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**PREFACE:
THE VARIETY OF RESEARCH PERSPECTIVES
IN THE STUDY OF ARGUMENTATION**

For the past four decades the study of argumentation has flourished. Informal logic and argumentation theory have developed into two major – albeit not rigorously demarkable – internationally well-known and strongly institutionalized disciplines. They both consist of a great variety of research ideas, approaches, conceptual frameworks, and methods which allow to inquire into the complicated phenomenon of argumentation. Yet, the argumentative discourse constitutes a key subject of inquiry not only for these two disciplines which *ex definitione* aim at analyzing and evaluating arguments, but also for those branches of scientific research which deal with various forms of **language** and **reasoning**. At least four of them should here be listed:

- **formal logic** – as formal methods are applied in analyzing everyday arguments. The current research directions reveal that “standardized forms of argument that represent common species of arguments encountered in everyday conversational argumentation need to have a precise, partly formal structure” (Walton 2008, p. xiii). Thus, formal-logical approaches to argumentation are necessary for presenting the structure of argumentation, despite of their obvious limitations on grasping *all* features of natural language in which everyday argumentation is usually expressed, and of commonsense reasoning which is performed in any argumentative discourse;
- **semiotics** (understood here as a general theory of language) – as analyses of linguistic utterances or speech acts constitute a basic point of departure for any evaluation of arguments;
- **methodology of science** – as methodological rules of scientific reasoning, questioning and defining are applied in analyzing and evaluating arguments;

- **informatics** – as software tools are used, among other applications, for: (a) providing computational models for argument diagramming, and (b) identifying formal and informal fallacies in reasoning, what is particularly important for artificial intelligence research (see e.g. Walton 2008, Rahwan and Simari, eds., 2009). One of the reasons for developing intensive research which involve argumentation theory and artificial intelligence is the fact that computation is a major category in understanding reasoning (see e.g. van Benthem 2009, p. vii).¹

The list of disciplines indicated above shows that there exist many kinds of legitimate tools in the study of argumentation. Moreover, international conferences on argumentation,² a great number of articles published in specialized journals (*Informal Logic* and *Argumentation* are especially significant), and activities of many research groups reveal that one of the crucial tendencies in the study of argumentation is to build bridges between distinct research perspectives and traditions.³ This special issue of *Studies in Logic, Grammar and Rhetoric* is to be a clear exposition of this research tendency. The articles included in this volume support the thesis that various approaches in the study of argumentation, despite of differences in methods of inquiry, try to realize a common research goal: elaborating tools, in particular (1) **language** and (2) **methods**, for analyzing and evaluating common-sense reasoning performed in an argumentative discourse.⁴

Thus, in accordance with this thesis the volume is to complete two tasks:

- to sketch a map of contemporary research directions in the study of argumentation. For this purpose the issue focuses on prominent approaches to argumentation developed in such domains of inquiry as the informal logic movement, the pragma-dialectical theory of argumentation, formal logic, and methodology of science (the latter includes also the logico-methodological tradition of the Lvov-Warsaw School which contri-

¹ This idea is associated with Leibniz's famous call "Calculemus" which was inspiring for the raise and development of informatics and which is today carried on with the help of some tools of informatics (see e.g. the domain "Calculemus" hosted by Witold Marciszewski; <http://www.calculemus.org>).

² The most important conferences are organized or sponsored by the International Society for the Study of Argumentation (ISSA), the Ontario Society for the Study of Argumentation (OSSA), and the Association for Informal Logic and Critical Thinking (AILACT).

³ See e.g. the *Proceedings of the 6th Conference of the International Society of the Study of Argumentation* (van Eemeren, Blair, Willard & Garssen, eds., 2007, p. XV).

⁴ We should note that not only the study of commonsense reasoning, but also the inquiry into the structure and persuasive power of some other crucial cognitive procedures – such as questioning and defining – is significant in informal logic and argumentation theory.

buted to the success of logical studies in Poland; see e.g. Woleński 1989, Coniglione, Poli and Woleński, eds., 1993, Jadacki 2003);

- to introduce those formal logicians and methodologists of science who are not familiar with this field of inquiry to major research problems of informal logic and argumentation theory.⁵

The articles of the volume are organized in five sections. The first section contains papers discussing main theses representative for the two major research traditions. They are presented in the articles written by Ralph H. Johnson and J. Anthony Blair – the co-founders of the informal logic movement, and by Frans H. van Eemeren – the co-founder (with Rob Grootendorst; 1944–2000) of the pragma-dialectical theory of argumentation developed at the University of Amsterdam. These articles give an overview of some distinctive features of informal logic and argumentation theory.

Ralph H. Johnson in his reflections on the Informal Logic Initiative (ILI) explains the circumstances which gave grounds for the raise of the informal logic movement in Canada and in the USA. Informal logic is contrasted with the paradigm of good argumentation based on what Johnson calls *formal deductive logic* (FDL). Some similarities and differences between the tradition of research and teaching informal logic in Canada and in the USA and the Polish tradition of logical culture are briefly taken into account. This subject is also presented in the appendix (included in this article) ‘The Logical Culture in Poland’ written by Marcin Koszowy.

The problem of what is the scope of applications of informal logic (as compared to applications of formal logic) is further investigated by J. Anthony Blair, who discusses the relationship between informal logic and logic. Three major areas of research (treated here as possible alternatives for formal logic) are distinguished: the theory of informal fallacies; the conception of the *acceptability of premises*, and of *relevance and sufficiency of the premise-conclusion link*; the argument scheme theory. Although informal logic originated with a rejection of the view of formal logic as a discipline which is fully capable of analyzing and evaluating all kinds of everyday arguments

⁵ This project is in accord with initiatives aiming at popularization of informal logic and argumentation theory among Polish researchers and at integration of Polish scholars working in these fields. Among such initiatives I should mention the project ArgDiaP (<http://argumentacja.pdg.pl/>) which aims at organizing a series of conferences devoted to the major problems concerning rational and effective persuasion. Among other recent events there are two conferences: *Argumentacja: racjonalna zmiana przekonań* (*Argumentation: the rational change of beliefs*) organized by the University of Silesia in Katowice (April 1–3, 2009, Ustroń, Poland) and *Rhetoric of criticism in academic discourse. Disputes, polemics, controversies* (April 22–24, 2009, University of Warsaw) organized by the Polish Rhetoric Society.

and commonsense reasoning, applications of argument schemes in computer systems reveal that both disciplines are jointly treated as legitimate research tools in informatics. The difference between informal and formal logic is indicated by presenting a specific subject-matter of informal logic: the class of defeasible arguments (i.e. arguments which are rationally compelling, but not deductively valid and which may be defeated by the implicit knowledge determined by the context in which a given argument is formed).

Both papers sketch the picture of informal logic as an autonomous multi-thematic research discipline, which – in spite of its close relation to formal logic – has an independent research subject (i.e. argumentation and commonsense reasoning in everyday communication), goals and methods. Thus, the question of whether informal logic is in fact logic receives a positive answer which is supported by an overview of current research directions in informal logic.

Frans H. van Eemeren presents the origins and current research directions in the pragma-dialectical theory of argumentation. This theory is to realize jointly two basic goals: the descriptive goal i.e. it is to characterize the use of speech acts in an argumentative discourse, and the normative goal, i.e. it is to give rules for evaluating various kinds of arguments. The author sketches a map of research areas which are crucial for the pragma-dialectical perspective. Among them he lists the conception of argumentation and the study of the fallacies (started with the criticism of the *Standard Treatment of the Fallacies* developed by Charles Leonard Hamblin in his classical monograph *Fallacies*, 1970). Van Eemeren offers a survey of one of the crucial problems known from the very beginnings of logic and rhetoric which may be expressed by the question: how to reconcile the pursuit of success of argumentation aimed at persuasion (which is the distinctive goal of rhetoric) with the maintenance of reasonableness (characteristic for dialectics)? The answer to this question is given within the program of strategic manoeuvring, developed by van Eemeren together with Peter Houtlosser (1956–2008). Within this program, argumentative fallacies are identified as derailments of strategic manoeuvring.

The next section contains articles which explore formal tools in the study of argumentation. Kamila Dębowska, Paweł Łoziński and Chris Reed analyze the relationship between commonsense reasoning performed in everyday argumentation and formal models which represent it. The question of particular importance for the research focusing on applications of formal tools in the study of argumentation is that of how to bridge gaps between various perspectives in the research on argumentation. The authors answer this question by discussing the criteria of analyzing and evaluating

arguments within the major research paradigms, e.g. informal logic and pragma-dialectics. The range of applications of software tools (Araucaria, Arguing Agents Competition, Argument Interchange Format) used either in argument representation or in automated argumentation strategies is discussed.

David Hitchcock elaborates the concept of non-logical consequence which is to capture some basic features of commonsense reasoning. The explication of the concept of *formal consequence* elaborated by Alfred Tarski in his classical paper ‘On the Concept of Following Logically’ is helpful for making further considerations.

Katarzyna Budzyńska and Magdalena Kacprzak offer a set of formal methods for analyzing and modelling the process of persuasion. The paper constitutes an attempt to give an answer to the question of what scope and limits the applications of formal-logical tools have in analyzing the linguistic utterances designed for an effective persuasion process (convincing the other side).

Dale Jacquette argues for the view called *deductivism* which may be accepted either by formal or by informal logicians. According to the deductivist thesis, “good reasoning in logic is minimally a matter of deductively valid inference”. This thesis may be expressed as follows: *formal logic is a reliable tool to detect any rhetorical fallacy*.⁶ So, deductivism may be explained as a doctrine claiming that *every* argumentative fallacy may be adequately analyzed by means of formal deductive logic. The consequence of accepting the deductivist thesis is the claim that all fallacies of reasoning, including the so-called *informal* or *rhetorical* fallacies, are deductively invalid inferences. The deductivist thesis is supported by the analysis of fourteen kinds of rhetorical fallacies. The classification of those fallacies is also proposed.

The case study of arguments analysis done by means of formal (cyclic) proofs is developed by Mary Dziśko and Andrew Schumann, the representatives of the Belarussian school of logic. The authors analyze the argumentation which was used to support the decision to exclude Boris Pasternak from the Association of the Writers of the USSR. In this argumentation there were no opponents, as each speaker was in fact a proponent of exclusion. The application of cyclic proofs in argument analysis helps to develop graphical tools to present the structure of argumentation.

⁶ This re-formulation of the deductivist thesis was made by Witold Marciszewski in his comment on deductivism (see this issue).

The next two articles constitute a section devoted to the role of definitions in argumentation, and, correspondingly, to the role of the *theory of definitions* in the study of argumentation. Robert Kublikowski gives an answer to the question of what role do definitions play within the structure of argumentation. The answer is given by distinguishing three kinds of relations between a definition and the process of argumentation: (a) argumentation *about* definition, (b) argumentation *from* definition and (c) argumentation *by* definition. Whereas Kublikowski's paper sketches a map of main problems concerning argumentation and defining, the article co-authored by Douglas Walton and Fabrizio Macagno is an attempt at elaborating tools to deal with one of the major research problems present either in argumentation theory or in computing, i.e. the problem of how to deal accurately with polysemy and ambiguity of natural language in a discourse. The overall aim of this article is to contribute to building an account of definitions which would allow us to solve this problem. Thus, the pragmatic interpretation of the notion of essential definition is proposed.

The next section is devoted to the model of argumentation developed by Stephen E. Toulmin in his influential book *The Uses of Argument* (1958). Tomasz Zarębski considers the relation between this model and the Toulmin's views on methods of scientific research. It is claimed that Toulmin's model of argument may be helpful in explicating scientific discovery and scientific arguments. Lilian Bermejo-Luque contrasts the deductivist model of *argument goodness* (based on the claim that a 'good' argument is the one which is deductively valid) with Toulmin's views on argumentation. The detailed discussion leads her to formulate a new interpretation of the Toulmin's model of argument.

Applications of argumentation theory in legal and moral argumentation are discussed in two articles constituting the last section of the volume. Eveline T. Feteris and Harm Kloosterhuis explore systematically the relation between argumentation theory and legal theory in order to analyze and evaluate legal arguments adequately. Yadviga Yaskievich undertakes some issues concerning bioethical argumentation. She discusses some legal problems connected with answering key questions in bioethics on the example of the argumentative procedures elaborated by the National Bioethical Committee in the Republic of Belarus.

The volume concludes with Witold Marciszewski's comment on Dale Jacques's paper 'Deductivism in Formal and Informal Logic' included in this volume. Marciszewski focuses on a particular issue, namely the concept of deductive validity of reasoning. In the comment it is shown how

formal-logical criteria of identifying rhetorical fallacies depend on the accepted conception of deductive validity.

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The present volume – once its tasks indicated above are taken into account – is the first editorial event of this kind in the Polish logical literature. If these tasks are at least partially achieved, one step towards popularizing informal logic and argumentation theory should be made. For the volume is to show that informal logic should not be contrasted with formal logic, as many representatives of formal logic might think, but that these two branches of research taken together give a comprehensive picture of everyday argumentation. To make this point more explicit: on the one side there is formal logic with its language and methods helpful in exploring the structure of argumentation, and on the other – there are informal logic and argumentation theory which enable researchers to explore crucial features of “real” arguments containing (a) notoriously ambiguous, vague and fuzzy terms (which meaning depends on the context of everyday communication), (b) unexpressed premises, and many other hidden elements. Thus, a comprehensive analysis and evaluation of commonsense reasoning is only possible when those two perspectives are jointly taken into account.

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