

ISCKMC 2020**International Scientific Congress «KNOWLEDGE, MAN AND CIVILIZATION»****PROBLEM OF STUDYING THE SEMANTIC STRUCTURE OF
METAPHORS IN ANALYTICAL PHILOSOPHY**

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Abstract

The paper presents the results of a survey study of the semantic structure of metaphorical linguistic units in the analytical philosophy of the 20th century. The problem raised in the study is as follows: do the meanings of the words included in the composition of linguistic expressions with metaphors transform, which provides this expression with an additional (non-literal) meaning, along with the original (literal) one, or the meanings of the words remain unchanged upon reading the entire utterance as they were endowed prior to their metaphorical use, and the utterance would thus be false or nonsense? There are two options for problem solution with terms proposed for each of the solutions. The first *extensional solution* assumes that metaphorical expressions undergo semantic transformation, which results in a new additional (figurative) meaning to the original literal one. Theories that adhere to the extensional solution to the problem are proposed to be referred to as extensional theories. The opposite *anti-extensional solution* to the problem implies the stability of the semantic structure of the metaphor. In *anti-extensional theories*, semantic changes in the metaphorical statement and additional meaning are denied. Thus, instead of the traditional terms ‘pragmatic’/‘semantic’ theories, the paper suggests new terms to denote theories of metaphor – extensional and anti-extensional theories. The paper provides the characteristics of the theoretical foundations of these theories.

2357-1330 © 2021 Published by European Publisher.

Keywords: Semantics, metaphor, pragmatics, metaphorical meaning, semantic shift, analytical philosophy



1. Introduction

One of the crucial tasks at the present stage of science development is the study of such a complex phenomenon as a metaphor.

Metaphor is a linguistic expression used in figurative (non-literal) meaning, which implies the comparison of objects according to some feature or a set of features.

An increased large-scale research interest in metaphors in analytical philosophy was a response to some general trends that took place in the 20th century: the crisis of logical positivism, the growth of interest in the phenomenon of natural language, new logical-semantic concepts emerged etc. There was a need to explain the fact that metaphors are an integral part not only of the natural language, where they are successfully used, despite their ‘meaninglessness’, but also of scientific discourse.

Numerous metaphors are encountered in the concepts of philosophers-logical positivists who were critical of the use of metaphors in a strict, philosophical discourse: ‘language purification’, ‘therapy of language’, ‘vague expressions’, ‘ideal language’, ‘logical atom’, ‘molecular sentence’, ‘term offspring’, ‘transparent fact’, etc.

Metaphors also function in the language of various sciences: in mathematics – ‘method of natural neighbors’, ‘family’ completeness, ‘trajectory of a random walk’; in physics – ‘noble gas’, ‘diffraction pattern’, ‘spin echo’, ‘electronic transport’; in biology – ‘knockdown of histone deacetylases’, ‘silent DNA’, ‘port of infection’, ‘selfish gene’, ‘scissor enzymes’.

These facts could not but put forward relevant problems in analytical philosophy about the causes and limits of the use of metaphors, their heuristic capabilities, etc., which required a thorough approach to their solution.

In particular, one of the key problems in the modern analytical theory of metaphor is the problem of the semantics of metaphorical expressions.

During the XX century, various metaphor theories have been created within the framework of the analytical tradition, which treat the semantics of metaphors in various aspects: references, ideas of intentionality, semantics of possible worlds, etc.

2. Problem Statement

In this paper, the problem of the semantics of metaphors is formulated as follows: do the meanings of the constituent words of a metaphorical statement transform (*i*), which provides this statement with an additional (non-literal) meaning, along with the original (literal) one, or the meanings of words remain unchanged upon reading the entire utterance as they were endowed prior to their metaphorical use (*ii*), and the utterance would thus be false or nonsense?

The problem of semantics of metaphors formulated in this form can have two solutions:

Option (*i*) suggests that (for example) the metaphor ‘Richard wolf’ means not only that the individual Richard is a canine predator (S), but also that Richard is ferocious, vicious and prone to constant competition (S₂).

The first thought indicates the original (literal) meaning of the utterance (S), and the second one implies the additional (metaphorical) meaning (S₂).

Thus, the added meaning makes the statement meaningful: being literally false (or meaningless), it can be metaphorically true. This option of the solution to the problem of semantics of metaphor is proposed to be indicated as ‘extension solution’ (from Latin *extensio* – extension).

Within the extensional approach, the semantics of metaphors is a dual (binary) structure, both elements of which (initial and additional meaning) are opposite in meaning: Richard is *literally* a wolf (S) - Richard is a *non-literally (metaphorically)* wolf (S₂).

This structure of the meaning of metaphors can be expressed in conditional symbols (1.1.):

$$M(S, S_2), \quad (1.1)$$

where M is metaphor, S is original meaning, S₂ is additional meaning.

Theories that are focused on the extensional solution to the problem of semantics of metaphors are *extensional theories*.

Therefore, the opposite solution to the problem of semantics of metaphors in favor of **(ii)**, is an *anti-extension solution* (related theories are *anti-extension theories*).

The anti-extensional solution assumes the stability of the semantics of metaphorical expressions. Since the metaphor does not add a new meaning to the literal meaning of the statement, the statement ‘Richard wolf’ is false (or it is a meaningless statement).

American scientist Donald Davidson noted in this regard, the metaphor does not need to be doubled: the meanings we inferred in words are preserved when reading the entire utterance (Davidson, 1990). The metaphorical interpretation of a literally false statement does not mean that it may be true in any other respect. Davidson (1990) believes that ‘the language of metaphors does not differ from the language of sentences of the simplest kind ...’ (p. 174) and what ‘really distinguishes a metaphor is not meaning, but its use, and this is what makes metaphor similar to speech actions: a statement, a hint, a lie, a promise, an expression of dissatisfaction, etc.’ (Davidson, 1990, p. 175).

The extensional approach treats the meaning of a metaphorical statement as a semantically dual (binary) structure with original and additional meanings. However, the anti-extensional approach considers the meaning of a metaphorical statement a unary structure: the literal meaning of the statement and a pragmatic component. Write it in symbols as follows (2.1.):

$$M(S)^+, \quad (2.1)$$

where M is metaphor, S is original (literal) meaning, ‘+’ is a sign that indicates a pragmatic component of the metaphor, which makes its sense.

Thus, theories of metaphor are divided into two types – extensional theories and anti-extensional theories.

The term ‘semantic theories’ is most frequently encountered in the research literature to refer to extensional theories. The term ‘pragmatic theories’ is used for anti-extensional theories.

The classification of metaphor theories using these terms is found in many studies (Alekseev, 2002; Kiklevich, 2007; Menshikov, 2009; Polozova, 2003).

This paper proposes a different terminology to denote and describe these types of theories.

We proceed from the fact that each of the two existing patterns of solving the problem of semantics of metaphors entails certain effects for the semantics of metaphorically used expressions. The solution to the problem of the meaning of utterances with metaphors in favor of **(i)** is proposed to be

referred to as ‘extensional solution’. An extensional solution involves expanding (stretching) the semantics of metaphors by doubling its (semantics) categories: literal predication/metaphorical predication; common reference/metaphorical reference; literal meaning/metaphorical meaning; general truth/metaphorical truth, etc.

The opposite solution – anti-extensional, on the contrary, assumes ‘stability’ of the semantics of metaphorical expressions: ‘metaphors mean only (or no more) what is implied in the words in accordance with their literal meaning’ (Davidson, 1990, p. 178).

Accordingly, theories focused on the extensional or anti-extensional solution to the problem of semantics of metaphors will be referred to as extensional and anti-extensional theories.

This terminology avoids the ambiguity that arises when the terms ‘semantic theories/pragmatic theories’ are used to describe this opposition.

These terms were revealed to be limited in the theories which substantiated the thesis about metaphorical nature of our language. For example, in the paper ‘The Cognitive Claims of Metaphor,’ Marie Hesse proposed a thesis that she thought would be shocking to those who focused on careful distinguishing between literal and metaphorical: our entire language is metaphorical. With regard to the literal/metaphorical distinction, Hesse believed that it has a pragmatic focus and refers to the cases when a speaker learns a language, uses it, or gives definitions to words of a given language (Hesse, 1988).

3. Research Questions

Thus, the object of the study is the problem of the semantics of metaphors (based on the presented definition) and its possible solutions proposed in the analytical theories of extensional and anti-extensional metaphors.

4. Purpose of the Study

The purpose of the study is to briefly characterize the conceptual foundations of analytical theories of extensional and anti-extensional metaphors.

5. Research Methods

The study employed the historical and philosophical method and the method of conceptual analysis. Conventional general logical methods (modeling, abstraction, idealization, etc.) were also applied.

6. Findings

In extensional theories, the semantics of metaphors is a semantically dual (binary) structure expressed in the corresponding symbolic notation – $M(S, S_2)$,

Extensional theories provide various explanations of the mechanisms of semantic transformation, as well as the nature and functions of additional meaning (S_2): additional meaning as a new sense and the result of the interaction of the subjects of the utterance (theory of semantic interaction); additional

meaning as an iconic sign and the result of the iconic method of designation (the theory of iconic signification); additional meaning as a result of the shift from designation to connotation (theory of verbal oppositions); additional meaning as a result of alternative classification (theory of alternative reference).

Let us characterize the theory of verbal oppositions proposed by Beardsley (1990) as an example.

The mechanism of transformation of meaning in a metaphorical utterance was described by Beardsley as a semantic shift from the central meaning of a metaphorical word (metaphor modifier) to its marginal meaning, or from designation to connotation, and 'this shift indicates that the word is used metaphorically' (Beardsley, 1990). This shift includes:

1. The emergence of logical opposition at the level of the central meanings of words A and B (i.e. $S(A, B)$).
2. The shift from the central meaning in the modifier word (B) to its marginal meaning or connotation (i.e. $B \rightarrow B_m$).

Thus, according to the theory of verbal oppositions, the additional meaning of a metaphorical utterance can be described as the result of a combination of a word with a central meaning (A) and a word with a marginal meaning – $S_2(A, B_m)$.

An extensional solution to the problem of the semantics of metaphors proposed in the framework of the theory of verbal oppositions can be schematized as follows $S(A, B(B \rightarrow B_m)) \rightarrow S_2(A, B_m)$.

In anti-extensional theories, which deny the existence of semantic changes in metaphors, the concept of additional meaning (S_2) has been substantially criticized.

Meaningfulness of metaphorical utterances is ensured not by the additional meaning, but by the pragmatic component (+).

Anti-extensional theories provide various explanations of the pragmatic component and the mechanisms of its calculation: the pragmatic component of the metaphorical utterance as the meaning of the speaker's utterance different from the meaning of the sentence (theory of the meaning of the speaker's utterance); the pragmatic component of the metaphorical utterance as a specific way of perception (the theory of aspectual perception); the pragmatic component of the metaphorical utterance as an implicit invitation to metaphorical communication (theory of metaphorical communication); the pragmatic component of the metaphorical utterance as a specific metaphorical proposition (theory of metaphorical assertive), etc.

Characterize the theory of metaphorical communication proposed by Ted Cohen as an example⁵.

Cohen proposed the perception of metaphors as a way of organizing metaphorical interaction, which promotes a close rapprochement between the speaker and the listener.

Cohen believed that metaphorical interaction includes three aspects:

- 'Concealed' (or implicit) invitation initiated by the speaker.
- Acceptance of the invitation by the listener (for which he must apply some efforts, which will be discussed later).
- Recognition of this interaction by the community (Cohen, 1978).

Cohen (1976) writes about two efforts that the listener must make to accept the invitation: first, the listener must realize that the utterance has a non-literal (metaphorical) intention; second, the listener must try to figure out the essence of the invitation.

In performing these operations, the listener uses a certain set of assumptions about the speaker: what the speaker wants to say; what the speaker assumes relative to what the listener may assume (in particular, it means an assumption about what the speaker thinks about the listener's expectations).

A more detailed description of extensional and anti-extensional theories is presented in the studies (Makhaev, 2015, 2016).

7. Conclusion

Thus, the solution to the problem of the semantics of metaphors in favor of **(i)** was referred to as an extensional solution. It is based on the principle of semantic duality of metaphors. In the extensional solution, the meaning of a metaphorical utterance is a binary structure with original (literal) and additional (non-literal) meanings which are opposites. Theories focused on the extensional solution to the problem of the semantics of metaphors were referred to as extensional theories.

The solution to the problem in favor of **(ii)** was referred to as an anti-extensional solution. It is based on the principle of 'stability' of the semantics of metaphorically used expressions and, hence, on negation of the additional meaning.

The meaningfulness of metaphorical utterances can be attributed to the pragmatics of language: a metaphorical interpretation of a false utterance does not mean it can be true in any other respect; similar to any false utterance, it can stimulate the imagination, evoke feelings, etc.

Extensional and anti-extensional theories coexist in modern science. It may be argued which solution to the problem of the semantics of metaphors is the correct one. The question of uniquely true and more correct solution to this problem would be equally appropriate (if not more appropriate). The formulation of an exhaustive argumentation in favor of the anti-extensional solution to the problem is complicated since supporters of the extensional solution in constructing metaphor theories can rely on more complex and non-standard semantic theories (for example, the semantics of possible worlds; or the idea of two layers of meaning proposed by M. Beardsley);

We believe that the only question (or one of the possible questions) that would be appropriate in relation to the two possible solutions to the problem of the semantics of metaphors has a pragmatic dimension and can be formulated approximately as follows: 'which of the solution to the problem – extensional or anti-extensional – entails less difficult consequences for the semantics?' The question initiates a pragmatic criterion based on our intuitive feelings of beauty and simplicity. The pragmatic criterion (corresponding to the famous Occam's Razor) is maintained by the anti-extensional theories, since they do not expand the semantics with additional parameters, as opposed to the extensional theories.

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