



The Analysis of Semantic Constraints on Active-Passive Constructions in the Teaching-Learning of English as a Second Language

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DOI: 10.53103/cjlls.v2i3.44

Abstract

For more than a decade, many studies have emphasized a transformational rule for active passive construction that an object becomes a subject in passive voice with little attention paid to an extent to which the universal grammar and the semantic roles of subject and object constrain the kinds of second language active-passive forms which are possible but not acceptable in English second language learning contexts. This structural approach for active-passive constructions poses significant syntactic and semantic problems for English language learners. Therefore, this qualitative study analysed the corpus of active-passive constructions to determine the semantic constraints learners violate in constructing passive voice. Content analysis was used as a method of data collection through which faulty passive structures were identified from First-year English language learners' scripts. The findings revealed learners' difficulties on active-passive construction in relation objects which bear the following semantic roles: locative role, measurement and value, objects functioning as adjectives. These findings imply that the students lack adequate knowledge of both grammar and pragmatics which could enable them to construct and use the English passive sentence appropriately. This could be attributed to rule-based teaching. Therefore, this paper encourages teachers and lecturers to concern themselves with not only the extent to which universal grammar may be available to second language learners, but also the extent to which universal grammar constrain the kinds of possible constructions second language learners can come up with. The paper also recommends the adoption of net-work-based teaching from the point of three perspectives: structural, cognitive and socio-cognitive perspectives as the three complement one another to account for semantic constraints in the teaching –learning of active-passive constructions.

Keywords: Active-Voice, Passive-Voice, Subject, Object, Transitivity

Introduction

English like other languages draws a fundamental distinction between two basic roles corresponding to a category of agent and a category of subject of which English assumes a subject verb agreement structure (Quirk et al., 1985; Greenbaum & Nelson, 2002; Alexander, 1997). In generative grammar, Chomsky (1965; 1982) has revealed that

this SVO structure bred the notion of voice which is subcategorized into active and passive voices. As with the different kinds of voice categories, there are potentially different ways of defining the category designated by passive. Alexander (1997) and Eastwood (2002) opine that transitive active clause has the subject in the agent function and a patient in the object function.

The Active-Passive Alternation in English

The police arrested the students.

The students were arrested by the police.

Sentence pairs above are thematic paraphrase of each other in that the semantic roles borne by the participants are identical in the two cases. In each structure, the noun phrase the police is understood as denoting the agent of the transitive verb arrest (it is the police who did the arresting) while the students denote the arrested party (often called the patient or theme of the action). This semantic equivalence holds despite the remarkable differences in word order and agreement between the two sentences.

Despite the semantic equivalence implied by the given sentences, Chomsky (1982) claims that the three salient differences can be outlined from active-passive forms. First, the object of the active appears in the subject position of the passive and shows properties such as agreement with the finite verb. Second, the subject of the active appears as the object of the preposition by. Third, the verb appears as a participle in passive construction and the auxiliary be carries the tense and agreement marking. Therefore, he maintains that the object functions as a subject of the passive verb.

Chomsky (1982) attributes the observed differences to the operations of one or more transformation alternations. In simple terms, the deep structure representation is taken to be close to the active sentence hence the claim that passives are derived from deep structure by the operation of a passive transformation. Following Chomsky' view, grammarians concur that a clause is said to be in the passive if it has the following properties: one is that, passive sentences generally require the auxiliary be. Another is that lexical verb in passive sentences is in the n-participle form (stolen, taken). A third property is that passive sentences may contain a by-phrase in which the complement of by seems to play the same semantic role as the subject in the corresponding active sentence. The by-phrase is called an oblique or prepositional phrase due to the relation that holds between by and the police (Baker, 1988). The fourth property is that the expression which serves as the complement of an active verb surfaces as the subject in the corresponding passive construction (Swan, 2005; Alexander, 1998; Chomsky, 1981; Eastwood, 2002).

Literature Review

Many scholars conducted studies on the difficulties English second language learners encounter in learning and using the English passive voice (Somphong, 2013,

Choomthong, 2011; Elmadwi, 2015; Amadi, 2018; Abdul Halik & Fouzul Kareema, 2020). The overall conclusion of these studies has been that the syntactic structures of English passive voice especially the forms and use of the present progressive and perfect forms of the auxiliary verb 'be', (being and been) rule of concord, tense, rearrangement of the subject and object constituent of the passive sentences pose the greatest difficulties for ESL/EFL learners. The rationale behind these difficulties was reported to be the non-existence of the passive voice in the learners' L1 which resulted in what is called mother tongue interference (Banjo, 2012; Elmadwi, 2015). In concrete terms, Choomthong (2011), Somphong (2013) and Elmadwi (2015), focused on secondary and university students to provide pedagogical treatments of the challenges their target ESL/EFL L2 learner have or may encounter in and using the English passive voice. Amadi (2018) pointed out that the difficulties are associated more with the morpho-syntactic features of the passive verb group view.

Similarly, this study is aimed at finding out the difficulties ESL learners have in learning and using the English passive voice and semantic constraints of active-passive construction. Nonetheless, this study geographically differs in that it focused on the difficulties of first year NUL learners encounter in learning and using the English passive voice and the semantic configurations that constrain grammatically correct but unacceptable constructions. Another difference is that this study sought to unveil the semantic constraints which learners violate in constructing passive voice.

Despite many studies on the difficulties learners encounter in constructing passive voice, there is dearth of literature on the semantic constraints learners violate in constructing the English passive voice because many teachers still emphasize the rule for active-passive construction without explicitly explaining how the semantic role of subject is retained, and how the semantic types of the verb-object relationship permit the grammatically acceptable passives, and constrain the transformation of possible but not acceptable active-passive constructions in modern English. As a result, this rule-based teaching of active passive continues to pose difficulties for second language learners in both academic writing and speaking because they construct grammatical but unacceptable passive constructions due inadequate knowledge of semantic constraints governing active-passive construction. On such basis, this paper attempted to analyze the corpus of active-passive constructions to determine the semantic constraints on active-passive constructions arguing against the structural transformation rule of active-passive construction. The paper attempted to answer the following questions:

Research Questions

- Which grammatical but unacceptable passive structures are common amongst Second language learners at the National University of Lesotho?

- Which semantic roles permit, and restrict active-passive construction in English?

Theoretical Framework

Since an ultimate goal of this paper was to explain the phenomenon of semantic restrictions on the subject and object movement in passive construction, the theoretical framework assumed in this study is four-dimensional (theta-theory, affectedness constraint, case theory and systemic functional grammar) because of the broad nature of the notion meaning. To start with, the principle of theta-criterion in theta-theory proposed by Chomsky (1981) states that any position filled by an argument must be assigned exactly one semantic role, and semantic roles can only be assigned to positions that were filled by arguments. Appropriating this condition in passive construction, Chomsky (1981) stipulates that movement of an object is made obligatory by the case filter which requires all phonologically realised NPs to have abstract case, and so the object must move to subject positions. However, based on the observed corpora which unveiled the limitations of theta-criterion, and support the general claim of this paper, the affectedness constraint and functional systemic grammar were also adopted in this paper to complement the theta-criterion condition in exploring the semantic constraints in the transformation of active-passive construction.

The affectedness constraint proposed by Pinker (1989) states that the greater the extent to which a verb denotes an action where a patient is affected or acted upon, the greater the extent to which it is compatible with the passive. The affectedness has been central to the work of argument realization, especially in determining direct object-hood. Therefore, in this paper, it was used to evoke constraints on syntactic operations including passives and causativisation because it is widely assumed to figure into whether or not a verb is transitive both within and across languages (Pinker, 1989). However, the degree of affectedness is still a long standing debate (Fawzal, 2017).

Therefore, as a complement of the affectedness constraint, the paper adopted the case theory. The case theory concerns itself with the assignment of a formal feature called the case feature to particular categories occurring in syntactic representation Chomsky (1982). The case does not usually have a morphological realization in most constructions as in active constructions whereby a verb usually assigns case to lexical NPs following it. It must be noted that there is semantic restriction on case assignment that only verbs, in the case of active construction, can assign case (Chomsky, 1981 & Radford, 2002). Therefore, this paper found that case theory could be appropriate for the description of the semantic relation between verb and its complements in order to determine the semantic constraints. The three mentioned theories are triangulated with the principle of experiential meta-function of language in systemic functional grammar to account for lexical passive voice which is context-based. The framework enabled the researcher to unveil the semantic

constraints and to determine how learners construe the action being described by the verb based on the roles assumed by the noun phrases.

Methodology

Research Design

This is a qualitative study which is based on observation and description of collected data. The qualitative approach helped the writer to describe and analyse active passive sentences constructed by the students to answer the question of the semantic types constraining active-passive constructions.

Participants

The participants in this study were 30 first year English language learners in the academic year 2019/2020 on the course Communication and study skills and Remedial grammar. The eligibility criteria were that the participants have to be second language speakers of English and must have learned passive voice from high school.

Data Collection and Data Analysis

For data collection, one achievement test was administered to all students at the end of a one-hour tutorial session of the English passive voice by the author-researcher. The researcher drew a sample of 15 scripts and identified and analyzed unacceptable passive structures to unveil semantic constraints that warrant their unacceptability based on the principles of the following triangulated theories: case theory, affectedness constraint and theta criterion. This paper used both positive and negative evidence to justify the acceptability of certain passive constructions while also ruling out the possible unacceptable ones as suggested by Gass and Mackey (2007). The researcher used descriptive analysis explain the identified instances of grammatical but unacceptable instances of active-passive constructions.

Results

In this section, various analyses of the analytic core active-passive alternations were done using the concept of semantic valence to explore constructions that affect the relationship between grammatical relations and semantic roles. The paper claims that generation of infinite grammatical patterns are semantically constraint. A number of constructions were analysed to determine the semantic constraints of active-passive construction. The identified faulty unacceptable passive constructions and semantic constraints are thematically presented based on the excerpts from the data sets.

Passive Constructions from Data Sets

This study empirically identified the following active-passive constructions from data sets.

1. The teacher expelled the students
The students were expelled by the teacher
2. She died a miserable death.
*A miserable death is died by her.
3. Lineo believes the rumors
*The rumors are believed by Lineo

Looking at the particle *ed* affixed to the verb *die* from (b), the particle does not have a pivotal role of absorbing the objective case of the verb *die* while retaining the agentive role of the NP *she* which is a complement of the preposition *by* (structurally functioning as a prepositional phrase). Looking at sentence (b), and the passive rules and conditions articulated in transformational grammar, an observation is that not all active sentences can be passivized. However, the question that many grammarians seem not to have explored is the phenomenon that prohibits the general application of the passive transformation rule. This paper has found that this prohibition semantically depends on context rather than structure. That is, from the context, the past participial verb *died* express a transitional state which does not bear the agentive role of the structural subject *she*. Based on the selected theories, data sets demonstrated learners' difficulties in observing the semantics constraints outlined below:

Semantic Restrictions from Objects Denoting Measurement and Value

1. He ran a mile.
*A mile is run by him.
2. The bag cost M50.00.
*M50.00 is cost by the bag
3. He weighs 60 kg.
*60kg is weighed by him.
4. Suzan believes the rumors.
*The rumors are believed by Suzan.

5. I have done a lot.

*A lot is done by me.

This paper has discovered that students violate semantic restrictions on object denoting measurement and value. This could be seen with excerpts (a-e) constructions. In (a), the passive form of the sentence He ran thousand miles, thousand miles are run by him is unacceptable because the verb run express the motion complemented by the noun phrase of measurement thousand miles. Looking at the internal arguments in active sentences, by virtue of being syntactic objects, one would assume that the application of the passive transformation rule and theta-criterion principle would yield not only grammatical but also acceptable passive structures. However, the opposite seems to be the case as their passive counterparts are not acceptable in English.

These data sets confirm the argument that not all active sentences could be passivized because of the semantic constraints that hold between the finite verb and the object irrespective of the defined rules of transformational-generative grammar and the movement conditions borne by the theta-criterion. Most of value and measurement objects are unable to assume a subject position in passive construction. Typical examples are verbs like weigh and cost which denote measurement and value. This finding is supported by Beavers (2011) who avers that passive voice is subject to a thematic constrain called the affectedness constraint that maintains that the passivized noun phrase must be construed as affected by the action denoted by the verb. In resolving this problem, one may capture the meaning of a clause by saying that X did something to Y of which they claim that these are the most liable objects for passive construction due to the degree of transitivity borne by the finite verb. However, the question is to what extent does the verb have to affect the object in order to make it liable?

In argument with this paper, Ambridge, Bidgood, Pine, Roland and Feudoland (2016) indicate that there is a difference between the highly affecting agent-patient/theme-experiencer passives as in Neo was beaten/frightened by the teacher, and non-action experiencer theme passives as in The VC was heard by the student union. From the given example, the predicates differ in degree of affectedness and seem to define many thematic relations. However, data sets from this paper revealed the following structures which go beyond the parameters of the affectedness constraint.

Propositional Attitude

1. Max believes the rumors. believe (Max, rumor), Max = JUDGER, rumor = JUDGMENT

*The rumors are believed by Max.

Internal Experience

2. Diana feels sick.

*The sick is felt by Diana.

Emotion

3. Neo hates her father.

*Her father is hated by Neo.

In relation to the notion of affectedness, this paper has found that high and low affectedness are hard to define precisely, since this involves defining what sorts of changes constitute more of an effect than others. In sentence (a), (b) and (c), passive voice is restricted by the semantic value of the objects following the transitive verbs. Based on theta criterion principles, the paper has confirmed that there are NPs which come into existence as a result of being effected rather than being affected, and can be passivized.

Semantic Constraints from Adjectives

The paper also observed faulty passive structures with verbs that do not assign a semantic role to the adjectives following them. Noted from data sets are the following structures: she feels good/ good is felt by her it looks delicious/ delicious is looked by it. The adjectives function as complements by giving additional information about the subject or the noun which is assumed to be the agent.

Semantic Restrictions from Locative Object

The paper also revealed that that locative objects cannot be passivized because of their original semantic value as complements. This semantic restriction can be observed from the following data sets:

We walked the street (locative object which may be equivalent to we walked along the street)

*The street was walked by us.

He swam the river. (Locative object the river which could be paraphrased as He swam across the river)

*The river was swum by him.

In as much as the rule stipulates that active-passive construction is conditioned by the SVO, the locative objects which surface in active forms following the SVO cannot be passivized because the verbs walk and swim by virtue of being intransitive do not assign

semantic objective case to the noun phrases they follow hence the restriction on the structural objects to undergo passivisation.

Semantic Restrictions from Lexical Passives

The paper also found that the transformational rule of passive voice and the conditions of theta-theory do not account for discourse prototypical passives which are not derived through the application of the articulated transformational rule and movement conditions. Below are the typical examples drawn from data sets which are peculiar to medical and scientific discourses (both domestic and pure sciences):

The baby measured 3kg.

The water boiled at 60 degrees celcius.

The food tastes good.

From the above examples, the clauses are headed by the verbs that are inherently passive in meaning such as boiled as in the water boiled at 60 degrees celcius. This structure expresses the scene that includes the presence of a causing agent while the patient is the grammatical subject. Also, a notable instance could be of the verb measured which originally expresses an event which occurred sometime in the past as in (The baby measured 3 kg which cannot be passivized as 3kg is measured by the baby. However, in another context it is acceptable to have a sentence like the yard is measured by Mpho.

Discussion

Using the principle of theta-criterion, the affectedness constraint, the case theory and systemic functional, this paper has revealed the semantic constraints which confirmed that the construction of active-passives in English is not solely rule-based or rule-governed. Starting with the semantic constraint on verbs of measurement and value, the study appreciates that the thematic paraphrase accounts for grammatical valence and partly semantic valence of the relationship between active constructions and their passive counterparts. This finding could mean that the theta-criterion principle should be complemented with the principle of context sensitivity to account fully for the semantic value of by phrase which still retains the semantic value of agent irrespective of surface structure as affirmed by sentences The baby measured 3kg/ *3kg is measured by the baby. Mpho measured the yard/ the yard is measured by Mpho. Similar challenge was obtained by Abuzain (2019) on his analysis of passive voice employed by university students in writing lab reports.

However, in line with the case theory, this paper further observed that, the participial particle attached to the active verbs measure and boil only absorbs the abstract case of the verb and that this absorption of the abstract only blocks the original position of

the object without necessarily restricting its semantic value of objecthood. Thus, this particle assumes a semantic role of a clitic that maintains the presence of agents which could only be understood from the context.

Noted also was the semantic constraint on verbs followed by adjectives. Drawing from the theory of case assignment, this paper maintains that although the word *sick* might seem to answer the question: what does she feel? In reality, the appropriate form is: how does she feel? Semantically, *sick* functions as an adjective. This structure justifies the role of semantics in determining passive forms other than strictly focusing on the rules which seem to be generalizing. This is justified by (Abdul Halik and Fouzul Kareema, 2020) in his description of the semantic relationship that holds between the subject and its complement.

Moreover, with case theory of semantics, the paper has found that locative objects cannot be passivized because of their original semantic value as complements there are verbs such as *walk* and *swim* are restricted from being passivized due to their inability to assign case, and be morphologically inflected with the past participial marker denoting passive. This finding is supported by (Fawzah, 2017) clarify that with locative objects, there are implicit prepositions which are restricted from surfacing in the active structures. Nonetheless, this paper further discovered that locative objectives are syntactic object because of the intransitive feature assumed by the preceding verbs.

In relation to the principle of affectedness, the paper has found that affectedness constraint results in both acceptable and unacceptable forms regardless the lower degree of affectedness assumed by the objects from the verbs. This finding disproves Ambridge et al. (2016) contention that the degree of affectedness determines the possibility of passivisation. Using the theta-theory and case, the paper has revealed that the semantic factor that plays a major role in relation to passives is context of use assumed by the verb as opposed to degree of affectedness. This finding is justified by NPs which come into existence as a result of being effected rather than being affected (Quirk et al., 1985). Typical examples are *She completed the research* and *They know the answers*. These findings correlate with the view that grammar is a systematic study of the tripartite phenomenon of language (Byran, 2004). This implies that the description of language should be socially, pedagogically and linguistically based.

Lastly, the paper has discovered that English does not have only analytical passive forms which usually correlate with the passive transformational rule, but it also has the lexical passive forms which are inherently passive and restricted to undergo further passive construction by the transformational rule. This is supported by the systemic functional grammar which considers context that may be discipline-based. This finding is congruent to Amadi (2018) points out that the difficulties are associated more with the morpho-syntactic features of the passive verb group view. Thus, in terms of discourse function, English has prototypical passives used in contexts where the object (grammatical subject)

is relatively restricted to be topicalised as the semantic object because the verb is inherently passive hence no further passivisation can take place. Therefore, this finding could mean that transformational rules do not fully determine the passive construction in English, but such constructions are experiential-meta-functions of language influenced by the context either being social or discipline-specific.

Conclusion

This paper analysed the corpus of active-passive constructions to determine the semantic constraints on active-passive constructions arguing against the structural transformation rule of active-passive construction. The findings revealed learners' difficulties on active-passive construction in relation objects which bear the following semantic roles: locative role, measurement and value, objects functioning as adjectives. Based on the results of this study, the paper concludes that the students lack adequate knowledge of both grammar and pragmatics which could enable them to construct and use the English passive sentence appropriately. This could be attributed to rule-based teaching. Therefore, this paper encourages linguists to adopt both the grammatical valence and semantic valence in the analysis of active-passives. The paper also recommends the adoption of net-work-based teaching from the point of three perspectives: structural, cognitive and socio-cognitive perspectives as these three perspectives complement one another to account for semantic constraints in the teaching –learning of active-passive constructions.

References

- Abdul Halik, A. F., & Fouzul Kareema, M. I. (2020). Difficulties faced by the ESL Learners in using English Passive Voice in Written Communication: A study based on the Students of NAITA, Trincomalee, Sri Lanka. *KALAM - International Research Journal Faculty of Arts and Culture, South Eastern University of Sri Lanka*, 13(3), 51-59.
- Abualzain, O. Y. I. (2019). Error analysis of passive voice employed by university students' in writing lab reports: A case study of Sudan University of Science and Technology (SUST) Students" at Faculty of Sciences, Chemistry Department. *Canadian Center of Science and Education*, 12(7).
- Amadi, S. C. (2018). Learning the English passive voice: Difficulties, learning strategies of Igbo ESL learners and pedagogical implications. *International Journal of English and Literature*, 9(5), 50-62.
- Alexander, L. G. (1997). *The essential English grammar* (2nded.). Essex: Longman.
- Ambridge, B., Bidgood, A., Pine, M., & Rowland, C.F. (2016). Is passive syntax semantically constrained? Evidence from adult grammaticality judgement and comprehension studies. University of Liverpool: Wiley Periodicals.
- Beavers, J. (2011). On affectedness. *Natural Language and Linguistic Theory*, 29(2), 335-370.

- Byram, M. (2004). *Routledge encyclopedia of language teaching and learning*. London and New York: Routledge Taylor & Francis Group.
- Chomsky, N. (1982). *Some concepts and consequences of the theory of government and Binding*. Cambridge: The MIT Press.
- Choomthong, D. (2011). A case study of learning English passive of Thai EFL learners: difficulties and learning strategies. The Asian conference on language learning official proceedings, 74-87. Chicago: MIT Press.
- Eastwood, J. (2002). *Oxford guide to English grammar* (7th ed.). Oxford: Oxford University Press.
- Elmadwi, E. N. (2015). Problems encountered by students at al-Almal secondary school in using passive in written English. *IQSR Journal of Humanities and Social Sciences* 207(7), 32-38.
- Fawzah, V. R. (2017). Students' difficulties in changing active voice into passive voice in simple present tense and simple past tense. *Journal of English Language Teaching*, 7(1), 32-39.
- Gass, S. M., & Mackey, A. (2007). *Data elicitation for second and foreign language research*. New Jersey: Lawrence Erlbaum Associates.
- Greenbaum, S., & Nelson, G. (2002). *An introduction to English grammar* (2nd ed.). Edinburgh Gate: Pearson Education.
- Payne, T. E. (2006). *Exploring language structure*. Cambridge: Cambridge University Press.
- Quirk, R., Greenbaum, S., Leech, G., & Svartvik, J. (1985). *Comprehensive grammar of the English language*. New York: Longman.
- Pinker, S. (1989). 'Learnability and cognition'. *The acquisition of argument structure*. Cambridge, MA: London: MIT.
- Radford, A. (2002). *Syntactic theory and the structure of English: A Minimalist Approach*. United Kingdom: Cambridge University Press.
- Swan, M. (2005). *English practical grammar* (2nd ed.). Oxford: Oxford University Press.