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Understanding Syntactic Deviations of Sentence Derivation in Student English: A Study within the Minimalist Program

Aeshah Almineeai [ORCID]

English Department, University of Bisha, Bisha 67714, Saudi Arabia

ABSTRACT

This study explores the syntactic deviations in written English by freshmen EFL students at Saudi universities focusing on their implications for understanding syntactic competence. The research investigates 105 students' compositions to pinpoint the most frequent and notable syntactic errors, employing the Minimalist Program (MP) by Noam Chomsky. The objective is to root these deviations within a solid theoretical background, thereby scientifically elucidating their causes and enhancing strategies for explaining syntax using the latest Chomskyan MP approach. The findings reveal that the most common syntactic deviations include verb complement errors (22.43%), tense and agreement discrepancies, (21.14%) and omissions of critical syntactic elements like prepositions (9.28%) and determiners (3.42%). These errors are systematically categorized and analyzed using MP mechanisms, which facilitates a deeper understanding of the theoretical bases upon which syntactic structures are formed and analyzed. This methodological approach helps in understanding the origins of observed errors, providing a well-grounded justification for deeming certain expressions incorrect in daily language practices. Ultimately, this analysis not only illuminates the common challenges faced by these learners but also suggests more effective teaching strategies. By leveraging a profound and clear understanding of MP, the study provides insights into the practical and deep reasons behind linguistic errors, enhancing both theoretical knowledge and instructional practices in the field of EFL.

Keywords: Agree; Feature Checking; Merge; Move Syntactic Deviations; Sentence Derivation; Select

1. Introduction

The English language plays a pivotal role in global communication, education, and professional development, making it essential to understand and address challenges in its acquisition and use, particularly among non-native speakers. Students' face various deviation in their English syntax while they try to communicate in English. Ellis[1] showcased that learners often begin by omitting auxiliary verbs and later misuse them as their interlanguage develops. Hinkel[2] confirmed that students face challenges with tense, aspect, and passive voice constructions which are resulted due to learners' limited exposure to formal academic English. Likewise, Corder[3] looked at learners' errors as a systematic evidence of an evolving interlanguage.

An examination of previous studies conducted in various geographical contexts[4–6] reveals a pervasive concern among linguists and educators regarding the challenges English learners face in mastering the language. These studies consistently emphasize the analysis of syntactic errors, underlining the difficulties encountered by learners[7, 8]. Previous research has adopted various approaches to analyze students' syntactic errors. Among such approaches is the use of learners' corpora[9, 10]. Ellis[1] traced learners' progression through predictable stages. Lado[11] focused on linguistic transfer in studying syntactic errors. Lawal[12] and Opara[13] adopted Halliday's Systemic Functional Theory (SFT), which posits that language functionally evolves in response to the demands of its societal context and varies based on cultural and situational contexts. Udoka[8] explored syntax-based errors in students' narrative using Contrastive Analysis and Error Analysis. This research explores the syntactic deviations in sentence derivation using Minimalist Program coined by Chomsky[14].

Even studies in the Saudi context, aimed to analyze the syntactic errors as examined by Nuruzzaman et al.[15] and Alqhtani[16]. These studies are similar in this study in their analysis of error categorization, this study adopted MP approach to explain such syntactic deviation which makes this study worthy. While this research adopts a descriptive and analytical approach to investigate prevalent deviant syntactic structures, it also introduces a novel aspect. To my knowledge, this is the first study to apply the principles of the MP as formulated by Chomsky. This innovative approach aims to scientifically interpret the reasons underlying the perception of certain structures as deviant, utilizing these insights for precise parsing and providing detailed explanations based on MP's explanatory potential. In doing so, this study sheds light on the broader applicability of minimalist theories and advocates for their use in elucidating syntactic concepts to learners. This contribution not only enhances our understanding of minimalist theories but also calls for their integration into syntax education, fostering a deeper comprehension among learners.

Therefore, this study is conducted to build a solid understanding of MP rules, understand utilizing computational mechanisms for deviation interpretation such as Select, Merge, Agree, Move, Spell-Out interface and the mechanisms performed in PF and LF, and to simplify their application on simple samples written by the first-year students in the university of Bisha, the Medical Track. The study aims to answer the following questions:

1. What is the most frequent deviant syntactic error among Saudi EFL freshmen students?
2. How can Saudi EFL students' deviant structures be interpreted using the MP approaches?

2. Literature Review

Syntactic deviations reflect the learner's internalization of the target language[3]. The study of syntactic deviations among EFL learners has been a pivotal area in linguistic research among leading scholars[1, 3, 17]. One of the earliest contributions to this field came from Corder[3] who argued that learners' errors are not merely mistakes but systematic evidence of an evolving interlanguage. By analyzing patterns of omissions, additions, substitutions, and disordering. Furthermore, Selinker[17] introduced the concept of interlanguage, emphasizing its dynamic and developmental nature. Through longitudinal case studies, Selinker[17] explored how syntactic errors, such as solid relative clause constructions, continues even in advanced learners due to a combination of inadequate input and rooted learning strategies. Similarly, James[18] expanded the scope of error analysis, providing a detailed taxonomy of errors and linking them to developmental stages in SLA. By analyzing a corpus of learner writing, James[18] identified recurring issues with subject-verb agreement and word order, recommending targeted instruction to address these areas. Lado[11] showcased that linguistic

transfer also plays a significant role in shaping syntactic errors, as highlighted by a comparative analysis of learners' native and target languages, Lado[11] predicted errors arising from structural differences, such as negative transfer from L1 syntax. His findings, particularly relevant to Arabic-speaking EFL learners, demonstrated how linguistic contrasts influence error types, such as adjective placement and article usage. Swan and Smith[19] further contextualized these findings, offering practical insights into how Arabic syntax, with its distinct grammatical structures, interferes with English, leading to challenges in prepositions, word order, and articles.

Moreover, Granger[9] pioneered this approach, employing the International Corpus of Learner English (ICLE) to identify frequent syntactic deviations, such as tense inconsistencies and preposition misuse. Her data-driven methodology revealed systematic patterns of errors, providing empirical evidence for curriculum adjustments. In a similar manner, Nesselhauf[10] demonstrated the pedagogical value of learner corpora, focusing on verb usage and clause structure errors. Ellis[1] provided a broader theoretical framework for understanding how learners develop syntax, synthesizing experimental studies that traced learners' progression through predictable stages. For example, Ellis noted that learners often begin by omitting auxiliary verbs and later misuse them as their interlanguage develops. The cumulative insights from these studies highlight the multidimensional nature of syntactic deviations in EFL learners. They reveal that such errors are influenced by developmental interlanguage processes, linguistic transfer, and instructional gaps. The integration of learner corpora and comparative linguistic analysis has significantly enriched our understanding, offering actionable strategies for educators to address syntactic challenges systematically.

2.1. The Minimalist Program

Minimalist Program (MP) is an optimal system built on explanatory adequacy[14] in which unnecessary steps are eliminated[20, 21]. It depends on several operations such as selection from the numeration, merging, agree, move and transfer. To dive into the MP to select related faces for interpreting the deviant structures in the freshmen students' writing samples, I will explain how MP works:

2.2. LF & PF Levels of Presentations

In MP, two of representation syntactic levels are found: Logical Form (LF) and (Phonological Form (PF). The first interfaces with the conceptual intention system and the later interfaces with the articulatory-perceptual system. The expression computation is generated in the component of mind known as the Faculty of Language (FL). There, form and meaning are represented[22] as illustrated in **Figure 1**.
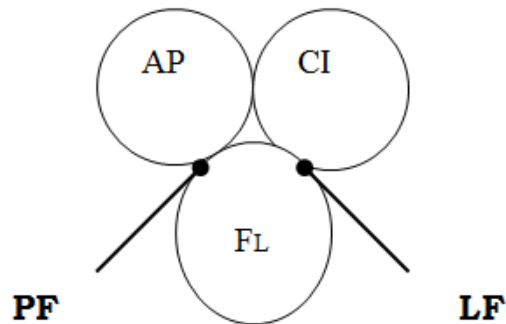

Figure 1. LF and PF levels of presentation adopted from Zeijlstra[22], (p. 12).

Moreover, in MP principles, "no superfluous 'uninterpretable' at the interfaces"[14], (p. 27). This is discussed as Full Interpretation (FI) which means for the optimal representation and convergent derivation, no uninterpretable features are not satisfied before the Spell-Out interface and this is universally applicable.

2.2.1. The Spell-Out Activation

Spell-Out is a technical term used to sign a completion of the process of derivation where it splits and goes off into two directions: PF & LF. There occurs the interface of grammar dealing with form with the cognitive system dealing with meaning.

2.3. The Processes of Derivation

Derivation is a number of computational processes or small set of basic operations: Select Merge, Agree, Move, and Transfer, used technically to build derivation in terms of computation[23].

2.4. Select and Merge

The two operations are basic and necessary corestones in any natural language. By Select mechanism, two con-

stituents are taken from the Numeration (N). By, Merge, the two constituents form one labeled as that of the dominating one and this operation occurs recursively and meets the requirement that all branching must be binary. This operation is technically defined in Zeijlstra[22], (p. 15) as following:

$$\text{Merge: } K = \{a/\beta\{a, \beta\}\}$$

According to this technical definition, and the illustration below in **Figure 2**, K is a constituent labled after its head.
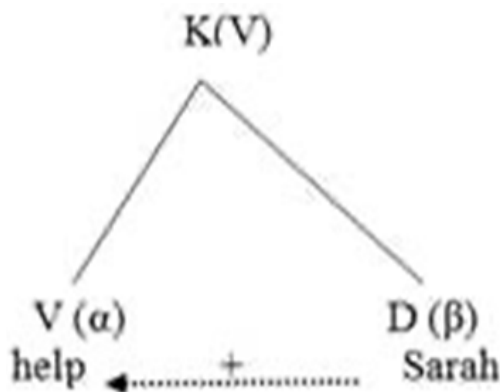
Figure 2. Select and Merge[23], (p. 14).

Phrases and sentences are constructed from words through a series of merging operations. Words possess selectional features that dictate which category or categories they are able to merge with. For example, the word 'the', which is a determiner (D), carries an uninterpretable selectional (N) feature, indicating that it must merge with a noun or noun phrase (NP) to form a determiner phrase (DP). This selectional [N] feature of D is eliminated upon its merger with an NP complement, as shown in example (**Figure 3a**). Similarly, the modal 'can' has a selection feature (V), which requires it to merge with a verb or verb phrase (VP), as demonstrated in **Figure 3b**, and so forth[24].
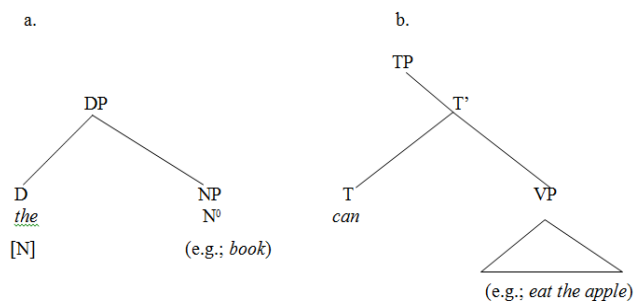
Figure 3. An uninterpretable selectional (N) feature.

2.5. Agree

When two elements share certatain grammatical features, they are known to be in Agree relation. Agree is an integral derivational operation in MP[25]. The operation involves two components: Probe and Goal. The probe must be active to engage in an agree-relation. It becomes active if it possesses an unvalued feature, enabling it to value its features by searching for an active goal that has matching features, albeit valued. To enhance the clarity of this operation, Chomsky[14] established a clear distinction among syntactic features. Specifically, he categorizes Syntactic Features into two types: those that are semantically interpretable (e.g., a pronoun with the features [3M.SG] represents different entities compared to a pronoun with the features [3F,PL]), and those that serve a purely syntactic role, termed [formal features][26]. The former, known as interpretable features, enter the computation already valued, whereas the latter, uninterpretable features, enter unvalued but acquire values during the computation. Consequently, by the time of Spell-Out, all features must be valued. In **Table 1** below, Al-Horais[23] (p. 15) outlines the fundamental uninterpretable and interpretable features according to the MP.

Table 1. Fundamental uninterpretable and interpretable features according to the MP.

Uninterpretable	Interpretable
Φ -features [1] on T, v, C ... tense features on V case features on DP EPP features (D) on T, C, v, Neg...	Φ -features on DPs… tense features on T

By the interface condition FI, "there can be no superfluous symbols in representations"[14], (p. 27), therefore, the uninterpretable features lack semantic interpretation at the interfaces, and henceforth, they must be eliminated prior to

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[1] Φ –features (or phi-features) means the person, number, and gender features of a category.

semantic representation.

Subject-verb agreement and nominative case are interconnected. This relationship is understood by positing that both agreement and case are conferred during the same Agree operation. As described earlier, Agree involves a relationship where a probe (such as T) searches for a category to value its unvalued phi-features (i.e., an expression it can agree with), referred to as a goal (which can be a subject DP). The DP that T targets to value its unvalued phi-features is concurrently the DP to which T assigns nominative case. It is important to note that the DP targeted by T is invariably the nearest one that lacks a valued case-feature, typically the subject. Generally, noun and pronoun expressions receive case markings from the nearest case-assigner that c-commands them. Thus, there exists a reciprocal feature-valuing relationship between T and a D/DP: T receives phi-feature values from D/DP, and in return, D/DP is assigned a case-feature value.

It should be reiterated that when an Agree relation is successfully formed, the uninterpretable features are stripped from the narrow syntax and transferred to morphology/phonology, as Chomsky[26] notes, because they are "phonetic effects." These features cannot persist until Logical Form (LF). If, for any reason, these features are not eliminated during the derivation to LF, the derivation will fail. Agree relation fails when the goal is inactive having unvalued features or the probe is unable to descend the derivation alternately in search of another element that may serve as a suitable goal. If it does so, it would breach the Defective Intervention Effect Principle which forbids the formation of an Agree relation when a nearer yet inactive goal comes between a probe and another goal in the configuration[27].

Discussing Agree relation in the light of phase theory, and according to Phase Impenetrability Condition (PIC), from Chomsky[27] and further elaborated by Boeckx and Grohmann[28], an Agree operation cannot occur between a probe at the root node and a goal within the domain controlled by a lower phase head. Chomsky[14] highlights that for minimal computational effort, the probe should only search within its closest c-command domain to find a goal, meaning only the phase head and its specifiers are considered active for the Agree process. Essentially, this principle clarifies that a probe must be located within the same phase as its goal for an agreement to be possible (**Figure 4**).
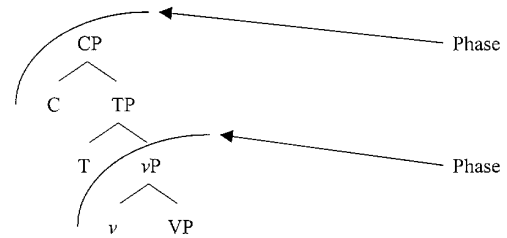

Figure 4. Agree relation in the light of phase[23], (p. 24).

2.6. Move

Chomsky[14] illustrated that the derivation operation 'Move' is derived from Merge operation guided by economy principles. It takes the shortest route. Chomsky[27] proposed the Minimal Link Condition (MLC) as an efficiency requirement for the syntactic operation called Move, to prevent unnecessarily long movements when a shorter, valid option exists. The MLC, detailed in Chomsky[14], imposes a locality constraint on syntactic movement. It states that the movement of an element to a target is obstructed by another element if this intervening element is closer to the target and capable of fulfilling the same grammatical requirement.

In an earlier version of the MP, Chomsky[14] explained that movement within a sentence is necessary to meet morphological requirements. Specifically, elements in a sentence must move to fulfill certain syntactic features, such as structural Case or the phi-features of Tense (T) and other agreeing categories. This movement is crucial as it allows for features that couldn't be checked in their original position to be validated in a new configuration. This process is facilitated by the Agree operation, where a feature value needed by one category is provided by another element in the sentence. The Move operation not only merges an element Y into a position XP, making Y the specifier of XP, but also ensures that necessary features are checked and agreed upon. This feature transfer helps satisfy various syntactic constraints. Chomsky[14] divided the movement operation into two: Overt Movement and Covert movement. Overt movement occurs to satisfy morphological properties (known as formal features) before the Spell-Out operation, and it is not preferable in the sense of being costly in terms of economy conditions. The Covert movement is cost-free as illustrated in Culicover[29] as shown in **Figure 5**.
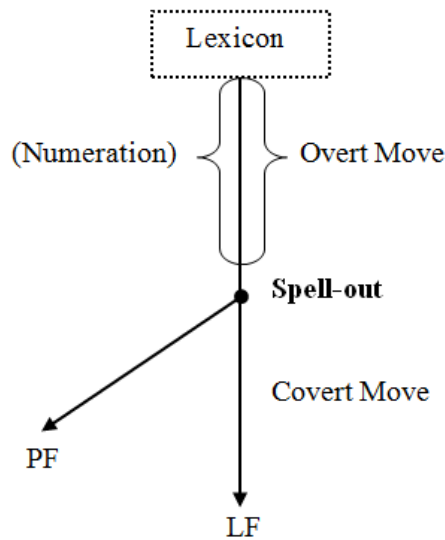
Figure 5. Overt and covert movement.

Recently, Movement is interpreted to be occurred to satisfy EPP feature in the more recent Agree-based framework. By reviewing the main operations that underlie the derivation process in forming English structures, and by clarifying how computational mechanisms are used to successfully complete the derivation and eliminate the valued features before the Transfer and the Spell-Out interface, the author seeks a deeper understanding of the areas of deficiencies in the syntax competence of freshman English learners at universities, using freshman EFL learners at the University of Bisha as a specific example. Before applying such approaches, I need first to review previous studies that focus on investigating the syntactic errors performed by EFL learners or speakers using scientific theories. This review aims to verify where the error occurs clearly, which linguistic theory is utilized in the study, how the structure is considered deviant, what happened in the derivation process that leads to its failure, and how linguists and instructors might benefit from such an analytical study.

2.7. Previous Studies

Research into the syntactic errors interpretation and analyzing the syntactic deviant structures made by non-native English speakers scientifically within linguistic theories provides valuable insights into how syntactic errors emerge, why such errors occur and how they can be corrected and explained.

In the Nigerian context, Lawal[12] explored how specific syntactic forms and lexical-semantic variations in Nigerian English relate to the local socio-cultural and linguistic environments of Nigeria to reduce potential misunderstandings and enhancing intelligibility among native speakers and other proficient users of English in Nigeria. The study's findings also address the implications of deviance and deviation for international communication and suggest strategies for maintaining effective communication across different dialects of English. In the same vein, Opara[13] conducted a study aiming to identify and analyze syntactic deviations in Popular Nigerian English (PNE). The study was theoretically grounded in Halliday's Systemic Functional Theory (SFT), which posits that language functionally evolves in response to the demands of its societal context and varies based on cultural and situational contexts. The research utilized a quantitative approach, selecting 300 English-speaking Nigerians from various federal educational institutions. Findings indicated that students' writings deviated from Standard British English. These deviations primarily arise from new socio-cultural realities specific to the Nigerian context. Udoka[8] on the other hand, explored syntax-based errors in students' narrative essays at Ritman University, focusing specifically on deviations associated with verb usage. It addresses the increasing prevalence of ungrammatical constructions and verb misuse in Nigerian university students' writing. Her study aims to identify the factors contributing to these syntactic errors. The findings reveal that verb-related issues significantly contribute to syntactic breakdowns in students' writing. The study concludes that addressing these errors requires teachers to thoroughly analyze students' mistakes to improve instructional methods.

Arista and Subandi[7] conducted a study that focuses on syntactic errors made by beginner-level Mandarin learners. The primary aim of the research was to analyze and describe the types of syntactic errors found in discourse texts written by these students, a process influenced by the interference of the learners' mother tongue. The researchers collected 40 student texts as the corpus for their analysis. The errors were systematically categorized and analyzed using the Corder error analysis model. The study identified three main types of syntactic errors: (1) phrase-level errors, including improper wording, redundancy, omissions, misuse of superlatives, double denominations, and diction errors; (2) clause-level errors, such as improper phrasing, overuse, and

omission of elements; and (3) sentence-level errors, featuring sentences without predicates, logical inconsistencies, non-parallel structures, incorrect or excessive use of conjunctions, and other issues related to word addition and particle removal. The findings highlight the complexity of syntax in language learning and underscore the influence of first language logic on the acquisition of a foreign language, particularly at the syntactic level.

In the western context, students' syntactic errors were also the focus on some research studies. Köroğlu[30] examined the Turkish EFL students' syntactic errors in persuasive essay. The study examined the writing of 23 EFL students at Gazi University. The study revealed that most of the errors are interlingual errors resulted by the students' mother tongue transfer. Garshol[31] studied the errors make by Norwegian young students using MP. The study adopted experimental design. Results reported that the intervention enhanced student's metalinguistic understandability. The results revealed that agreement in students scored high with 90%.

In the Arabic context, Ngangbam[32] examined the persistent syntactic errors in the written outputs of freshman English language students at Mutah University, focusing specifically on native Arabic-speaking students. He analyzed the compositions of 60 students, classifying errors into 15 distinct categories to ascertain the most frequent types of syntactic errors, identify areas of weakness, and understand problems that typically arise in writing compositions. The findings reveal that the most common issues in these compositions are attributable to interference from the students' mother tongue, misuse of sentence fragments, overuse of certain structures, and a lack of grammatical knowledge, which includes both formation and developmental errors. Almahameed and Al-Shaikhli[5] investigated the syntactic and semantic errors made by Jordanian learners of English as a foreign language (EFL) in written compositions. A total of 30 Jordanian EFL learners were tasked with writing a composition of no more than 150 words on a specific topic. The collected essays were analyzed statistically to identify and categorize the errors. The study identified 11 types of syntactic errors, with verb-tense errors being the most frequent (33%). Other syntactic issues included errors in agreement, auxiliary verbs, conjunctions, word order, resumptive pronouns, null-subjects, double-subjects, superlatives, comparatives, and possessive pronouns. Additionally, semantic errors were divided into two categories: Errors at the word level (82%) and Errors at the sentence level (18%). The findings indicate that Jordanian EFL learners struggle significantly with both syntactic and semantic aspects of English, suggesting that their knowledge in these areas is insufficient.

In the Saudi setting, Nuruzzaman et al.[15] studied the syntactic and other errors in English paragraph writing by 90 Saudi non-English major undergraduates from King Khalid University. These students, who varied in proficiency and studied English as a foundation course across three faculties during the 2016–2017 academic year, demonstrated errors categorized into grammar, vocabulary, semantics, and mechanics. The analysis found that grammar was the most common area of error. Notably, students from the College of Medicine committed the fewest errors, while those from the Engineering College made the most, with Computer Science students in between. The study also noted variations in error frequency among the different student groups. Similarly, Alqhtani[16] examined syntactic errors in the written compositions of Saudi secondary school EFL learners, focusing on the types of errors made and their underlying causes. The research involves 15 female third-grade secondary students from the Third Secondary School for Females in Al-Quway'iyah. To gather data, the students were given a diagnostic writing test, where they wrote about one of three given topics. Their errors were categorized into 15 different types and analyzed using the Error Analysis Matrix. The findings indicate that EFL learners face significant challenges in syntax, with frequent errors in punctuation, articles, spelling, verbs, conjunctions, capitalization, sentence fragments, lexicon, subject omission, pronouns, prepositions, adjectives, and nouns. These errors impede the clarity of their written texts. The study identifies two primary causes of these syntactic errors. Including Interlingual interference which means the Influence from the students' native Arabic language on their English writing and the Lack of knowledge which means Insufficient mastery of English grammar and syntax. The findings suggest a need for targeted teaching strategies to address these grammatical and syntactic issues, thereby improving the learners' writing proficiency.

This literature underscores the need for further research into error patterns across diverse learner populations to refine instructional practices and enhance teaching syntax outcomes. The proposed study will specifically explore the

most frequent deviated syntactic structures among freshmen students at the University of Bisha. By investigating these patterns, the study aims to contribute to the development of a novel instructional or teaching strategy for syntax. This strategy will leverage the MP mechanisms to facilitate understanding of where the deviant structures occur, how they are used, and how syntax can be taught more effectively using this theoretical framework.

3. Methodology

This study used a Corpus of 700 sentences to analyze syntactic deviations in English writing by 105 freshmen students enrolled in the health track at the University of Bisha. The study analyzed students' mistakes both quantitively and qualitatively. Frequencies and percentages were used to display the prevalent errors types. MP is also used to explain the deviations in students' syntactic deviations. The participants constitute all females studying at first year. Female students were only selected because the policy of Saudi educational system and cultural heritage where no coeducation is allowed. The students were selected conveniently. They are expected to possess a foundational knowledge of English, enabling them to compose simple written texts. The primary data source comprised 105 writing compositions, each approximately 150 words, collected through a writing test on

a single topic: "Activities I Like to Do in My Free Time". These compositions were systematically analyzed to identify and categorize syntactic errors.

The researcher was aware about the research ethics. The researcher got a permission from the ethic committee in the college to pertain the research on fresh students. The researcher safeguarded the anonymity of the students where no names were displayed on the findings. Students were also explained the purpose of the research before they participated in the study. Yet, students voluntarily participate in writing the compositions and they were told if they want to cease writing they can do so.

3.1. Reliability

Initially, the researcher constructed a table to classify the errors, employing color-coding to differentiate between the various types of syntactic deviations. Before starting the analysis, the researcher introduced the analysis MP model to an expert in linguistics to check the smoothness of the analysis and avoid bias. Five of the students' writing was analyzed separately according to the model in **Table 2**. The number of errors identified by interrater scored 30 errors while the researcher's analysis counted 27. This shows a very high reliability scale where the Pearson Correlation scored 0.92. This percentage gives credibility of the analysis of the results.

Table 2. Correlation between the researchers' analysis and interrater.

The Syntactic Devinat Structure	Frequency		Pearson Correlation
	Author	Linguistics Expert	
Verb complement	1	1	100
Tense and Agreement	5	5	100
No preposition	8	8	100
No subject	0	0	100
No verb	3	3	100
Misuse of determiners	3	3	100
Word order	0	1	50
Misuse of possessive pronoun	0	0	100
Embedded sentences	0	0	100
Double verb, misuse of aux or modal	5	6	83
Double subject	0	0	100
Pronoun misuse	0	0	100
Negative form	1	2	50
Conjunction Omission	1	1	100
Double object	0	0	100
Total/average	27	30	92.2

3.2. Data Analysis

To ensure the accuracy and depth of the syntactic analysis, all sentences were manually examined one by one, with all syntactic errors meticulously identified and calculated. Each analyzed sentence, along with the raw data, was then sent to a linguistics expert to review and verify the analysis. This step was implemented to assure the precision and quality of the syntactic evaluation, ensuring that the study adhered to rigorous standards of correctness. Following the qualitative analysis, the data was quantitatively processed using SPSS to measure the frequency and distribution of errors, providing insights into patterns and trends in the participants' syntactic structures.

4. Results

A total of 700 deviant structures were identified (ignoring the spelling mistakes), encompassing a range of error types such as incorrect word order, tense misuse, omissions, double subjects, misused prepositions, and errors in determiner usage. The frequency of each error type was quantified, and their percentages were calculated to highlight their relative occurrence and significance (**Figure 6**).
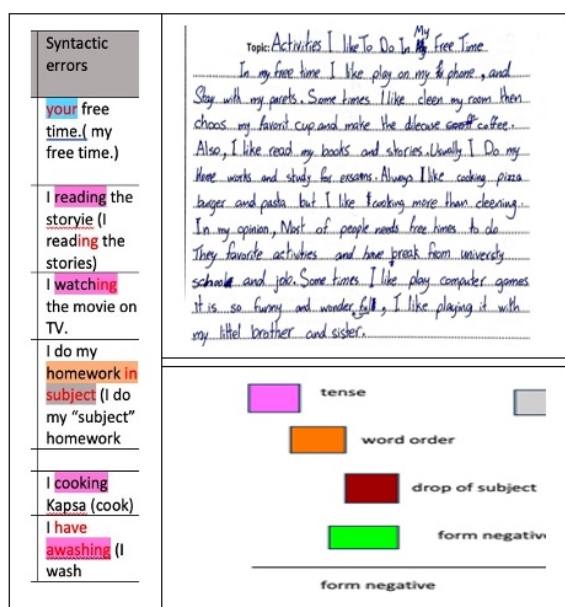
Figure 6. Procedures for analyzing students' syntactic errors.

RQ1: What is the most frequent deviant syntactic among Saudi EFL freshmen students?

To interpret the results, the study adopts the principles of the MP, a contemporary theoretical framework in syntax. This approach enabled the researcher to explain how these errors represent violations of MP principles, how they might be reconstructed in accordance with these principles, and how the MP framework facilitates a deeper understanding of language structure. The author visualizes the rules violations utilizing the X-bar tree diagrams in some examples that need more illustration.

By using MP, the study seeks to present an innovative explanation of syntactic errors in a computationally relevant and theoretically robust manner, demonstrating how these principles can provide a precise and elegant account of language structure. The following **Table 3** outlines the percentage distribution of the identified error types, serving as the foundation for an in-depth analysis aimed at addressing these prevalent syntactic issues.

By interpreting these deviations within the framework of Chomsky's MP, I can pinpoint how and why these errors arise and propose structural reconstructions to align with grammatical standards. The analysis reveals that Verb Complement Errors constitute the most frequently occurring syntactic error type, with 157 instances accounting for 22.43% of the errors in the corpus. This high rate indicates significant challenges faced by freshmen in mastering VP formation, which breaches numerous principles of the Minimalist Program. Following closely, errors related to tense and agreement are also common, totaling 148 instances and comprising 21.14 % of the errors. These examples notably violate tense and agreement rules, highlighting further difficulties in syntactic accuracy. Additionally, other errors such as omission of prepositions (65, 9.28%), subjects (53, 7.57%) or verbs (69, 9.85%), incorrect use of modifiers (71, 10.14%) or determiners, and misuse of possessive pronouns (24, 3.42%). Less frequent errors include incorrect word order, formation of embedded sentences, redundant verb use, incorrect application of auxiliary verbs or modals, pronoun misuse, errors in forming negatives, omission or duplication of conjunctions, and doubling of objects. Under this section, and I will give an interpretation of the syntactic deviations according to MP principles.

RQ2: How can Saudi EFL students' deviant structures be interpreted using the MP approaches?

In this section, I will analyze some examples from the corpus that illustrate the six most frequently occurring syntac-

Table 3. Frequency of Saudi students' syntactic errors.

	The Syntactic Devinat Structure	Frequency	Percentage
1	Verb complement	157	22.43
2	Tense and Agreement	148	21.14
3	No preposition	65	9.28
4	No subject	53	7.57
5	No verb	69	9.85
7	Misuse of determiners	71	10.14
8	Word order	42	6
9	Misuse of possessive pronoun	24	3.42
10	Embedded sentences	17	2.42
11	Double verb, misuse of aux or modal	19	2.71
12	Double subject	14	2
13	pronoun misuse	9	1.28
14	Negative form	5	0.71
15	conjunction Omission	5	0.71
16	Double object	2	0.28
	Total	700	100

tic deviations found in texts written by health track freshmen students who are EFL learners, applying MP rules. Consider Example 1 from the corpus:

Example 1. * *I try learn drive with sister*

Let's now analyze the deviant structure using the tree diagram to show where the error occurs and how it causes the derivation to crash (**Figure 7**).
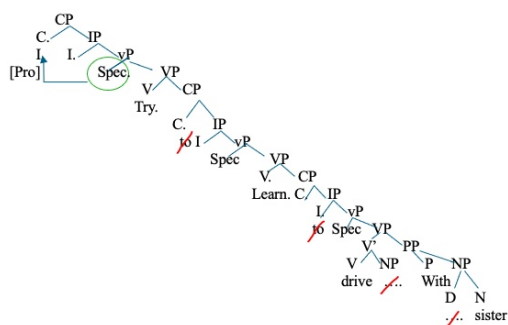
Figure 7. Analyzing the deviant structure using the tree diagram.

In English syntax, verbs that require another verb as an argument typically necessitate a complementizer, such as 'to', or an appropriate verb inflection. In (9), For instance, the verb 'try' should be followed by 'to', as in 'I try to learn'. This inclusion of 'to' satisfies the requirement for a complementizer, which facilitates the movement or linking of the infinitive verb 'learn' within the sentence structure. The same is true with 'to drive'. In addition, 'drive' needs to control an internal argument NP 'e.g. a car' and assign it an accusative case. However, it is omitted in this structure as shown in the tree-diagram above.

Furthermore, the Prepositional Phrase (PP) is constructed by combining the prepositional head 'with' with a Noun Phrase (NP). In this context, the determiner, which possesses an uninterpretable selectional (N) feature, indicates a necessity to merge with a noun or NP to form a Determiner Phrase (DP). This selectional [N] feature of the determiner is eliminated upon merging with an NP complement. In this example, as no determiner is selected from the Numeration, the Full Interpretation (FI) is not achieved before the Spell-Out interface. This results in the structure being transferred to Phonological Form (PF) and Logical Form (LF) incorrectly. Additionally, the selectional features of the preposition 'with' remain unvalued due to the formation of an ill-formed NP. Consequently, the derivation fails, leading to a syntactically flawed sentence. Let's consider the following example in 2 as one instance from the corpus resembling errors related to tense and agreement:

Example 2. *If someone **ask** me what is your favorite city, I will say London.*

I am going to analyze the sentence using one of the three tests as explained before, the operation of Agree involves two components: Probe and Goal. The probe must be active to engage in an agree-relation. It becomes active if it possesses an unvalued feature, enabling it to value its features by searching for an active goal that has matching features, albeit valued. In 3 'someone' has semantically interpretable features [3rd Person, singular] enter the computation

already valued. The Probe is the verb 'ask' and it carries un-interpretable features. It searches for a category to value its unvalued phi-features referred to as a goal (which is 'some-one in this example'). 'ask' is the T that targets 'someone' to value its unvalued phi-features and to assign a nominative case to it. As you can see, the DP 'someone' that is targeted by T 'ask' is invariably the nearest subject that lacks a valued case-feature. 'someone' receives the case markings from the nearest case-assigner T 'ask' that c-commands it. In this example, 'ask' has no -s as present tense feature which shows that there is no feature-valuing relationship between T and a D/DP: T does not receive phi-feature values from D/DP, and in return, D/DP is not assigned a case-feature value. Since the Agree relation is unsuccessfully formed, those features are not eliminated during the derivation to LF before the Spell-Out step, and the derivation fails which results in the deviant structure in 2. From the syntactic deviant structures from the corpus that lack the preposition is the following instance in 3 and **Figure 8**.
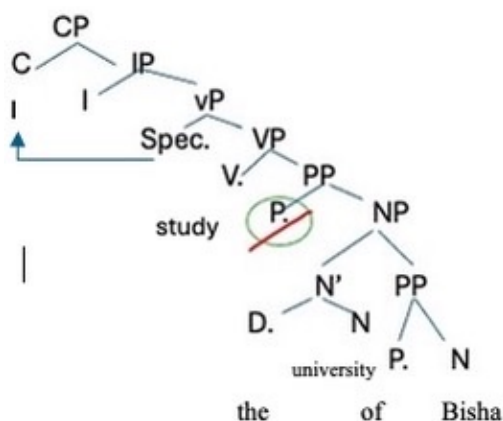

Figure 8. Lack of the preposition.

Example 3. *I study the university of Bisha.*

This structure has no preposition 'at'. However, the preposition complement occurs which is 'the University of Bisha'. According to the MP feature and Checking theory, prepositions carry specific features that need to be checked against an NP in the syntax. The absence of the preposition means unchecked case features in DP and leads to the failure of the operation Merge in the derivation process. Without the preposition, there no case assignment to the NP that followed it leading to uninterpretable case features on DP 'the univer-sity of Bisha'. Which leads to a violation of the MP rules in the feature checking theory and leads to form a syntactic

incomplete form. Among the common syntactic errors was the omission of the subject. The chosen example 4 from the corpus lacks a suitable subject pronoun which is 'I' since the student was talking about herself in the writing composition (**Figure 9**).
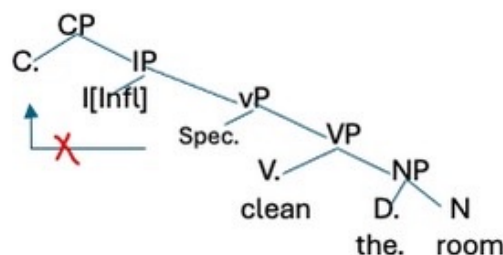

Figure 9. Lacks a suitable subject pronoun.

Example 4. **clean the room.*

Minimalist Program proposed by Noam Chomsky, the Extended Projection Principle (EPP) and feature checking are central concepts that help explain why certain syntactic elements must be present in sentences for them to be consid-ered grammatically well-formed. In 4, where a sentence from a student's composition omits the subject, and is intended to be declarative rather than imperative, the EPP and feature checking needs to be fulfilled and in examples written in English, the subject needs to occur overt and moves overtly from [Spec, vP] to [C, CP] to be assigned a nominative case and to have uninterpretable features valued. In 4, T 'clean' carries EPP feature that triggers an NP to occupy its specifier position. In addition, the verb 'clean' needs to agree with a subject in terms of number and person. However, without an overt subject, these features go unchecked, which leads to a failure in the syntactic derivation according to minimalist criteria. In the syntactic deviant examples with no verb in the corpus, I chose the following in 5.

Example 5. ** I a student.*

In this sentence, the main verb is omitted leading to a violation of the Agree relation and case marking between the probe T 'the verb' and the goal DP 'the subject'. The DP 'I' needs T 'a verb' to assign a nominative case. Generally, noun and pronoun expressions receive case markings from the nearest case-assigner that c-commands them. When it is dropped, the probe is inactive, and the T uninterpretable features are not valued and eliminated before transferring to the interface; the Spell-Out. Moreover, the missing category is an auxiliary 'verb to be' which is essential for linking the subject 'I' to the predicate expression 'a student'. When the

necessary linkage that assigns the predicate to the subject through the verb's copular function is absent, this results in a failure to establish a clear grammatical relation between the subject and the complement. Regarding satisfying EPP, there is a requirement of the presence of a specifier of TP which is the DP 'I' in this Example 5. However, the TP also needs to have its head filled, which is where the verb 'to be' comes in. Without it, the structure lacks a head that satisfies the EPP feature of T, leading a violation of the derivation and a formation of a deviant structure. In addition, lacking 'verb to be' in 5 means lacking the tense feature which is a crucial aspect of the verb function which remains unexpressed leading to ambiguity regarding the time reference of the statement.

Let's now consider the syntactic deviant structures that lack determiners. Example 6 is an example from the corpus which is deviant because of the misuse of the determiner 'an'.

Example 6. ** I have an activities to do.*

The determiner sets up an expectation about the noun it precedes. It is crucial for noun phrase identification and specification. In 6, there is a lack of agreement between the determiner and the noun it modifies. Incorrect use or the wrong type of determiner can lead to a failure in these agreement features.in addition, Determiners have selectional restrictions that dictate which nouns they can specify. In the previous example 'an' is the determiner that specifies a singular noun to be selected by the D and merged D and NP.

In the sentence 'I have an activities to do'. The deviation primarily involves the misuse of the determiner 'an' with the plural noun 'activities'. 'This example violates syntactic norms concerning determiner-noun agreement within the framework of MP. In English, the determiner 'an' is an indefinite article used exclusively with singular nouns. It carries the features of singularity and is expected to precede a singular noun that begins with a vowel sound. The noun 'activities' is plural, which creates a feature mismatch between the determiner and the noun. The singular feature of 'an' fails to match the plural feature of 'activities, leading to a failure in feature checking. This mismatch results in an ungrammatical or ill-formed sentence because the features of number (singular vs. plural) are not properly aligned.

5. Discussion

The data analysis revealed that the most frequent deviant syntactic structure in the compositions written by freshmen students at the University of Bisha is related to verb complements. This error type, occurring in 22.43% of the identified deviations, primarily involves incorrect formation of verb phrases, particularly with errors in complementizer use. Students frequently omitted necessary complementizers such as 'to' in constructions that require an infinitive. For example, in a sentence like 'I try learn drive, the appropriate form should be 'I try to learn to drive.' In addition, 'drive' is a transitive verb that needs to be followed by NP argument to assign it accusative case, to value the features and eliminate them before the Spell-Out interface. This error indicates a significant challenge for students in forming proper verb phrases, which are critical for conveying precise meanings in English. The results concerning deviations in syntactic structures, which include omissions or misuses of certain syntactic categories—whether lexical or functional—and their impact on conveyed meaning, resonate with findings from several previous studies[15, 32–34]. These studies collectively aim to explore the most prevalent challenges faced by English learners, enhancing the comprehension of syntax. While they similarly focus on analyzing syntactic errors to measure frequency and foster mastery over syntax, they exhibit variations in demographic contexts, methodologies, and theoretical frameworks employed. Significantly, my study leverages MP mechanisms to trace the steps of derivation, thereby illuminating any violations that occur. This is achieved through the use of diagrams that visualize the interfaces, highlighting instances of deviant omissions, incorrect merging, or inappropriate movement.

The extensive analysis of syntactic deviations, particularly those related to verb complements, tense and agreement errors, as well as omissions and determiner misuse, underscores a critical challenge in the syntactic competence of freshmen students at the University of Bisha. The frequent occurrence of these errors, especially the high prevalence of verb complement errors as evidenced by incorrect formation and omission of essential components such as complementizers, highlights a significant gap in understanding the structural aspects of English syntax. These findings agree with many previous studies. For example, Hinkel[2] reported that non-native speakers struggle in using convenient tense and

aspect. The finding agrees with Talosa and Maguddayao[35] who reported that tense errors, and pronoun-antecedent mismatches are prevalent among Filipino ESL learners. The findings are also aligning with Radford[24] who showcased that MP provides a realistic model for comprehending students' deviation in language use.

6. Conclusions

This study was primarily aimed at understanding the deviations in the process of derivation in forming syntactic structures within English compositions by first-year health track students at the University of Bisha. The focus was to pinpoint where errors occur, elucidate why these deviations are classified as errors, and interpret these rule violations using principles and approaches derived from the MP.

The findings indicate that the most prevalent form of deviant structures among these students pertains to verb complements, suggesting a significant challenge in the interface of lexical selection and functional projection. Following verb complements, errors related to tense and agreement were notably frequent, alongside other syntactic deviations such as those involving movement and case features.

Interpreting these results through the lens of the MP, it appears that the majority of these errors can be attributed to improper checking of features or to faulty movement processes, which are essential components of MP's theoretical framework. This analysis not only underscores the robustness of MP in explaining syntactic deviations but also highlights its innovative application as a mediating tool in understanding the complexities of syntax. By identifying the points of breakdown in syntactic derivations, MP offers a powerful explanatory paradigm that enhances our pedagogical approaches and theoretical models for addressing syntactic competence in academic settings. The study has focused on students at Medical track at Bisha University. This may prevent generalizing the findings. However, further studies are recommended to recruit students from various Saudi universities which ensure generalizing the findings. This limitation does not minimize the significant of the study and its novelty in applying MP in analyzing students' syntactic errors. The study recommends instructors to train their students on the use of MP to help them identify their syntactic mistakes.

Thus, employing the MP as a mediation tool to explain syntax proves to be an innovative approach, offering significant insights into the nature of syntactic errors and providing a coherent framework for their academic exploration and resolution.

Institutional Review Board Statement

Research permits were obtained from the Department of English Language and Literature.

Informed Consent Statement

Informed consent was obtained from all the students involved in the study.

Data Availability Statement

The data supporting the findings of this study are available on request.

Conflicts of Interest

The author declares no conflict of interest.

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