

THE NEED FOR LOGICAL PRESENTATION IN A PUBLIC SPEECH

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People think logically, though sometimes illogically, from the earliest times of their existence. However, not everyone is familiar with the basic principles that distinguish logical from illogical forms of thinking. Logic, as a science, is the systematic study of these principles. The rules of logic are guides to correct reasoning just as the rules of grammar are guides to correct writing and speaking. Based on her own long-term observations and personal experience of public speaking, the author of the article offers some principles of logically coherent speech, analyzes logical errors that occur during deductive and inductive inferences and conclusions, and also offers a number of practical tasks aimed at training logical speech.

Key words: a concept, judgment, inference, requirement of consistency, requirement of substantiation, deductive/inductive inference.

НЕОБХОДИМОСТЬ ЛОГИЧЕСКОГО ИЗЛОЖЕНИЯ В ПУБЛИЧНОМ ВЫСТУПЛЕНИИ

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Люди мыслят логически, хотя иногда и нелогично, с самых ранних времён своего существования. Тем не менее, далеко не все знакомы с общими принципами, отличающими логические формы мышления от нелогичных. Логика, как наука, является систематическим изучением этих принципов. Правила логики служат руководством к правильному рассуждению точно так же, как правила грамматики служат руководством к правильному письму и говорению. Основываясь на собственных многолетних наблюдениях и личном опыте публичных выступлений, автор статьи предлагает к рассмотрению некоторые принципы логически связного выступления, анализирует логические ошибки, возникающие в ходе дедуктивных и индуктивных умозаключений и выводов, а также предлагает ряд практических заданий, направленных на тренировку логической речи.

Ключевые слова: понятие, суждение, умозаключение, требование последовательности, требование обоснования, дедуктивные/индуктивные умозаключения.

All of us are familiar with the situation when the speaker is expected to explain the essence of the problem, but he hops from one question to another, sometimes contradicting himself, or not substantiating the statements, so that the whole flow of the speech becomes incomprehensible and hard to follow. This happens for the simple reason that there is no logic in this discourse.

The audience is more likely to forgive slips and lapses than illogical presentation. This is because mindfully we tend to seek a system in everything, order, in other words, logic. The logic of phenomena development is reflected in our thinking. As a science, logic studies the laws of thought, ways and means of obtaining knowledge about the world through reasoning. Undoubtedly, all sane people are capable of reasoning, even if they never studied logic, but some are more coherent than others in expressing their ideas. The knowledge of logic helps you think correctly, just like the knowledge of grammar helps you speak and write correctly. It is a necessary prerequisite for both a scientist and a public speaker. The science of logic, which is the foundation for the logic of thinking and the logic of statement, has two main branches. Dialectical logic teaches a certain approach to phenomena and events: understanding their objective, natural character, the causality of all phenomena, their connection with other phenomena or events, the search for contradictions as a source of development. The perception and understanding of the world is reflected in our mind in concrete forms, which are usually the object of study of formal logic. While the former branch is often called dialectics, the latter is referred to just as logic. Logic distinguishes three forms of thinking: a concept, judgement and inference. A concept is a form of thinking that reflects the general and most essential properties of an object or phenomenon, which represent the content of the concept. The concept is also characterized by a huge scope of other objects or phenomena that are related to this concept. For example, the content of the concept of "a car" is "a road vehicle with an engine, four wheels and seats", while the scope of this concept is extremely large: all kinds of car makes, trucks, sports and other cars. Judgment is a form of thought that reflects the relationship between objects or phenomena. For example: "Today is Tuesday". Inference is a chain of judgments, the last of which, the conclusion, is a kind of new knowledge derived from the previously known judgments, called premises or assumptions. In the

course of the speech, the speaker reveals the content of the concept that the topic is dedicated to, and employs many others, as he goes along; he makes certain judgments and comes to conclusions (sometimes quite unexpected for the audience). If he speaks clearly, coherently, and convincingly, the audience will be captivated by the “ironclad” logic, which often has a hypnotic effect. The purpose of a public speech is to bring the audience to certain conclusions. At this, wishing to get the message across, the speaker strives to “control” or “direct” the thought process of the listeners. The logic of delivery or presentation is “the logic for the audience”. Let’s consider the main requirements of a logical speech: definiteness and clarity of narration; consistency; sequence; validity.

Clarity and definiteness of presentation

The requirement of definiteness in presenting thoughts and ideas means that listeners must clearly understand all the words and expressions used by the speaker. Ambiguity occurs when the speaker uses the terms unfamiliar to the audience. Another situation is also quite common: the speaker uses seemingly well-known words, but does not realize that the audience interprets them in their own way. If you ask your friends what the words “honesty”, “democracy”, “market”, etc. mean to them, you might be surprised at the diversity of definitions and meanings they will come up with. Persistent and often incorrect ideas about well-known concepts often prevent you from being on the same wavelength with the speaker. Therefore, it is useful to follow Descartes’ advice: “Determine the meaning of words and expressions, and you will rid the world of half of the misconceptions.” Ambiguity may also be caused by phrases such as: “Let’s stop controlling people” (which can mean that we either have to stop the controlling process or to stop “control freaks”). Or take a classic example of ambiguous punning: “At the end of the day the MPs decided to meet early in the morning”, where “at the end of the day” actually means “at last, finally”. In order to achieve the definiteness and clarity of statements, it is necessary to exclude confusing phrases, explain the meaning of the unfamiliar terms, and define complex concepts. The most precise way to define a concept is by giving a scientific definition, at which there is pointed out the category to which this concept belongs, and its specific difference is given. For example, “profit is the resulting indicator of the company’s performance, which is the difference between income and production costs.” There exist certain basic rules of scientific definition. First of all, the defining and the defined concepts should be of equal proportionality. The error of disproportionality of the definition occurs if specific difference is not indicated or if it is incomplete. If it is not at all indicated, there is an error of too broad a definition, and the defined concept has to be “specified and completed”. Compare the following with the previous definition: “Profit is an indicator of the company’s performance.” On the other hand, another error occurs when the definition is too narrow, in which case it requires “extension/ broadening”. For example, the definition “A bank is an institution that accumulates money” can be improved: “A bank is an institution that accumulates funds, provides credits, and performs monetary settlements.” Secondly, the definition should be clear and definite. The error of indefiniteness of the explanation occurs when the definition itself contains unknown terms: “Sociometry is applied microsociology”, or “Entropy is an extensive property of thermodynamics”. Finally, the defined concept should not be expressed through a defining one. Otherwise, there occurs the error of “looping” or “overlapping” in the definition: one concept is expressed in terms of the other, and then again, in terms of the first: “Pleasure is the experience of getting pleasure.” Another variety of this type of error is “through its intrinsic meaning”: “An entrepreneur is someone who is engaged in entrepreneurial activity”. The proper scientific definitions are found in encyclopedic dictionaries, but dictionary definitions are not always appropriate in live speech, and sometimes you just do not need them. It is often enough for people to have a general idea of what is being said, without any scientific gobbledygook. In this case, a description of the concept or an object should be used, i.e. a method of definition, at which externally perceived properties of an object or phenomenon are named, sometimes supplemented with precise characteristics, such as essential features of the item and their assessment. For example, it is possible to train students by asking them to describe something in terms of what it looks like (material, colour, texture), its dimensions, purpose and use.

Be consistent in presenting ideas

Think about the popular saying “mixing apples and oranges”. It springs to mind when a person starts talking about one thing, and then jumps to another, in other words, violates the second requirement of logic – consistency. The sequence of presentation means, primarily, a logical connection of thoughts, when one thought prepares for another. If the main idea is constantly interrupted or mingled with irrelevant information, or crosses over with the ideas from a different field altogether, in other words, if the speaker’s thought hops from subject to subject, then it is almost impossible to listen to

and follow such a speech. For consistency, it is necessary to construct a speech so that the next thought follows from the former, a third from a second, and so on, so that there is a smooth and natural transition from one idea to another. In order not to embarrass the listeners, a logical sequence is to be borne in mind when the presentation goes from the known to the unknown, from the simple to the complex, from the description of something familiar and close to the things remote and unusual. In some cases, it is psychologically justified to interrupt the course of speech, so as to make a more interesting and entertaining digression, or to offer a mental twist to make the audience think, etc. As a technique, this is quite acceptable and is often used by experienced speakers. Sometimes they talk about a new method of work that gives an amazing result, and then invite the audience to reflect on how this result is achieved. To help the audience to perceive, understand and remember the entire speech, the speakers should clearly follow the logical sequence of the questions. At the same time, it is important to remember that what is a natural liaison between the separate parts of his speech for the orator may not necessarily be clear and noticeable for everyone, therefore these links must be pointed to, so that the listeners should not lose the train of the speaker's thought. This can be achieved with the help of special links: *first, second, moving on to the next question, on the one hand, on the other hand, summarizing/concluding the above*, etc. Certainly, the links are possible only when the questions tackled in the speech as well are chosen not randomly, but logically.

Don't contradict yourself

The requirement of consistency of presentation is that while asserting something about a certain object or phenomenon at one point of time, it is impossible to deny it a moment later. Of course, all is flux and nothing stands still, and over time, the same phenomenon, for example, the activity of a manager, can be described differently. There is no contradiction either in describing the same object from different angles, for instance, an item of furniture may suit you in design, but not in terms of price; or an excellent specialist may be very bad-natured. But how can one understand a speaker who, in one speech states: "*Private property is not necessary for the transition to the market*", and with a short interval: "*Without private property, no market reforms are possible*"? Such inconsistency in the speaker's judgments undermines confidence in him and nullifies all his efforts.

The audience expects the statements to be substantiated

The requirement of substantiation is especially important if you need to convince listeners of something or persuade them to take certain actions. Conviction as a belief in the truthfulness of something arises in the course of suggestion. In the pragmatic world of business communication, however, appeals and assurances do not work. A clear-thinking person needs a proof that this is just the case, to make him interested in your conclusion or proposal. How can a statement be logically substantiated? You need a logical structure. First of all, you should clearly formulate the very idea that you want to substantiate. It is called a thesis, which is very specific, and answers the question "*What do we prove?*" The wording of *the thesis* should exclude the possibility of misinterpretation, i.e. understanding the statement in a different sense. Formulated like "in general", it may simply be incorrect, for example, "Scientists are out of touch with reality". Secondly, the thesis is to be supported by *arguments*, which serve the basis of proof. Arguments answer the question "*What do we use to prove?*" They can be substantiated by a set of facts; statistical data; theoretical propositions, such as economic laws; judgments based on everyday experience, etc. The third element of substantiation is demonstration, i.e. showing how the thesis results from these arguments. The *demonstration* answers the question "How do we prove it?" It reveals the course of our reasoning. You can prove it either directly, by observation, or by reasoning, that is, logical conclusions.

Requirements to substantiation of the arguments

The first requirement is that the arguments must be directly related to the thesis, otherwise whatever the speaker might try to prove would be a far cry from the original idea. The second requirement is that the arguments must be truthful. If this requirement is violated, there will occur a logical error of "false substantiation" (if the argument is obviously false) or an error of "presumed substantiation" (if the argument has not been previously proved). The third requirement for arguments is their validity regardless of the thesis. If this is not the case, there occurs the error of "looping in the proof". This is something akin to the "Catch-22" situation. The fourth requirement is that the arguments must be sufficient to draw a conclusion, so that it could not be omitted, otherwise there is an error of "*conclusion impossible*". For example, you cannot conclude that you do not need knowledge to succeed in business, based on just a few cases when some former bad students have become successful businessmen.

How to make inferences

There are two types of inferences: deductive and inductive. While reasoning by deduction, one usually proceeds from some general situation, trying to fit into it a particular case, and therefore draws a conclusion *from the common (universal) to the particular*. At that, the universal proposition is a major premise for inference, and the particular case is a minor one. The truthfulness of the major premise is to be specially considered. If it does not correspond to reality, is outdated, or does not correlate with the particular case, the conclusion is most likely to be incorrect, or even absurd. For example: 1. Higher education is a guarantee of success. 2. John Smith has a higher education. 3. *Conclusion*: John Smith is successful. This feature of deductive reasoning originates from Ancient Greece, the cradle of the theory of eloquence and sophism. Here is a classic example from the arsenal of sophists, who were masters to prove anything: 1. What you haven't lost, you have. 2. You haven't lost horns. 3. *Therefore*, you have horns. This "reasoning" is called "the sophism of the horned man". The inference is logically flawless but ridiculous because the major premise is obviously false. In this case, the absurdity of the conclusion, as in many other sophisms, is due to the fact that the major premise is a half-truth, because this statement is true only for those items that the owner possesses. Another common error in deductive reasoning is the use of the same term in major and minor premises in different meanings. For example, "1. Humans make flights to outer space. 2. Our boss is a human. 3. *Therefore*, our boss makes flights to outer space."

In inductive inferences, a generalization is derived from a series of facts related to a single case, that is, a conclusion is drawn from *the particular to the common*. For instance, "1. In company X the accountant works part time. 2. In company Y the accountant works part time 3. In company Z the accountant works part time 4. *Therefore*, all company accountants work part-time." It is clear that the conclusion by induction is only probable, but to make it absolutely reliable, it's necessary to consider as many analogous facts as possible, e.g. all the companies in the city. If the speaker does not bother with this, he risks to err by making "false or hasty generalization". In cases when there are no many facts available to draw a conclusion, it can be done by comparing only two phenomena, by analogy. Analogy is a lax way to draw conclusions; it can only be made if the phenomena compared are similar in the most essential features, while the differences between them are insignificant. Only then can we draw a conclusion about the similarity of such phenomena in other features. Another type of inductive reasoning is the inference *made from effect to cause*. For example, "1. If it rains, the asphalt is wet. 2. The asphalt is wet, so it must have rained." There are erroneous arguments in which the usual chronological connection of events is mistaken for "cause-and-effect", that is, on the grounds that because one phenomenon precedes another, this first phenomenon is recognized as the cause of the one that follows. Here is an example of such reasoning: "After the arrival of the new director, weddings have become more frequent at the enterprise. So, this is the merit of the director."

As you can see, it is not at all easy to substantiate your statements and arguments. However, knowledge of logical culture may help to avoid mistakes in reasoning and will undoubtedly make a speech more convincing.

There exist quite a large number of useful practical exercises which may help to train the skills of logical thinking and coherent speech. Here I offer some of them.

Task 1. Name a way to define the concept, find an error in the definitions, or comment on them.

1. Shares are securities. (Error – too broad a definition)
2. The Oligocene is the third epoch of the Paleogene. (Error - indefiniteness due to an unknown term)
3. Medicine is the science that studies human diseases. (Error – a narrow definition)
4. Marketing is a system for organizing and managing production and sales activities that focuses on market requirements and maximum customer satisfaction. (Proper scientific definition)
5. Marketing is a system of activities for studying supply and demand in the consumer market in order to better meet customer demand. (Incomplete scientific definition)
6. Entrepreneur is an enterprising person. (Incomplete description. "Looping" or "overlapping" in the definition)

Task 2. Exercises on the interpretation of words and concepts.

1. Give a scientific definition of the term "inflation".
2. Explain the meaning of the word "reform".
3. How do you understand the word "justice"?

4. What does it mean “to do business”?

5. What is a trademark? Give a definition and provide an example.

6. **Describe the following notions from your personal standpoint (attitude, necessity, like/dislike):** meritocracy, servility, trust

7. **Describe the following mentioning if possible: physical properties (what it looks like, material, colour, texture, use):** a knife, foil, an easel

Task 3. Determine the type of inference in the following arguments and find possible errors.

1. Knowledge is nothing more but words. Words are a wind. — Knowledge is a wind. (Deductive reasoning. Error – the use of the same term in different meanings.)

2. All beautiful blondes are frivolous; Mary Jane is a beautiful blonde. — Mary Jane is frivolous. (The major premise in deductive reasoning is incorrect.)

3. Tourists visited the city center and exclaimed in admiration: “What a clean city!” (Error of hasty generalization.)

4. In the evenings, the streets are full of young people. Young people have only entertainment on their minds these days. (The error of hasty generalization in inductive inference.)