

COMPLEMENTS VS. ADJUNCTS IN VALENCY GRAMMAR

Abstract: Valency is concerned with relationships between the verbal predicate and the other elements making up the predication, i.e. complements and adjuncts. By far the most researched question in Valency Grammar is the practical distinction of complements and adjuncts. My paper aims to review the different tests proposed by different authors to make a distinction (elimination test, the extraction method, the backformation test, substitution test and the *do so* test). Furthermore I shall present how Somers (1987) expanded the traditional distinction of complements and adjuncts into a new six-term system (integral-complements, obligatory complements, optional complements, middle, adjuncts, and extra-peripherals), which considerably strengthens the valency theory introduced by Tesniere (1959) and discussed in details by the German Grammarians.

1 Introduction

In General Linguistics Valency Grammar holds a rather strange position. German Valency Grammar is more or less regarded as the classical approach to linguistic description, though now there is a growing number of Valency treatments of other languages such as English, French, Latin and Japanese.

In this paper I wish to consider the linguistic theory of valency in the light of the distinction between complements and adjuncts. First I shall give a brief historical overview of the notion of Valency as regards the complement adjunct distinction. Then I shall review the different tests proposed by different authors to make a distinction. Finally I shall present how Somers (1984, 1987) expanded the

traditional binary distinction of complements and adjuncts into a new six-term system.

2 A historical overview of Valency Theory

Valency is concerned with relationships between the verbal predicate and the other elements making up a predication. These elements divide up into those which are closely associated with the predicate, termed “complements” and the rest, termed “adjuncts”. Complements are those elements which complete the meaning of a given verb, while adjuncts are essentially optional elements which complete the meaning of the central predication as a whole. Some complements are effectively obligatory, in that without them a sentence is ungrammatical, while others, though still closely associated with the verb, are optional in this sense.

The valency of a given verb is the number of complements it governs, and in a typical valency dictionary entry, a verb’s valency pattern is given as the enumeration of these complements with indication of their surface form (NP, subordinate clause, infinitival complement, etc.) surface functions (S, O, Prep C) and perhaps selection restrictions operating on them. Such elements are termed valency bound. The adjuncts, however, do not form any part of the valency pattern of the verb.

Tesniere (1959:102) is regarded to introduce the notion of Valency into modern linguistics. He made a distinction between “actants” and “circumstantials”, actants being elements which are central participants in the process, while circumstantials express the associated temporal, locational, etc. circumstances.

The number of actants that a verb takes is stated as the verb’s Valency. Possible verb valencies range from zero to three: aivalent verbs, like *rain* and *snow* take no actants; monovalent verbs like *fall* are traditional intransitive verbs; divalent verbs taking two actants are the traditional transitive verbs - Tesniere’s example is *hit*, trivalent verbs are exemplified by *give*.

Tesniere distinguishes types of actants, naming them prime actant, second actant and third actant. Certain syntactic and semantic functions are associated with each type. The first actant is generally the subject, the one which performs the action, the second the object,

which undergoes the action and the third the indirect object, to whose benefit the action takes place.

As regards the possible distribution of actants Tesniere is inconsistent. At one point Tesniere (1959:108) suggests that the order number of an actant can never be higher than the valency number of the verb, later he states certain valencies may remain unused or free (1959:239). Unlike actants, the number of circumstantials for any verb is indefinite. He also notes that the third actant has certain of the characteristics of a circumstantial and certain circumstantials are in some way analogous with actants.

In spite of the inconsistencies, Tesniere's work clearly laid the foundations of Valency theory.

As far as the German Grammarians are concerned, Helbig and Schenkel are regarded as central figures in the Valency theory. In their "Wörterbuch zur Valenz und Distribution deutscher Verben", which first appeared in 1968, they present their own views of the theory. The first of which is the consideration of the verb as the structural centre of the sentence. The second important issue they discuss is the distinction between complements/actants (*Ergänzung*) and adjuncts (*Freie Angabe*) and the further subdivision of complements into obligatory and optional. They give a general definition of "valency boundness" (1973:33), based on the distinction between complements/actants and adjuncts:

"Both obligatory as well as optional actants (both are necessary elements) are bound by Valency to the verb, are anchored in the syntactic frame of the verb and thus their number and type can be fixed. The adjuncts on the other hand (as unnecessary elements) are not bound to the verb, are unlimited in number and can for this reason be left out of or added to almost any sentence at will."

The theoretical section of Helbig-Schenkel's dictionary is also concerned with explaining their own formalism for the dictionary entries. Each entry consists of three levels: the first gives the numerical valence of the verb, distinguishing obligatory and optional elements. The second level gives the syntactic form of the valency-

bound elements, i.e. category (substantive, prepositional complement, embedded sentence etc.) and surface case. In the third level the restrictions – principally semantic – on each case are stated, which are expressed with familiar markers (e.g. animate, abstract, human, action, local, modal) and generally are accompanied by examples.

3 Complement – Adjunct Distinction Tests

By far the most researched question in Valency Grammar is the practical distinction of complements and adjuncts. Several tests have been proposed by different authors for this.

3.1 Elimination Test

The “elimination test” (Eliminierungstest) is described by Helbig and Schenkel (1973:33) as follows:

“We eliminate an element from the sentence and observe whether the remaining sentence is still grammatical, then the eliminated element is not obligatory; if, however, it is ungrammatical, then the eliminated element is syntactically obligatory for the sentence to endure.”

- e.g. (1a) He put *the book under the table*.
(1b) *He put the book.
(1c) * He put under the table.

The main problem with the elimination test, as Vater (1977:25) points out is that it is only able to separate obligatory complements on the one hand from all other optional elements on the other. Therefore it cannot serve to distinguish complements from adjuncts.

3.2 The Extraction Method

The extraction method (Abstrichmethode), introduced by Grebe (1966:468) looks very similar:

“We cross out from all imaginable sentences the freely added elements.”

- (2) The farmer ploughs his field in the morning.

Brinker (1972:181) distinguishes between the elimination test and the extraction test. In the former, the test is to see whether the sentence with elements removed from it remains grammatical, and thus whether the element in question is obligatory or optional. In the latter, however, the aim is to distinguish which elements are closely associated with the verb, that is complement vs. adjunct. The reason that we are not permitted to extract *his field* from (2) is that in doing so we would change the basic meaning of the predicate.

(3a) The farmer ploughs his field.

(3b) The farmer ploughs.

3.3 The Backformation Test

If we accept the elimination test as a means of distinguishing obligatory complements on the one hand from optional complements on the other, we still require some means of distinguishing among optional elements between complements and adjuncts.

The approach of Steinitz (1969:3) and of Helbig and Schenkel (1973:37) is the backformation test (Zurückführungstest). This test consists of reformulating the element in question as an embedded sentence: if this can be done without the resulting sentence being ungrammatical and without changing the basic meaning, then the element that has been back-formed can be said to be an adjunct.

Steinitz (1969:31) gives several possible backformations for *in Berlin* in (4), while Helbig and Schenkel (1973:37) give a number of examples of positive and negative applications (5–6):

(4a) He visited her *in Berlin*.

(4b) He visited her *when he was in Berlin*.

(5a) My friend lives *in Dresden*.

(5b) *My friend lives *when he is in Dresden*.

(6a) He died *in Dresden*.

(6b) He died *when he was in Dresden*.

3.4 Substitution Test

One of the number of tests proposed by Brinker (1972) is the substitution test (Ersatzprobe): verbal predicates having a similar meaning might be expected to have comparable valency patterns, though the morphosyntactic realization of the various obligatory and optional complements may of course differ. If we take the sentence

(7a) and delete the element *in her* we are left with the grammatical sentence (7b)

- (7a) He sees a friend in her.
- (7b) He sees a friend.

Ignoring the resulting ambiguity of (7b) the test suggests that *in her* is an optional element. If we replace *see* with *consider* in (8a), we find that the corresponding element *her* is not eliminable (8b):

- (8a) He considers her a friend.
- (8b) *He considers a Friend.

Another kind of substitution test is suggested by Andresen (1973:54):

“The exchange of one verb for another in the sentence has under certain circumstances consequences for the case of the “complement”; while the morphology of the “free adjuncts” is never affected.”

- (9a) I have been waiting *for my friend for two hours.*
- (9b) * I have been expecting *for my friend for two hours.*
- (9c) I have been expecting *my friend for two hours.*

The concept that verbs govern specific cases or prepositions is well established, but it is not very useful for distinguishing complements and adjuncts. Some verbs can have the same morphosyntactic valency patterns like *look for* and *search for*, others have multiple valency patterns exemplified by *roll in* (10)

- (10a) I roll the ball.
- (10b) I roll on the ball.
- (10c) I roll onto the ball.

The unacceptability of some elements with a given verb may also be due to the fact that an adjunct may be semantically impossible with a given verb as in (11):

(11a) * I met him to Manchester

(11b) I met him in Manchester.

Engel and Schumacher (1976:65) pointed out that a strongly governed preposition often cannot be replaced by an alternative near synonymous preposition, while in a prepositional adjunct it often can like in (12–13)

(12a) Inge is arguing *with* her friend.

(12b) * Inge is arguing *in the company* of her friend.

(13a) Anne is travelling to Geneva *with* her friend.

(13b) Anne is travelling to Geneva *in the company* of her friend.

Somers (1984:514) comes to the conclusion that if a preposition cannot be exchanged with another preposition having a similar meaning, then this is a strong indication that the prepositional element is a complement of the verb. Unfortunately, a negative result of the test does not necessarily imply adjunct status which can be exemplified by verbs of motion, which have a directional locative as a complement as in (14)

(14) Jane walked *into* town/*to* the shops/*up* the hill/*across* the field.

There are also state verbs for which a positional locative is valency bound like in (15)

(15) He lives *in* Salford /*by* the sea / *near* Rod / *outside* the city limits.

3.5 The *do so* Test

It was Somers (1984:516) who introduced the *do so* test, which he regards as a reliable means of distinguishing complements and adjuncts.

Several authors (e.g. Quirk et al. 1972:49,582, 684–697); Palmer (1974:23–24), have noted the use of *do* as a general pro form for verbs. Lakoff and Ross (1976:105) described the use of the phrase *do so* as a proform for the verb phrase. Thus (16a) may be reduced to (16b):

(16a) Harry went to Reading and Ben went to Reading.

(16b) Harry went to Reading and Ben *did so* too.

Lakoff and Ross (1976:105) make the claim that *do so* replaces all of the constituents of the verb phrase AND ONLY THESE.

Somers (1984:516) states as follows: "While a *do so* phrase can be the proform of anything up to the entire predication (less its subject), the MINIMUM element that can be substituted is the predicate PLUS ANY COMPLEMENTS (again, other than the subject). Thus from the unacceptability of the sentences in (17) we are able to confirm the complement status for the italicized elements.

(17a) * I live *in Manchester* and Jock does so *in Salford*.

(17b) * Harold drives *a Volkswagen* and Rod does so *a Lancia*.

4 On The Binary Nature Of Complement-Adjunct Distinction

Somers (1984:520) puts forward the view that "valency boundness is not a simple binary feature in the argument-predicate relationship, but that there are additional values for valency-boundness, in particular for arguments which are to be regarded as neither valency bound complements nor completely free adjuncts, but as lying in some intermediate area." He notes that some elements are central in the predication, and some are peripheral and these correspond to complements and adjuncts respectively. Another way of saying the same thing is that central participants (complements) pertain to the predicate itself, while peripheral participants (adjuncts) pertain to the predication as a whole.

The notion of central and peripheral participants is well established in linguistics outside the field of valency grammar: Longacre (1973:35) distinguishes "nuclear" and "peripheral" elements, while Cook (1972a), Dik (1978) and Halliday (1970) have similar concepts.

Somers (1984:25) observes that in (18) while *Steve* clearly pertains to the predicate itself, in (19a) *yesterday* equally clearly pertains to the predication as a whole, no such clear – cut distinction can be made about *with a hammer* in (19b)

(18) Debbie gave *Steve* a book.

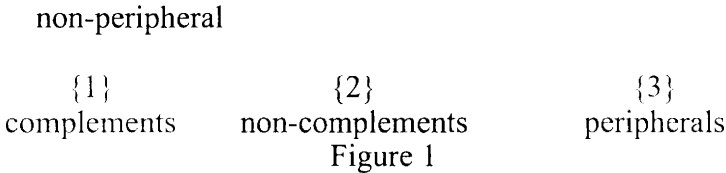
(19a) Nick smashed the vase *yesterday*.

(19b) Nick smashed the vase *with a hammer*.

While *with a hammer* in (19b) may not be a complement at all, it is somehow more central to the predicate *smash* than *yesterday*.

Matthews(1981:140) seems to have recognised the same phenomenon, as

Figure 1 shows:



Somers (1984:522) suggests that non-peripheral non-complements {2} and peripherals {3} can logically be grouped together as non-valency-bound elements, while complements {1} are valency bound.

Somers (1984:522) introduces the term “middle elements” between adjuncts and complements, which are neither complements nor adjuncts, but a bit of both.

There are two further terms Somers adds to the range of degrees of valency binding: integral complements, which are at the top of the scale, above obligatory complements and extraperipheral modifiers, which are more peripheral than the outmost elements so far suggested.

Somers notes that obligatory complements are not truly obligatory, because under certain circumstances – e.g. passives, infinitivals, nominalizations – they can be omitted. There are, however, some complements that are resistant to these omission possibilities because they are integral parts of the predicate. Examples of this are nominals *pave the way, keep pace, have a chance, put at risk* etc.

The extraperipherals are elements which modify an entire proposition, adjuncts included, and are typically logical or discursive modifiers like *personally, as you know, indeed, in fact, as seen above*, which are often separated from the surrounding text by conventional means (punctuation in writing, pauses and intonation in speech).

Figure 2 represents the whole range from those elements most closely bound to the verb at the top to those most distant at the bottom. This is how Somers (1987:27) expanded the traditional two-value scale to six distinct degrees of valency binding:

intergral-complements
“obligatory” complements
optional complements
middle
adjuncts
extra-peripherals

Figure2: Range of valency bindings

5 Conclusions

Somers (1984, 1987) has made an important contribution to valency theory. The traditional binary distinction between complements and adjuncts and the tests proposed by different authors proved to be unsatisfactory. Somers' new six-term system narrows down considerably the cases where the boundaries are fuzzy though according to Somers (1984:528) there may be cases where the criteria are unclear or in conflict.

The innovations such as the *do so* test and the expansion of the range of valency binding enrich rather than invalidate existing work in valency and can expand the valency patterns of valency dictionaries. We can say that this new approach considerably strengthens the theory and perhaps will speed up the acceptance of valency as a valuable approach to the lexis-based description of syntax.

References

- Andresen, H. (1973). *Ein methodischer Vorschlag zur Unterscheidung von Ergänzung und Angabe im Rahmen der Valenztheorie*. Deutsche Sprache, 49–63.
- Brinker, K. (1972). *Konstituentenstrukturgrammatik und operationale Satzgliedanalyse: Methodenkritische Untersuchungen zur Syntax des einfachen Satzes im Deutschen*. Frankfurt am Main:Athenäum.
- Cook, W. A (1972a). A set of postulates for case grammar analysis. In Cook (1979), 36–49. reprinted from Language and Linguistics Working Papers 4 (Georgetown University), 1–7.
- Dick, S. C. (1978). *Functional Grammar*. Amsterdam: North Holland.
- Engel, U and Schumacher, H (1976). *Kleines Valenzlexikon deutscher Verben*. Tübingen: TBL Verlag Günther Narr.
- Grebe, P (1976). *Der Große Duden: Grammatik der deutschen Gegenwartssprache*. Mannheim:Duden.
- Helbig, G. (1969). *Valenz und Tiefenstruktur*. Deutsch als Fremdsprache 6, 159–69.
- Helbig, G. (1971). Theoretische und praktische Aspekte eines Valenzmodells. In G. Helbig Beiträge zur Valenztheorie. The Hague: Morton.
- Helbig, und Schenkel, W. (1973). *Wörterbuch zur Valenz und Distribution deutscher Verben*. Leipzig: VEB Verlag Enzyklopädie.
- Lakoff, G and Ross, J. R. (1976). Why you can't do so in the sink. McCawley, J. D. Syntax and Semantics, Volume 7. Notes from the linguistic underground. New York:Academic Press 101–111.
- Matthews, P. H. (1981). *Syntax*. Cambridge: University Press.
- Palmer, F. R. (1974). *The English Verb*. Longman:Longman.
- Schumacher, H (1976). *Untersuchungen zur Verbvalenz: eine Dokumentation über die Arbeit an einem deutschen Valenzlexikon*. Tübingen: TBL Verlag Günther Narr.
- Somers, H. L. (1984). On the validity of the complement-adjunct distinction in Valency Grammar. Linguistics 22, 507–530.
- Somers, H. L. (1987). *Valency and Case in Computational Linguistics*. Edinburgh University Press.

- Steinitz, R. (1969). *Adverbial Syntax*. Berlin: Akademie Verlag.
- Tesniere, L. (1959). *Elements de syntaxe structurale*. Paris: Librairie C. Klincksieck.
- Vater, H. (1978). On the possibility of Distinguishing between Complements and Adjuncts. In W. Abraham, Valenz, Semantic case and grammatical Relations, 21–45. Studies in Language Companion Series 1. Amsterdam: Benjamins.
- Welke, K. M. (1988). *Einführung in die Valenz und Kasustheorie*. VEB Bibliographisches Institut Leipzig.