

Positioning of Transitivity in Linguistic Theories

Khushbu Kumari¹, Research Scholar, Department of HSS, IIT Roorkee, Roorkee.

Rashmi Gaur², Professor, Department of HSS, IIT Roorkee, Roorkee.

Article Received: 11/10/2023

Article Accepted: 09/11/2023

Published Online: 11/12/2023

DOI:10.47311/IJOES.2023.5.03.60

Abstract

Whether or not a verb essentially requires/takes an argument has interested the grammarians and the linguists alike for a Verb is central to all the clausal and sentential structures. And Transitivity of a verb is one of the most prominent features in linguistic studies as its presence or absence decides participation or non-participation of the second most significant element in the overall semantics of not only the verb but also that of sentence. Transitivity has been discussed extensively in different grammatical theories and approaches and has received different treatment in the various formalist and functionalist approaches to the study of language. This paper is an account of how its study started with an unsophisticated explanation in rudimentary grammatical scholarship and gained pre-eminence with the advancement of different fields of linguistic studies.

Keywords: Transitivity, Semantic Approach, Verb, Linguistic Theories

Transitivity in different linguistic theories

1. Transitivity in Traditional Grammar

“Transitivity is a category used in grammatical analysis of a clause /sentence construction with particular reference to the VERB’s relationship to dependent elements of structure”. (Crystal, 2003). Primarily, transitive verbs are studied in a binary opposition with intransitive verbs in which both are considered mutually exclusive. One can generally say that a verb which takes a direct object is a transitive verb (e.g., ‘hit’ in *Rohan hit Ravi*) and a verb which does not take a direct object is an intransitive verb (e.g., ‘slept’ in *I slept*). This simplistic classification of Transitivity is further extended with to ditransitive verbs which take both a direct object and an indirect object. For example: the verbs *give* and *put* need both- a direct object and an indirect object to complete the sentence, as shown in (1) and (2):

1a. The teacher gave a book to me. (or The teacher gave me a book.)

b. The teacher gave a book.

c. The teacher gave me.

2a. He put the book on the table.

b. He put the book.

c. He put on the table.

There are some other verbs that act both as transitive and intransitive. For example, the verb 'open' in (3) and (4):

3. He opened the door. (The verb is transitive here.)

4. The door opened. (The verb is intransitive here.)

2. Transitivity in Generative and Non-Generative approaches: Thematic Roles (f -Roles) in Syntax

2.1 Fillmore's Case Grammar and Semantic roles

In 1968, Fillmore introduced the Universal system of Deep Structure Cases/Deep cases (DC) and defined them, as "semantically relevant syntactic relationships involving nouns and the structures that contain them" (1968:5). DC is the underlying property of NPs attached to a predicate word, defining the semantico-syntactic role of the arguments. Arguments are verbal equivalents to those participants of a situation which are taken into perspective in the communicative process. DC has both semantic and syntactic relevance - that is why we can speak about its semantico-syntactic nature (1977:61) as cited in (kos-Dienes, 1985: 1-2)

Fillmore believes that a sentence/clause is a combination of surface structure and deep cases. His theory combines deep cases with the syntactic structure of sentences. Here the 'cases' refer to semantic roles such as Agentive-(A), Instrumental-(I), Objective-(O), Factitive (F), Benefactive (B), Dative (D), Locative (L). These cases are required by particular verbs. For ex- the verb *give* in English requires an Agent (A), Object (O), and a Beneficiary (B) to form a well-formed sentence, as shown in the example below:

1a. Jones (A) gave money (O) to the school (B).

b. *Jones (A) gave money (O).

c. *Jones (A) gave to the school (B).

(1a) is correct because the requirement of the verb 'gave' is fulfilled by having 'Jones', 'money' and 'to the school' as Agent, Object and Beneficiary respectively in the sentence. In (1b), beneficiary 'to the school' is missing and in (1c), object 'money' is missing. That is why both (1b) and (1c) are incorrect. Each verb selects a certain number of deep cases and their relations; this whole configuration forms its case frame. So in a language each verb needs to be marked for a certain case frame and every slot of these frames should be filled. Fillmore's case frame for the verb 'open' is:

2a. [__ O] -the door opened

b. [__O+A] - John opened the door

c. [__O+I] - the wind opened the door

d. [__O+I+A] -- John opened the door with a chisel

e. [__O (I) (A)] – (John) opened (the door) (with a chisel)

Figure 1 Fillmore's case frame for 'open' (1968: 27)

In the above list the last lexical entry of case frame gives a summary for the all the possible case relation for the verb ‘open’. Fillmore’s case frame has an explanatory function, and this explanatory function cannot be performed unless lexical information is fed into these structures. As in (2), the case frames of the verb ‘open ’show that the verb open can be used in both ways i.e. intransitively and transitively.

2.2 Gruber’s Notion of Thematic Relation (1965)

The notion of Thematic relation is originally associated with Gruber (1976, (originally 1965)). He argued that a verb needs one or more argument(s) to form a structure and the argument(s) of the verb have a definite kind of relation with their verbs. This relation was termed as the thematic relation. The idea led Gruber to the notion of ‘agent’, ‘theme’, ‘instrument’, ‘experiencer’, ‘accompaniment’, ‘location’, ‘goal’, ‘source’, ‘direction’, etc. which provided the solution for a number of syntactic and semantic problems which remain unanswered in Chomsky’s Aspects of the Theory of Syntax (1965).

2.3 Chomsky’s Theta Theory (1981)

In 1981 Noam Chomsky proposed the theta criterion i.e. “Each argument bears one and only one θ -role, and each θ -role is assigned to one and only one argument” (Chomsky 1981: 36). Theta role is a formal device to represent ‘syntactic argument structure’ which denotes number and type of Noun Phrase (NPs) syntactically required by specific verb. For ex- the verb *hit* requires two arguments (i.e., it is divalent verb), and the verb *give* requires three arguments (i.e., it is trivalent verb).

3a. Hit [Agent NP, Theme/Patient NP]

b. Give [Agent NP, Theme NP, Goal NP/PP]

But some of the semantic aspects cannot be captured in the thematic structure of a verb. Consider following examples:

4a. The boy hit the wall.

b. The ball hit the wall.

5a. The cow gives us milk.

b. The boy gives us milk.

c. The tree gives us milk.

d. The tree gives us fruits.

Both (4a) and (4b) are correct, the theta-role of the subject NP ‘the boy’ and ‘the ball’ are agent and instrument respectively, as the NP ‘boy’ is animate and the NP ‘the ball’ is

inanimate. Here 'the boy' does not need any external force to perform the action but 'the ball' does need an external force. The verb 'hit' can have both kinds of arguments as its subject. This aspect of the argument features and the verb are not clearly represented through argument structure or thematic structure. It does not present a clear picture of it.

Hence, Theta role information is just another description that can be added to the entry for each lexical item in the lexicon. It is part of what Chomsky calls the 'subcategorization' for each item, and involves all the further categorization of an item once it has been defined as N, V, etc. Theta theory provides a means for determining all the subcategorization information (categorisation, and selection restrictions), thus rendering subcategorization in the lexicon redundant. It also details the range of complements an item takes.

3. Typological Approach to Transitivity

In typological theories, transitivity is characterized in terms of semantics, in contrast to clear cut dichotomy of transitive and intransitive. Typological studies proposed that transitivity is a matter of degree and defined it in terms of Prototypical approach. In the 1970s, "the issue of transitivity began to attract intensive attention from typologists as well as scholars working on individual languages. This in turn yielded a number of more rigorous characterizations of transitivity- more rigorous than the traditional characterization." (Tsunoda, 1999: 2).

Dixon's typological study gives an authentic illustration by looking at the transitive constructions across many languages. Languages differ in the expression of linguistic features morpho-syntactically. The inflections may be different on verbs or there can be structural variations. But in the case of behavioral patterns of verbs 'the SAME TYPES of criteria recur. Thus, all languages treat 'cut' and 'give', 'rub' and 'carry', 'take' and 'cook' as transitive verbs. In addition, very nearly every language classifies 'see' and 'hear' in the same way...they all involve two basic participants, and are dealt with by verbs belonging to the semantic-syntactic class 'transitive' in all types of language.' (Dixon, 1979: 103). But it doesn't mean that there are no exceptions. For every specific criterion there are examples from different languages or language families where same type of criteria may not work. And we may need specific explanation for that particular language.

Givon (2001) views transitivity as a complex phenomenon which involves both syntactic and semantic constituents. He also gives a simplified definition of syntactic prototype of transitive clause which is the single syntactic feature in most languages- 'Clauses and verbs that have a *direct object* are syntactically transitive. All others are syntactically intransitive.' (2001:109). Prototypical verbs lead to a prototypical sentences / construction. In typological studies we need a prototype for each specific sentential construction in order to understand the basic structure of a sentence and deviations from it. These discussions suggest that transitivity is not a concrete absolute grammatical entity in terms of semantic interpretation. It's a matter of hierarchy, supremacy and deviations which can also be seen in

the sections of case grammar and theta theory given above. The same will be seen in the next section of this paper.

The typological study of transitivity is a watershed. Explaining the transitivity through a single language could have missed the complex behaviour of transitivity in the different sentential construction of a number of world languages. Bhattacharya (1995) states that ‘Givon (1985) in his discussion of ergativity in Newari showed that ergative morphology, especially split ergativity, is sensitive to the transitivity properties of a clause whereas nominative typology is sensitive to the discourse/pragmatic role of NPs in the clause in terms of whether they are or are not the subject/topic. He reduces the transitivity properties of a clause in terms of three core properties of Agent, Patient and the Verb and the rest can be predicted through semantic/pragmatic general principles.’ (Tanmoy 1995: 124).

From the discussions in the current and above sections a common inference can be drawn that defining transitivity is a stumbling block. Whether the notion of transitivity is problematized or simplified by any theory or approach is not the only concern, there remains a lot more that needs attention. Whenever there is found an extension to the meaning of any specific verb according to the new contexts, it seeks linguistic explanation from syntactic, typological or morphosyntactic points of view. Every kind of theory has to offer a new explanation. Even after extending their theories, semantic and pragmatic explanations are usually found left out for further elucidations.

4. Semantic approach to transitivity

4.1 Hopper and Thomson’s Idea of Transitivity (1980)

One of the earliest pieces of work which talks about grammatical facts in consonance with Discourse structure is Hopper and Thompson’s (1980) ‘Transitivity in Grammar and Discourse’. They talk about ten parameters of Transitivity which show the transferring of actions from one participant to the other with different effects and intensity. The parameters for ranking of clauses are.

	High	Low
A. Participants	2 or more participants, (Agent)A and (Object) O.	1 Participant
B. Kinesis	action	non-action
C. Aspect	telic	atelic
D. Punctuality	punctual	non-punctual
E. Volitionality	volitional	non-volitional
F. Affirmation	affirmative	negative
G. Mode	realis	irrealis
H. Agency	A high in potency	A low in potency
I. Affectedness or O	O totally affected	O not affected
J. Individuation of O of transitivity	O highly individuated	O non-individuated

The above gradation of transitivity by Hopper and Thompson (H&T, henceforth) shows 10 parameters. This shows gradation of clauses on a scale A-J, where the presence of these features measures a clause higher on the scale and their absence measures a clause lower on the scale with respect to transitivity. Also, the clause which is higher on the scale is more transitive than the clause that is lower. Based on these classifications and observations Hopper and Thompson (1980) present the Transitivity Hypothesis which is that ‘...The more features a clause has in the ‘high’ column in A-J, the more transitive it is- the closer it is to CARDINAL transitivity.’ (p. 253). H & T (1980) cite the following example:

a. *Jerry likes beer*

b. *Jerry knocked Sam Down*

Here sentence (b) above is much higher in Transitivity than (a) because it is higher on the parameters of *action, punctuality, volitional, high in potency and totally affected*. Bhattacharya (1995) says that if we agree to the theory given by Hopper and Thompson (1980) then transitivity is “no longer a matter of mechanical counting of participant NPs’ but is rather a matter of a discourse-derived relationship.”

Some typological studies on transitivity, on the other hand, suggest that not all the ten parameters offered by Hopper and Thompson (HT) are found in all languages. “Although HT’s parameters are universal, individual languages select from those parameters rather than using them all. For example, Sheyne (1982) found that only four of HT’s parameters were used in San Carlos Apache.” (Bhattacharya 1995: 131). Tsunoda 1985 in his work presented examples from different languages showing and arguing that these ten parameters are not equally correlated; that these different parameters do not work together in the same area of grammar instead they work in different areas of grammar and morpho-syntax. Hence, these parameters need further refinement. Due to non-uniformity of these parameters, a universal application of these parameters may not be possible to apply for discourse studies of each and every language and grammatical and semantic explanation of HT may not fit into the ‘discourse structure of a particular language.

4.2 Halliday’s Idea of Transitivity in Systematic Functional Linguistics (SFL)

SFL sees language as an aggregation of structures, systems and functions of language. The organisation of language depends on relationship between language and social functions. Here meanings are not just encoded but are created through language.

Transitivity in SFL is a departure from viewing transitivity in binary bifurcation of sentences/clauses as transitive or intransitive. Here it is a clausal rather than a verbal phenomenon. Transitivity views language as an experiential function. Halliday says, “...the system of transitivity interprets and manages this whole world of experience though the set of six process types.” (1994: 106)

Each of the six processes is divided into three components. A Clause comprises of:

1. the Process itself (Verb Phrases)
2. Participants in the process (Noun Phrase)

3. Circumstances associated with the process (Adverbial or Prepositional phrase)

Out of the above six processes, material, mental and relational processes are considered as core processes. Material process is the process of doing which includes ‘doing’ verbs, for example: *giving, playing, hitting* etc. It has an *actor* and a *goal* as participants in the clause. Second is the Mental process: it is the process of sensing, conceptualising, reasoning. *Thinking, sensing, liking, craving, imagining* etc. are verbs which describe this process. The actor is the senser here. The third one is the Relational process: Relational process is the process of being. In relational clauses the relation is set up between two separate entities and something is being said to something else. It is of two types, namely, identifying and attributive.

The remaining three processes are peripheral. They are (1) Behavioural Process: The clause pattern of a behavioural process consists of a Behaver and the process only. ‘These are processes of (typically human) physiological and psychological behaviour, like *breathing, smiling, staring*, etc. (2) Verbal Process: it is the process of saying where ‘saying’ is interpreted in a broader sense. The grammatical function of saying is performed by a ‘sayer’. Verbal clauses form clause complexes both in quoted and indirectly reported sentences. (6) Existential process: this process represents that something exists or happens. Existential clauses usually have *there* as the subject. It has the existent as participant. Let’s see the examples of each these processes:

- Ex. 1.** She will go to school on Monday. (Material clause) Actor Process Goal
2. I believe that he will study (Mental clause) Senser Process Phenomenon
- 3a. The Report is puzzling (identifying). (Relational Clause) Token Process Value
- b. I am happy (attributive) Carrier Process Attribute
4. He is talking.(Behavioural clause) Behaver process Behaviour.
5. I explained to them what it meant. (Verbal clause) Sayer verbal process. receiver. phenomenon
6. There was a princess. (Existential clause) Process Existent

From the above examples it can be seen that the doer of a material clause and mental clause are not same. There is a difference between the verbal and the behavioural clause; relational clause establishes relations and existential clause talks about the existence of a particular thing. The categorisation of verbs is done at the very outset in sets of processes. Halliday’s notion of Transitivity is comparatively capable of encoding representations of world knowledge. Here transitivity has a broader system to manage the information in text.

Conclusion

Linguistic studies having a Semantic approach to transitivity can be seen as a carefully crafted departure from the more constrained formal linguistics and a stride towards Discourse studies. The description of theories, in this paper, is perhaps not exhaustive because the focus is not to go deep in the theories and approaches for the sake of their study specifically, it is rather for a better positioning or understanding of ‘transitivity’ in the respective theories. The author wants to emphasize that the above discussion shows, how in each domain of linguistics

there are idiosyncrasies in sentence structure which needs lexical and semantic attention on numerous occasions to explain the syntactic/morphosyntactic structures of languages. On a number of occasions these explanations fall short of the real explanation and there is a constant look out for alternatives which is all inclusive and explanatory.

Références :

- Bhattacharya, Tanmoy. (1995). A Computational Study of Transitivity. [Doctoral dissertation, University of Hyderabad].
- Crystal, David. (2003). *A Dictionary of Linguistics and Phonetics*. Blackwell Publishing Ltd.
- Dixon, R. M. W (1979). Ergativity. *Language*. 55, 59-138
- Fillmore, C.J., (1968), 'The Case for Case'. In Bach, E. and Harms, R.T. Harms(eds). *Universals in Linguistic Theory*. New York: Holt, Rinehart & Winston. 1-25(part-2). <http://wwwhomes.uni-bielefeld.de/sgramley/Fillmore-1-2.pdf>.
- Givon, T. (2001). *Syntax: An Introduction Volume 1*. John Benjamins Publishing Company.
- Halliday, M.A.K. (1994). *An introduction to Functional grammar*. Edward Arnold (Publishers) Ltd.
- Hopper, P. J., S. A. Thompson. (1980). Transitivity in grammar and discourse. *Language. Linguistic Society of America*.56 (2), 251-299.
- Kos-Dienes, D. (1985). Fillmore's Case Theory and Thematic Roles in GB Theory- A Comparison and Criticism. Gothenburg Papers of Theoretical Linguistics 49. Department of Linguistics. Goteborg University. https://gupea.ub.gu.se/bitstream/handle/2077/21150/gupea_2077_21150_1.pdf?sequence=1
- Tasaku, Tsunoda. (1999). Transitivity and Intransitivity. *Journal of Asian and African Studies*. 57.P1-9. <https://typeset.io/pdf/transitivity-and-intransitivity-43b7epm0hy.pdf>.
- Thompson Geoff. (2014). *Introducing Functional Grammar*. Routledge.