

The Semantic Roles of the Direct Object

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1. Introduction

Before proceeding to discuss the semantic roles of the direct object in English, it is plausible to consider some important questions related to the nature of semantic roles and how they are posited.

1.1 The nature of semantic roles

Generally, there are two views regarding the nature of semantic roles. Case grammarians, like Fillmore (1968) and Anderson (1971 and 1977), regard semantic roles as linguistic primitives that characterize the deep structure of sentences. However, the vast majority of grammarians (e.g., Jackendoff (1972), Gruber (1976) and Langacker (1991a and 1999b)) regard semantic roles as purely semantic in nature. That is, they are not the relations whereby the deep structure of sentences can be described. Yet, this does not mean that semantic roles have no syntactic correlations whatever; simply they are not the appropriate means to describe syntactic structure. In short, semantic roles are considered as semantic or logical structure constituents; mainly, participants in the state-of-affairs encoded by the sentence. (See 1.4 and 1.5)

In this study, the second view of semantic roles is adopted for a very important reason. Case grammarians have often been criticized for the indefinite number of semantic roles they put forth. This is a grave drawback since Case grammarians believe that these semantic roles are deep structure syntactic relations. Such deep structure syntactic relations, however, should be definite in number and specific in nature (i.e., can be accurately defined and limited). This is, of course, not true of semantic roles. Yet, giving up the assumption that these semantic roles are syntactic in nature, or that they are the means to characterize syntactic deep structure would make the question more flexible. When semantic roles are viewed as merely semantic in nature, the difference in the number of semantic roles suggested will be a natural consequence since semantic structure can be described with more or less detail

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and precision, which is not usually the case with syntactic description. For example, we can distinguish between externally affected entities (like the moving entity theme) and internally affected ones ('affected' in our terms), and we can choose not to do so.

1.2 How to posit semantic roles

Most grammarians study semantic roles in either of two ways: the paradigmatic or vertical and the syntagmatic or verb-centred. In the former approach, each slot in the sentence structure is studied separately at one time listing the semantic roles that can be realized in it. However, this approach is unrealistic since semantic roles are not acquired by virtue of filling slots in the sentence structure regardless of the verb of the sentence. The syntagmatic or verb-centred approach is superior to the paradigmatic one since the meaning of the verb has a great influence in the determination of semantic roles. In other words, semantic roles can be identified by considering the semantic class to which the verb belongs and the structural slot in question.

1.3 The question of isomorphy

Frequently the syntactic structure of a sentence depicts its logical structure symmetrically. That is there is usually a one-to-one correspondence between the constituent parts of a proposition and of the sentence which encodes that proposition. In such cases, we say there is isomorphy between syntactic and logical structures. (See Haegeman and Gueron, 1999: 538).

It is expected that when there is such isomorphy, it is relatively easy to identify the semantic roles of the constituents of the sentence, which stand in one-to-one correspondence to the participants and setting in the state-of-affairs encoded. The syntagmatic or verb-centred approach described above is quite satisfactory here.

However, the question now is how to identify semantic roles in a sentence when there is lack of iconicity between syntactic and logical structures. Consider the following sentence:

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1- Mary takes good pictures. (Johnson, 1977: 176)

The above sentence is ambiguous between an active and a stative reading. In the active reading, Mary is the photographer. The stative reading, on the other hand, states, in effect, that Mary always looks beautiful in pictures or photographs. The latter reading attributes a property to Mary, and there is no action involved at all. Consequently, we have only one participant entity in logical structure beside the verb, namely Mary. But the structure in such a sentence as 1 above is tripartite, which is typical of action sentences. So, there should be one constituent in syntactic structure which has no counterpart in logical structure.

In such cases, the verb-centred approach, which identifies semantic roles by considering the semantic type of the verb and the slot in question, would be useless. To solve this dilemma, we have to consider the state-of-affairs encoded by the sentence at first, and then decide on the number of participants involved in the state-of-affairs in question. We shall call this third approach in the study and identification of semantic roles 'the holistic approach'. Since the holistic approach can be used to identify semantic roles in cases where there is isomorphy between syntactic and logical structures as well as cases where there is no such isomorphy, it is superior to the other approaches discussed in section 1.2 above, which may be called 'partitive'.

Dik (1978: 13) seems to adopt the holistic approach as it is clear from his definition of semantic roles. He defines them as "the roles which the referents of the nouns involved play within the 'state-of-affairs' designated by the predication in which they occur." However, Dik's treatment of semantic roles, although based on states-of-affairs, seems to be too mechanical. For example, he (ibid. :36) states that in an action, if there is one argument, it is the controller of that action; if two, the second argument is the goal or patient; and if there is a third argument, it is either recipient, source or direction. Therefore, although Dik introduces the holistic approach, he makes no real use of it since after pointing out the state-of-affairs involved, he starts to assign each argument in

syntactic structure a semantic role. He does not discuss sentences showing lack of isomorphy between syntactic and logical structures at all.

1.4 States-of-affairs

In order to make use of the holistic approach introduced above, it is necessary to discuss types of states-of-affairs first. The term 'state-of-affairs' refers to the situation encoded by the sentence. Probably the best classification of states-of-affairs is offered in Chafe (1970: 101). He first distinguishes between states and non-states. States do not take place, i.e., they are not happenings that have definite beginnings and ends. They do not take time, but they last for a time. A useful definition of states is offered by Voorst (1988:100). He defines them as "predications of a property— expressed in the predicate— over a subject of predication, denoted by the subject noun phrase."

Non-states, on the other hand, are of three types: processes, actions and action-processes. Processes differ from actions and action-processes in that they have no initiator. A process expresses a change in an entity from one state to another without mentioning the initiator of that change. An example of a process is the sentence:

2- The tree fell.

A process usually has one argument which stands for the entity which has undergone the change. Probably a good test for processes is the question: *What happened to X?* Actions, like processes, have only one argument, but they differ from processes in that the only argument expressed is the initiator of the states-of-affairs, not the entity affected. An example of an action is the sentence:

3- Mary ran quickly.

A good test for actions is the question: *What did X do?*

Finally, action-processes usually have two arguments: an entity that has undergone a change of state and the initiator of that change. The following sentence is an example of an action-process:

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4- John broke the window.

A good test for action-processes is the question: *What did X do to Y?*

1.5 Types of semantic roles

Halliday (1970: 152ff) distinguishes two types of semantic roles: participant roles and circumstantial roles. The former refer to the participants which are involved in one way or another in the state-of-affairs encoded by the sentence. These are called participants since they are involved in an active interaction, i.e., they participate in the state-of-affairs encoded by the sentence. Circumstantial roles, on the other hand, specify the setting (i.e., manner, place, time, etc.) of the state-of-affairs. In other words, they specify the setting of the interaction of the participants. In this study, we are primarily concerned with participant roles since the object relation typically encodes a participant role.

Another classification of semantic roles which cuts across the participant/circumstantial distinction is noted by Carrier-Duncan (1985:2). He

distinguishes between inherent and non-inherent roles. Inherent roles are part of the meaning of the verb, i.e., they are implied in the meaning of the verb; though they need not be syntactically realized. Non-inherent roles, on the other hand, are not part of the meaning of the verb, or they are not implied in the meaning of the verb. Consider the following sentence from Carrier-Duncan (ibid.):

5- I sent a letter to Mary for John.

Notice that the verb send can form a sentence without the to phrase; but even if we do so, the to phrase is implied in the meaning of the verb since actual recipient is an inherent role with send. However, we can omit the for phrase, and we do not feel at all that there is anything implied since intended recipient is a non-inherent role with send. As both actual and intended recipients are participant roles, it is clear that the inherent/non-inherent distinction cuts across the participant/circumstantial distinction.

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2 The semantic roles of the direct object

A quick review of the states-of-affairs discussed in section 1.4 above will show that a true logical object in terms of semantic criteria is to be found in action-processes. Typical objects in terms of semantic criteria express an entity that has undergone a change of state brought about by another entity. However, in real discourse, the object grammatical relation is not restricted to the semantic role in action-processes discussed above. Therefore, the semantic role of the object in action-processes will be discussed first, and later on semantic roles discussed in the literature will be considered pointing out the deviation from the norm they exhibit. The norm we are talking about is for direct objects exclusively; indirect objects will be given a separate treatment.

2.1 The affected object

As it has been noted above, the affected object is the typical semantic role of the paradigm case of objects especially in action-processes. It refers to the person or thing that has undergone an internal change of state brought about by an external force. If the object is a person, this change of state may be physical or psychological. This is shown in the following sentences respectively:

6- John killed Bill.

7- John insulted Bill.

Notice that with psychological predicates, we do not have to posit a different semantic role, e.g., experiencer. The reason for this is that in both sentences above, there is an entity that has undergone a change of state. Moreover, both of the above sentences satisfy the test for action-processes introduced in section 1.4, which Platt (1971:73) considers a good test for affected objects. He calls it the *what do* test.

What did John do to Bill?

He killed/insulted him.

Kenny (1963:168) observes that with affected objects, the affected entity usually exists prior to the action designated by the verb. He notes that some

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action sentences can be given a relational analysis. For example, in the sentence:

8- Brutus killed Caesar.

there exist two entities (Brutus and Caesar) between which a relation holds by virtue of the action of killing. This is not true of the sentence:

9- John built a house.

where house refers to an entity which does not exist prior to the action denoted by the verb.

Foley and Van Valin (1984:31) state that the affected semantic role is sometimes viewed as a macro-role or a feature which may tinge other semantic roles in object position. Plank (1984a:2) observes that it is probably by virtue of this special tinge that some semantic roles are admitted to object position; otherwise, they are realized only obliquely as prepositional phrases. This is shown in the following sentence from Dik (1978:100):

10- John planted his garden with peas.

His garden is admitted to object position because it is totally affected in the sense that the whole garden is planted with peas. This does not hold true in:

11- John planted peas in his garden.

2.2 The theme object

Theme is the semantic role of the entity that undergoes a change of location as a result of the energy exerted by an external force. Semantically, theme objects are less object-like than affected objects since they are lower on the affectedness scale, i.e., they are less affected than affected objects. Gruber (1976:202) notes that the theme object is called for or triggered by the question: *What did X do with Y?* He cites the following examples:

What did John do with the thing?

12- John flew it over our heads.

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13- John slid it to the tree.

As the above examples show, the difference between affected and theme objects lies in the type of the verb involved, and in the degree and type of change exhibited by the object entity, whether it is internal or external change.

Theme objects also occur in bitransitive structures with verbs that indicate actual or intended transfer of possession. In actual transfer of possession, the entity expressed as the direct object undergoes actual movement; whereas no such movement is implied in verbs designating intended transfer of possession. Give and buy are examples of verbs designating actual and intended transfer of possession respectively. The theme in the following sentence is the entity given:

14- John gave Mary a book.

That the above sentence contains a theme is shown in the following test:

What did John do with the book?

He gave it to Mary.

Probably the entity bought in sentences designating intended transfer of possession is less theme-like as the above question and answer may be more readily acceptable than the following:

15- John bought Mary a book.

What did John do with the book?

?He bought it for Mary.

Perhaps the answer is questionable because the above test requires that the subject be the holder of the theme entity before the transfer of possession process takes place. The answer, however, shows that this is not actually the case.

2.3 The effected object

Effected objects are even less object-like, semantically speaking, than both affected and theme objects. This is so because they do not "antedate" the action

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denoted by the verb as Anderson (1971:74) puts it. Both affected and theme objects exist independently of, and antecedently to, the action. However, effected objects exist only by virtue of the action expressed by the verb. The canonical cases of effected objects exist with what we may call 'verbs of making'. These verbs may include *make, produce, create, construct, manufacture, build, draw, write, compose, sew, knit, etc.* The following sentences are examples:

16- The carpenter made a chair.

17- The teacher drew a circle.

However, effected objects may appear with verbs other than verbs of making noted above. They may occur with verbs that may well take affected objects in other contexts. Notice the following sentences from Jespersen (1927:233):

18a- I dig the ground. (affected)

18b- I dig a grave. (effected)

19a- She lights the lamp. (affected)

19b- She lights a fire. (effected)

The alternation of different semantic roles with such verbs as dig and light can be accounted for in the same way Fillmore (1969: 127f) accounts for such cases of 'valence alternation' as involved in the following sentences:

20a- He smeared mud on the fender.

20b- He smeared the fender with mud.

21a- He loaded bricks onto the truck.

21b- He loaded the truck with bricks.

He argues that the above pairs of sentences involve an extension of the meaning of the verb. For example, smear originally means 'apply some near-liquid substance to the surface of something'. This is extended to indicate the result of *smearing*, that is, 'covering the surface to which the substance has been applied'. Foley and Van Valin (1984:380) correctly note that the verbs involved in such

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pairs of sentences as 20 and 21 above vary from activity verbs in sentences (a) to achievement verbs in sentences (b). Similarly, *dig the ground* and *light the lamp* are

activity verbs, while *dig a grave* and *light a fire* are achievement verbs. Therefore, it may be argued that there exist two verbs dig having two different meanings. The same is true with the verb light. Thus, it is the semantics of the verbs dig and light which determines the semantic type of the object chosen.

Notice that effected objects are usually indefinite, unlike affected ones. This is probably because they come into existence only by virtue of the action denoted by the verb, i.e., they are mentioned for the first time. Therefore, having semantic criteria into consideration, one may conclude that effected objects are, strictly speaking, not objects since there is no participant entity in the object position in logical structure. This is because sentences with effected objects are actually action sentences which have no affected entity. The entity expressed as the object is, logically speaking, part of the action denoted by the verb; it represents the termination point of the action. It is argued that there is lack of isomorphy between logical and syntactic structures in such sentences as involving what is traditionally called 'effected objects'.

Finally, it is interesting that there are sentences which are ambiguous between affected and effected readings. Notice the following examples:

22- He cut a slice of cake. (Langacker, 1991b:302)

23- He paints nudes. (Fillmore, 1968:4)

If the entity realized as the direct object exists prior to the action, it has the affected semantic role; if, on the other hand, it exists only by virtue of the action, it has the effected role.

2.4 The cognate object

One type of object often discussed in the literature is what is called the 'cognate object'. Jespersen (1927: 234) considers it a subtype of the effected object. However, this is by no means true since cognate and effected objects do not show the same degree of attachment or closeness to the verb, and this is exhibited in their behaviour with respect to transformations. (See section 2.5

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below) Jespersen (ibid.) further observes that cognate objects are normally modified in real discourse, and that such examples as:

24- He dreamed a dream.

although frequently cited in the literature, never occur in real discourse. Cognate objects may be premodified, postmodified or both as exemplified in the following sentences from Jespersen (ibid.:235) respectively:

25- She smiled a little smile.

26- The king lived the life of an exile.

27- He whistled a low meditative whistle of satisfaction.

As it is obvious in the sentences above, cognate objects are usually morphologically related to the verb. Sometimes, however, the cognate object is not morphologically related to the verb as shown in the following sentences from Jespersen (ibid.:296):

28- He struck the table a heavy blow.

29- Jimmy longed to hit the man a swipe.

Langacker (1991b:363f) states that the difference between effected and cognate objects is that while the former continue to exist after the action designated by the verb has finished, the latter cease to exist since cognate objects represent "single episodes" of the action in question. That is, a cognate object is "an event coded as the object NP."

This means that cognate object is only a very marginal instance of object both syntactically and semantically. Since cognate objects are usually modified in real discourse, Quirk et al. (1985: 750) observe that the cognate object construction resembles adverbials, in particular manner adverbials, semantically and functionally. They both answer questions with *how*. Notice the following sentence from Jespersen (1924:138):

30- He fought a good fight.

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The cognate object in the above sentence can be replaced with a manner adverbial as in:

31- He fought well.

That cognate objects are syntactically marginal objects is obvious since they may appear with such intransitive verbs as *smile*, *live* and *whistle* in the sentences 25, 26 and 27 cited above respectively. Probably this is why Curme (1947:133) considers them complements of intransitive verbs.

It is to be noted that the term 'cognate object' itself is not a semantic one, and it cannot be viewed as a descriptive term indicating the semantic role borne by the noun phrase in question. Rather, it is morphologically oriented.

2.5 The range object

It is possible to regard the cognate object as one type of a more general marginal category of objects called range objects or objects of content. Brown and Miller (1980:288) define range objects as objects which refer to the range or type of the activity encoded by the verb. They cite the following sentences as respective examples:

32- John ran a mile. (range of activity)

33- John played chess. (type of activity)

However, it seems that the post-verbal noun phrase in 32 above is more of an adverbial than an object. Quirk et al. (1985:735), for example, note that it cannot be passivized except with generic reference, that is, the passive should have a stative, not an active meaning. In other words, the passive sentence should designate a state. They cite the following example:

34- A mile can't be run in two minutes.

Further, they note that extent phrases (i.e., phrases that refer to the range of the activity designated by the verb) cannot be questioned with *what*. They cite the following examples:

35a- *What did he run?

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35b- He ran a mile.

36a- *What did he jump?

36b- He jumped a few feet.

Danes (1968: 59) states that range objects occur with "peripherally transitive..... engagement verbs" where the object approaches the status of a cognate object. He cites the following sentences as examples:

37- He plays tennis.

38- He studies Greek.

Brown and Miller (1980:288) also note the peripheral status of range objects and correctly observe that the action in sentences with range objects is not directed (i.e., not

an action process in our terminology). It does not involve the action of an agent on an affected entity. They also note that while it is possible to passivize affected and effected objects, it is less felicitous to do so with range objects. They cite the following examples respectively:

- 39- The dog was beaten by John.
- 40- The house was built by John.
- 41- Tiddly winks was played by John.

However, it seems that range objects can sometimes be admitted to subject position in the passive provided that we have a suitable context. Notice the following sentence from Halliday (1985:136):

- 42- Five games were played before tea.

Commenting on the above sentence, Halliday observes that "semantically a range element is not in any obvious sense a participant in the process; but grammatically it is treated as if it was."

Halliday's conception of 'range object' is not as a purely semantic category of objects. That is, range object for him is not, strictly speaking, a semantic role as it

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is held by Brown and Miller (1980:288). This is shown in the sentences Halliday (1985:136) cites as examples of range objects:

- 43- Mary climbed the mountain.
- 44- What did you say?
- 45- She speaks German.
- 46- Tell me a story.
- 47- Don't talk nonsense.
- 48- He made a long speech.
- 49- John played the piano.

The sentences above show that Halliday's 'range object' is a semantico-syntactic category, which refers to a specific degree of attachment between the verb and the post-verbal noun phrase. It is less object-like than affected and effected objects since it shows a high degree of attachment to the verb.

2.6 The locative object

In 2.1, it has been noted that when the entity which designates location is viewed as somewhat affected by the action, it may be realized as a direct object. Notice the following sentences from Voorst (1988:83):

- 50- John spread the wall with paint.
- 51- John drained the pool of water.

As the above sentences show, the locative argument is obviously affected by the action denoted by the verb; *the wall is covered with paint*, and *the pool is empty*. The entity which is totally affected is coded as the direct object. For example, if the arguments realized in oblique phrases in sentences 50 and 51 above are viewed as more affected than the direct object argument, a change in realization will ensue as shown below:

- 52- John sprayed paint on the wall.

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- 53- John drained water out of the pool.

Locative objects are not restricted to sentences with the alternation discussed above; they may well occur in monotransitive structures. Consider the sentence below:

54- The army occupied the town. (Anderson, 1977:84)

It is obvious that the relation between the subject and object arguments in the sentence above is not a purely locative relation; the object argument is affected by the action denoted by the verb.

However, notice the following sentences, which also seem to have locative objects:

55- I climbed the Matterhorn. (Kenny, 1963:197)

56- We left London.

57- She crossed the bridge.

58- They turned the corner.

Clearly the object entity in the above sentences is by no means affected, and the state-of-affairs involved is not an action-process; rather, it is an action. However, real locative objects are affected, and the state-of-affairs with locative objects is usually an action-process. These facts are attested below (See 1.4):

59a- What did John do to the wall/pool?

59b- He spread/draind it.

But

60a- What did she do to the bridge?

60b- ?She crossed it.

However

61a- What did she do?

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61b- She crossed the bridge.

It is obvious that in sentences 55-58 above, there is no logical object entity corresponding to the syntactic direct object. Rather, the noun phrases in direct object position express points of location with respect to which the movement of the subject entity is described. Kenny (ibid.) correctly observes that the change brought about in such sentences as 55-58 above affects the locative relation between the entity which effects the change and the point of location. These are realized as subject and object respectively.

Therefore, since there is no entity in object position in logical structure, we need not think of assigning a semantic role for an argument which is not really a participant involved in the state-of-affairs encoded by the sentence. Rather, sentences 55-58 above can be grouped under Halliday's (1985:163) semantico- syntactic category of range objects. (See section 2.5 above)

2.7 The instrumental object

This semantic role is often overlooked in the literature probably because instruments rarely advance to direct object position as in the following sentences:

62- John pierced/poked/forced the needle through the pillow. (Gawron, 1988:274)

63- James wiped his napkin all over his mouth. (Jespersen, 1927:237)

64- John shot an arrow at the apple. (Brown, 1984:223)

65- He wrapped the cloak round her. (Jespersen, 1933:110)

The question to be asked here is why the instrument in the above sentences is coded as the direct object while the affected entity is expressed in a prepositional phrase. Probably Langacker's (1991b:285) conception of the instrument provides part of the answer. He considers the transfer of energy in action-process sentences a vital question. The agent, which is the initiator of energy, transfers the energy through the instrument

to the patient (i.e., the affected entity). Hence, instrument for him, serves as an "intermediary" in the transfer of energy.

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That is, it is somewhat an intermediary patient since the act of the agent affects the instrument before it affects the patient. This conception makes it quite natural for instrument to be admitted to direct object position.

3. The summary and findings of the study

Huge literature has been written on the subject of semantic roles, and yet linguists have not arrived at a general agreement regarding their nature, types or the way they are posited. In the present study, semantic roles are viewed as relations characterizing the logical structure of propositions and participants underlying the syntactic structure of sentences. The direct object grammatical relation typically encodes participant entities in the state-of-affairs designated by the verb. However, this does not hold true in all cases since sometimes there is no entity in logical structure corresponding to the direct object in syntactic structure, in which case it is said that there is lack of isomorphy between logical and syntactic structures.

Since semantic roles are viewed as logical structure relations, one should not start from the surface structure when trying to posit them. Rather, the type of state-of-affairs encoded should be specified first, and then the number of participant entities involved should be defined. Finally, each participant entity is associated with a particular semantic role according to the sort of participation or the role it plays in the state-of-affairs. We call this approach in the assignment of semantic roles the holistic approach, contrasted to the partitive paradigmatic and verb- centred approaches. A quick review of the semantic roles of the direct object will show that 'affectedness' is a crucial feature for paradigm cases of objects. Typical objects either have the affected semantic role, or are characterized by affectedness as a feature or 'macro-role' overriding their original semantic roles. Considering the 'affectedness' feature, affected, locative, instrumental and theme objects are semantically more object-like than effected, cognate and range objects. The latter group includes roles which have been postulated by grammarians tempted by syntactic structure; they are not semantic roles in the sense of participants in propositions. However, probably even within this group, the effected object is more object-like than cognate and range objects

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since it stands for a highly individuated entity. Cognate and range objects, on the other hand, do not represent individual physical entities. This can be attested by the passivization test as all instances of effected objects are passivizable, while there are restrictions on the passivization of range objects.

Bibliography

- Anderson, J. 1971. The Grammar of Case: Towards a Localistic Theory. Cambridge: Cambridge University Press.
- _____. 1977. On Case Grammar: Prolegomina to a Theory of Grammatical Relations. London : Croom Helm Ltd.
- Brown, K. 1984. Linguistics Today. Suffolk: Fontana Paperbacks.
- Brown, E. and J. Miller. 1980. Syntax: A Linguistic Introduction to Sentence Structure. London: Hutchinson and Co., Ltd.
- Carrier-Duncan, J. 1985. "Linking of Thematic Roles in Derivational Word-Formation." Linguistic Inquiry 16, No. 1: 1-34.
- Chafe , W. 1970. Meaning and the Structure of Language. Chicago : University of Chicago Press .
- Curme, G. 1947. English Grammar. New York: Harper and Row Publishers.
- Danes, F. 1968. "Some Thoughts on the Semantic Structure of the Sentence", Lingua 21, 55-69 cited in T. Vestergaard. 1977 Prepositional Phrases and Prepositional Verbs. The Hague: Mouton Pub. 59-60.
- Dik, S. 1978. Functional Grammar. Dordrecht : Foris Publications.
- Fillmore, C. 1968. "The Case for Case." In Universals in Linguistic Theory, ed. E. Bach and R. Harms, 1-88. New York: Holt, Rinehart and Winston Inc.
- _____. 1969. "Types of Lexical Information" In, Studies in Syntax and Semantics, ed. F. Kiefer, 109-37. Dordrecht: D. Reidel Pub. Co.
- Foley, W. and Van Valin. 1984. Functional Syntax and Universal Grammar. Cambridge: Cambridge University Press.
- Gawron, J. 1988. Lexical Representations and the Semantics of Complementation. New York: Garland Pub. Inc.
- Gruber, G. 1976. Lexical Structures in Syntax and Semantics. Amsterdam: North-Holland Pub. Co.
- Haegeman, L. and J. Gueron. 1999. English Grammar: A Generative Perspective. Oxford: Blackwell Pub. Ltd.
- Halliday , M . A . K . 1970. "Language Structure and Language Function." In New Horizons in Linguistics, ed. J. Lyons, 140-

65. Middlesex: Penguin Books Ltd.
_____ 1985. An Introduction to Functional Grammar. London: Edward Arnold Ltd.
- Jackendoff , R. 1972 . Semantic Interpretation in Generative Grammar. Cambridge, Mass. : The MIT Press .
- Jespersen, O. 1924. The Philosophy of Grammar. London: George Allen and Unwin Ltd.
- _____. 1927. A Modern English Grammar on Historical Principles. Volume 3. London : George Allen and Unwin Ltd .
- _____. 1933 . Essentials of English Grammar . London : George Allen and Unwin Ltd .
- Johnson, D. 1977. "On Relational Constraints on Grammars." In Syntax and Semantics. Vol. 8, Grammatical Relations. New York: Academic Press.
- Kenny, A. 1963. Action, Emotion and Will. London: Routledge and Paul.
- Langacker, R. 1991a. "Cognitive Grammar." In Linguistic Theory
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and Grammatical Description, ed. F. Droste and J. Joseph, 275-306. Amsterdam: John Benjamins Pub., Co.
- _____. 1991b. Foundations of Cognitive Grammar. Vol. 2, Descriptive Application. Stanford: Stanford University Press.
- Plank, F. 1984. "Introduction: Ces Obscurs Objets du Desir." In Objects: Towards a Theory of Grammatical Relations, ed. F. Plank, 1-8. London: Academic Press Inc.
- Platt, J. 1971. Grammatical Form and Grammatical Meaning. Amsterdam: North- Holland Pub. Co.
- Quirk, R., Greenbaum, S., Leech, G. and Svartvik, J. 1985. A Comprehensive Grammar of the English Language. London: Longman.
- Voorst, Jan Van. 1988. Event Structure. Amsterdam: John Benjamins Pub., Co.