

V. ÉVÉNEMENTS

EXPLANATION IN THE WRITTEN DIDACTIC DISCOURSE

Simona Victoria POPESCU CAUCĂ
Universitatea „Ovidius” Constanța
simona.cauca82@gmail.com

Abstract

Our work deals with a very important aspect of the scientific-didactic discourse, namely the explanation, which gives specificity to this type of communication, along with the interrogation system and the exemplification system. The explanation includes everything, including demonstration, logical and rhetorical argumentation, experiment, case study, etc.

Keywords: Explanation, written didactic speech, didactic communication, scientific-didactic discourse, descriptive explanation, demonstrative explanation, deductive-nomological explanation, deductive-statistical explanation.

From our point of view, the explanation can be reduced to the structure of a common act of speech, such as greetings or compliments, since the classical primary scheme can be concentrated in stable relationships:

A means B = primary, spontaneous explanation

A is B, customized through C = explanation by definition, according to formal logic.

What we were interested in was the *extended explanation*, starting with the enunciation of the object of knowledge (phenomenon, process, etc.), continuing with the definition, then with the analysis of the complementary features, with the possible classifications, by establishing the cause-effect type of connections, contextualizations, and ending with the presentation of the impact of the phenomenon approached on the material and spiritual

realities of the surrounding world. In the didactic discourse, it all equates to “a lesson”.

Communication is a complex process that requires different analysis perspectives to determine how communication acts can affect the human behavior.

Different perspectives of communication analysis (with methods and instruments taken from semiotics, pragmatics, logic, philosophy, cultural anthropology, etc.) have revealed many aspects that are not yet firmly established: *the nature of language, the level of understanding of the communication*.

As far as the communication in the educational context is concerned, we note that it is subsumed in general-human communication (verbal, non-verbal, paraverbal), of course, by distinguishing the communication forms and factors.

The perspectives approached by us in this paper, namely the the linguistic and the didactic one, have determined many nuances related to the concept of didactic communication: on the one hand, the conceptual device of the educational language reflects, to a great extent, a terminology based on the products of the language and communication science, and on the other hand the didactic discourse emphasizes the peculiarities of the scientific and argumentative discourse in a mitigated form.

The *corpus of examples* was selected from the most common form of *written didactic speech*, the textbooks. We chose representative texts of 15 alternative textbooks from different subjects - all from high school, to which we added some so-called “auxiliaries”, namely homework and exercise workbooks, teachers’ guides, anthologies and methodics. The selected texts were focused mainly on explanations regarding the concepts in the Romanian language and literature (language and style problems, communication, concepts of history and literary theory – trends, genres and literary species, etc.), but also in the field of physics, psychology, economics, and so on. Our intent was to outline a coherent image of the didactic discourse as of now written in Romanian, in terms of the explanatory approach, which we consider it to be essential for this type of discourse.

Regarding the particularities of the didactic discourse (written and oral), we found that it is built on the basis of logical - inductive, deductive, analogical and dialectical approaches –which are necessary in the learning activities.

Also, the didactic discourse means *talking about scientific truth* in a particular form, through *reformulation, redundancy, tautology and paraphrase*.

As regards the so-called strategies and teaching methods, I have emphasized that these are in fact language acts that highlight the interactive nature of communication. Among these, we mention the *example*, the *definition*, the *explanation*, the *conversation* - means of the discursive practice that put into practice the discourse in the educational context.

The *working method* has been used by the principles and instruments of *pragmatics*, *structuralism* and *logical-formal analysis*. The *analysis grid* consisted of a discourse decomposition in explanatory sequences. The first was, whenever it was necessary, to check the congruence of the statement and definitions with the rigors of the Aristotelian formal logic: the framing into the proximal gender and the clear revelation of the specific differences. Then we followed the clarity of the exposure of the classification criteria and of the axiological act itself. We have given importance to explaining the manifestations of the phenomenon studied - causality, connections, contextualization, relationship with the determinant agent, the relevance of the phenomenon, by reference to man and nature, to the history of human knowledge. From the structural-semantic and semiotic perspective, we have taken, as often as possible, the key words and significant phrases that prove the explanatory effort of the authors of such texts.

The *structure of the work* followed the specificity of the subject we were dealing with. After the theoretical introduction, in which we motivated our choice and exposed the conditions of the proposed approach, we wrote two chapters on the theoretical aspects of the explanation. The first was to include the explanation in various fields of the word sciences (the pragmalinguistic theory, the speech theory, textualism, discourse analysis, logical semantics and syntactic semantics etc.). The next chapter was dedicated to the modern theories of explanation, which became a subject of debate in the philosophy of science in the mid-twentieth century.

We have given an important place to the classical models of explanation, although the nowadays term (*explanation*) was not yet used, those based on the theory of causality in the logic, physics and metaphysics of Aristotle, as well as of the medieval thinkers in the Scholastics and the Renaissance era.

We completed these theoretical presentations, accompanied by numerous examples, with a *Case Study* dedicated to the deductive-Aristotelian and Baconian explanatory models, complemented by intuitive models and

divine determinism, supported by the novel *The Name of the Rose* by Umberto Eco.

Finally, in a separate chapter, we proceeded to the practical analysis of the supporting texts in the corpus created by us based on the above-mentioned grid. We took into consideration four general categories of explanatory models and a set of three hybrid subcategories, but common in the Romanian didactic speech.

The conclusions we have reached confirm, at least in part, some of the assumptions which we started from:

The didactic explanation is a variant of the scientific one, as the didactic written discourse is a subdivision of the scientific discourse. Differences start from the stake of knowledge and asymmetry in the sender-receiver relationship. In the didactic discourse, the purpose of the explanation is getting to know an object, phenomenon, process, etc. already validated by science, but still unknown by the young receptors. The sender does not address himself to specialists, but to novices, redefining the original explanatory process in the demonstrative-instructive and formative way, of the different scientific field.

- This means that the didactic discourse adapts its explanatory schemes to the principle of accessibility through simplifications, metaphorizations, by appealing to numerous examples, to the authority's argumentation, to iconicity and through general graphic support.

All the constraints of a discursive text remain in place: coherence and cohesion, redundancy with a rhetorical role, paraphrase, schematization, connotations, enunciative device, and so on.

- At the deepest level, the explanation remains an act of assertive speech, but on a declarative act. The object of the explanation is declared X, it is called in some way, then the declarative character extends to the dimensions and the rules of the definition, so that the content of the act is organized around the assertive values, that is to say, of the claiming the assertions made in the beginning through arguments of various kinds.

- Although the explanatory models are mainly limited to a small number of invariants, their application differs from one study discipline to another, from one level of understanding to another (according to the

graduation of school ages) and obviously depends greatly on the skills and competences of the authors of the manuals. The classifications we operate on, which are only partly framed in the philosophical typology, in the paradigms of science and psycho-pedagogy, in the analysis of discourse and textualism, have mainly a methodological role of organizing the highly heterogeneous material processed and analyzed here.

Against the backdrop of the decline of logical positivism and of the ascension of modern theoretical sciences (the philosophy of science, the development of paradigms of scientific knowledge, such as those developed by Thomas Kuhn, the modern sciences of the word, etc.), newer and newer theories of explanation kept developing.

The didactic perspective from where we approach the theory and practice of explanation has only gained from this harmonization of formal logic with the research regarding the language system, and philosophical theories, principles, explanatory patterns and working tools shared by the two major areas are much more productive in the field of didactic texts.

Structural-Semantic and Semitic analyzes have highlighted relatively standardized linguistic structures in the course of explanation. At the logical-syntactic level, various variants of Aristotelian schemes are used: sentences (major and minor), connectors, conclusions, syntactic developments, types of circumstances - time, place, cause, concession etc. At the discursive level, we have the deixis, anaphora, redundancy, parallelism, repetitions, amplifications and constraints, the rules of cohesion and syntactic-morphological and lexico-semantic coherence dominate all types of explanatory texts.

The lexico-semantic structures clearly render the explanatory effort and outline the discursive type:

a) **Verbs:**

- *a fi* (to be), *a reprezenta* (to represent), *a însemna* (to mean) (especially in the definitions)

- *a determina* (to determine), *a produce* (to produce), *a declanșa* (to trigger), *a ajunge* (to reach), *a deveni* (to become) (in establishing the cause-effect relationships, the essence of the explanation)

- *se împarte (is divided), se clasifică (is classified), se deosebesc (are distinguished)* (in explanatory classifications)
- *a rezulta (to result), a deduce (to deduce), a ajunge la (to reach), a apărea ca (to appear as)* (in deductive and inductive judgments)

b) **Connectors:**

- *pentru că, din cauză că (because), fiindcă (for), deoarece (since)* (causality)
- *dacă (if), de (by), că (that)* (conditionality)
- *în timp ce, pe când (while), pe de o parte....pe de altă parte (on the one hand ... on the other hand), ori...ori (either....or), pe cât....pe atât (as much.... as)* (logical oppositions, contradictions, disjunctions, etc.)
- *așadar (therefore), deci (so), prin urmare (thus)* (the conclusions, the results of the explanation)

In the didactic explanations, the guiding type of phrases, hortatively formulated, are very important (*căutați (search), subliniați (emphasize), explicați (explain), comparați (compare), analizați (analyze), construiți (build)*), because learning by discovery, by maieutical method, by Socratic questioning and interrogation, successfully replaces the actual scientific exposition. The practical applications, the experiment (simulated, demonstrative, in the sense of restoring the initial scientific experiment) and the case studies are part of the didactic explanatory strategies.

The success or failure of the explanation in the written didactic text is related to the factors listed above, and especially to the competences of the issuer of the message in question. The deviations from the logical graphic of the definitions, the absence of the classification criteria, the servile takeovers from reference academic texts that exceed the reception possibilities of the beneficiaries of the didactic discourse, the agglomeration of the justifying quotes, transformed into text anthologies, the prolixity or, on the contrary, the excessive schematization often cancel the functioning of the principles of cohesion and consistency of the text. Fortunately, we have quite rarely noticed situations in which the general impression is that the person who explains does not know very well the studied object.

Most of the times, the explanatory texts are clear, balanced, structured on cognitive-discursive sequences, logically argued and expressly formulated. In many cases, the explanatory text itself is, as a succession of speech acts, a shaping model for the development the young people's way of

thinking, beyond the selection of cognitive examples and cognitive markers with a training role in terms of personal development.

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