

# THE VALENCY THEORY AND THE APPLICATION IN ALBANIAN STRUCTURAL CORPUS

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## **Abstract**

The valency process is not known widely in our theoretical and practical works. There are some Albanian linguists that have tried to present this concept in our theoretical studies. These works have seen the concept of valency from two points of view. The authors of the first methodology have been the generativists. These works in general have given elements of formal constituents. They have talked about zero, one, two, three and polyvalent verbs, but nothing about semantic constituent (Th. Dhima). At the other side the lately works have been: a study of Gezim Xhaferri, an article of Emine Sadiku and some our articles and our PhD dissertation, that have seen the problem from another background. This one has been inspired from the cognitive and descriptive works of German linguists. The descriptive theory has known such a big development. Many valency dictionaries have been published for the most known languages such as German, English, French etc. The dependency grammar has been the main methodology used in this studies. Many problems that have been identified in generativist studies, have done many of them suspicious about it and have grown interest for descriptivist theory of valency. Here we intend to represent the concept. Then we know that in Albanian language we haven't structural corpuses, so we propose to use this theory in identifying it. Our Scope is to work for a valency dictionary for the most used lexical heads like verbs , adjectives, and prepositions.

***Keywords: Valency, complements, arguments, adjuncts, dependency.***

## 1. Concept of valency.

The term valency has been borrowed from chemistry, since the process concerning this phenomenon in linguistics is similar to the chemical process of the same name. The name is related to Lucien Tesnière<sup>1</sup> and his Dependency Grammar<sup>2</sup>.

Nowadays, scholars refer to Tesnière, as one of the authors, who used this approach in a grammar based on this concept.

Referring to recent studies at the historical plane of the phenomenon, scholars have observed that there were the German scholars, who had in fact, preceded the works of Tesnière.

The works of Bühler (1934) and Groot (1949) etc., are regarded as important contributions related to the descriptive studies of this phenomenon<sup>3</sup> in Germany.

These type of analyses have been so serious that they lead to the compilation of the first valency dictionary of German in 1969 (Dictionary of Helbig and Schenkel) and then in 1976 (Dictionary of Engel and Schumacher)

The verb is the main category which has been studied and it is still being studied according to this approach, although the concept has been sufficiently extended to other categories such as the noun, adjective and even the adverb and preposition<sup>4</sup>.

Tesnière treats this issue within the borderlines of the syntax of verbs. The verb is regarded as some kind of atom with hooks, capable of exerting its attraction to a more or less great number of linguistic elements that he calls actants<sup>5</sup>. The number of actants around the verb consist its valency<sup>6</sup>.

His concept about the actants “as expected elements to be governed by the verb”<sup>7</sup> is related to the dependency concept.

The same process (dependency relations) was also treated by Dependency Grammar<sup>8</sup>. The latter is related to the analysis conducted in the same line of arguments in 1970, particularly in Germany.

Dependency Grammar regards valency as a similar concept, mainly, with the dependency that is established by certain elements towards the governing element. The latter is called the head.

These terms usually referred only to the verb. With the passing of years not only the verbs but other lexical units as well, were referred to as governing heads.

In linguistics, a part of the dependency relations between the heads and other dependent units were discussed by traditional grammar, too.

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<sup>1</sup> Lucien Tesnière, *La Grammaire Structurale*, Paris, 1959.

<sup>2</sup>Herbst and Katrin Götz-Votteler, *Dependency Grammar, Valency-theoretical, descriptive and cognitive issues*, Berlin, New York, 2007.

<sup>3</sup> It should be noted that a similar concept is present at Bühler (1934), Groot (1949). Then, the works of Gerhard Helbig have had an important role in this field to be followed with the compilation of German Valency Dictionary by Helbig and Schenkel in 1969; Engel and Schumacher in 1976.

<sup>4</sup> The recent studies of Herbst present a new classification of words in the so-called groups of words. This division includes even particle phrase.

<sup>5</sup> Tesnière pg.238

<sup>6</sup> The similarity with the chemical process is clearly observed, accordingly, in order to form a salt molecule of NaCl, it is needed a natrium molecule with valence +1 and a chlorium molecule -1 valence.

<sup>7</sup> The example “Alfred parle” is a well-known example where the verb is the directing, the governing verb of actant Alfred. The latter depends on the verb.

<sup>8</sup>The English term is Dependency Grammar.

These works, not only theoretical but practical as well, have viewed valency from the traditional viewpoint, under the vest of reksion or direction<sup>9</sup>.

Generative linguistics studies valency as a process of selection, sub categorization, whereas in the works of Descriptive Grammar, the process has been presented in the context of complementation (CGEEL, Svartnik, Greenbaun, Leech, 1985)

Linguists of this approach label the notion of actant, as an obligatory participator (in Tesnière terminology) with different terms.

Thus, Renc calls them “nuclear elements<sup>10</sup>”, whereas Graf “arguments” (Syntax). Lyons<sup>11</sup> (pg. 326) talks about monovalent, divalent or trivalent verbs.

The term complement is used in other cases. This term is used more often in the English and American tradition.

We can observe that terms may change, not only from the perspective from which the process is studied, but also depending on the way that certain elements of the process in question are treated.

In general, theoretical and lexicographic works on valency have treated problems such as: the distinction criteria between complements and adjuncts<sup>12</sup>, along with the distinction between different types of complements (depending on certain degrees of the obligation that they present).

Recently, this term has often been used to describe English, some times with accurate references according to the European tradition and occasionally as a new term for the phenomenon of complementation (Thomas Herbst and Katrin Votteler have treated it in some of their works).

However, in order to deal with studies related to these processes presently, particularly in the Anglo-Saxon tradition, we should refer to the afore-mentioned term as complement and to its respective process as complementation.

As mentioned above, Tesnière and other older works have treated the concept of valency as a condition of dependency between the elements of the sentence, based on the data, property of the verb. Yet, they did not clarify the nature of this dependency.

Generally, this dependency was viewed at the syntactic level, as a relation between the verb and the obligatory elements of the sentence. This reasoning places us again in the position of syntactical valency. This approach led them to formalist conclusions, which have been discussed in our master thesis.

Around the 1960's of the last century, research related to this problem was deepened and as a result two different viewpoints were outlined.

The group of linguists supporting the first viewpoint regarded valency as a phenomenon of formal dependency between the different heads and the elements depending from them. This type of dependency established by different heads is accompanied by a certain number of complements. The definitions drawn in this way, brought conclusions that were rather related to quantitative valency (number of complements according to different heads). Monovalent, divalent, trivalent verbs, etc. were determined in this way.

This was, in fact, a quite schematic way and it did not reflect accurately in all cases all the possible valences of the head of the word. Such a concept is better verified, if you take into

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<sup>9</sup> Refer to S. Riza, Verb System of Contemporary Albanian Language, 1966. Ali Dhrimo has written about this too.

<sup>10</sup> Renc takes into consideration the close and characteristic relation of the verb with these units.

<sup>11</sup> Lyons, pg. 326

<sup>12</sup> We should note that this term does not always represent the same thing that adverbial modifiers represent in Albanian.

consideration that the semantic analyses according to this viewpoint were rarer and less sophisticated than those under the other direction.

The second viewpoint is wider in scope, since it viewed valency, as a great universal semantic resource (Allerton/Emons pg. 2).

Linguists of this viewpoint made a quite valuable work in re-conceiving the semantic component, which has now a very important status in this process and it is studied at different levels.

Similar levels include the study of semantic categories, semantic components, specific description of verbs, semantic roles etc.<sup>13</sup>.

Both concepts described above, regardless of the success they had at certain levels of study, they still remain to be marginal concepts in both cases.

A similar fact was observed in the method used by Helbig and Schenkel<sup>14</sup>, who merged both approaches into one, while determining the valency of verbs in German.

Helbig and Schenkel, 1976, viewed valency as **“the ability of the verb to open certain positions in the syntactical space, which could be filled with obligatory or optional complements”**<sup>15</sup>.

A similar notion regarding valency emerged in 1978 at Emons (1978:4) who views valency “as the property of a predicate<sup>16</sup> requiring a certain number of complements, which refer to his valency”.

This close conception of the phenomenon was re-taken and widened in the 80s by Herbst and his colleagues<sup>17</sup>.

Thus, valency was not considered any more as a feature of the verb, which was “omnipotent” but of the other lexical units as well. The latter were viewed in the light of this process with a role not less important for them.

It was clear, according to them, that words of other categories could have “the semantic category”. This fact was noticed in 1981 by Mathews<sup>18</sup>, who studied valency in “verbs and other lexical units”. In other later and important studies such as Trask<sup>19</sup> dictionary, the term in question is defined both in the narrow sense of the word and in the wide sense as well:

According to the first definition, valency was regarded as a process that deals with the number of arguments, which a certain verb selects and subcategorizes<sup>20</sup>.

In the wide sense of the word, the concept includes subclassificatory requirements for any lexical unit<sup>21</sup>.

The first definition views the phenomenon, simply, at a rather quantitative level, whereas the second widens its scope with requirements of a semantic level, apart from the syntactic one.

Crystal is another author who has treated this phenomenon. He is among those linguists that continue to view a similarity between the linguistic and the chemical process<sup>22</sup>.

He defines valency as “the number and the type of relations that syntactic elements may establish with one another” (Crystal 2003).

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<sup>13</sup>Herbst, Heath, Roe, Gotz, VDE, Mouton de Gruyter, Berlin New York, 2004

<sup>14</sup> Authors of “Vöterbuch zur Valenz und Distribution Deutscher Verben”, 1968.

<sup>15</sup> Helbig and Schenkel; 1974/49.

<sup>16</sup> Predicate means all lexical units that bear valency, the verb, noun, adjective.

<sup>17</sup> Author of VDE.

<sup>18</sup> Mathews 1981:115

<sup>19</sup> Trask Laurence, 1993

<sup>20</sup> He takes into consideration the quantitative definitions of valency, mainly verbs.

<sup>21</sup> Trask; Linguistic Dictionary, 1993. In the characterization of the second point, it is obvious the extension of the process in all lexical categories that might have it, a concept much wider than that of point one.

<sup>22</sup> There are other views that have avoided this similarity already.

Syntactical elements, according to him, mean all the units that form a constituent in a hierarchy.

In this sense, valency could be viewed as a process not only of the syntax of the verbs, or of the verbs and other lexical units, but of syntax in general.

Along with the somehow limited conceptions that were mentioned so far, there have been ideas that viewed valency extending in a very wide space.

According to Russian linguist, Vladimir Admon, valency is viewed as an ability of any part of speech. This statement goes beyond any limits of the valency applied so far, because all lexical and grammatical units are regarded as heads. (The most recent dictionaries of valences examine in general the structure of verbs, nouns and adjectives.)

Some of the latest American<sup>23</sup> projects include prepositions and adverbs, whereas the other elements, which are part of the structure of the sentences, are not seen as capable of attracting around themselves other elements, be these obligatory or not. They are seen as components of the above-mentioned heads valency patterns).

It should be mentioned that valency nowadays has its own definitions and it is generally studied for certain lexical categories.

Moreover, in order to structure better valency patterns, not only from the syntactical point of view, but particularly from the semantic one (Now the differences between obligatory and optional elements are already codified).

The process of valency is viewed as more independent from the dependency concept. It is thought as the property of lexical units in relation to certain structures and it belongs particularly to units that might have selective, subcategorizing<sup>24</sup> abilities.

In the works of Haegeman (Haegeman 1991:41) and later of Chomsky (2004:111) valency is still being treated in the same line of arguments<sup>25</sup>.

In conclusion, we could say that the valency theory reserves a central role to the verb, which is seen as the organizing head that might determine the number of participating elements in a sentence.

***It is often conceived as a semantic selection of the lexical heads of obligatory or optional elements. The latter are materialized in specific patterns that have quite specific syntactic markers (and morphological ones for inflective languages such as ours).***

## ***2. The structure of valency pattern***

Herbst states that valency is one of the least predictable and systematic aspects of the language<sup>26</sup>. He gave his viewpoint in relation to the concept of valency patterns and how they were structured. His viewpoint was based on two questions:

1. Should valency be viewed as a corpus of valency patterns?<sup>27</sup>
2. Should it be thought simply as storage<sup>28</sup>, inventories of valency complements?

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<sup>23</sup> We could refer to Fillmore's concept for this.

<sup>24</sup> We will discuss this concept, when we are going to discuss about the relations between valency and reaction.

<sup>25</sup> To Haegeman, the verb theta-marks its arguments, whereas to Chomsky, this phenomenon has to do with the description of lexical entries of the verb: "Any lexical unit, category bears in it self a certain number of thematic roles, theta roles that should be filled. This is its lexical introduction." Chomsky, 2004:111

<sup>26</sup> For this reason, it is often studied in its origin in the context of learning or teaching foreign languages, even though it has gone beyond that, as the concept has been widened. It is seen as the wealth of lexical units which determines the structure of the sentence, therefore, it plays an important role in syntax, by putting into motion the other levels of study.

<sup>27</sup> As a group of structures that illustrate the valency of a given head.

<sup>28</sup> Simply the identification of the complements of the heads and determining accurately the number of valency.

Looking at the way that different linguists treated the concept of valency, he underlines that all these viewpoints observe that a verb (as the main representative of categories that take valency) can be accompanied with a type of group, inventory of syntactic elements.

The latter have different terms depending on different grammars, such as: semantic case<sup>29</sup>, thematic roles, arguments or complements<sup>30</sup>.

Herbst himself considers verbs as accompanied by a definite inventory of complements<sup>31</sup>. Their identification and reflection is accompanied with certain patterns<sup>32</sup>, which display exactly the valency of the respective lexical category.

Fillmore's reconception of the notion of semantic case enabled further exploration of the semantic level intertwined with concrete characteristics according to languages based on the syntactical component. This explains the great number of lists of semantic cases presented by different authors, one of them is that of Tarvainen<sup>33</sup>.

When compiling the first schemes, one of the main problems that he faced was the distinction between complements and adjuncts.

In VDE<sup>34</sup> the adjuncts are seen as elements that bear two main characteristics:

1. They may be relatively free
2. Their form is not determined from the governing verb

On the other hand, complements are studied here with regard to three aspects:

1. In relation to the formal and functional wealth.
2. In relation to semantic and lexical wealth (already discussed).
3. In relation to the fact whether they are obligatory or optional.

In this context, the concept of formal element of Herbst includes the fact that complements may be better described (for theoretical and lexicographic reasons) with the terms of formal categories such as phrases<sup>35</sup> and sentences<sup>36</sup>. Thus, we identify:

1. Noun phrases [N] (new book, they, some of us, many children)
2. Adjectival phrases [ADJ] (fast to run)
3. Prepositional phrases [Prep N] (at home, around the neighborhood)

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<sup>29</sup> Fillmore, in 1968, in "Case for Case" notes that "the insertion of the verbs depends on a certain series of cases or case-frames obtained from the sentence. These are called semantic cases.

<sup>30</sup> We should be careful with the terminology, since the last two terms in some theories identify the same thing, whereas in the Theory of Valency, one of them refer to the semantic level and the other to the formal one.

<sup>31</sup> A verb such as "convince" consists of a number of complements that are structured as follows:

Active2/3	Passive 1/3	General 0	II obl [N]	D	T1-3
I [N]A/[by N]			III [to-INFL]		T1
[V-ing]				D	T1-3

<sup>32</sup> We will come back to this issue in the following chapters.

<sup>33</sup> K. Tarvainen, Semantic Cases, in the Framework of Dependency Theory, Tybingen, 1987.

<sup>34</sup> VDE, pg. 2

<sup>35</sup> This concept will be re-configured later by the authors of VDE themselves determining a new grouping of words. Noun phrases, adjective and adverbial phrases and those phrases that have a particle head (not in the traditional sense) will be determined in this way.

<sup>36</sup> VDE, pg. xxv

#### 4. Sentences as:

–ing sentences [V-ing] (reading).

Infinitive [to-INF] (to read).

Sentences with “that” (relative) [that-CL] (those that he read).

Wh-questions [wh-CL] (I don't know who is coming, what he is doing, how much he will get, etc.).

Apart from this group in certain cases for Albanian, with regard to complements (perhaps contextually optional) we better study some adverbial and relative clauses.

Problems arising at the theoretical level as well as from contact with the corpus are numerous.

Next we will try to give a model on how a verb head is reflected in a valency dictionary, for example in English, however, referring to the specific structures of Albanian.

The different meanings of the head are given in the beginning with Arab letters, for example, A – Accuse.

Firstly, we should clarify the fact that these patterns do not only foresee the structures where the verb is active, but also the passive ones and in certain cases when it is used as impersonal. Therefore, active and impersonal and passive definitions refer to these projections.

Moreover, we are trying to give all representative patterns, i.e. those that have the highest frequency of usage, at least at a neutral level (these are written in Roman letters).

If there is more than one complement in series, in a pattern, then they are marked with numbers, 1, 2 etc.

Obligatory or optionality are elements to be foreseen in this inventory (obl, kont).

Semantic cases that we have combined with auxiliary elements of semantic components are simultaneously reflected in the pattern (Act – agent, affect – affected, Vepr-vepruesi, I prek-I prekuri etc.).

Quantative valency is given with a traditional terminology: transitive, 1, 2, 3 (e.g. M D<sub>2</sub>, T etc.). The number shows the possible number of complements that could be found in that structure.

We have provided the syntagms, phrases in Albanian, so we have noun phrases marked as [E].

All the foreseen structures in the inventory are given under the pattern with the indicators on the side for reference.

#### ACCUSE - VERB

##### A. Accuse

	ACTIVE 1/2	PASSIVE 1/2	Impersonal/ 0
I	obl [E]A/[E]P	Active[+inst]/I prek	D <sub>2</sub>
II	obl [E]A/[E] <sub>1</sub> [for E] <sub>2</sub>	Active/I prek	D <sub>6</sub> T <sub>10</sub>
III	kon [E]P	Përf	M
IV	[E]P/[for E]	Përf/Shkak	D <sub>6</sub>

D-The court accused him /Gjykata e akuzoi atë

T-The court accused him (them, me, you (sing+pl), he) of abuse of office, theft, robbery, murder, sexual abuse etc./ Gjykata e akuzoi atë(ata, mua, më,ty, ju,ai) për shpërdorim detyre, vjedhje, grabitje, vrasje, abuzim seksual etj.

M- He (/she; they (fem+masc); we; you (sing+pl), I) were already accused. /Ai(/ajo; ata/ato; ne ; ju; ti; unë) u akuzua tashmë.

D- He was accused of abuse of office, theft, robbery, murder, sexual abuse etc. / Ai u akuzua për shpërdorim detyre, vjedhje, grabitje, vrasje, abuzim seksual etj.

File a lawsuit against somebody with the consequence to be executed, therefore, it is expected to be executed by the judiciary.

B blame

	ACTIVE 1/2	PASSIVE 1/2	GENERAL 0
II	obl [E] <sub>A</sub> /[E] <sub>P</sub>	Vep[+frym]/I prek[±frym]	D4
I	kont [E] <sub>A</sub>	Vep[+frym]	M6
II	[E] <sub>P</sub> /[from E]	I prek/Vep	D6-7
III	[E] <sub>P</sub> /[from E] <sub>1</sub> /[me/pa E] <sub>2</sub>	I prek/ Vep/Mën	T3

D-I accused him, boy, girl, state etc. /Unë e akuzova atë, djalin, vajzën , shtetin etj.

M-You only accuse, but .... / Ju vetëm akuzoni, por .....

D-They were accused by us. / Ata u akuzuan nga ne.

T-They were accused by you justly/unjustly intentionally/unintentionally. / Ata u akuzuan nga ju pa(me) të drejtë/pa (me) dashje.

The above patterns are a challenge for us, following the pattern presented by E. Sadiku in the Conference about Terminology in Sciences of Language, Elbasan, 2012.

It should be mentioned that Sadik's pattern is based on the experience of Engel, a compiler of bilingual dictionaries. The semantic component is almost never reflected in it.

We deem that Herbst's pattern, our basis, is more featuring in the context of monolingual valency dictionaries. Therefore, we will continue to work to improve and adapt this pattern in Albanian.

Nowadays, while the majority of modern languages has identified and arranged the data of relevant codes in structural corpuses, we think that after knowing better this experience, at the theoretical and practical level, we could use these data for the compilation of a structural corpus of Albanian language, required and indispensable to a great extent.

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