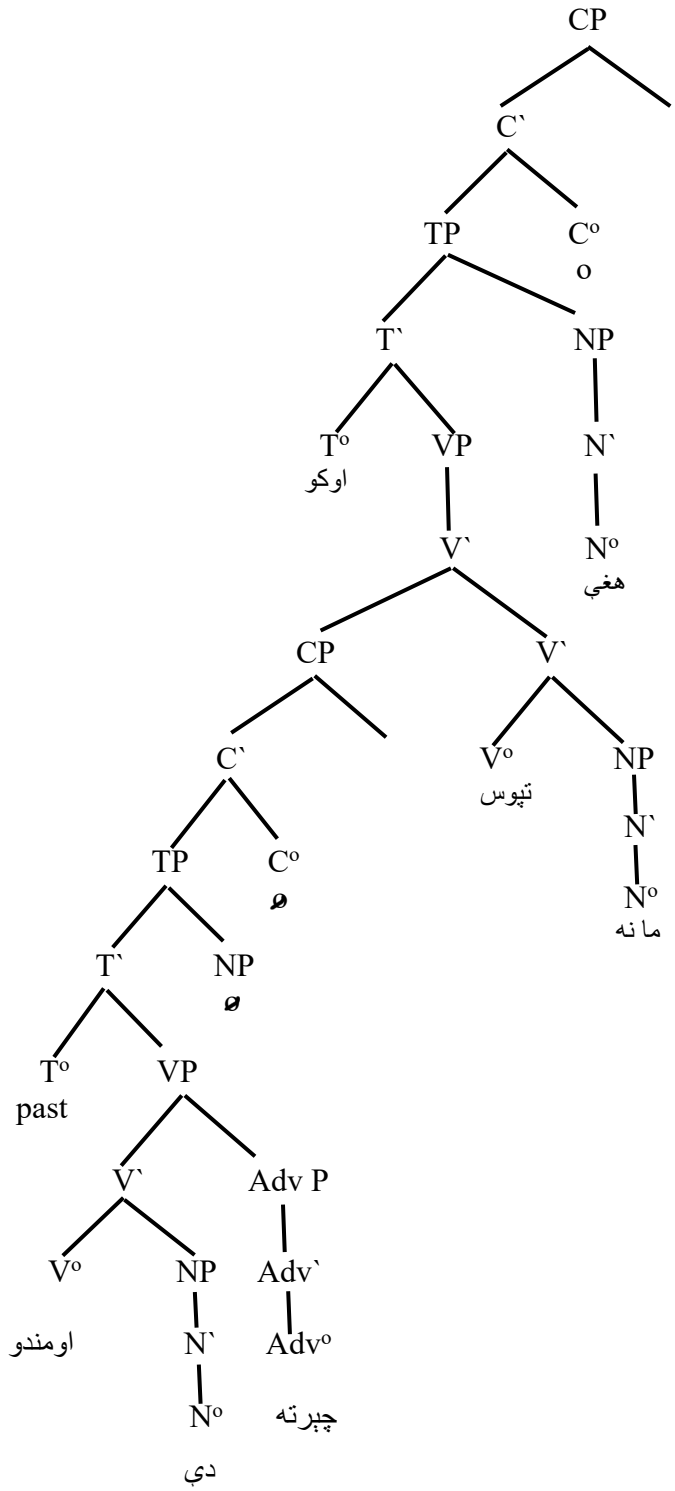

Figure 35(a): Wh-movement parameter in Pashto

In figure 35(b), the noun phrase NP *دي* merges with the verb Vº *اومندو* to form V` *دي اومندو* . This V` then combines with the adverbial phrase *چېرته* to create a verb phrase VP *چېرته دي اومندو* . This VP subsequently merges with Tº, which marks the past tense, forming T`. Next, T` merges with the null subject NP to create a tense phrase TP

چېرته دي اومندو. This TP combines with a null complementizer C^o, forming C`, ultimately leading up to CP. This CP, in turn, merges with another V` that consists of the verb V^o تپوس and the noun phrase NP ما نه to form VP. This VP then combines with T^o اوکو to form T`. This T` then combines with the noun phrase NP هغي to form a TP هغي ما نه تپوس اوکو چېرته دي اومندو. Finally, this TP merges with the null complementizer to create complementizer phrase CP. In this figure چېرته which means *where* remains in-situ. In other words, it does not move from its original position to any other position in a sentence. According to Tallerman (2014), when the wh-word does not move in a sentence, then a technical term, wh-in-situ, is used for it. As the given Pashto sentence does not show the movement of چېرته, so Pashto is termed as wh-in-situ language, unlike English language. Also, there is irregularity in the given figure in terms of the tree diagram. T^o اوکو comes at the extreme left in the given tree diagram of 35 (b); however, this word اوکو comes after تپوس , which is V^o , in the translated sentence. The analysis illustrates that X-bar theory is unable to generate tree diagram for the given example. This irregularity also challenges X-bar theory in the given tree diagram.

In short, figure 35 (a) and 35 (b) illustrate that English allows wh- movement in the embedded clause as well. On the other hand, Pashto does not allow wh-movement in both root and embedded clauses.

4.3.2 Wh-movement Parameter in Pashto

This section examines the wh-movement parameter in the Pashto language using examples from various Pashto grammar books. These examples are translated into Urdu and English language. Additionally, the data from Pashto is glossed to aid understanding for non-native speakers. The analysis is then conducted within the framework of X-bar theory. The following examples provide a basis for discussion:

36. ستا کور چیر ته د ي ؟

Sta kor cherta dey

2SG home where is.PRES.MASC.SG

Where is your home?

36(a) ستا کور چیر ته د ي ؟

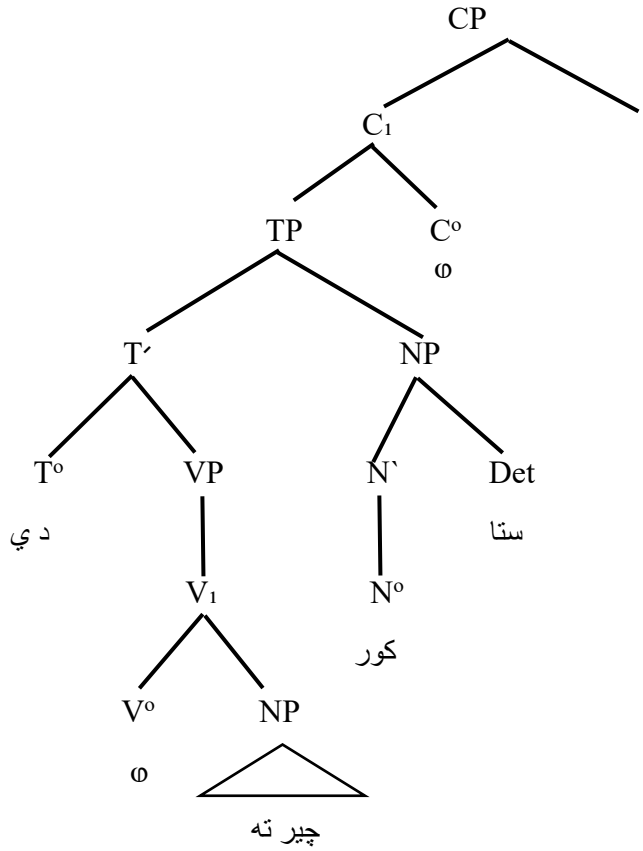

Figure 36(a): Wh-movement parameter in Pashto

36(b) آپ کا گھر کدھر ہے؟ (Urdu translation)

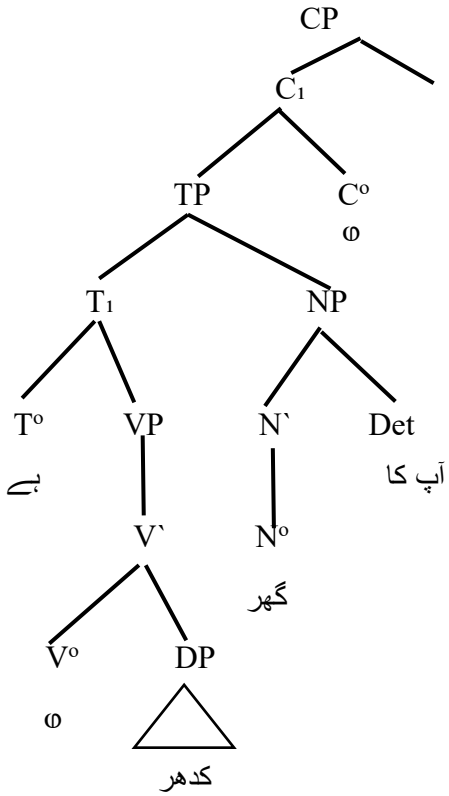

Figure 36(b): Wh-movement parameter in Urdu

In figure 36(a), an NP چیر ته combines with a null V^o to form VP, which in turn merges with T^o دي to make T′. This T′, later, combines with an NP, that consists of an N^o کور and a Det ستا, to make a TP. This TP further unites with a null C^o to get C^1 which finally results in a CP. In Pashto, the wh-word equivalent for *where* is چیر ته, which remains in-situ and occupies its original position in NP, not moving within the sentence structure. In the same way, the Urdu wh-word کدھر remains in its default position and is not subject to any movement, as illustrated in figure 36 (b). Tallerman (2014, p.271) contends that "The wh-phrase continues to occupy the same position in the clause as the phrase that is being questioned." The wh-word کدھر in the Urdu example functions as a complement to the verb, aligning syntactically as the sister of V^o and the daughter of V`. This syntactic behavior identifies both Pashto and Urdu as wh-in-situ languages. In contrast to English, which requires that wh-words be placed at the beginning of a sentence, both languages retain the wh-word in its original position.

36(c) Where is your home? (English translation)

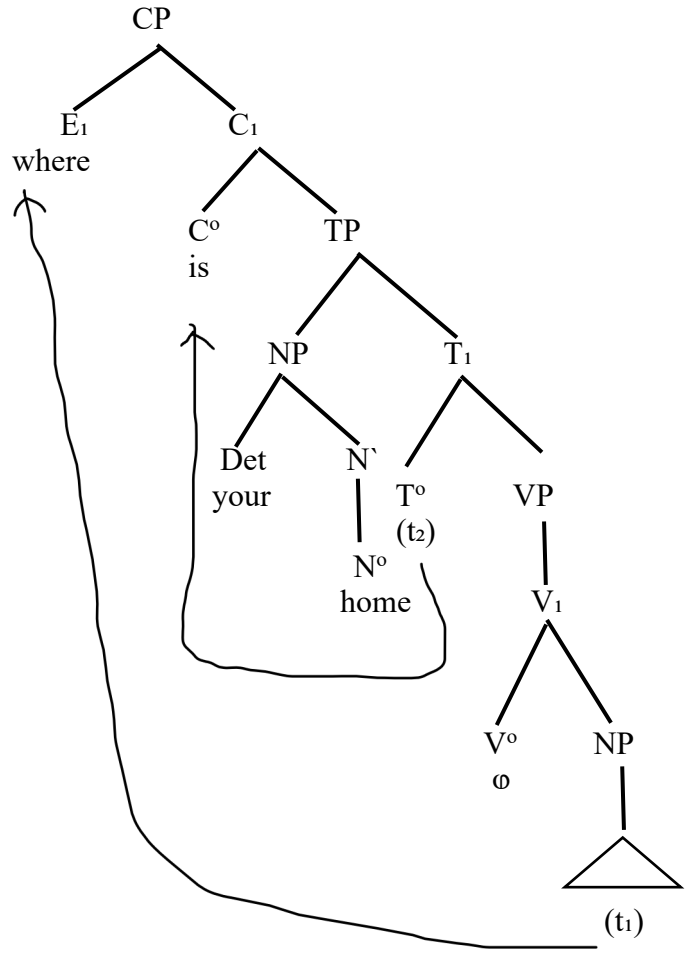

Figure 36(c): Wh-movement parameter in English

In figure 36(c), an NP combines with a null V^o to form VP that merges with T^o to form T_1. This T_1 then combines with an NP that comprises of a Det *your* and an N^o *home* to make a TP. This TP further combines with C^o *is* to form C_1. This C_1 then at last merges with E_1 *where* to get CP. In the provided tree diagram, the actual location of the wh-word *where* is an NP that is a sister of V^o and a daughter of V. In other words, *where* behaves as the complement of the verb in the deep structure of the provided English sentence. In the process of constructing the question, *where* moves to the start of the sentence, leaving a trace t_1. Additionally, the shift of where to the beginning of the sentence also pulls the auxiliary verb *is* to C^o from its original position, leading to trace t_2. The provided tree diagram illustrates that English permits wh-movement to the beginning of the sentence. Moving the wh-word to a different position other than the beginning of the sentence results in an ungrammatical sentence, which native speakers of English find unacceptable.

37. په ګلاس کښې سومره اوبۀ دي؟

Pa glass ki somra oba di

in glass in how much water is.PRES

How much water is there in the glass?

37(a) په ګلاس کښې سومره اوبۀ دي؟

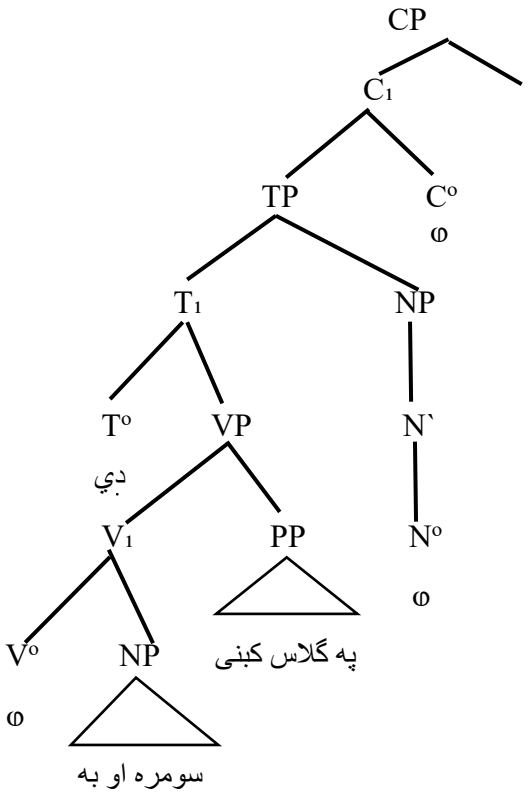

Figure 37(a): Wh-movement parameter in Pashto,

37(b) گلاس میں کتنا پانی ہے؟ (Urdu translation)

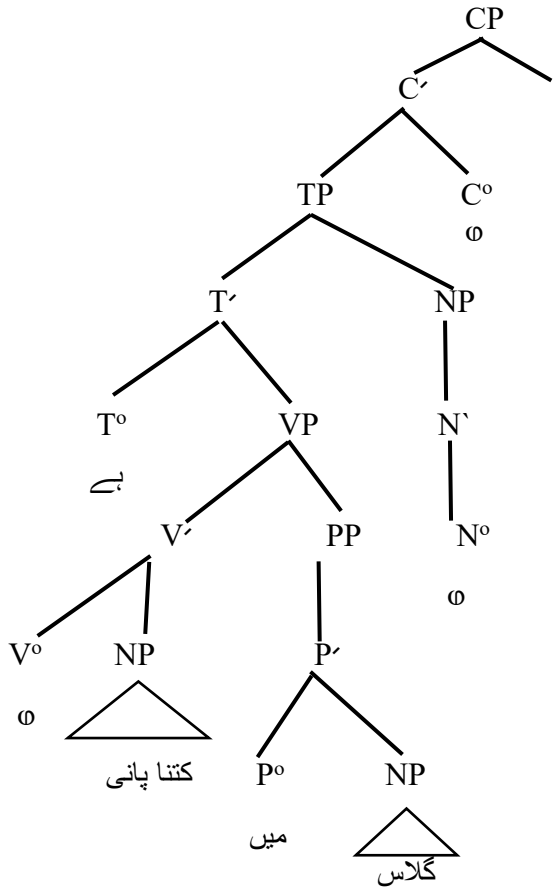

Figure 37(b): Wh-movement parameter in Pasto.

In figure 37(a), an NP *سومره اوبۀ* combines with a null Vº to form V₁ that further merges with a PP *په ګلاس کښې* to make a VP. This VP then joins with Tº*دي* to construct T₁ which then unites with a null NP to make a TP. The TP merges with a null Cº to get C₁ that ultimately results in CP. The wh-phrase in the provided Pashto example is *سومره اوبۀ*. The original position of *سومره اوبۀ* is NP, functioning as a complement of Vº, and it remains in-situ. In other terms, it remains stationary and does not move in a sentence. In figure 37 (b), the wh-word *کتنا پانی* remains in its actual position and does not shift to any other location within the sentence. The wh-word *کتنا پانی* in the Urdu example serves as a complement to the verb, functioning as a sister to Vº and a daughter to V′. Pashto and Urdu are classified as wh-in-situ languages as no movement of wh-word takes place. Pashto and Urdu differ from English in that they do not permit the wh-word to be positioned at the start of the sentence.

37(c) How much water is there in the glass? (English translation)

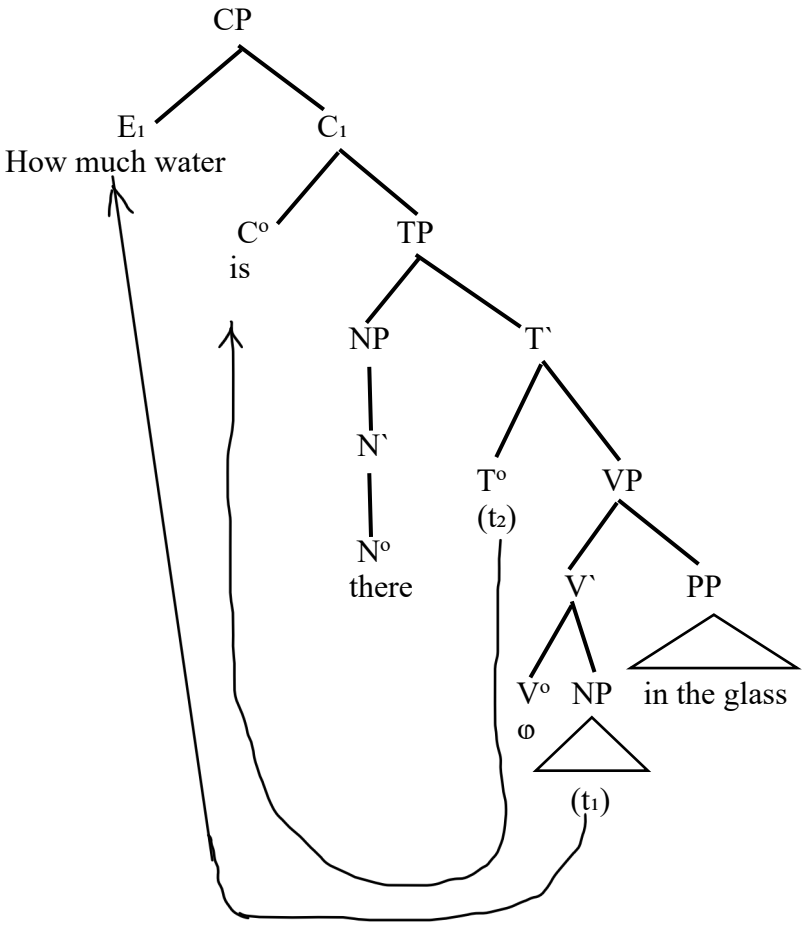

Figure 37(c): Wh-movement parameter in English

In figure 37 (c), an NP t_1 combines with V^o to make V` that again merges with a PP *in the glass* to make a VP. This VP then combines with $T^o$ ($t_2$) to get T` which further unites with an NP *there* to get a TP. This TP, consequently, joins with C^o *is,* that has moved from its position leaving a trace t_2, to make C` which further combines with $E_1$ *how much water* to make CP. In this figure, the original position of the wh-phrase is the complement NP position of V`. Upon movement, this wh-phrase takes the place of the specifier of CP. Tallerman (2014) opines that this position of specifier of CP is not associated with the grammatical function. Therefore, when the wh-phrase *how much water* moves to the beginning of the sentence, the grammatical category of the phrase does not change. Also, the helping verb *is* moves from the head T^o position to the position of C^o along with the movement of the wh-phrase. Carnie (2013) contends that in complex wh-questions the entire phrase moves to the beginning of the sentence. This

is clear in the given example as the whole phrase *how much water* moves to the position of specifier. This tree diagram shows the movement of the wh-phrase in English which is unlike Pashto and Urdu as these languages are wh-in-situ.

38) ستاسو ده زوي نوم څهٔ دي؟

Staso da zoye num sa di
your of son name what is.PRES.SG
What is the name of your son?

38(a) ستاسو د زوي نوم څهٔ دي؟

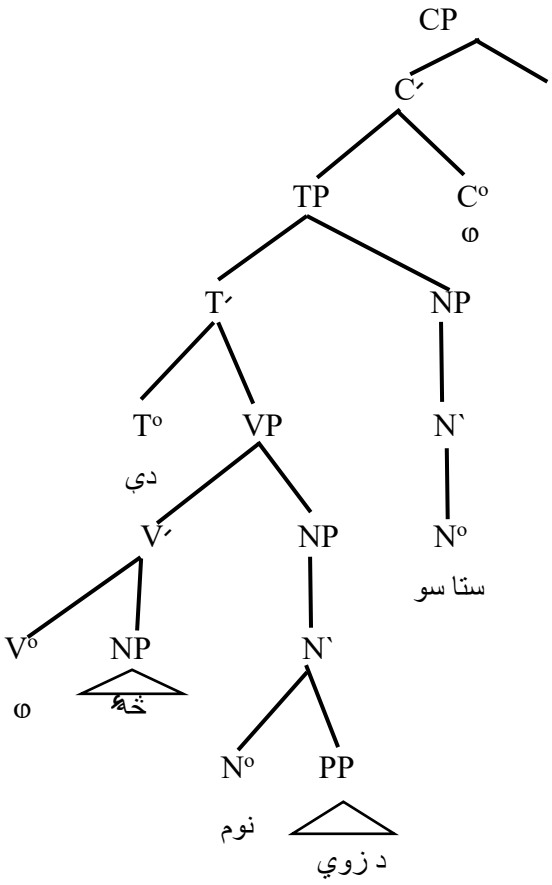

Figure 38(a): Wh-movement parameter in Pashto

38(b) آپ کے بیٹے کا نام کیا ہے ؟ (Urdu translation)

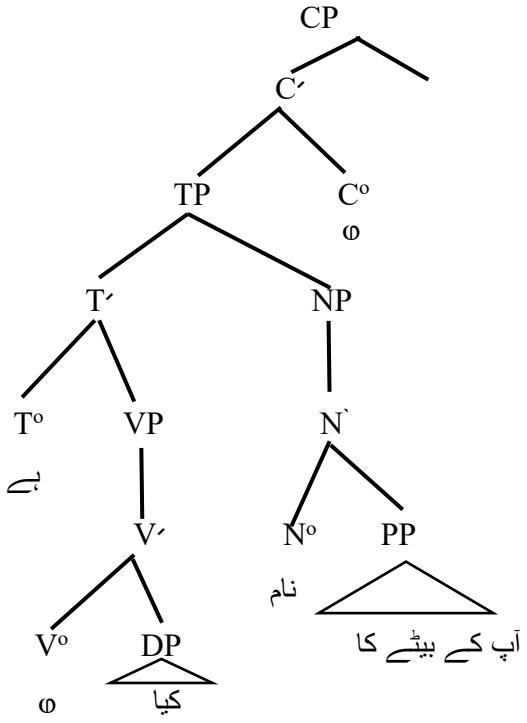

Figure 38(b): Wh-movement parameter in Urdu

In figure 38 (a), PP د زوي combines with Nº نوم to form an NP which again merges with a V′, comprises of an NP څۀ and a null Vº to make VP. This VP, then, combines with Tº دي to get T′. This T′, further, combines with an NP سو ستا to make TP which, next, merges with a null Cº to get C′ that results in CP. In the Pashto example provided, the term څۀ is employed to question the phrase. The original position of څۀ is NP, which is actually a complement of Vº and remains in-situ. In other terms, it does not move to any other location. In the same way, the wh-word کیا, which is employed to question the phrase, remains in its current location and does not move to any other location in the sentence, as illustrated in figure 38 (b). In the Urdu example, the word کیا is the complement of the verb, as it is the sister of Vº and the daughter of V`. This designates Pashto and Urdu as wh-in-situ languages. Pashto and Urdu are distinct from English since they do not permit the movement of the wh-word to the beginning of the sentence.

38(c) What is the name of your son? (English translation)

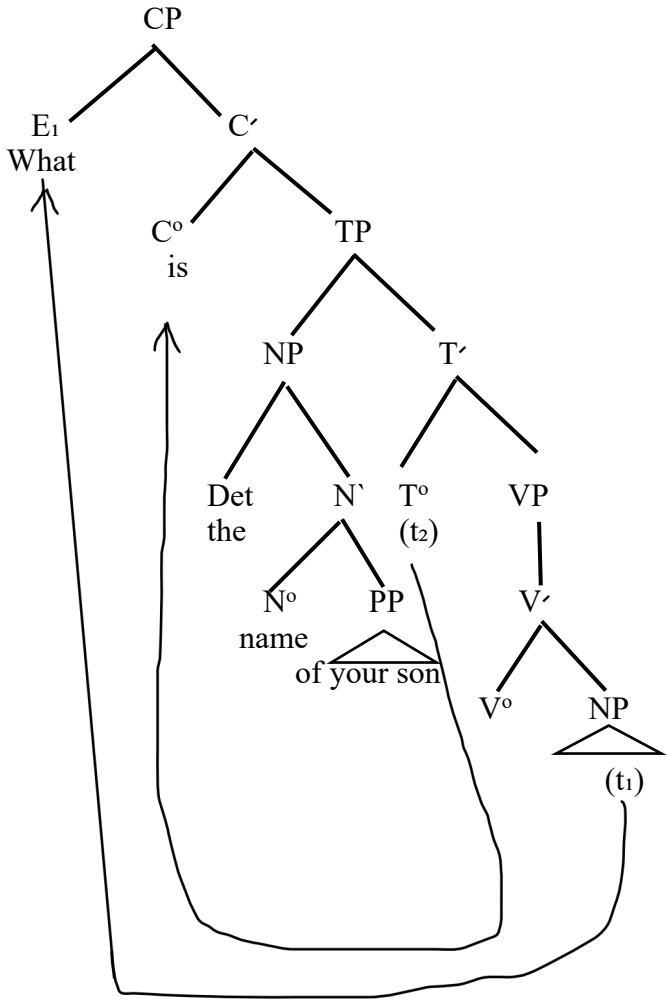

Figure 38(c): Wh-movement parameter in English

In figure 38 (c) NP (t_1) combines with V^o to make a VP which again combines with T^o (t_2) to get T′. This T′ then combines with an NP, that comprises of a Det *the*, N^o *name* and a PP *of your son*, to get TP. This TP then combines with C^o *is*, that has moved leaving a trace t_2 behind, to construct C′ which further merges with E_1 *what*, that has moved from its original position leaving trace t_2 behind, to get C`, which in turn merges with E_1 *what* to get CP. In the above tree diagram, the actual position of the wh-word is an NP, sister of V^o and daughter of V′. In other words, *what* is the complement of the head verb in the deep structure of the English sentence. However, in creating the question, it moves to the beginning of the sentence, leaving a trace t_1. Furthermore, moving *what* to the front of the sentence draws the helping verb *is* to C^o from the T^o position, resulting in trace t_2. The tree diagram below demonstrates that English allows wh-movement to the front of the sentence. If the wh-word is relocated anywhere else,

the sentence becomes ungrammatical, which is unacceptable to native English speakers of English.

39) افضل خان کله تلي ډي؟

Afzal khan kala talay di
Afzal khan when go PAST.MASC.SG

When did Afzal khan go?

39(a) افضل خان کله تلي ډي؟

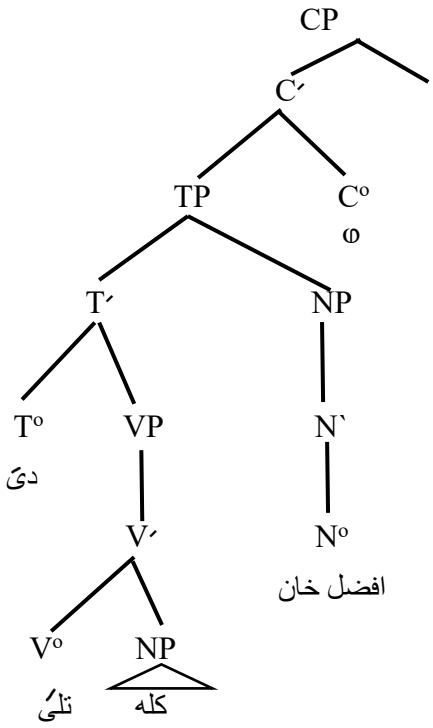

Figure 39(a): Wh-movement parameter in Pashto

39(b) ؟ افضل خان کب چلے گئے (Urdu translation)

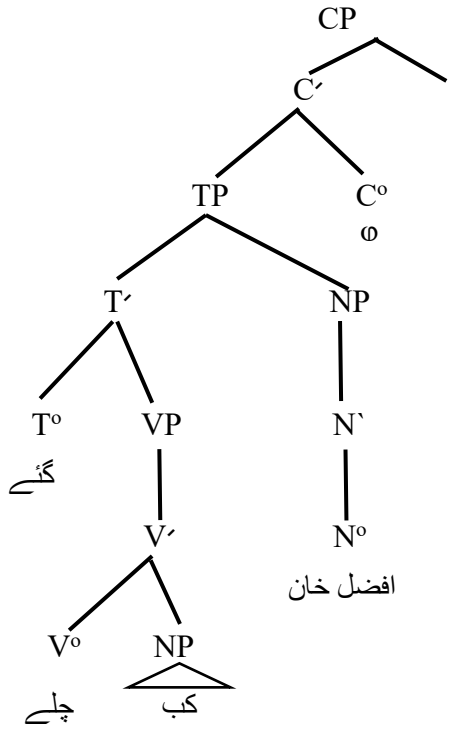

Figure 39(b): Wh-movement parameter in Urdu

In figure 39(a), an NP کله combines with a Vº تلي to make a VP that again merges with a Tº دي to get T´. This T´ further merges with an NP افضل خان to make a TP which then joins with a null Cº to form C´ and ultimately results in CP. The word that is used to question the phrase in the given Pashto example is کله. The original position of کله is NP of V´ which is actually a complement of Vº and it remains in-situ. In other words, it does not move to any other place. Similarly, in figure 39 (b), کب is a word that is used to question the phrase, occupies its actual position and does not move to any other place in the sentence. This word کب in Urdu example is complement of the verb as it is sister of Vº and daughter of V´. This categorizes Pashto and Urdu as wh-in-situ languages. Pashto and Urdu are unlike English because they do not allow the movement of wh-word to the beginning of the sentence.

39(c) When did Afzal khan go? (English translation)

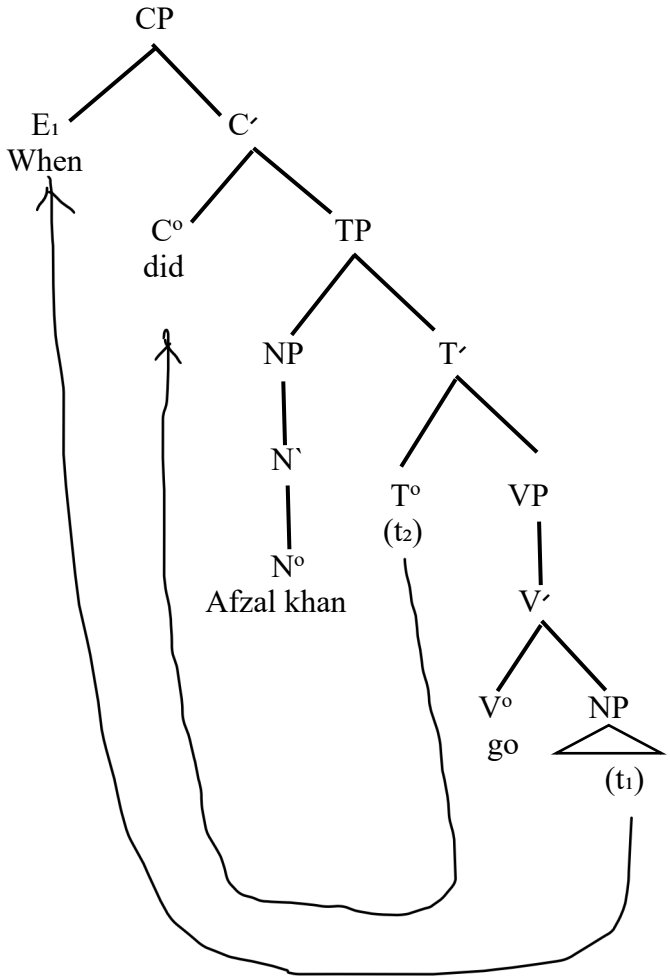

Figure 39(c): Wh-movement parameter in Pashto

In figure 39 (c), an NP combines with V^o *go* to form a VP that further merges with T^o to form T´ . This T´ then merges with an NP *Afzal Khan* to get TP which combines with C^o *did* to construct C´**.** This C´ then joins with E_1 *when* to form CP. In the provided tree diagram, the actual place of the wh-word *when* is an NP that is sister of V^o and daughter of V´. In other words, *when* is the complement of the main verb in the underlying structure of the provided English sentence. In the process of formulating the question, it moves to the start of the sentence, leaving a trace t_1. Additionally, the movement of *when* to the front of the sentence also pulls the helping verb *did* to C^o from T^o position, leading to trace t_2. The given tree diagram illustrates that English permits wh-movement to the beginning of the sentence. Moving the wh-word to a different position other than the beginning of the sentence results in an ungrammatical sentence, which native speakers of English find unacceptable.

40) هغه چېرته لاړو؟

Hagha cherta laro

3SG where go.PAST.MASC.SG

Where did he go?

40(a) هغه چېرته لاړو؟

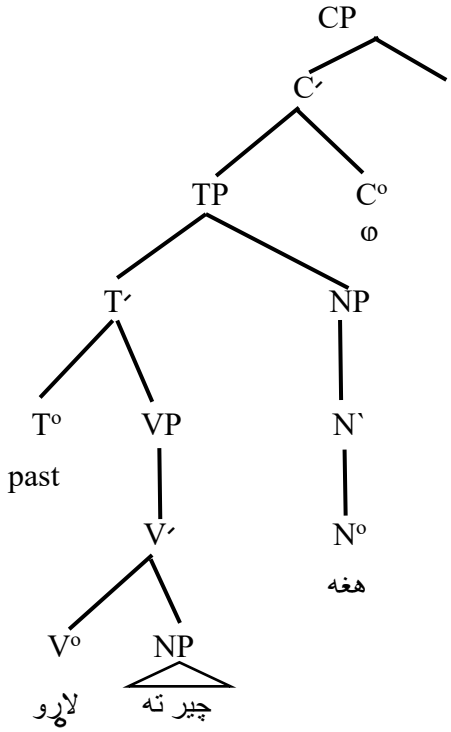

Figure 40(a): Wh-movement parameter in Pashto

40(b) وہ کدھر چلا گیا ؟ (Urdu translation)

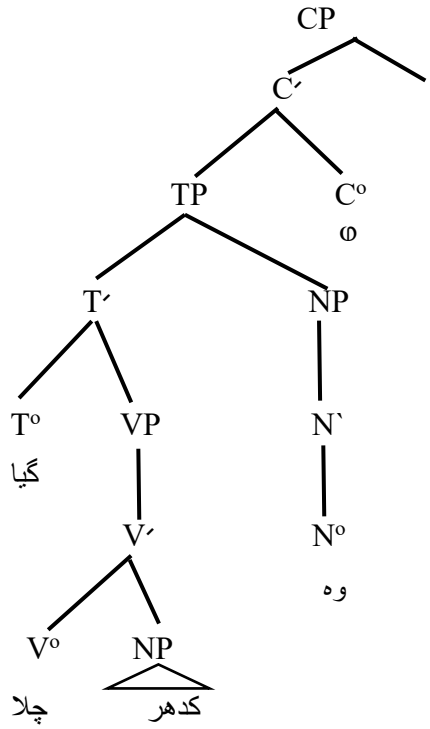

Figure 40(b): Wh-movement parameter in Urdu

In figure 40 (a), an NP چېرته combines with Vº لاړو to make VP that joins with Tº, which indicates past tense, to form T´. This T´ then merges with an NP هغه to get TP which further joins with a null Cº to make C´ and it finally forms CP. The translation of the wh-word *where* in Pashto is چېرته. The original position of چېرته is NP and it remains in-situ. In other words, it does not move to any other place. Similarly, in figure 40 (b), the wh-word کدھر occupies its actual position and does not move to any other place in the sentence. "The *wh*-phrase remains in the usual position occupied in the clause by the phrase that is being questioned" (Tallerman, 2014, p.271). The wh-word کدھر in Urdu example is complement of the verb as it is sister of Vº and daughter of V´. This categorizes Pashto and Urdu as wh-in-situ languages. Pashto and Urdu are unlike English because they do not allow the movement of wh-word to the beginning of the sentence.

40(c) Where did go? (English translation)

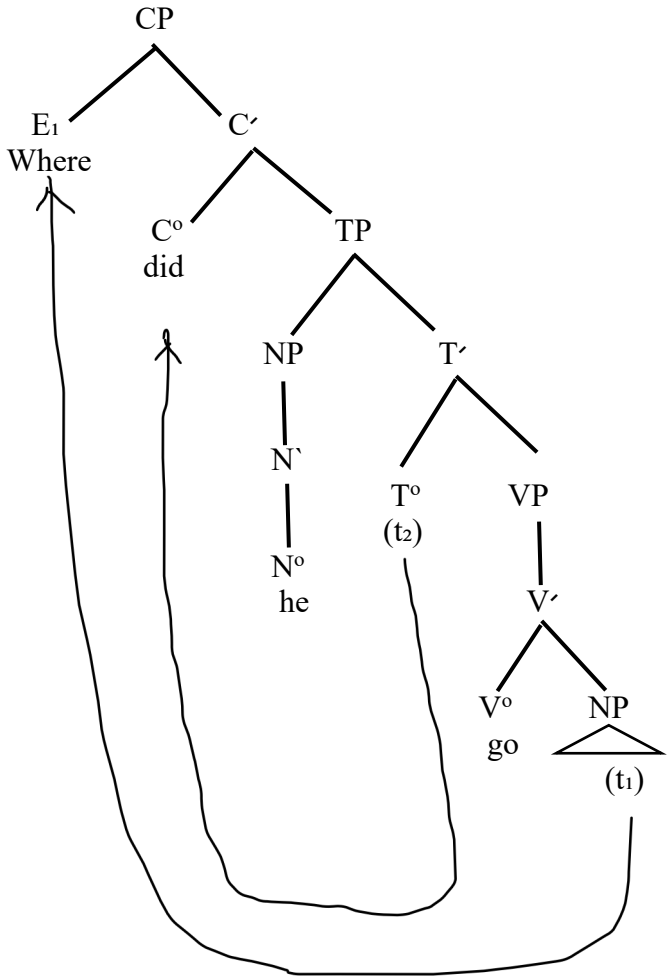

Figure 40(c): Wh-movement parameter in English

In figure 40 (c), an NP (t_1) combines with V^o *go* to make VP which further merges with T^o (t_2) to form T′ . This T′ then combines with an NP *he* to make TP which in turn joins with C^o *did* to get C′. This C′ further combines with E_1 *where* , that has moved from its actual position to get CP. The tree diagram illustrates the actual position of the wh-word *where* in an English sentence, which is the complement of the head verb. The wh-word moves to the beginning of the sentence, leaving a trace t_1 behind. The movement of *where* to the front of the sentence also drags the helping verb *did* to C^o from T^o position, resulting in trace t_2. This indicates that English allows wh-movement to the front of the sentence, and moving it to another place would result in ungrammatical sentences, which are not acceptable to native English speakers.

4.3.3 Wh-movement Parameter in Urdu

This section examines sentences taken from Urdu grammar books, which are glossed and translated into Pashto. The analysis focuses on the selected examples in the context of the wh-movement parameter. Here are some examples for consideration:

41 تمھارا نام کیا ہے ؟

Tumhara naam kya hain

2SG. name what is.PRESENT

What is your name?

41 (a) تمھارا نام کیا ہے ؟

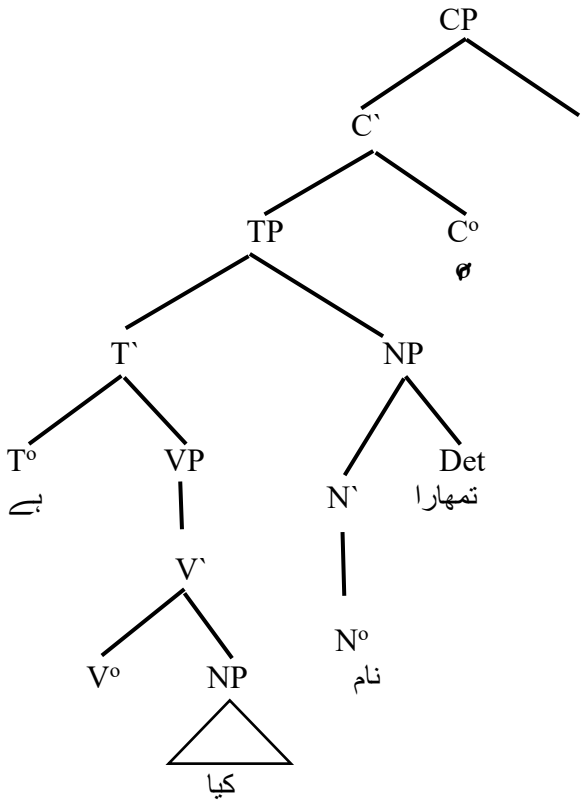

Figure 41 (a): Wh-movement parameter in Urdu

41 (b) ستا نوم څهٔ دي؟ (Pashto translation)

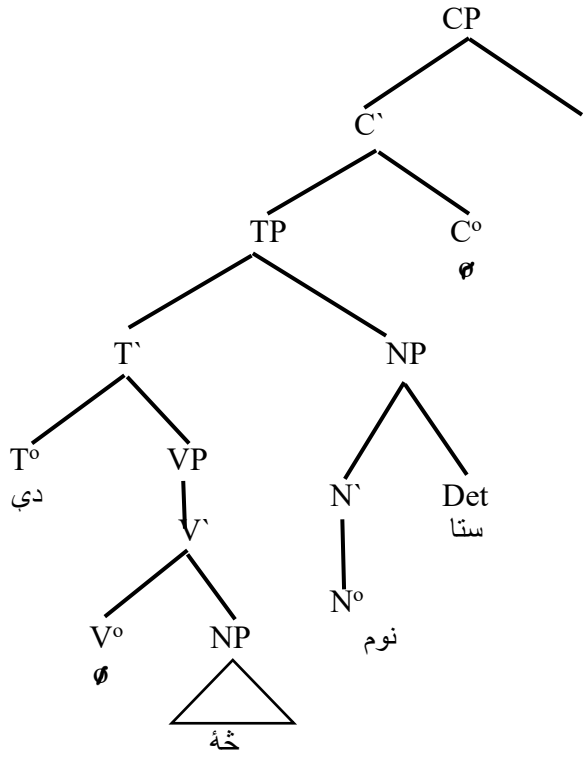

Figure 41 (b): Wh-movement parameter in Pashto

In figure 41(a), an NP کیا combines with a V° to form VP that again combines with T° ہے to make T`. This T`in turn merges with an NP that comprises of an N° نام and a Det تمہارا to get TP which also joins with a null C° to form C` that at last results in CP. In the figure 41 (a), the question word کیا remains in its original position as a noun phrase NP and does not shift to another location in the sentence; it stays in-situ. "The *wh*-phrase remains in the usual position occupied in the clause by the phrase that is being questioned" (Tallerman, 2014, p.271). Similarly, in figure 41(b), the question word څهٔ which is the Pashto equivalent of کیا, retains its original position without moving elsewhere within the sentence. In both Urdu and Pashto, these question words are complements of the verbs since they are sisters to V° and daughters of V`. This characteristic identifies Pashto and Urdu as wh-in-situ languages. Unlike English, which requires the movement of a wh-word to the beginning of the sentence, Urdu and Pashto do not permit such movement.

42 کمرے میں کون داخل ہوا؟

Kamry me kon dakhil hua

Room in. who enter PAST.MASC.SG

Who entered the room ?

42 (a) کمرے میں کون داخل ہوا؟

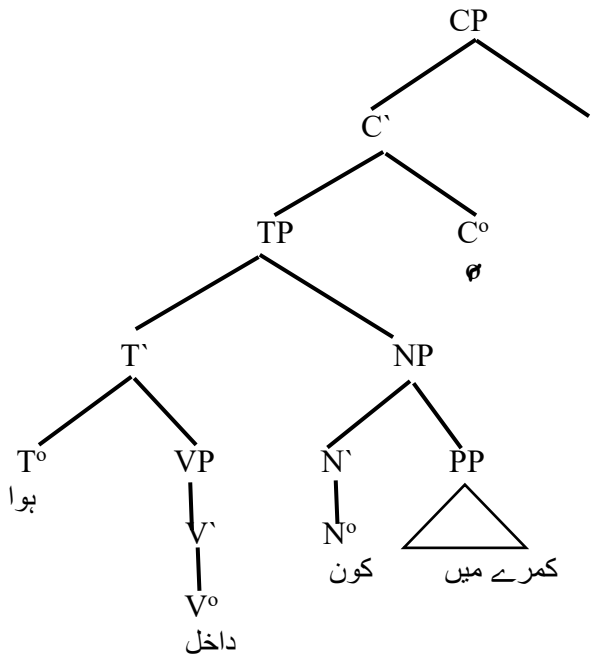

Figure 42 (a): Wh-movement parameter in Urdu

42 (b) کوټې ته څوک ننوتو؟ (Pashto translation)

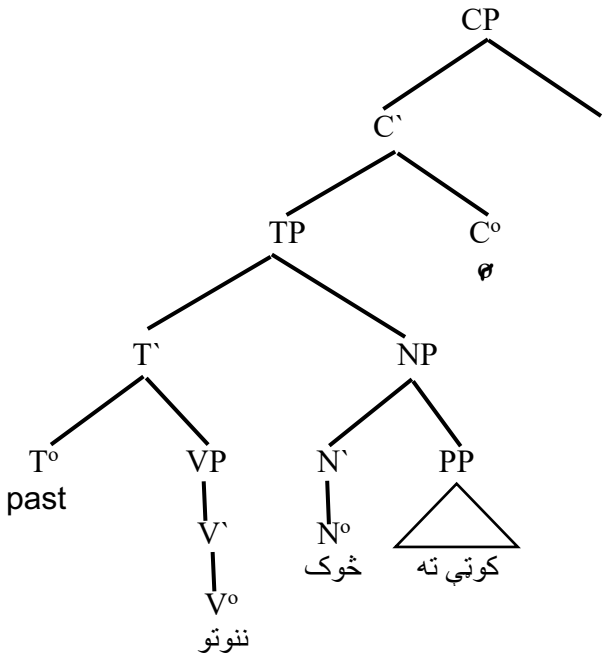

Figure 42 (b): Wh-movement parameter in Pashto

In figure 42(a), V° *داخل* combines with T° *ہوا* to form T`. This T` then merges with an NP that comprises of an N° *کون* and a PP *کمرے میں* to make a TP. The aforementioned TP further merges with a null C° to get C` which ultimately leads to CP. In the figure above, the question word *کون* remains in its original syntactic position as a noun N° and does not shift to any other place in the sentence, staying in-situ. Similarly, in figure 42(b), the Pashto equivalent, څوک, maintains its position without any movement within the sentence. According to Tallerman (2014, p.271), "The wh-phrase remains in the usual position occupied in the clause by the phrase that is being questioned." Both *کون* in Urdu and څوک in Pashto serve as head nouns, classifying these languages as wh-in-situ. Unlike English, where the wh-word moves to the front, Urdu and Pashto do not permit this movement.

43. اس کپڑے کی قیمت کیا ہے ؟

Is kapry ki qeemat kya hai

This cloth of price what is.PRES

What is the price of this cloth?

43 (a) اس کپڑے کی قیمت کیا ہے ؟

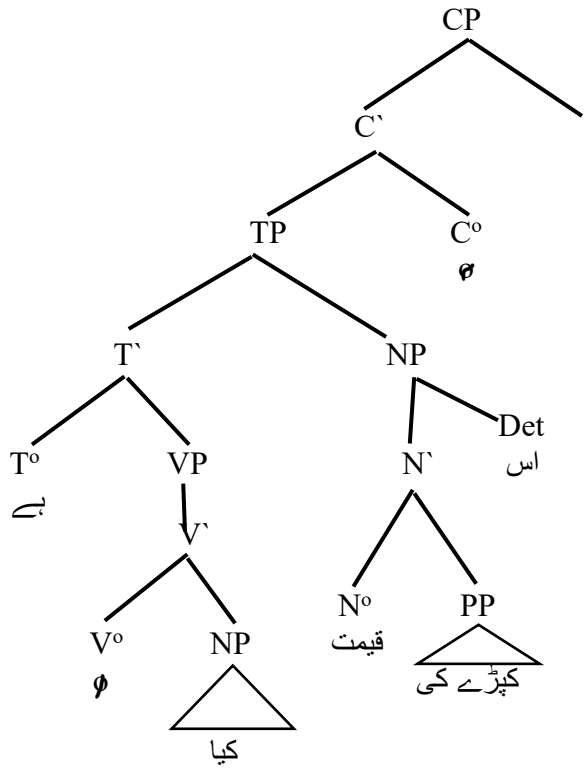

Figure 43 (a): Wh-movement parameter in Urdu

43 (b) ؟ دي قيمت څهٔ دي کپړي د (Pashto translation)

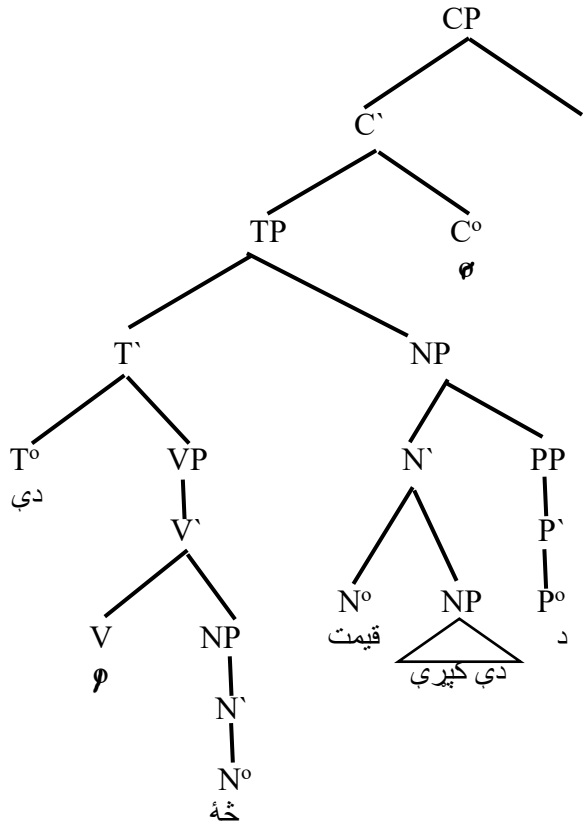

Figure 43 (b): Wh-movement parameter in Pashto

In figure 43(a), Tº ہے combines with a VP that comprises a null Vº and an NP کیا to form T` which in turn merges with an NP, that comprises an Nº قیمت, PP کپڑے کی and determiner اس to get TP. This TP then combines with a null Cº to form C` which eventually results in CP. In the figure above 31 (a), the question word کیا retains its position as a noun phrase NP and stays in-situ, meaning it does not shift elsewhere within the sentence. Similarly, in figure 43(b), the Pashto question word څهٔ, which corresponds to کیا, also remains in its original place in the sentence structure. According to Tallerman (2014), the wh-phrase occupies the standard position typically held by the element being questioned. In both Urdu and Pashto, these question words function as complements of the verbs, acting as sisters to Vº and daughters to V`. This categorization marks Pashto and Urdu as wh-in-situ languages, unlike English, which requires moving the wh-word to the front of the sentence.

44 کون سا کمرہ خالی ہے ؟

Kon sa kamra khali hai?

Which room empty is.PAST.MASC.SG

Which room is empty?

44 (a) کون سا کمرہ خالی ہے ؟

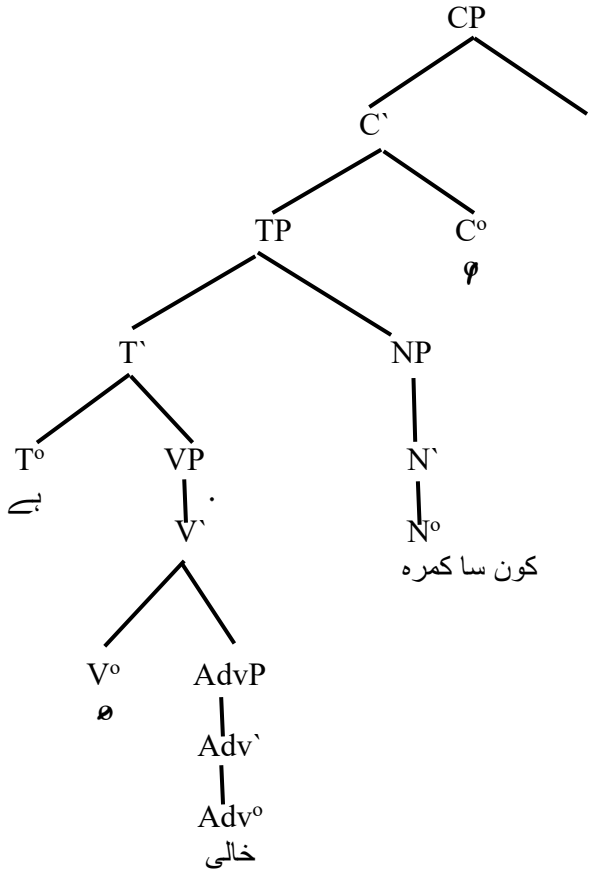

Figure 44 (a): Wh-movement parameter in Urdu

44 (b) کمه کوټه خالی ده؟ (Pashto translation)

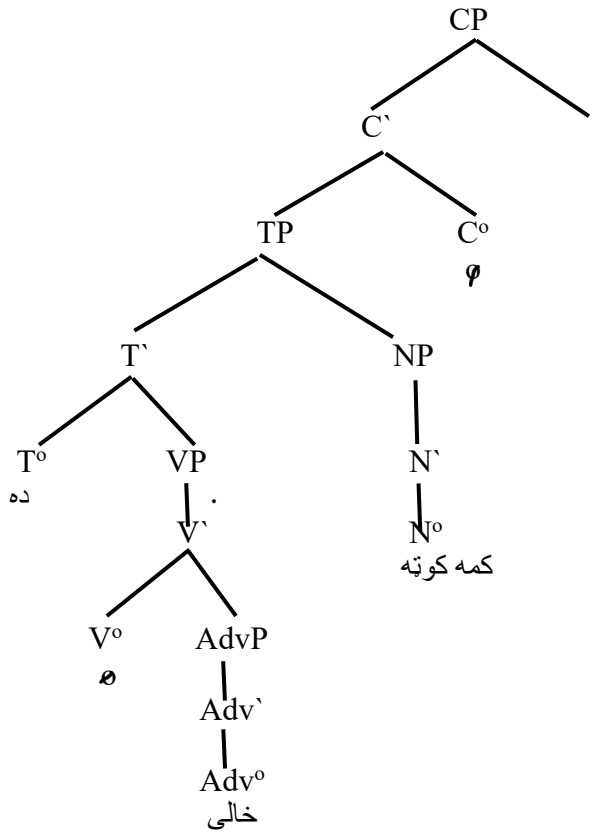

Figure 44 (b): Wh-movement parameter in Pashto

In figure 44(a), NP خالی combines with a null Vº which in turn merges with Tº ہے to form T`. This T` then combines with an NP کون سا کمرہ to get TP which further merges with a null Cº to make C` that finally makes CP. The phrase that is used for asking the question in the above figure is کون سا کمرہ. The original position of کون سا کمرہ is NP and it remains in-situ. In other words, it does not move to any other place. Similarly, in figure 44 (b), the question phrase کمه کوټه, which is equivalent of کون سا کمرہ, occupies its actual position and does not move to any other place in the sentence. Carnie (2013) contends that in complex wh-questions the entire phrase moves to the beginning of the sentence. In Pashto and Urdu, movement of wh-phrases do not take place; however, the question phrase is used to question the phrase that occupies the place in the clause. The question phrase کون سا کمرہ in Urdu and کمه کوټه in Pashto are complements of the verbs as they are sister of Vº and daughter of V`. This categorizes Pashto and Urdu as wh-in-situ languages. Pashto and Urdu are unlike English because they do not allow the movement of question phrase to the beginning of the sentence.

45 ؟ تم کہاں رہتے ہو

Tum kahan rehty ho?

You where live PRESENT

Where do you live?

45 (a) ؟ تم کہاں رہتے ہو

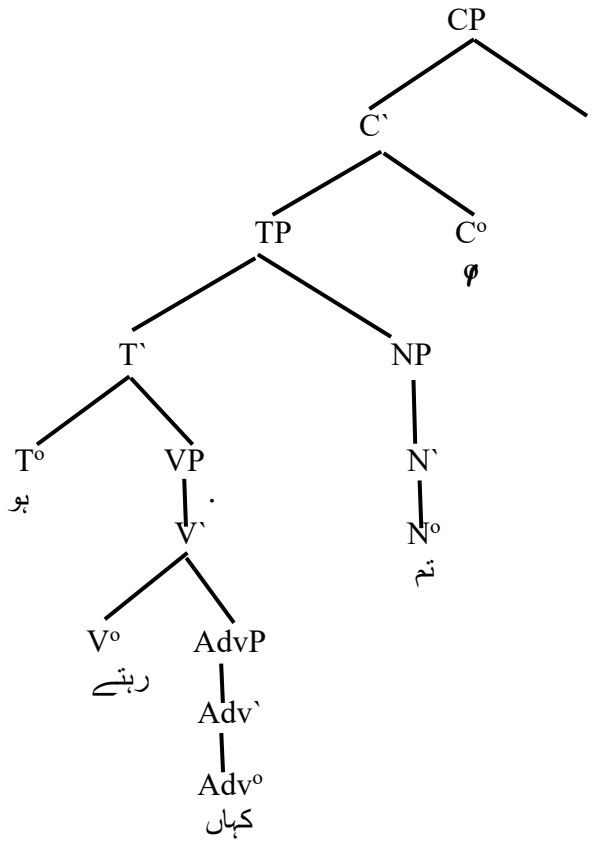

Figure 45 (a): Wh-movement parameter in Urdu

45 (b)؟تهٔ چېرته اوسېږي (Pashto translation)

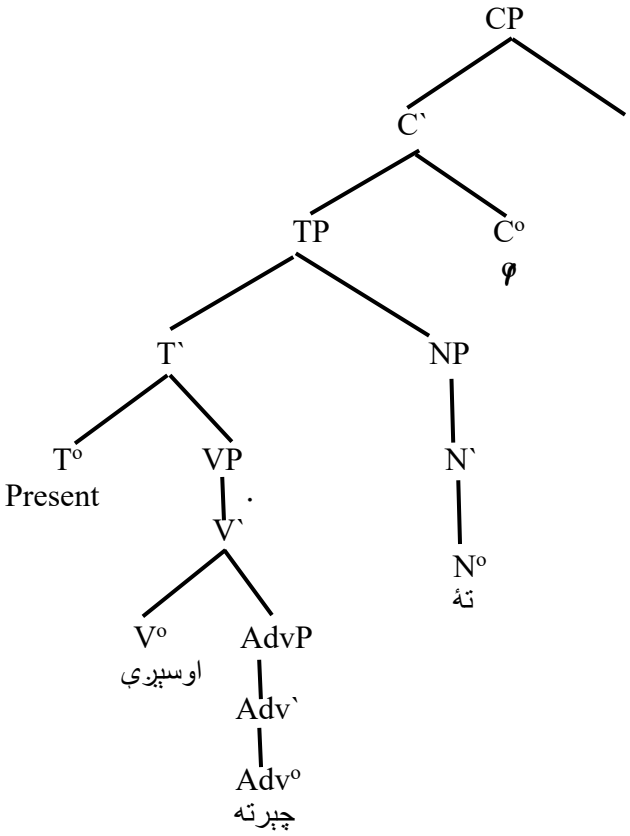

Figure 45 (b): Wh-movement parameter in Pashto

In figure 45(a), an AdvP *کہاں* combines with a null Vº to get VP which in turn merges with Tº *ہو* to make T`. This T`further merges with an NP *تم* to form TP that joins a null Cº to construct C` which results in CP.In the figure, the question word*کہاں* is originally placed as an adverbial phrase (AdvP) and remains fixed in its position within the sentence. Likewise, in figure 45(b), the Pashto counterpart*چېرته* retains its spot without moving. Both *کہاں* in Urdu and *چېرته* in Pashto function as adjuncts, reinforcing the classification of these languages as wh-in-situ, unlike English, which requires the wh-word to move to the sentence's beginning.The paragraph provides a clear distinction between Urdu and Pashto as wh-in-situ languages in comparison to English which allows wh-movement.

This section explores the wh-movement parameter in English, Pashto, and Urdu. After the analysis, it has been observed that English allows wh-movement to the

beginning of the sentence while Pashto and Urdu do not allow any movement from its default position to any other position in the sentence.

4.4 Findings of the Study

The researcher has analyzed the head-position, null-subject and wh-movement parameter in English, Pashto, and Urdu language. The findings of the study for each parameter is given below.

4.4.1 Findings of the Head-Position Parameter

After analyzing the head-position parameter, the findings of the study are:

1) English is head-first language as it consistently places the head word before its complement.
2) Pashto is head-last language because the head word follows its complement with one exception. In case of prepositional phrase, the head preposition precedes its complement; however, if there are both preposition and postposition, the preposition takes the role of the specifier and the postposition acts as the head word which comes after the complement.
3) Urdu is head-last language because the head word comes after the complement consistently.

4.4.2 Findings of the Null-Subject Parameter

After the analysis, the study found that:

1) English is a non-null-subject language as the deletion of subject from the sentence results in the ungrammaticality of the sentence, which is an already established fact.
2) Pashto is a partial null-subject language because the omission of the subject in some sentences does not affect the grammaticality of the sentence while in other cases it results in the ungrammatical structures which are not acceptable to the native speakers of the Pashto language.
3) Urdu is a full null-subject language as, without the apparent subject, the sentence still makes sense and it does not affect the grammaticality of the sentence.

4.4.3 Findings of the Wh-movement Parameter

After analyzing the wh-movement parameter in Pashto, Urdu and English, the researcher concludes that:

1) English allows the movement of the wh-phrase to the beginning of the sentence. Also, along with the wh-movement, the helping verb moves from T^o to C^o position.
2) In English, wh-movement not only takes place in the root clause but also in the embedded clause.
3) Pashto and Urdu are wh-in-situ languages as there is no movement of wh-phrase in these languages.

4.5 Discussion

Pashto first-language speakers often face challenges in attaining the same level of proficiency in Urdu and English, which can be attributed to significant syntactic variations between Pashto and Urdu, and between Pashto and English. These variations, between Pashto (L1) and Urdu (L2), as well as between Pashto (L1) and English (L3), require Pashto speakers to adjust their linguistic parameters when transitioning to their second and third languages. Such adjustments can be complex, as the syntactic rules and structures differ considerably across these languages. This linguistic disparity hinders Pashto speakers from developing equal competence in all three languages, highlighting the influence of first-language syntax on second and third-language learning.

To explore this phenomenon in depth, the study aimed to analyze the parametric differences between Pashto and Urdu, and between Pashto and English, using Principles and Parameters (1981) as a theoretical framework, a key component of Chomsky's Universal Grammar theory (1981). This theory provides a systematic approach to understanding how variations in syntax across languages can impact language learning. Specifically, it examines how speakers readjust linguistic parameters when learning additional languages. This approach not only sheds light on the syntactic challenges faced by Pashto speakers but also contributes to the broader understanding of second and third-language learning within the Principles and Parameters framework.

By focusing on specific linguistic elements, the researcher aimed to uncover meaningful insights into the syntactic variations between these languages. The

collected data was analyzed using the X-bar theory, an analytical framework within Chomsky's Generative Grammar that provides a hierarchical structure for understanding phrases and their components. This theory allowed the researcher to systematically examine and compare the internal organization of phrases and sentences in English, Pashto, and Urdu. Through this detailed analysis, the researcher identified key parametric differences and similarities between Pashto and Urdu, and between Pashto and English, shedding light on how Pashto speakers adjust their linguistic parameters when learning Urdu and English. Based on the analysis, the findings of the research are:

1) Pashto and Urdu are head-final languages while English is a head-initial language. However, there is one exception in the PP of Pashto language. When there is only the preposition in the phrase, in this case, Pashto acts as head-initial language.
2) English is a non-null subject language; Pashto is a partial null-subject language, and Urdu is full null-subject language.
3) English allows wh-movement while Pashto and Urdu do not allow any movement.

These findings provide a deeper understanding of the syntactic challenges faced by Pashto speakers in learning Urdu and English and emphasize the role of structural variations in shaping second and third-language learning processes. The findings of this study reveal that Pashto and Urdu are predominantly head-final languages, whereas English is a head-initial language. However, Pashto demonstrates an exception in prepositional phrases where, in the absence of a postposition, it behaves as a head-initial language. The findings of this study, in terms of head-position parameter, are consistent with Rustam and Rahman (2021) who studied the phenomenon of head-parameter setting in English, Urdu and Hindko. Their study on Hindko and Urdu established that the sameness in head position facilitates easier acquisition of language like Urdu compared to English, which differs in terms of the position of the head word. The findings of this study also align with Radford et al. (2009) who has explored the head-position parameter between German and English language. Similarly, Khan et al. (2018) have studied parametric settings of children learning Urdu language. The findings of their study revealed a consistent adherence to a non-null subject parameter and a head-last principle which align with the findings of this study.

In addition, the findings of this study align with those of Abedi et al. (2012); Maqsood et al. (2018), and Khudadad et al. (2022) who studied the phenomenon of wh-movement parameter. However, they have studied wh-movement parameter between two languages. Abedi et al. (2012) studied wh-movement parameter between English and Persian. They concluded that the wh-movement was mandatory in English while it was not obligatory in Persian. Maqsood et al. (2018) have done a comparative study of wh- movement in Urdu and English from a minimalist perspective. The study concluded that the movement of wh-expression varies across Urdu and English. Wh-movement is mandatory in English whereas it is not mandatory in Urdu. Wh-expression always moved to the beginning of the sentence in the formation of an interrogative sentence in English language. On the other hand, in Urdu, wh-phrase took three different positions in order to make an interrogative sentence. Similarly, Maqsood et al. (2018) explored English and Urdu and concluded that Urdu is an in-situ language, maintaining the wh-word in its canonical position, while English typically positions the wh-word differently. The wh-word moves to the beginning of the sentence upon wh-movement in English. The current study further extends these findings by including Pashto along with Urdu and English, establishing that Pashto also resists wh-movement, similar to Urdu.

Moreover, the findings of this revealed that English is a non-null subject language; Pashto is a partial null-subject language, and Urdu is full null-subject language. These findings align with the work of Uzair et al. (2020) who studied the null-subject parameter between Urdu and English. They concluded that Urdu is null-subject language whereas English is non-null-subject language as it does not allow the subject to be dropped. They have taken two languages to carry out the study. However, the present research has taken three languages into account: English, Pashto and Urdu.

Furthermore, the findings align with the research conducted by Ahmad et al. (2022), which focused on the Balochi language, another significant regional language spoken in Pakistan. Their study explored Balochi in terms of null-subject parameter. They concluded that Balochi qualifies as a pro-drop language, demonstrating the ability to omit both the subject and the object while maintaining the grammatical integrity and comprehensibility of the sentence. The presence of rich morphological inflections in

Balochi, enabling the recovery of dropped subjects and objects. Similarly, the findings in the current study highlight that Pashto and Urdu's null-subject properties are tied to their morphological richness. However, the partial null-subject nature of Pashto presents an intermediate typological case, adding depth to existing literature on subject omission in South Asian languages. This characteristic of Balochi is particularly noteworthy as it highlights the syntactic flexibility of the language and its alignment with other pro-drop languages globally. These findings not only underscore the uniqueness of Balochi but also contribute to a deeper understanding of its linguistic structure within the diverse linguistic landscape of Pakistan.

The pedagogical implications of these findings are significant, especially for Pashto and Urdu speakers learning English. The absence of null subjects in English may require explicit teaching strategies to address the syntactic differences, as suggested by Mowarin and Oduaran (2014), who emphasized contrastive analysis as an effective tool in bridging linguistic gaps.

Moreover, the analysis of the phrases and sentences in this study offers valuable insights into cross-linguistic syntax by highlighting both the universal and language-specific aspects of phrases and sentences. While the data generally conform to the hierarchical projections predicted by X-bar theory, several constructions exhibit deviations that challenge the theory’s claim of universal applicability. These findings underscore the role of parametric variations within the Principles and Parameters framework, demonstrating how languages can systematically differ in head directionality, presence or absence of subject, and wh-movement parameter.

Moreover, the syntactic patterns observed in the data contribute to a deeper understanding of structures across languages. By comparing these structures with those found in typologically diverse languages, this study reveals that some languages employ less hierarchical phrase configurations, while others strictly adhere to the binary branching predicted by X-bar theory. This variation enriches the typological landscape of syntax and suggests that syntactic theory must accommodate a broader range of structural possibilities.

Therefore, the sentences and phrases analyzed not only test the limits of established syntactic model but also expand the empirical base from which cross-linguistic generalizations can be drawn. This contributes to ongoing efforts in syntax to

balance universal principles with parametric flexibility, ultimately advancing a more comprehensive theory of language structure.

In a nutshell, this study explores the parametric variations between Pashto and Urdu and between Pashto and English. The findings of the study reveal that there are significant differences between the aforementioned languages which is one of the reasons that Pashto first-language speakers find it challenging to achieve the same command in Urdu and English. This study fills several gaps identified in previous literature. For example, Uzair et al. (2020) focused solely on the null-subject parameter in Urdu and English, while Maqsood et al. (2018) analyzed wh-movement in Urdu and English. The inclusion of Pashto in the current study broadens the scope of this syntactic study and offers a more comprehensive understanding of the typological and structural differences among these languages. Furthermore, the findings related to Pashto's partial null-subject nature and its exception in PPs add new dimensions to existing typological studies, such as those by Ahmad et al. (2022) and Rustam and Rahman (2021).

CHAPTER 5

5. CONCLUSION

The study aimed to explore the parametric variations between Pashto and Urdu and between Pashto and English in terms of three parameters namely head-position parameter, null-subject parameter, and wh-movement parameter. For this purpose, the researcher has purposively collected a total of 45 phrases and sentences from different grammar books of Pashto, Urdu and English. The books have been purposively selected for the data for this research on the basis of their widespread readership and for the suitability of their content for the purpose of this study. Moreover, the study has employed the Principles and Parameters theory (1981) as a theoretical framework, which is propounded by Chomsky. According to this theory, every language of the world has certain principles which are same across the languages while the parameters vary from one language to another. That is why, languages are different from each other on the basis of parametric variations. In order to carry out the study, the researcher qualitatively analyzed the collected data in the light of the X-bar theory. All the phrases and sentences that are taken from Pashto and Urdu grammar books are also glossed in order to make them comprehensible to the non-native speakers of the Pashto and Urdu languages. The researcher aimed to answer the following questions:

1) What parametric variations can be identified between Pashto and Urdu, and between Pashto and English?
2) How does the Universal Grammar theory help explain the parametric variations between Pashto and Urdu, and between Pashto and English?

In order to answer the first question, the findings of the study revealed the parametric variations between Pashto and Urdu and between Pashto and English. The findings demonstrated that English is head-first language while Pashto is head-last language with one exception. In case of prepositional phrases, the preposition in the Pashto language comes before the complement, so it serves as head-first language. Similarly, English is non-null subject language; however, Pashto is a partial null-subject language because Pashto allowed the subject to be dropped without affecting

the grammaticality of the sentence, but in some situations such as the first-person pronouns, deleting the subject from the sentence resulted in the ungrammatical constructions which are not acceptable to the native speakers of the Pashto language. Moreover, the findings revealed that English allows wh-movement, but Pashto does not allow any wh-movement to the beginning of the sentence like English.

The study's findings also highlighted notable grammatical differences between Pashto and Urdu, particularly concerning the head-position parameter and the null-subject parameter. To begin with, Pashto is predominantly a head-last language, with one notable exception: in prepositional phrases, the preposition precedes the complement, making it head-first in this specific context. In contrast, Urdu is consistently a head-last language, where the head-word always follows the complement. Additionally, Pashto qualifies as a partial null-subject language. It allows subjects to be omitted in many cases without compromising grammaticality. However, there are exceptions, such as with first-person pronouns; removing the subject in these instances leads to ungrammatical sentences, which native Pashto speakers find unacceptable. On the other hand, Urdu is a full null-subject language, permitting the omission of the subject without causing ungrammatical constructions in any context. Interestingly, the study found no grammatical differences between Pashto and Urdu concerning the wh-movement parameter. Both languages disallow moving the wh-word to the beginning of a sentence, a feature commonly observed in English.

As far as the second question is concerned, the researched explained the parametric variations in the light of the Universal Grammar. In terms of head-position parameter, the research found that the head word precedes its complement in English language. On the contrary, in Pashto and Urdu language, the head word follows its complement with one exception in Pashto. It is noted that the head preposition precedes its complement in Pashto language as well when there is just a preposition in the phrase. Also, in English examples, there was no element that appeared between the head and its complement. However, when analyzing the structure of noun phrases in Pashto and Urdu, it became evident that adjuncts and determiners are positioned between the head

and complement. This structural pattern presents a challenge to the principles of X-bar theory.

Similarly, addressing the second question, the researcher observed notable differences in how subjects are treated in English, Urdu, and Pashto with regard to grammaticality. In English, omitting the subject invariably leads to ungrammatical sentences, as the presence of an explicit subject is a fundamental requirement for maintaining grammatical structure. Urdu, in contrast, is much more flexible in this regard. It is classified as a null-subject language, meaning that the subject can be omitted or deleted from a sentence without compromising its grammaticality. This feature allows Urdu speakers to construct sentences without explicitly stating the subject, which is still fully understood from the context.

Pashto, however, presents an intriguing case. It is categorized as a partial null-subject language, exhibiting behavior that falls somewhere between English and Urdu. In some situations, Pashto permits the omission of the subject while retaining the grammatical integrity of the sentence. For instance, the subject can be dropped in contexts where it is implied or understood from the sentence structure. On the other hand, there are cases—such as when dealing with specific pronouns or sentence types—where omitting the subject results in an ungrammatical construction that is unacceptable to native Pashto speakers. This duality highlights the complexity of subject omission in Pashto compared to the stricter rules of English and the more lenient approach of Urdu.

Finally, the findings revealed that while wh-words in English typically move to the beginning of a sentence, this type of movement does not occur in Pashto and Urdu. Instead of being repositioned, the equivalents of wh-words in these languages remain in their original syntactic positions within the sentence. In English, wh-movement is a key feature of sentence structure. When a wh-word (such as *what*, *where*, or *why*) is moved to the front of a sentence to form a question, it also affected the positioning of auxiliary or helping verbs. Specifically, the wh-word attracts the auxiliary verb to the position of the complementizer (Co), which serves as the head of the complementizer

phrase (CP). This movement creates a syntactic trace, labeled t_2, in the original position of the wh-word, marking where it was located before being displaced.

In contrast, Pashto and Urdu follow a different grammatical pattern. These languages do not allow the wh-words to shift to the sentence's initial position. Instead, the equivalents of wh-words in Pashto and Urdu remain in situ, maintaining their position in the sentence structure as it was originally constructed. This distinction between English and these two languages reflects fundamental differences in the way questions and information-seeking sentences are formed across these linguistic systems. The lack of wh-movement in Pashto and Urdu highlights the diversity in syntactic structures across languages.

5.1 Contribution of the Study

This study makes a valuable contribution to the field of syntax by providing an in-depth analysis of the parametric variations between Pashto and Urdu, and between Pashto and English. Specifically, it focuses on three syntactic parameters: head-position, null-subject, and wh-movement. By examining these features, the research highlights the unique structural characteristics of Pashto and Urdu. This investigation stands out from previous studies, which have predominantly concentrated on other languages, making it a pioneering effort in the comparative analysis of these three languages.

One of the key theoretical contributions of this study lies in its challenge to the X-bar theory, a fundamental framework in generative syntax. The X-bar theory is known for its broad generalizations about Universal Grammar. However, the findings of this research call into question the validity of such generalizations by demonstrating that the syntactic behavior of Pashto and Urdu deviates from the expectations set by the X-bar theory. For instance, the unique treatment of certain tree diagrams in Pashto and Urdu suggest that the theory may oversimplify the complexity and diversity of linguistic structures.

By revisiting and critically assessing the assumptions of the X-bar theory, this study not only contributes to the broader understanding of syntactic theory but also

highlights the need for a more in-depth approach that accounts for linguistic diversity. As a result, this research enriches the field of syntax, offering fresh insights into the parametric variations across languages and encouraging further exploration of underrepresented languages like Pashto and Urdu. This makes the study a significant step forward in refining theoretical models and expanding the scope of syntactic inquiry.

5.2 Implications of the Study

The findings of this study offered important insights into the parametric variations between Pashto and Urdu, and between Pashto and English, with direct implications for language teaching, curriculum development, and multilingual competence. Based on these outcomes, the following implications are proposed to improve language education and related practices in multilingual contexts:

5.2.1 Pedagogical Adaptation in English Language Teaching

English language teachers should be made aware of the syntactic differences identified in this study—particularly regarding head-directionality, subject omission, and wh-question formation. Teaching strategies need to be adjusted to explicitly address these variations. For instance, targeted instruction focusing on English's head-initial structure and wh-movement rules can help Pashto speakers overcome common syntactic transfer errors and improve their English language learning.

5.2.2 Development of Comparative Grammar-Based Teaching Materials

Curriculum designers and textbook authors are encouraged to incorporate comparative syntactic explanations into language learning resources. Presenting side-by-side examples of syntactic structures in Pashto, Urdu, and English can enhance learners' metalinguistic awareness and facilitate a clearer understanding of structural differences. This approach is particularly valuable in regions where multilingualism and code-switching are prevalent.

5.2.3 Teacher Training and Professional Development

It is essential that language educators receive training in basic syntactic theory and cross-linguistic variation, especially in multilingual environments such as Pakistan

and Afghanistan. A deeper understanding of how syntactic parameters differ across languages will enable teachers to better anticipate learner challenges and address them more effectively in the classroom.

5.2.4 Language Policy and Educational Planning

Educational policymakers should take into consideration the syntactic differences between Pashto and Urdu, and between Pashto and English when designing language instruction programs. Curricula should be carefully sequenced and scaffolded to reflect learners' linguistic backgrounds rather than assuming uniform syntactic familiarity. This tailored approach can enhance the effectiveness of language education in multilingual settings.

5.2.5 Translation and Interpretation Practices

The findings also hold relevance for professionals engaged in translation and interpretation between Pashto, Urdu, and English. Training programs for translators and interpreters should incorporate knowledge of syntactic shifts—such as differences in word order and subject presence or absence—to promote more accurate and natural translations. Institutions offering translation studies would benefit from integrating syntactic knowledge into their curricula.

By implementing these implications, educators, curriculum developers, and policymakers can foster more effective and inclusive language learning environments. Such an approach not only enhances linguistic proficiency but also promotes a deeper appreciation of structural diversity among Pashto, Urdu, and English.

5.3 Limitations of the Study

This study has the following limitations that need to be considered when interpreting the results.

1) Due to time constraints, the study has taken only written data into consideration. Including spoken data might have further enriched the findings of this study.
2) Since this study mainly focused on parametric variations in Pashto in comparison with Urdu and English, the findings of the study cannot be generalized to other regional languages of Pakistan.

5.4 Recommendations for Future Research

While this study provides valuable insights into parametric variations between Pashto and Urdu, and between Pashto and English, several limitations were encountered that offer opportunities for future exploration.

1) Due to time limitations, this study exclusively focused on analyzing written data, leaving spoken data unexplored. Future research could address this gap by investigating the parametric variations between Pashto and Urdu, as well as between Pashto and English through the analysis of spoken data. Such studies can further enhance the understanding of parametric variations by capturing the dynamics of spoken communication.

2) Additionally, future researchers may examine the same syntactic parameters—head-position, null-subject, and wh-movement—in other Pakistani languages. Exploring these parameters in diverse linguistic contexts may yield intriguing and valuable insights, further enriching the understanding of cross-linguistic variations and contributing to the broader field of syntax.

3) Moreover, the current study has not examined Pashto, Urdu, and English in terms of the verb raising, tense lowering, and wh-fronting parameters. Future researchers are encouraged to explore these languages through the lens of these syntactic dimensions to provide deeper insights and contribute to the existing body of linguistic literature.

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APPENDIXES

APPENDIX A: Data from English Language

Head-Position Parameter		
S.No	**English Phrases and Sentences**	**Pashto Translation**
1	The book lies on the table.	کتاب په میز باندې پروت دی۔
2	fond of music	ده موسیقی شوقي
3	He gave me a bunch of grapes.	هغه ماله د انګورو یو غونچک راکو۔
4	New idea of the boss	د مشر نوي خبره
5	The elite of the country	د هیواد اشرف
Null-Subject Parameter		
1	We went to Spain.	اسپانیه ته لاړو۔
2	There is a cow in the garden.	په باغ کي غوا ده۔
3	I bought three oranges.	ما دری مالټي واغستی۔
4	It is raining.	باران وریږي۔
5	I work.	کار کوم۔
Wh-movement Parameter		
1	What did you do?	تاسو څه وکړل؟
2	Why are you crying?	ته ولي ژاړي؟
3	Who wanted a cup of coffee?	چا یوه پیالی کافي غوښتله؟
4	Where did you buy umbrella?	تا چتری چېرته واغسته؟
5	She asked me where I found it.	هغې ما نه تپوس اوکو چېرته دي اومندو؟

APPENDIX B: Data from Pashto Language

Head-Position Parameter			
S.No	**Pashto Phrases and Sentences**	**English Translation**	**Urdu Translation**
1	د زرځانګي زوی	The son of Zarsanga	زرسانگہ کا بیٹا ۔
2	په دې کتاب کې	In this book	اس کتاب میں
3	زما ورور په کوټه کې ناست دی۔	My brother is sitting in the room.	میرا بھائی کمرے میں بیٹھا ہے۔
4	له ټولو ډېر ستړی مېلمه نه	The most tired guest of all.	سب سےزیادہ تھکا ہوا مہمان
5	د ژوند نه تنګ	Tired of life	زندگی سے تنگ
Null-Subject Parameter			
1	د کوره را غلم۔	I came from home.	گھر سے آیا۔
2	ډېر توتان مې وخوړل۔	I ate many mulberries.	بہت سارے شہتوت کھا ئے۔
3	په وهلو وهلو مړ شو۔	He was beaten to death.	مار مار کر ہلاک ہوگیا۔
4	کتاب رانه هیر شو۔	I forgot the book.	کتاب بھول گیا۔
5	او به سکم۔	I drink water.	پانی پیتا ہوں۔
Wh-movement Parameter			
1	ستا کور چېرته دی؟	Where is your home?	آپ کا گھر کدھر ہے؟
2	په ګلاس کښې سومره اوبۀ دي؟	How much water is there in the glass?	گلاس میں کتنا پانی ہے؟
3	ستاسو د زوي نوم څۀ دی؟	What is the name of your son?	آپ کے بیٹے کا نام کیا ہے؟
4	افضل خان کله تلي دي؟	When did Afzal Khan go?	افضل خان کب چلے گئے؟
5	هغه چېرته لاړو؟	Where did he go?	وہ کدھر چلا گیا؟

APPENDIX C: Data from Urdu Language

Head-Position Parameter		
S.No	**Urdu Phrases and Sentences**	**Pashto Translation**
1	کتاب کی قیمت	د کتاب قیمت
2	اس دوکان میں	په دې دوکان کې **or** دې دوکان کې
3	کچھ تصویر یں میز پر ہیں۔	څه انځورونه په میز باندې دي څه انځورونه په میز دي
4	انگریزی کے چند الفاظ	ده انګلیسي یو سو ټکي
5	حالات سے باخبر	د حالاتو نه خبر**or** حالاتو نه خبر
Null-Subject Parameter		
1	بارش ہوگی۔	باران به کیږی۔
2	قرآن کی تلاوت کرتا ہو۔	د قرآن تلاوت کوم
3	استاد کو سلام کیا۔	ما استاذ ته سلام اوکو۔
4	کیا کرو گے ؟	څۀ به کې؟
5	دلتہ راشہ۔	ادھر آو۔
Wh-movement Parameter		
1	تمھارا نام کیا ہے ؟	ستا نوم څۀ دې؟
2	کمرے میں کون داخل ہوا؟	کوټې ته څوک ننوتو؟
3	اس کپڑے کی قیمت کیا ہے ؟	ده دې کپړې قیمت څۀ دي ؟
4	کونسا کمرا خالی ہے ؟	کمه کوټه خالی ده؟
5	تم کہاں رہتے ہو؟	تۀ چېرته اوسېږې؟