Transformational Grammar in Chichewa: Understanding Transformational Rules

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Abstract:- **This paper examines key transformational rules in Chichewa syntax, emphasising how speakers often produce grammatical sentences in surface structure. Interestingly, as a first language for most Malawians, it is acquired naturally through exposure, Chichewa speakers may produce correct sentences without being consciously aware of the transformational rules applied to arrive at them. Despite lacking explicit knowledge of deep structure, they generate well-formed sentences by navigating these rules intuitively. This study focuses on transformational rules such as dative movement, equivalent phrase deletion, reflexivisation, passivisation, imperative subject deletion (also known as "you deletion"), and there-insertion. The paper demonstrates how Chichewa speakers effortlessly apply complex syntactic operations, resulting in sentences that reflect underlying syntactic transformations. This study highlights how speakers intuitively modify sentence structure, leading to profound changes while maintaining semantic coherence. The analysis not only emphasises the dynamic relationship between deep and surface structures but also contributes to a deeper understanding of the broader field of syntactic theory. This paper offers an invaluable resource for scholars interested in Bantu linguistics and transformational grammar, paving the way for further cross-linguistic exploration.**

Keywords:- *Transformational Rule, Deep Structure, Surface Structure, Structural Description, Structural Change.*

I. INTRODUCTION

Chichewa sentences often undergo transformations that alter their surface structure while preserving meaning in the deep structure. Deep structure is the first structure of the sentence to which transformational rules can apply but to which none has applied yet while surface structure is a structure of the sentence that has been affected by the transformational rule on which the pronunciation of a sentence is based (Mjaya, 2003). The syntactic rules enable speakers to generate a variety of sentence constructions. However, many Chichewa speakers intuitively produce sentences without an explicit awareness of the deep structure representing the untransformed, underlying form. They don't know the structural changes that have taken place. This phenomenon is particularly evident when examining transformational rules.

II. TRANSFORMATIONAL RULES

Transformational rules in syntax refer to the operations that systematically alter the structure of a sentence as it moves from its deep structure—the abstract, underlying form that represents its core semantic relationships—to its surface structure, which is the final form expressed in speech or writing (Boeckx, 2006). These rules enable different surface structures to express the same underlying meaning by reordering, inserting, or deleting elements, thus providing flexibility in sentence construction. According to Chomsky (1965), transformational rules are central to generative grammar, which posits that many sentences are derived from a common deep structure through a set of syntactic transformations.

For example, in passive constructions, the subject and object can switch roles without altering the sentence's core meaning. In Chichewa, this is demonstrated by the following:

- Active: Mwana anaŵerenga buku (The child read a book).
- Passive: Buku linaŵerengedwa ndi mwana (The book was read by the child).

These rules are essential for understanding language variation and complexity, as they account for how speakers can generate a wide range of syntactically diverse but semantically equivalent sentences. Transformational rules illustrate how deep structure can be manipulated to produce different surface forms, allowing languages like Chichewa to adapt meaning to specific syntactic and communicative contexts (Radford, 1988). These syntactic processes highlight the dynamic interplay between structure and meaning in human language, demonstrating how transformational grammar provides a framework for analysing both the universality and variation within and across languages.

III. DEEP STRUCTURE (DS)

Mjaya (2003) defines deep structure as the underlying syntactic structure of a sentence before any transformational rules have been applied, capturing its essential meaning. In Chichewa, deep structure reflects the sentence's basic word order, typically Subject-Verb-Object (SVO).

For example, the deep structure of the sentence Mwana adaŵerenga buku ("The child read a book") remains untransformed, showing the direct relationship between the subject (mwana), the verb (adaŵerenga), and the object (buku). However, through transformations, this deep structure can be altered to create different surface forms.

Consider these examples:

➤ *Passivisation:*

• Deep structure: Mwana adaŵerenga buku (The child read a book).
• Surface structure: Buku lidaŵerengedwa ndi mwana (The book was read by the child)

➤ *Question Formation:*

• Deep structure: Mwana adagula chiyani? ("The child bought what?")
• Surface structure: Chiyani chimene mwana adagula? ("What did the child buy?")

Chomsky (1965) initially developed the concept of deep structure within generative grammar, illustrating how transformations account for variations in sentence forms across languages. In Chichewa, these transformations show how deep structure is altered while meaning remains constant, demonstrating the flexibility of syntactic processes.

IV. STRUCTURAL DESCRIPTION (SD)

Structural description is the identification of the original grammatical components of a sentence, such as the subject, verb, and object, and how they are arranged about each other (Lasnik, 2006). It provides a framework for analysing how sentences are structured across different languages, focusing on the relationships between constituents in the deep and surface structure. According to Carnie (2013), structural description helps to explain how sentences are formed and transformed through a series of rules and operations. In Chichewa, the basic word order follows a Subject-Verb-Object (SVO) pattern, but transformational rules can modify this structure. For example, in a simple sentence like "Mwana adadya nthochi" ("The child ate bananas"), "Mwana" (subject) precedes "adadya" (verb), which is followed by "nthochi" (object). However, the application of transformational rules can lead to variations such as passivisation, where the object becomes the subject, as seen in "Nthochi zinadyedwa ndi mwana" (Bananas were eaten by the child).

V. SURFACE STRUCTURE (SS)

Surface structure is a syntactic form of a sentence after transformational rules have been applied, shaping how it is expressed in speech or writing (Mjaya, 2003). Surface structure results from various syntactic operations that modify the underlying deep structure. Surface structure is crucial in understanding how languages like Chichewa allow for flexible sentence constructions through operations. These operations enable speakers to produce grammatically correct sentences even when the underlying syntactic relationships have been transformed (Chomsky, 1965). Surface structures represent the final output of syntactic processes and are what speakers produce and hear, revealing the dynamic nature of sentence formation across languages. In Chichewa, surface structures are useful in understanding transformations like passivisation and imperative subject deletion, where the surface word order diverges significantly from the deep structure.

VI. STRUCTURAL CHANGE

Structural changes in transformational rules refer to the syntactic modifications that occur when a sentence's deep structure is transformed into its surface structure (Haegeman, 1994). These changes often involve reordering constituents, inserting or deleting elements, or altering grammatical relations. In Chichewa, such transformations are evident in rules such as dative movement, and passivisation. These structural changes illustrate how transformational rules reshape the sentence while preserving its meaning, as noted by Chomsky's (1965) theory of transformational grammar. Such transformations highlight the flexibility and complexity of Bantu syntax, where surface structure differs significantly from deep structure due to these applied rules.

VII. DATIVE MOVEMENT

Dative movement is a transformational rule in syntax that shifts the indirect object of a sentence closer to the verb, reordering constituents without changing the underlying meaning. In the deep structure, a sentence typically has the order of subject-verb-direct object-indirect object (Jackendoff, 1977). However, when dative movement applies, the indirect object is moved to a position immediately after the verb, resulting in a more compact sentence structure. This transformation is common in many languages, including Chichewa.

For example, consider the deep structure (DS) sentence in Chichewa:

DS: Mwana waŵagulira mphatso amayi (The child bought a gift for the mother).

In this sentence, mphatso (gift) is the direct object, and amayi ("mother") is the indirect object, following the default SVO (Subject-Verb-Object) word order of Chichewa.

After the application of the dative movement rule, the surface structure (SS) becomes:

SS: Mwana anaŵagulira amayi mphatso ("The child bought the mother a gift").

The structural description (SD) and structural change (SC) can be represented as follows:

SD: NP1 + V2 + NP3 + NP4
Mwana anawagulira mphatso amayi

SC: NP1 + V2 + NP4 + NP3
Mwana anawagulira amayi mphatso

Here, the indirect object *amayi* is moved immediately after the verb *anawagulira* ("bought"), while the direct object *mphatso* shifts to follow the indirect object, illustrating the typical surface structure after dative movement.

This structural change highlights how Chichewa speakers use dative movement to make sentences more concise, ensuring the indirect object is placed in a more prominent position. While the semantic meaning remains unchanged, this transformation can affect the sentence emphasis, often bringing more focus to the recipient of the action (in this case, *amayi*).

The dative movement reflects how transformational rules allow syntactic flexibility while preserving meaning (Chomsky, 1965). In Chichewa, this transformation is particularly significant because Bantu languages often prioritize information flow and discourse strategies, which are achieved through such syntactic operations (Adger, 2003). Moving the indirect object closer to the verb, speakers can subtly alter the information structure of the sentence, potentially highlighting the recipient's role in the action.

VIII. PASSIVISATION

Passivisation is a transformational rule in syntax where the object of a sentence in the deep structure becomes the subject in the surface structure, while the original subject is either omitted or demoted to an oblique phrase (often introduced by "by"). This transformation is particularly useful for shifting focus from the doer of an action to the recipient or the action itself. In Chichewa, passivisation involves adding the passive morpheme -idwa or -edwa to the verb.

Consider the deep structure sentence in Chichewa:
DS: Peter Anawerenga buku ("Peter read the book").

Here, *Peter* is the subject, *anawerenga* ("read") is the verb, and *buku* ("book") is the object.

When the passivisation rule applies, the surface structure becomes:
SS: Buku linawerengedwa ndi Peter ("The book was read by Peter").

SD: NP1 + V2 + NP3
    Peter   anawerenga   buku

SC: NP 3 + V (Passive) + NDI + NP1
    Buku   linawerengedwa   ndi   Peter

In this transformation, the object *buku* ("book") moves to the subject position, and the passive marker *-edwa* is added to the verb *anaŵerenga*. The original subject *Peter* is demoted to an optional oblique phrase introduced by ndi ("by").

This structural change illustrates how passivisation shifts the syntactic focus from the agent acting to the patient receiving the action, a common strategy in many languages for varying sentence emphasis. Passivisation in Chichewa and other Bantu languages reflects a general syntactic flexibility that allows speakers to alter sentence structure while maintaining meaning (Mjaya, 2003). The passive voice plays a crucial role in discourse management, allowing speakers to highlight different parts of the sentence depending on the context or communicative intent.

IX. EQUIVALENT NOUN PHRASE DELETION

Equivalent noun phrase deletion is a transformational rule that involves removing repeated noun phrases with equivalent meanings within or across related sentences. This deletion enhances concision and avoids redundancy, a common feature in many languages, including Chichewa (Mjaya, 2003). The rule typically applies when two or more clauses contain identical noun phrases, allowing for the omission of one while preserving the sentence's overall meaning and grammatical structure.

Consider this example from Chichewa:
DS: Mphunzitsi adadya mango, ndipo mphunzitsi anaŵakonda mango (The teacher ate mangoes, and the teacher liked the mangoes.)

In this deep structure, the noun phrases mphunzitsi ("the teacher") and mango ("mangoes") are repeated in both clauses, creating redundancy.

After applying the equivalent noun phrase deletion rule, we get:

SS: Mphunzitsi adadya mango, ndipo anaŵakonda. (The teacher ate mangoes, and liked them.")

The structural description (SD) and structural change (SC) can be represented as:

SD: NP1 + V1 + NP2 + Conjunction + NP1 + V2 + NP2

Mphunzitsi adadya mango, ndipo mphunzitsi anaŵakonda mango.

SC: NP1 + V1 + NP2 + Conjunction + V2
Mphunzitsi adadya mango, ndipo anaŵakonda.

Here, the equivalent noun phrase mphunzitsi is deleted in the second clause, and mango is implied through object pronoun agreement, demonstrating how Chichewa speakers intuitively apply this rule to reduce redundancy.

To further illustrate this concept, consider another example:

DS: Ana adaŵona mbalame, ndipo ana adathamanga kukaŵona mbalame. (The children saw birds, and the children ran to see the birds.)

SS: Ana adaŵona mbalame, ndipo adathamanga kukadziŵona. (The children saw birds, and ran to see them.)

This transformation is significant in understanding how Chichewa handles redundancy while maintaining clarity. It provides insights into the economy of language, where speakers favour efficient expressions. According to transformational grammar theory (Chomsky, 1965), such rules contribute to the flexibility of sentence formation by reducing unnecessary repetition.

Interestingly, while equivalent noun phrase deletion is common in many languages, its application can vary. In Chichewa and other Bantu languages, this transformation occurs frequently, especially in complex sentences (Radford, 1988). This prevalence might reflect the agglutinative nature of Bantu languages, where grammatical information is often encoded in affixes, allowing for more flexible deletion of noun phrases without loss of meaning.

X. REFLEXIVISATION

Reflexivisation is a transformational rule where a reflexive pronoun is introduced into a sentence to indicate that the subject acts upon itself (Chomsky, 1965). While many languages use separate reflexive pronouns (e.g., "myself," "yourself," "themselves"), Chichewa, a Bantu language, employs reflexive morphology as part of its verbal structure.

This rule applies when the object of a verb refers to the same entity as the subject. It modifies the deep structure by replacing the repeated noun phrase with a reflexive marker in the surface structure, avoiding redundancy and clarifying the subject-object relationship.

Consider this example in Chichewa:

DS: Mnyamata anapha mnyamata. (The boy killed the boy.)

Here, both the subject and object *mnyamata* ("the boy") refer to the same entity, creating redundancy.

After applying the reflexivisation rule:
SS: Mnyamata anadzipha. (The boy killed himself.)

The structural description (SD) and structural change (SC) can be represented as:
SD: NP1 + V + NP1
Mnyamata anapha mnyamata.
SC: NP1 + V (Reflex)
Mnyamata anadzipha.

In the surface structure, *anadzipha* combines the verb root *-pha* ("kill") with the reflexive morpheme *dzi-*, indicating self-directed action. This transformation occurs only when the noun phrases are co-referential and clause-mates. Co-referential noun phrases are identical noun phrases that identify the same thing or person in a sentence. Clause mates are units that are found in the same clause (Mjaya, 2003).

To further illustrate, consider another example:
DS: Mtsikana anakonda mtsikana. (The girl loved the girl.)
SS: Mtsikana anadzikonda. (The girl loved herself.)

Chichewa's use of a reflexive morpheme differs from languages that use separate reflexive pronouns. This reflects the agglutinative nature of Bantu languages, where grammatical information is often encoded in verbal affixes. This method of reflexivisation is common across many Bantu languages, though the specific morpheme may vary (Freidin, 2012).

XI. IMPERATIVE SUBJECT DELETION (ISD)

Imperative Subject Deletion, also known as You Deletion, is a syntactic rule where the subject (typically the second person singular pronoun "you") is omitted in imperative constructions (Mjaya, 2003). This transformation is observed across many languages, including Chichewa, and is particularly common in imperative sentences expressing commands, requests, or suggestions.

In Chichewa, the subject *"iwe"or "inu"* (you) is understood but omitted in the surface structure of imperative sentences.

Example:
DS: Iwe pita kwanu. (You go home.)
SS: Pita kwanu. (Go home.)

The structural description (SD) and structural change (SC) can be represented as:
SD: YOU1 + V2 + X3

Iwe pita kwanu
SC: Ø + V2 + X3
Pita kwanu

In this transformation, the second-person subject "iwe" is deleted because it's pragmatically unnecessary. The listener inherently understands that they are the addressee of the command.

Consider another example:
DS: Iwe imwa mankhwala ako. (You drink your medicine.)
SS: Imwa mankhwala ako. (Drink your medicine.)

This transformation follows a universal principle in syntax: imperative formation often involves subject deletion. It explains why imperative sentences appear to lack subjects, even though the subject is understood contextually.

While this transformation is common across languages, its realisation can vary. In some languages, the imperative form may involve changes to the verb itself, while in others, like Chichewa, the verb form remains unchanged and only the subject is deleted (Mjaya, 2003).

XII. THERE - INSERTION

The there-insertion transformational rule involves inserting the expletive "there" as a syntactic subject placeholder. This rule introduces new information about existence or presence without a referential subject. While English uses "there" (e.g., "There is a book on the table"), Chichewa, employs different strategies to achieve similar semantic effects.

In Chichewa, existential constructions or the presentation of new information often use locative or existential structures, typically involving verbs like kuli ("there is"), pali, or muli ("there exists"). These serve a function analogous to the there-insertion rule in English.

Consider this example in Chichewa:

DS: Munda uli ndi chimanga. ("The field has maize.")

Here, munda ("the field") is the subject, describing the possession or existence of maize in the field.

After applying a transformation similar to there-insertion:
SS: Muli chimanga m'munda. ("There is maize in the field.")

The structural description (SD) and structural change (SC) can be represented as:

SD: NP1 + V2 + X3

Munda uli ndi chimanga

SC: V2 + NP1 + X3

Muli chimanga m'munda

In this surface structure, muli ("there is") serves an existential function similar to "there" in English. The original subject munda becomes a locative phrase m'munda ("in the field"), and the existential verb muli is inserted to establish the presence of maize.

To further illustrate, consider another example:

DS: Msika uli ndi zipatso zambiri. ("The market has many fruits.")

SS: Muli zipatso zambiri m'msika. ("There are many fruits in the market.")

This transformation reflects an important cross-linguistic phenomenon where languages develop different syntactic mechanisms to express similar ideas (Boeckx 2006). While English uses an expletive "there," Chichewa employs locative verbs, demonstrating how transformational rules can vary across languages while maintaining similar communicative functions.

XIII. IT INSERTION

The it-insertion transformational rule involves inserting "it" as an expletive (dummy subject) to satisfy the requirement for a subject in English sentences, even when no meaningful subject is present in the deep structure. This rule commonly applies to impersonal expressions, weather statements, and certain existential constructions (Freidin, 2012).

Chichewa, as a null subject language, does not require a direct equivalent of "it" as a dummy subject. Instead, it employs other grammatical elements like agreement markers on the verb or impersonal structures to convey similar meanings.

Consider this English example:
DS: Raining is happening.
SS: It is raining.

In Chichewa, the structure of impersonal sentences relies on verbs with appropriate subject markers or agreement markers:

DS: Kukugwa mvula. ("Raining is happening.")
SS: Kukugwa mvula. ("It is raining.")

The structural description (SD) and structural change (SC) can be represented as:

SD: V1 + NP2
Kukugwa mvula
SC: V1 + NP2 (No change)
Kukugwa mvula

Here, no additional elements are needed to fulfill the subject requirement in the surface structure. The verb kugwa ("falling") already carries a locative subject marker ku- that functions similarly to English "it" in weather expressions.

To further illustrate, consider another example:
DS: Kukutentha kwambiri. ("Being very hot.")
SS: Kukutentha kwambiri. ("It is very hot.")

In this case, the verb kukutentha ("to be hot") carries the subject agreement, eliminating the need for a separate dummy pronoun.

Chomsky's theory of transformational grammar (1965) identifies it-insertion as part of the surface structure changes in languages like English. In contrast, Bantu languages like Chichewa use subject markers or agreement morphology to convey the same meaning without an expletive.

These differences highlight the typological variation between languages. While English, a non-null subject language, requires overt subjects (even if semantically empty), Chichewa, as a null subject language, can convey the same information through verbal morphology alone. This comparison illuminates how languages can achieve similar communicative goals through diverse syntactic strategies,

reflecting the interplay between universal grammatical principles and language-specific realizations.

XIV. CONCLUSION

The transformational rules analysed in this study of Chichewa syntax illuminate the complex structural processes that speakers unconsciously engage in everyday language use. Through rules such as dative movement, passivization, reflexivization, and equivalent noun phrase deletion, Chichewa speakers showcase an inherent understanding of syntactic mechanisms that modify sentence structures without altering their core meaning. These transformations not only enhance the linguistic diversity within the language but also demonstrate the flexibility and adaptability of human language systems. The paper emphasises the role of transformational grammar in explaining how surface structures can diverge significantly from their underlying deep structures while retaining clarity and communicative intent. Moreover, this exploration of Chichewa syntax offers significant contributions to the field of generative grammar, highlighting its relevance in describing syntactic phenomena across different languages and enriching our comprehension of universal linguistic principles.

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