Empiricalization as a Trend in Argumentation Study

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An interesting trend that has emerged in the last decade or so concerns empirical turn in the study of argumentation. Empiricalization involves ensuring the connection of argumentation theory with argumentative reality by using different qualitative, quantitative, and mixed empirical methods. Nowadays there are many empirical approaches in the field of argumentation. This paper organizes three of them, namely the historical-textual, the meta-argumentation, and the cross-cultural approaches. In addition to organizing what is already known about empiricalization, this paper also serves the function of suggesting what empirical research is needed to fill in theoretical gaps of the recent treatment of argumentation. In this regard, the purpose of this paper is to provide up-to-date, relevant, and informative discussion about an empirical component in argumentation research.

Keywords: argumentation, empiricalization, empirical methodology, historical-textual approach, meta-argumentation approach, experimental approach in cognitive psychology, cross-cultural approach

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Introduction

The modern theory of argumentation often is presented as numerous theoretical models based on various grounds of reasonableness. However, I believe that most scholars agree that nowadays study of argumentation should have theoretical as well as empirical components.

In 1958, Toulmin, the founder of the *working logic*, in his epoch-making book *The Uses of Argument* proposed a procedural model of argumentation [Toulmin, 1958]. He emphasized that “a radical re-ordering of logical theory is needed in order to bring it more nearly into the line with critical practice” [Toulmin, 1958: 253; 2003: 234]. It means that his model could work adequately in the different areas of argumentative reality.

In this regard, Toulmin assumed that not only a theoretical component is relevant to the study of argumentation but also an empirical one is needed. Justifying this view he claimed: “logic ...may have to become less of an *a priori* subject than it has recently been... Accepting the need to begin by collecting for study the actual forms of argument current in any field, our

starting point will be confessedly empirical” [Toulmin, 1958: 257; 2003: 236-238]. In addition, it should be stressed that Toulmin connected the empirical component with the historical one. He believes that “not only will logic have to become more empirical; it will inevitably tend to be more historical... In the natural science, for instance, men such as Kepler, Newton, Lavoisier, Darwin and Freud have transformed not only our beliefs but also our ways of arguing and our standards of relevance and proof... Grotius and Bentham, Euclid and Gauss, have performed the same double feat for us in other fields” [Toulmin, 1958: 257; 2003: 237]. In fact, here Toulmin bearded in mind that empirical database for scholars may be the history of thought in general and the history of science in particular.

Perelman and Olbrechts-Tyteca, who are among the co-founder of the modern theory of argumentation, supported Toulmin’s view. They claimed that the theoretical concepts of their treatment, called *new rhetoric*, had to base on the empirical observation [Perelman & Olbrechts-Tyteca, 1958]. Unfortunately, the empirical dimension in their treatment was not developed thoroughly.

For understanding the first steps of empiricalization it would be appropriate to give a perfect analogy: “Like Frege’s theory of logic was founded upon a descriptive analysis of mathematical reasoning, they founded their argumentation theory on a descriptive analysis of reasoning with value judgments in the fields of law, history, philosophy, and literature” [Eemeren, 2015: 5-6].

However, in the 20th century investigations in the field of argumentation were mainly aimed at theoretical proposals and their philosophical support. Only more recently empiricalization has become a new trend among argumentation scholars. For example, Eemeren considers *empiricalization* as one of the main prospects of current argumentation research [Eemeren, 2015, 2017]. In his opinion, “three major developments in the treatment of argumentation have begun to materialize that open new avenues for research. Although they differ in shape, these developments can be observed across a broad spectrum of theoretical approaches. The three developments I have in mind can be designated as empiricalization, contextualization, and formalization of the treatment of argumentation” [Eemeren, 2015: 5].

Due to the increasing importance of empiricalization of the treatment of argumentation, the crucial questions arise. What does empiricalization involve? Could we speak about empirical methodology in the field of argumentation? What do mean the notions: *empirical analysis*, *empirical research*, *empirical approach*, *empirical evidence*, and *empirical method* in the study of argumentation?

In order to answer these questions, the paper describes, compares, and contrasts some views on empiricalization in the modern study of argumentation.

Historical-textual and meta-argumentation approaches

1. General orientation

Maurice A. Finocchiaro is one of the argumentation scholars who use the tools of informal logic¹ for analysis and evaluation of scientific controversies. He presented the historical-textual and the meta-argumentation approaches, which were based on empirical investigations.

He wrote about his first project: “I advocated a type of empirical approaches to the study of reasoning which may be called the historical-textual or informal logic approach” [Finocchiaro, 1994: 1]. Its aim is the formulation of normative and evaluative principles besides descriptive, analytical and explanatory ones” [Finocchiaro, 1994: 1].

¹ See [Khomenko, 2018].

The second project Finocchiaro presented in the following way: “I elaborated an approach to logic and argumentation theory that studies arguments in a manner characterized as pragmatic, comparative, empirical, historical, naturalist, and both normative and descriptive. It corresponds to Toulmin’s idea of an applied logic, as well as to the historical-textual approach which I have advocated previously” [Finocchiaro, 2013: 178].

Let us find out what is the empirical study of argument in Finocchiaro’s approaches.

Let us begin by trying to characterize the database of the above-mentioned approaches. In fact, Finocchiaro in his works presented two types of database.

The first involves the selection of some important texts of the past, containing interesting argumentation. For example, it includes Plato’s *Republic*, Thomas Aquinas’s *Summa Theologica* or Charles Darwin’s *Origin of Species*. In addition, Finocchiaro pointed out, that argumentation scholars could use works other than classic, for example, the collections of judicial opinions by the United States Supreme Court or the Word Court in The Hague.

In the second case, argumentation scholars should create a database consisting of reconstructed arguments from the selected texts. These can be the protagonist arguments as well as antagonist one. Actually, the reconstructed arguments are a true database within Finocchiaro’s historical and empirical approaches.

Based on this vision of the database, in a collection of papers and books written over a period three decades Finocchiaro examined some famous text “which have been historically influential and have become classics, and which regard topics that are intrinsically important, universally significant, and perennially interesting” [Finocchiaro, 2013: 179]. Among them were John Stuart Mill’s essay *On Liberty*, Mill’s book *The Subjection of Women*, David Hume’s *Dialogues concerning Natural Religion*, Galileo’s *Dialogue on the Two Chief World Systems*, *Ptolemaic and Copernican* [Finocchiaro, 2010; 2013: 179-241].

2. Methodology

Finocchiaro’s methodology is based on four principles. His position can be determined as (i) historical-textual, (ii) dialectical, (iii) interpretative, and (iv) self-referential [Eemeren et al., 2014: 389].

The historical-textual principle connects with the object of research. The scholar takes attention a precise reconstruction of the arguments involved in the select text of the past and the context in which they occur.

The dialectical principle concerns the argumentative side of the controversies from some historical texts. Reconstructing the arguments Finocchiaro tried “to stress counterarguments, objections, criticism, evaluation, potential (and not necessarily actual) dialogue, and the clarification (rather than resolution) of differences of opinion” [Finocchiaro, 2005: 14].

The interpretative principle is related to Finocchiaro’s theoretical views on arguments in scientific controversies. He characterized the approach as interpretative because “it stresses the understanding and reconstruction of arguments (as distinct from their evaluation and criticism) to a far greater degree than is commonly the case” [Finocchiaro, 2005: 14].

The final methodological principle is self-referentiality. It points out to the intention to apply the abovementioned methodological principles “not only to analysis of scientific controversies but also when dealing with contributions of his scholarly peers in informal logic and argumentation theory” [Eemeren et al., 2014: 389].

According to *the historical-textual approach*, the first step of research is the reconstruction controversy in the texts of the past from different domains (philosophy, science, politics,

jurisprudence etc), keeping in mind the relevant information about arguers involved in the dispute, historical context, and peculiarities of the controversy. In the result of such interpretation of the selected text, scholars can receive the database of reconstructed arguments.

The second step is the evaluation of the reconstructed arguments and the argumentative aspects of the controversy in general. What evaluation methods does Finocchiaro propose? What techniques can argumentation scholars use for determining whether a particular instance of reconstructed argument is good or bad?

As Finocchiaro (1994) stated, there are six relevant methods, namely “method of alternative conclusion, active evaluation, ad hominem argument, method of counterexample, principle of charity, and explanation of error in reasoning... The three most relevant methods are alternative conclusion, active evaluation, and ad hominem argument” [Finocchiaro, 1994: 11].

The method of alternative conclusion could be used to show that a conclusion of an argument does not follow from its premises because another different conclusion follows instead. The term *alternative conclusion* means that this conclusion and the original one are in the conflict.

Active evaluation is the procedure of testing inferential relationships among propositions within a reconstructed argument.

Ad hominem argument is not meant the present-day informal fallacy. It is meant in the 17th century sense, “namely as reasoning where the arguer derives a conclusion not acceptable to an opponent from premises accepted by the opponent, but not necessarily generally acceptable” [Finocchiaro, 1994: 11].

Later, Finocchiaro (2013) proposed *the method of meta-argumentation* based on the following principle of interpretation and of evaluation: the former focus on describing the propositional structure of the reasoning under investigation and on justifying the accuracy of these description; the later focus on criticizing the various explicitly stated propositions, their connections with each other, and their connections with other implicit propositions, and on justifying the tenability of these criticisms” [Finocchiaro, 2013: 242]. This method Finocchiaro used within his meta-argumentation approach.

Cross-cultural approach

1. General orientation

Nowadays many methodological approaches can be reasonably applied to the goal of understanding how people with different cultural traditions relate to face-to-face arguing. Among the appropriate approaches is the one selected here. Its orientation is to examine predispositions and understandings regarding interpersonal arguing. Its main objective is to collect and analyze the data summarizing fundamental orientations to arguing among respondents. All of the instruments of this research originated in the US. It should be stressed that besides elucidating the argumentation predispositions in a certain country this approach advances the general project of comparing argumentation in various countries across the globe [Hample, 2018]. To date, the United States, Chile, China, France, India, Malaysia, Mexico, Netherlands, Portugal, South Korea, Turkey, Ukraine, and United Arab Emirates have already participated in this global project [see, Hample & Anagondahalli, 2015; Hample & Rapanta, 2015; Lewiński et al., 2018]. This fact allows comparing and generalizing the data collected in different countries and regions.

2. Methodology

The empirical part of such projects includes nationwide surveys. The polls can be carried out via online surveys (for example, see *Survey-Monkey.com*).

The first step in conducting a poll is to formulate the research questions. As examples, we can consider the questions, used in the projects from India, United Arab Emirates, Portugal, and Ukraine.

A. India

RQ1: To what degree (if any) does sex differences influence argumentation in India?

RQ2: What are the relationships among the constructs (argument motivations, argument frames, conflict personalization) for Indians?

RQ3: To what degree (if any) do Indians differ from Americans in their orientations (means) toward argumentation?

RQ4: To what degree (if any) do Indians differ from Americans in the relationships (correlations) among the argumentation constructs? [Hample & Anagondahalli, 2015]

B. United Arab Emirates

RQ1: Does the UAE display the same relationships among variables that describe interpersonal arguing as in other nations?

RQ2: Are the mean scores from the Emirati population comparable to those of other nations? [Hample & Rapanta, 2015]

C. Portugal

RQ1: Do Portuguese men and women differ in their orientations and understandings of interpersonal arguing, as measured by verbal aggressiveness, argumentativeness, argument frames, and personalization of conflict?

RQ2: Do Portuguese and US respondents have different mean scores on the instruments assessing orientations and understandings of interpersonal arguing?

RQ3: What are the correlational systems among the variables in Portugal, and are they comparable to those in the US? [Lewiński et al., 2018]

D. Ukraine²

RQ1: How do Ukrainian and US respondents compare in their average responses to items concerning arguing motivations, understandings, and reactions?

RQ2: Do Ukrainian men and women differ in their arguing motivations, understandings, and reactions?

RQ3: Do Ukrainian respondents who chose the Ukrainian language version of the survey differ in their arguing motivations, understandings, and reactions, compared to those who chose the Russian language version?

RQ4: What are the internal associations among arguing motivations, understandings, and reactions for the Ukrainian sample?

The second step is work with the questionnaire. As mentioned above, this approach is based on the methodology survey used in the overall global project summarized in Hample (2018). The English language versions of the main instruments can be found in Hample (2018), Infante and Rancer (1982), and Infante and Wigley (1986). Scholars need to translate the origin questionnaire. For example, due to the bilingualism of the majority of the Ukrainian population, two versions of the survey (Ukrainian and Russian) were composed. The participants had a free choice as to which to complete.

² A nationwide survey was conducted in Ukraine between September 2017 and April 2018. The collected data is analyzing.

The first set of questions in the survey is devoted to ordinary demographics. The sample *Respondent* represents the participants by gender, age, a region of residence, and student/employment status.

The second set of questions deal with argument motivations and is connected with concerned argumentativeness [Infante & Rancer, 1982] and verbal aggressiveness [Infante & Wigley, 1986]. Argumentativeness is the impulse to attack the other arguer's premises, reasons, and evidence. Verbal aggressiveness is considered as the predisposition to engage in ad hominem attacks on the other arguer. It also has two subscales, VA-antisocial and VA-prosocial, which need to be analyzed separately rather than being merged into one "verbal aggressiveness" score. These instruments collectively describe people's inclinations to argue about the substance of a disagreement and to attack the other arguer personally.

The third set of questions assesses the degree to which people take conflicts personally (TCP). The scales can be found in Hample (2018). The last battery of measures concerns personalization of conflict.

The fourth set of questions is devoted to argument frames, a battery of instrument intends to capture people's understandings of the project of arguing face-to-face (current items are in Hample, 2018). Shortly speaking, argument frames [Hample, 2003, 2005, 2018] is a battery of instruments intended to answer the question: "What do ordinary people think they are doing when they argue?"

Collected together, these measures should give full information about how people in the certain country understand interpersonal arguing, what their goals for arguing are, how they communicate to the other arguer, what their motivations, and what are subjects they are focused on in face to face conflicts.

The third step is to select the sample. Most respondents who participated in the surveys in various countries were mostly undergraduates, PhD students, and staff of different universities. In addition, the members of their families, friends, and neighbourhood were the also poll respondents.

The fourth step is devoted to the analysis of the survey data and their comparison with the data of other countries participated in the global cross-cultural project.

The fifth step is a discussion, related to the results of the research, conducted in the certain country.

Conclusions

In this paper, varied aspects of empiricalization as a trend of argumentation study have been closely investigated from the methodological perspective. The paper has focused on the historical-textual, the meta-argumentation, and the cross-cultural approaches. Let us summarize this research comparing the mentioned empirical approaches.

Origin. The historical-textual and the meta-argumentation approaches were elaborated by Moris Finocchiaro. He has produced a number of highly regarded works, in which the scholar has revealed the key features of his approaches and showed some applications of own methodological views [Finocchiaro, 1980; 1994; 2005; 2010; 2013].

The cross-cultural approach originated in the US. Dale Hample contributed significantly to drafting a methodological basis for this project [Hample, 2003; 2005; 2018]. Hample with other argumentation scholars have widely conducted orientations and understandings of interpersonal arguing in various countries.

Sample. A sample is a group of objects that take part in the investigation. Sampling is the process of selecting a representative group from certain objects under study. Let us now to answer the question: what can be a sample for empirical research in the field of argumentation?

In the case of the historical-textual and meta-argumentation approaches, a sample is a text of the past, containing interesting argumentation. Finocchiaro wrote “The historical-textual approach begins with the selection of some important book of the past, containing a suitably wide range and intense degree of reasoning. Many of the classics would fulfil this requirement, for example, Plato’s *Republic*, Thomas Aquinas’s *Summa Theologica*, Galileo Galilei’s *Dialogue on the Two Chief World Systems*, David Hume’s *Dialogues Concerning Natural Religion*, Charles Darwin’s *Origin of Species*, perhaps Karl Marx’s *Capital*” [Finocchiaro, 1994: 8]. However, not all classics would be appropriate. It concerns works of poetry, fiction, and some historical and philosophical works. For example, *Aristotle’s Metaphysics*, *Descartes’s Meditations*, *Kant’s Critique*, or *Hegel’s Phenomenology* is not useful for objectives of the historical-textual and the meta-argumentation approaches. The problem with them would not be an insufficient degree of reasoning, but an insufficiently wide range of topics. Simply put, they would make good as some case studies in philosophical reasoning. However, the concern within given empirical approaches is reasoning in general. Here a disadvantage is vague criteria of selection of a text for empirical study. This selection should be objective. However, in the given approaches, in my mind, the views of the researcher affect the results of such selection.

To sum up it can be suggested that systematic sampling is used in the case of the historical-textual and the meta-argumentation approaches. The researcher can choose a text for investigation in a systematic way from the target list of books and papers.

In the case of the cross-cultural approach, a sample is the group of people, who present a certain country. The people who take part are usually referred to as *participants* or *respondents*. It should be stressed that here we can say about a biased sample when scholars have used a sample that includes a small number of respondents or comprises only university students as participants.

Thus, in this case we are dealing with random sampling when everyone in the entire target group of people has an equal chance of being selected.

Instruments

In the case of the historical-textual approach, Finocchiaro suggested using the method of alternative conclusion, active evaluation, ad hominem argument, the method of counterexample, the principle of charity, and explanation of the error in reasoning. In his mind, the first three methods are the most relevant. Besides, Finocchiaro elaborated the method of meta-argumentation based on the principle of interpretation and evaluation.

In general, it could be asserted that the argumentation scholar uses the case study research method. He offered case studies from various scientists as in-depth investigations of their texts and arguments occurred in them.

In the case of the cross-cultural approach, scholars should conduct a survey. It bases on the questionnaire. It is a research instrument consisting of a series of questions for the purpose of gathering information from respondents. Data can be collected relatively quickly, using a standard set of questions. A survey as the main instrument of such research is useful for a large number of participants. However, a problem with the survey is that respondents may lie when they give the answers.

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