

DOI 10.26886/2414-634X.4(64)2024.3

UDC 161/162; 159.9

LOGICAL AND PSYCHOLOGICAL ASPECTS OF ARGUMENTATION

Elena Andriyenko, PhD of Philosophical Sciences

<https://orcid.org/0000-0002-2342-2404>

e-mail: elena_andrienko8@mail.ru

Academy of Higher Education of Ukraine, Ukraine, Kyiv

The article is devoted to the problem of argumentation in the logical and psychological aspects. Argumentation theory has been defined as an interdisciplinary field of knowledge about how certain conclusions can be reached through logical reasoning. Argumentation theory is included in various sociocultural practices and is used where dialogue, argument, conversation, persuasion and even manipulation are present (after all, the purpose of argumentation is often to strengthen people's commitment to a particular idea). The basic concepts of argumentation theory have been identified: argumentation, argument, evidence, proof, persuasion, knowledge. The author analyzes the classification of arguments according to the criteria of evidence and the scope of social application. It has been concluded that argumentation theory plays an important role both in modern logical knowledge and in other areas of science, including psychology. Reliance on evidence is an integral feature of correct thinking, but the theory of evidence does not reflect all the features of argumentative theory. Behind each specific argument there is always the personality of the author.

Key words: *Argumentation Theory, Arguments, Personality, Logics, Truth, Conviction, Knowledge, Society.*

Argumentation theory is an integral part of logical knowledge. Argumentation theory can be defined as an interdisciplinary field of knowledge about how certain conclusions can be reached through logical

reasoning. Argumentation theory has been included in various socio-cultural practices, and has been used where dialogue, argument, conversation, persuasion and even manipulation are present (because often the purpose of argumentation is to strengthen people's commitment to an idea). The important role of argumentation and evidence in the modern world is due to the high intensity of social, political, economic and cultural transformations. In order to successfully adapt and act under constantly changing conditions it is not only knowledge in itself is important, but also the ability to interpret this knowledge as well as the ability to convince others of the constructiveness and rationality of their position, which implies mastery of argumentation and evidence methods.

Various aspects of the issue of argumentation theory have been revealed in the works J. Habermas [1], A.A. Ivin [2], Yu.V. Ivlev [4], S.V. Kornakova and O.S. Sergeyeva [5], L.A. Kotelnikova and G.I. Ruzavin [6], E.G. Listvina [7], N.M. Ovcharova [8], Ya.A. Slinin [9], and others. At the same time the problem of argumentation and proof is so urgent, interdisciplinary and deep that many of its aspects still require detailed scientific development. In particular, these are the psychological aspects of argumentation theory and the ways of their practical application in the practice of communication.

The purpose of this work is to study the essence and basic logical and psychological characteristics of argumentation theory.

Cognitive activity, both in the field of science and in other areas of human activity, is aimed at finding reliable knowledge about the world. Having knowledge about the true state of things, about the essence of certain laws, the subject of knowledge can change circumstances and influence objects of the outside world. Knowledge is recognized as reliable if it is justified – either in experience (in the case of sensory cognition) or by rational thinking and logical reasoning (in the case of rational cognition). In

the context of rational consciousness, the proof of the truth and reliability of knowledge is mediated by other judgments. Checking some judgments with the help of other judgments is a justification (argumentation).

Argumentation theory is an area of interdisciplinary knowledge about how to reach certain conclusions using logical reasoning. According to L.A. Kotelnikova and G.I. Ruzavin, the theory of argumentation includes areas far beyond the limits of logical knowledge [6, p. 7]. At the same time, even at the level of logic as a science of the laws of correct thinking argumentation theory has not yet been definitively formed as a single system but rather represents a disparate set of logical techniques for substantiating some statements with the help of other statements.

For the most complete disclosure of the issue of the essence of argumentation and evidence, it is necessary to define basic terms such as argumentation, argument, evidence, proof, refutation, persuasion, knowledge.

The concept of argumentation means the process of fully or partially substantiating a certain statement by relying on other statements. Argumentation is often identified with proof in the deductive sense of the word. At the same time, such methods of reasoning as induction, analogy, statistics, etc. are practically not taken into account. The fact that these argumentation factors are still not given due attention in the scientific literature is an annoying gap, since, for example, the same statistics in themselves are not reliable, but are likely, but at the same time serve as the basis for searching for plausible arguments and ultimately contribute to finding the truth.

According to the definition of the "Dictionary of Logic Terms", argumentation is "the presentation of arguments, or arguments, with the intention of arousing or strengthening the sympathy of the other side for the position put forward", as well as "a set of such arguments" [3, p. 12].

Argumentation is also a social psychological practice expressed in influence, manifested in speech form and aimed at strengthening or weakening the beliefs of the audience or a particular interlocutor.

The main characteristics of the argumentation are:

1) The linguistic form of expression (oral or written). At the same time, the logical relationships between linguistic statements are important for the theory of argumentation, and not their emotional, motivational or semantic content;

2) Purposeful nature (strengthening or weakening the statements of the interlocutor);

3) Social orientation (involves influencing the audience, as well as dialogue and response);

4) Reliance on the nationality of the interlocutor and the ability to evaluate logical arguments.

An argument in logic is a statement or a group of statements (premises) that prove another statement (conclusion). Here should be noted that the logical understanding of an argument differs from the rhetorical one. In rhetoric, arguments are data from statistical and other scientific research, practical examples, facts and statements that help substantiate the thesis put forward by the speaker. A modern specialist in public speaking N.M. Ovcharov identifies its types as theoretical argumentation (research results, statistical data), practical argumentation (empirical examples) and visual argumentation (examples appealing to famous personalities, images and events) [8, p. 124]. An argument in the context of argumentation theory is interpreted more broadly than in proof theory. If in the theory of argumentation an argument is not only a proof of the truth of a thesis, but also everything that justifies the expediency of its adoption (that is, a very wide range of arguments), but in the theory of proof the argument boils down only to confirming the truth of the thesis.

Proof is the establishment of the truth of a position using logical means and statements, the truth of which has already been established [4, p. 57]. The proof is a special case of argumentation.

Evidence-based thinking is a characteristic of logically correct thinking. Evidence is also a necessary characteristic of science and many other fields of culture.

Refutation is a logical operation of destroying evidence by establishing the falsity or unreasonableness of a put forward thesis.

A belief is “a belief that has certain grounds” [2, p. 29]. The opposite concept in relation to the concept of belief is doubt. Two more pairs of opposite concepts “knowledge – delusion” and “faith – disbelief” are associated with belief and doubt.

According to A.A. Ivin, belief is located between knowledge and pure faith without any grounds [2, p. 30]. Neutrality in this case means a position in which the subject lacks both faith and disbelief about something (in other words, these are those facts and phenomena that are not important to the subject and over which he does not think at all).

Argumentation is sometimes defined as the logical and methodological aspect of persuasion as a more general and holistic concept.

Knowledge in a broad sense is the representation of anything in a person's mind. Scientific knowledge is a system of reliable and well-founded information about the patterns of development of nature, society and man. It follows from the very definition of scientific knowledge that this knowledge is characterized by evidence and reliance on the laws of logic in general, and, in particular, on argumentative theory. Nevertheless, it is also impossible to identify the laws of science and the laws of logic, since “the laws of science consider and explain natural phenomena under certain

conditions, and the laws of logic explain the principles of functioning of intellectual activity” [7, p. 94].

Thus, argumentation theory is an area of interdisciplinary knowledge about how to reach certain conclusions using logical reasoning. The logical approach to argumentation theory is the most thoroughly developed to date, but even it does not provide a sufficiently holistic and systematic understanding of argumentation. In addition to the logical approach to argumentation, other approaches are possible – rhetorical, psychological, etc. The main features of argumentation are: 1) the linguistic form of expression; 2) purposeful nature (strengthening or weakening of the interlocutor's beliefs); 3) social orientation; 4) reliance on rationality. The basic concepts of argumentation theory are the following: argumentation, argument, evidence, proof, refutation, persuasion, knowledge.

The types of argumentation are distinguished by various criteria. For example, according to the criterion of evidence (in this case evidentiary and non-evidentiary types of argumentation are distinguished), according to the sphere of social application (scientific, legal, political, mathematical and other types of argumentation). The classification of argumentation should be considered in more detail.

In evidence-based argumentation, deduction is used (a method of thinking that denotes the movement of thought from the general to the particular). In this case, the truth of the judgment is established using logical formulas and arguments, the truth of which was proved earlier.

In case of unproven argumentation, the following types of plausible judgments are used: 1) arguments whose truth is partially or completely unproven, and the form of argumentation is deduction or scientific induction; 2) arguments whose truth is established in advance (the form of argumentation is analogy or induction); 3) plausible arguments (forms are also analogy or induction). As Yu.V. Ivlev states: “Argumentation is

unproven when arguments, at least some of them, are not reliable, but only plausible statements, or/and when the form is reasoning that does not provide a true conclusion with true premises” [4, p. 57].

In the context of the classification of argumentation by fields of application, the following types of argumentation can be distinguished:

- Rhetorical argumentation, in turn, is based on the separation of dogmatic and dialectical argumentation. At its core, rhetorical argumentation is dialectical, that is, it represents a thesis to which an antithesis can be opposed. In the field of conversational linguistics, the concept of “conversational argumentation” also functions (H. Sachs, J. Jefferson);

- Scientific argumentation – reflects the evidentiary essence of scientific knowledge, which is developed rhetorically, based on logical justifications.

- Legal (legal) argumentation is a system of logical methods of persuasion used in the field of law and lawmaking.

- Political argumentation is a system of persuasion methods used in power relations and implemented in an observable form, primarily in the media. S.P. Potseluev, based on the work of J. Habermas identifies two main positions in relation to political argumentation – relativistic and idealistic [1, p. 29]. The relativistic position denies the possibility of arguments that are not conditioned by external factors (political dialogue is considered to be based on a conflict of incompatible interests and is aimed at manipulating the interlocutor, as a result of which he agrees to unfavorable conditions for himself). Such an argument goes back to the time of the ancient sophists, who believed that there was no single truth for all, but each person could prove the correctness of their own position through the art of persuasion. The idealistic approach constructs an ideal model of political dialogue. An example of this approach is the philosophy of

J. Habermas, his idea of an ideal communicative situation in which high principles are freely realized as conditions for achieving mutual understanding and agreement: truthfulness, truthfulness and correctness [9, p. 78].

In addition, other types of argumentation are known such as mathematical, explanatory, etc.

Argumentation includes the subjects and the structure of the proof.

The subjects of the argument are:

1) Proponent (S1) is a subject who puts forward and justifies a certain position corresponding to his personal position and (or) collective opinion;

2) The opponent (S2) is the subject of argumentation expressing disagreement with the proponent's position;

3) The audience (S3) is a collective subject of the argumentation process. The audience plays an important role in argumentation, since both the proponent and the opponent seek to win its sympathies, as well as the audience itself has its own collective beliefs, can express agreement or disagreement with the position of the proponent and the opponent, and acts as the main object of influence in the argumentation process.

Argumentation is inseparable from proof. The proof, as a special case of argumentation, has the following structure:

1. Thesis is a judgment, the truth of which is substantiated in the process of argumentation.

2. Arguments – arguments, judgments by which the thesis is justified. Types of arguments: general statements (philosophical, scientific or legal principles); obvious judgments (scientific axioms, presumptions, well-known everyday truths); reliable judgments about facts (in science, law, everyday practice, etc.).

3. Demonstration is a logical connection between arguments and a thesis. The types of demonstration coincide with the main types of inferences: deductive, inductive and by analogy.

The methods of argumentation include justification and criticism. Justification, in turn is divided into direct and indirect (according to the direction of reasoning). In the case of a direct justification, the reasoning moves from the arguments to the thesis. The thesis is deductively deduced from the arguments.

In an indirect justification, the following scheme is used: To prove the required thesis, an assertion is put forward that is a denial of the thesis (antithesis). Then, using deduction or induction, a contradiction is deduced from the available arguments and antithesis (the conjunction of some statement and the negation of this statement). As a result, a conclusion is drawn about the full or partial validity of the original thesis.

The thesis is indicated by the letter T, the set of arguments is indicated by the letter Γ , the following is indicated by the sign \int or a wavy line (see Figure 1).

$$\frac{\Gamma, \int T \int - B \wedge \int B}{\Gamma \int -}$$

Figure 1. The scheme of indirect justification (indirect argumentation)

This kind of indirect argumentation is called counter-argumentation, or apagogic argumentation.

There is also a divisive argument. An indirect justification of a thesis acting as a prisoner of disjunction is called separative, by establishing falsity and excluding all other competing members of the disjunction. In contrast to the apagogic, the separation justification does not include two (T

and]T), but several provisions – T, B, C, each of which claims to be a thesis and completely or partially excludes everything else. The substantiation of the thesis in this case occurs by the method of exclusion

Logic textbooks for lawyers often point out that indirect logical proof is not complete [2; 5]. A thesis proved in this way requires additional justification through direct proof.

Criticism is a logical operation aimed at destroying the previously held process of argumentation.

According to the form of expression, criticism can be implicit and explicit. Implicit criticism is a skeptical assessment of the proponent's position without a specific analysis of shortcomings and precise indication of weaknesses. Doubt in this case is expressed in approximately the following form: "Your ideas seem doubtful to me", "I am very skeptical of your statements", etc. [2, p. 63]. A request for clarification and specification of such criticism is usually left unanswered.

Explicit criticism is an indication of specific flaws identified in the proponent's argument.

By orientation, explicit criticism is divided into: destructive (aimed at destroying the argumentative process by criticizing the thesis, arguments or demonstration), constructive (represents the opponent's justification of his own thesis in order to refute the alternative statement of the proponent) and mixed (combines the features of destructive and constructive, is considered the most convincing).

Thus, the classification of argumentation can be carried out by the criterion of evidence (in this case, evidentiary and non-evidentiary types of argumentation are distinguished), as well as by the sphere of social application (scientific, legal, political, mathematical and other types of argumentation). Argumentation includes subjects (proponent, opponent, audience) and the structure of evidence (thesis, arguments and

demonstration). The main ways of argumentation are justification and criticism.

Argumentation as a broader concept compared to the concept of proof has not only a logical aspect, but also a personal one, since each act of argumentation always has an individual author. The difference between the real process of argumentation carried out by a person and some ideal proof is reflected in the various nuances of the rules of argumentation and evidence [4, p. 102].

1. The thesis rule. In the case of an ideal (not tied to a specific author) proof, this rule assumes that the thesis is formulated clearly and unambiguously, and also does not change throughout the proof process. In the process of real argumentation, a person always pursues a certain goal. In the course of achieving this goal the thesis can be adjusted as the personality analyzes the facts and alternatives. If this did not happen, argumentation would often turn into a sophistic exercise.

2. The rule of persuasiveness. This rule is aimed at reducing the variability of modes used in the argumentation process. The priority is given to the modes that appear to the author of the argument to be rational, convincing, true, and also safe.

3. The correction rule. This rule allows a person to review the course of reasoning and correct problem areas during argumentation, which contributes to the development of clarity and critical thinking, as well as the growth of general intellectual culture. In proof theory, only true arguments should be used. But this discards hypotheses that could eventually turn out to be true arguments. During the real process of argumentation, a person relies on his individual experience, values, cognitive attitudes and general erudition. A real person may simply not know something. Therefore, the initial absolute truth of the thesis is actually an impossible task. Argumentation is more about studying versions than deducing axioms.

Taking into account the psychological aspect of argumentation justifies the use of hypotheses as arguments.

4. The fixation rule. This rule is that a person in the process of argumentation should fix the grounds of his own arguments.

5. Feedback rule. This rule assumes that in case of receiving false and contrary to the natural course of things conclusions, the author of the argument is obliged to review the course of reasoning in order to identify errors.

6. The rule of sequential verification. This rule is aimed at improving the culture of argumentation by excluding inappropriate vocabulary (language material) for any reason as a result of feedback. In other words, following this rule prescribes using only the most appropriate words for argumentation of the thesis.

7. The rule of unambiguity. This rule is a continuation of the verification rule and excludes the use of ambiguous concepts and polysemic constructions.

8. The rule of interpretability. This rule instructs the author of the argumentation to explain, if necessary, each concept with the help of other concepts, or to illustrate it with clear examples.

All the listed rules of argumentation as a subjective process emanating from a particular person are balanced by the principle of comprehensiveness [6, p. 9]. Compliance with this principle keeps the author of the argumentation from excessive subjectivism and prescribes to take into account the widest possible range of hypotheses, facts and alternatives, as well as distraction from his own attitudes and interests (which, of course, is completely impossible).

Therefore, argumentation theory plays an important role both in modern logical knowledge and in other areas of science including psychology. Reliance on evidence is an integral feature of correct thinking,

but the theory of evidence does not reflect all the features of argumentative theory. Behind each specific argument there is always the personality of the author.

References:

1. Habermas J. (2022). *Theory of Communicative Activity*. Moscow: Ves' Mir, 880. [in Russian].
2. Ivin A.A. (2019). *Logic for Lawyers: Textbook and Workshop for Academic Bachelor's Degree*. Moscow: Yurait, 2019. 262. [in Russian].
3. Ivin A.A., Nikiforov A.L. (1997). Augmentation // *Dictionary of Logic Terms*. Moscow: Tumanit, VLADOS, 12. [in Russian].
4. Ivlev Yu.V. (2013). *Theory and Practice of Argumentation*. Moscow: Prospect, 288. [in Russian].
5. Kornakova S.V., Sergeyeva O.S. (2022). *Logic for Lawyers*. Moscow: NITs INFRA-M, 179. [in Russian].
6. Kotel'nikova L.A., Ruzavin G.I. (2001). Systematic Approach to the Process of Persuasion and Argumentation // *Theory and Practice of Argumentation*. Moscow: IF RAN, 7–27. [in Russian].
7. Listvina Ye.G. (2016). Laws of Logic and Scientific Knowledge in Culture // *International Scientific Research Journal*. No. 2 (44). 91–94. [in Russian].
8. Ovcharov N.M. (2017). *Master of Public Speaking: The Most Practical Book on Public Speaking*. Moscow; Kyiv, 212 c. [in Russian].
9. Slinin Ya.A. (2013). Aristotle and the Ontological Foundations of Logic. Moscow: Nauka, 358. [in Russian].

Copyright: Elena Andriyenko ©. 2024. This is an openaccess article distributed under the terms of the Creative Commons Attribution License (CC BY). The use, distribution or reproduction in other forums is permitted, provided the original author(s) or licensor are credited and that the original publication in this journal is cited, in accordance with accepted academic practice. No use, distribution or reproduction is permitted which does not comply with these terms.