

# ISSA Proceedings 1998 - Rational Comprehension Of Argumentative Texts



The goal of this paper is to sketch a new method of analytical comprehension of theoretical texts in humanitarian sciences. The proposed method of research is based on semiological principles of text comprehension. Both content and form are essential for comprehending argumentative texts. A text recipient is viewed as a

rational subject trying to detect all the components of the argument he/she considers and thus to see if the argument is logically consistent. Elementary and higher level argumentative units of the text are discovered by applying a modified S.Toulmin's model of argumentative functions (Toulmin, 1958).

Studying the problem of understanding depends on a method accepted, on a researcher's background, and on a field of research. Thus, approaches in psycholinguistics can differ from those in hermeneutics, literary criticism or philosophy. Scientific method is not the only one to be applied in solving the problem of the essence and mechanisms of understanding; it can be supplemented by other methods. All that means that both the topic and the object of research matter in studying understanding. By the topic I mean a particular kind of message for understanding. By the object I mean a chosen method and particular aspects of the message to be studied.

The topic of my study is a research text in humanitarian sciences. The object of my study is a problem of understanding a research monologue text. By text I mean the written form of discourse, as opposed to speech as its oral form. A research text is organically argumentative, i.e. constructed on the basis of certain principles of reasoning (irrespective of the field it belongs to). That is why research text understanding is essentially understanding of the text argumentation. By argumentation I mean reasoning, both in its formal-logical and informal-logical aspects (rhetoric is thus excluded from argumentation, which is conditioned by the specific topic under consideration). Argumentation is viewed here as a social symbolic sub-system, with the system being a language - natural or artificial, depending on which version of argumentation is chosen for

consideration. Like any human knowledge, argumentation as a symbolic sub-system is generated by the power of human mind. Constructive sign-forming abilities of cogitant individuals are unitary. This, however, does not mean that all cogitant individuals create identical cognitive structures: variety of constructs at an abstract level reflects specific categories managing the process; these categories can be purely logical or argumentative.

An important factor in producing or changing symbolic systems is acceptance or refutation of a knowledge structure, respectively. If an old system of knowledge is refuted or is found inapplicable for describing or explaining an object, it is substituted by a new or a modified one. Being social (inter-personal), such competitive cognitive systems are applicable for describing and explaining phenomena. Therefore it is possible to postulate coexistence of competitive cognitive structures/systems, none of which, as a product of human mind and interaction, can be absolutely true. Consequently, argumentation theories can be object-oriented and object-specific; they can also be competitive and differently plausible/valid for a specific object (some of them can be better, others worse).

A modification of rationalism is taken as a basis of method here. The modification states that though there is truth, it is practically unattainable. The theories can and must be discussed and refuted since any of them is only a further step to attaining the truth. Falsifiability of theories leads to falsifiability of particular claims and judgments. Taking into account the unique character of personal experience, we can state the uniqueness of scholars' theories.

Therefore truth of judgments is viewed here as always relative to a particular cognitive system. The common ground for comprehension here is conventions about the principal axioms and the meaning of terms (such as Argument, Premise etc.). The conventional character of terms can be stronger or weaker: cf. Informal Logic, Pragmadiagnostics, Deduction, Induction as examples of the latter). No doubt, conventional force can depend on linguistic clarity and the skill to formulate one's ideas.

A recipient of an argumentative text is viewed here as a "rational subject", or an analyzer of reasoning in the text. He/she uses a certain model of analysis to understand the author's reasoning. The model is stored in the recipient's memory and is based on logical laws of thinking. Criteria of logical correctness (relative truth of premises + validity of reasoning) must correspond to the standards of rationality that are used by both the author and the recipient of the text.

Supposedly, such criteria exist. The standards are manifested in a specific argumentative model because a theoretical text is based on a logic of reasoning.

Argumentation can be represented by various approaches. Still, to have even minimal explanatory force any approach must be based on principles of construction and analysis of reasoning. Rational attitude helps us to choose out of many logical systems a basic one maximally corresponding to the goal and the object of our research.

Since an argumentative text is regarded here as a theoretical text based on reasoning, it must correspond to the principle of strictness which can be deductive validity. Taking into consideration the sign nature of a text, we should choose a logical system oriented (at least partly) on semiological processes. Such a system must be intensional because theoretical texts are themselves intensional. If we have a suitable logical system applicable in all respects but the intensional one, the system can be extended thus having an opportunity to describe both form and content.

Since a theoretical text is a natural language phenomenon, it is necessary to pay attention to linguistic categories proper, i.e. meaning, exponential and contentive parts of the sign. These factors can be covered by a modified version of traditional syllogistic. Taking into account the specificity of the type of a theoretical text taken as the object, namely, a text in humanities that does not have a strict formal organization, it is necessary to apply an informal logical system to text analysis. Such a system could demonstrate that being non-rigid, the text is still logically organized, i.e. constructed in accordance with a scheme of reasoning representing a tactico-strategic aspect of argumentation. For that purpose an argumentative-functional model as a version of sentential logic is used.

Comprehension is understanding another person through a discourse; it is thus not only subject-oriented, but also object-oriented. The object-oriented principle of understanding presupposes specific treatment of happiness conditions of reasoning and comprehension of argumentation in monological texts. The happiness conditions are divided into general argumentative and specific argumentative conditions. This differentiation is based on the dichotomy between pan-systemic and mono-systemic levels in argumentative analysis.

General argumentative conditions comprise Principles of Generosity (described in detail in works on argumentation), of Argumentativity, and of Symbiosis of Systems of Reasoning. The Principle of Argumentativity presupposes co-direction

of premises of an argument so that their use could not contradict to a claim being proved, and the combination of the premises makes the argument stronger. This principle does not apply to syllogistic because premises in a syllogism are interrelative with its conclusion and thus always “work in the same direction”; it is also important that the notion of strength of the syllogism is inapplicable to syllogistic as a deductive system.

The Principle of Symbiosis of Systems of Reasoning presupposes division of application of systems of logical analysis in accordance with a strategic and a tactical approach to the text. There are two levels of argumentation in the text. The strategic level is responsible for description of the principal (general) organization of the text. For strategic analysis argumentative-functional model is used. The tactical level in the proposed theory is the level of the argumentative elementary unit; this intra-argument level is used here for analysis of logical correctness of the unit of argumentation.

Since the recipient has nothing but text as objective data for analysis, he can establish its logical correctness basing on the degree of its optimality of encoding. In other words, not only the contentive, but also the exponential part of the text matters for establishing its logical correctness as viewed by the recipient. For this level a new version of syllogistic is applied; its syllogisms are sensitive both to the form and to the content. The syllogistic operating on the structures resulting from argumentative-functional analysis of the text. These structures are argumentative units.

Specific argumentative conditions are Principles of Maximalism and of Discretion. Being both applicable to the intra-argumentative level of analysis, these principles are differently oriented. According to the Principle of Maximalism, if there is no explicit quantifier (which is most often the case) in the Claim judgment of an enthymeme and, consequently, the scope of the Claim can be either universal or particular (with different modes of syllogisms taken for restoration), the recipient should choose the universal option out of the alternative “universal vs. particular”. It is thus presupposed that the author of the text made the stronger (universal) statement. The Principle of Discretion is quite the opposite and is oriented at choosing a particular statement. Maximalism works in accordance with the Principle of Generosity: it is oriented on a greater scope (and, hence, greater force) of the author’s argument. Discretion is oriented at “saving face” of the author if his/her claim only turns out to be a particular (as opposed to a supposedly intended universal) statement as a less committant one, i.e. having less

force than it could have had. Discretion is also oriented at the recipient - it insures it from possible blame of making a quantitatively too strong conclusion.

Argumentative analysis based on the two systems of reasoning operates on specific units of argumentation. The minimal unit is an Argumentation Step, composed of elements of argumentation - statements having specific argumentative functions: Claim, Data and Warrant. Nominal composition of a unit is co-occurrence of the three elements; relatively minimal is presence of Claim and Data; absolutely minimal is occurrence of Claim only. Argumentative elements do not necessarily correspond to separate statements in size and can be manifested as a combination of statements, particularly when the statements do not have a form of a standard judgment. The maximal unit of argumentation, to which both systems of reasoning (i.e. the argumentative-functional model and the syllogistic) are applicable, is an Argumentation Move; it is a unit of textual level composed of several Steps (it can also coincide in size with one Step). A formal border of the Move is the border of its respective paragraph.

At the local level (the level of Argumentation Step) use of both mentioned systems of reasoning is most efficient. The result of using the syllogistic method is a parallel argumentative structure composed of one (in a relatively minimal argument) or two convergently combined syllogisms (in a nominal argument). That is a "syllogistic portrait" of an Argumentation Step; it has the properties of provability and of unconditioned relevance of argumentation at the local argumentative level. Such "portrait" is not regarded as a separate argumentative unit here, because only one system of reasoning (but not both) is applied to it; rather, it is a result of analytic understanding of the Argumentation Step. The applicability of the method presented above has certain limitations because it was developed for specific types of discourse - written argumentative monologue with a non-rigid structure. Other types of discourse can be analyzed from different positions.

## REFERENCES

Toulmin S.E. (1958). *The Uses of Argument*. Cambridge: Cambridge University Press.