

Michał R. Węsierski
SCIENTIFIC HUMANITIES AND
PHILOSOPHICAL CONCEPTIONS OF SYMBOL.
META-SEMIOTIC CONSIDERATIONS

Originally published as "Humanistyka naukowa a filozoficzne koncepcje symbolu. Rozważania metasemiotyczne," *Studia Semiotyczne* 25 (2004), 323–336. Translated by Magdalena Tomaszewska.

I

The issue discussed in this paper, although controversial, is cognitively non-trivial. Namely, we shall be interested in the matter of possibility to use certain semiotic conceptions in research conducted in the area of a certain group of specific sciences, that is humanities. The aim of this work is to show the possibility of adopting in humanities ready-made conceptions of symbol created on the grounds of the analytical philosophy of language and logical semiotics. Also, we wish to outline the actual state of assimilating and using the mentioned philosophical conceptions by scientists who represent the sciences under consideration.

We formulate in the thesis that any application, or adaptation, of particular and specific semiotic solutions causes considerable difficulties of a methodological nature, which are related to interference in the scientific cognition process and to properties of this process. Also, we claim that reception of the mentioned ideas developed on the grounds of the philosophy of language and theoretical semiotics in scientific humanities is rather negligible. We think that in humanists' research practice attempts to use such philosophical ideas are of clearly limited and marginal character.

II

Let's begin with establishing what is understood by the notion of scientific humanities, that is sciences of humanities. Sciences of humanities are a group of

scientific disciplines¹ which are interested in man, society and widely understood culture, in which the ultimate, acceptable premises are a priori theorems (that is axioms and postulates), theorems directly based on experience and theorems based on understanding certain statements. Among these sciences it is possible to distinguish a further three types: (a) nomothetic (explaining), e.g. psychology or sociology, (b) idiographic (descriptive), e.g. history, and (c) axiological (evaluating), e.g. ethics or aesthetics.²

Let's try to briefly characterize humanistic disciplines. Humanistic sciences study man, the world of his artifacts, feelings and behavior. Thus scientific humanities are interested in: firstly, acts, activities or processes, secondly, objects of these acts (artifacts) and, thirdly, contents of acts or actions. And hence humanistic disciplines are interested in psychic processes, impressions, feelings, intentions, aims, motifs, dispositions, desires, needs, beliefs, concepts, language, social norms and practices, various forms and patterns of individual and group behavior, social institutions and structures, etc., in other words: the whole socio-cultural reality.

The mentioned sciences create two intersecting groups, namely: sciences on culture and sciences on society (social sciences). This division is neither exhaustive (complete) nor disjunctive. Especially the latter condition which is imposed on a correct logical division cannot be met when it comes to classifications of scientific disciplines.

Sciences on culture examine the whole spiritual and material achievements of societies, e.g. language, customs, art and literature. They are idiographic and typological sciences. Sciences on society, which are in principle empirical sciences³ in a broad sense, usually have a nomological character⁴ and are rather focused on behavior and processes typical of man than on artifacts or objects of human activity. The former group consists of e.g. ethnography, musicology, literary studies, philology, while the latter — sociology, psychology, and economy. The border cases are: anthropology, archeology, linguistics and even history.

¹Let's highlight here that a scientific discipline is a certain didactic or organizational unit. Most often disciplines are distinguished on account of their formal object, method (especially the way of justifying theorems), or types of cognitive aims. Groups of sciences, that is scientific disciplines, which are interested in related issues create a branch of science.

²For more see Ajdukiewicz 1985.

³Empirical sciences are any disciplines based on experience, which examine the real world, that is, nature, man and social life.

⁴Nomologic sciences are the ones which discover laws. Sometimes instead of NOMOLOGICAL sciences, after Wilhelm Windelband, the expression NOMOTHETIC sciences (constituting laws) is used. It is advisable here to regard both terms as synonyms and assume that what is meant is the disciplines which discover, and not constitute, general theorems.

The fundamental purpose of science — understood as an institutionally organized activity aimed at establishing knowledge about reality — is, on the one hand, solving problems, and on the other, searching for good explanations for anything that needs explanation (Popper 1992: 249, Popper 1997). Scientific humanities is a certain branch of science and at the same time a branch of knowledge about a certain sphere of reality. Scientific humanities have both an explanatory and a descriptive function, which are both important. The former is executed mostly by sciences on society, the latter — sciences on culture.

The term "symbol" is very ambiguous. It is present in anthropology, ethnology, religious studies, history of art and literary studies. Also, it is used by linguists, psychologists and sociologists. Various researchers who employ the term frequently intentionally give it different senses. The conceptual chaos occurring in scientific humanities may sometimes cause considerable misunderstandings.

III

The word "symbol" (Greek *σύμβολον*) generally means: (1) a conventional sign which has a replacing function towards a certain object (concept, state of things, phenomenon) and brings this object to mind; (2) a certain graphical sign (most frequently of letters or numbers) which replaces certain concepts, quantities, measure units, or expressions; (3) a motif or a group of motifs in a work of literary art which has the function of a sign referring to another sphere of reality which has not been directly presented (Sobol 1999: 1059; cf. Simpson, Weiner 1989: 451-452). The word "symbolism" is understood above all as, respectively: (1) the totality of symbols used in a given branch; (2) symbols occurring in a given piece of work or work of art; (3) a symbolic meaning of something, a symbolic character of something (Sobol 1999: 1059).

Non-philosophical conceptions of symbol are created on the grounds of a certain group of real sciences, and indeed humanistic sciences, and common knowledge. Philosophical conceptions approach the issue of symbols and symbolism in a broader cognitive perspective than specific sciences or non-scientific common sense investigations. A philosophical reflexion is frequently a reference point for research in the mentioned specific sciences. However, the matter of the scope of application of various philosophical conceptions in these sciences is disputable.

The notion of symbol causes considerable interpretive difficulties. Symbols are quite commonly regarded as certain kinds of sign, namely conventional signs.

Specialist philosophical conceptions are aimed at answering the questions of what symbol is and what place it takes among other signs, gives the origin and function of symbols, and, finally, characterizes the relation between symbols and what they symbolize, as well as between those who use them and those who interpret them (Morris 1971a; Morris 1971b; Ossowski 1966; Ossowski 1967; Wallis 1971; Langer 1977; Wallis 1983a; Wallis 1983e; Dąmbaska 1973; Dąmbaska

1982). Very often specialist definitions and various explications of the term under consideration are made (Lurker 1986: 1027-1029; Eco 1986: 1029-1033; Gräfrath, Kambartel 1996: 158-160; Dobrokhotov 2001: 532-534; Turner 1968: 576-581).

It is commonly assumed that symbols are objects which bring to mind other objects. Controversies arise in more specific matters. Researchers frequently differ in views about what kind of objects may be regarded as symbols, e.g. it is contentious whether both visible, concrete, sensory perceptible objects created by man, and abstract objects, ideas of objects, features or relations, etc. can be symbols. It is frequently assumed that one of their properties is their dual nature, that is the possibility of being interpreted asemantically or semantically. A series of controversies are raised by the character of symbolizing. Differences in views appear when it comes to relations linking the symbol with the symbolized object. It remains disputable whether the semantic function of symbols results from a more or less freely chosen convention, arbitrary decisions, or whether it is always conditioned by a certain analogy (though not completely clear or specified) between the symbol and the symbolized object. It is believed that the interpretation of a symbol depends on many factors, e.g. the scope of knowledge of the interpreter, the context, or dominant cultural trends. Researchers interested in the issue usually agree that the symbolized content is more significant than the symbol-object which has a service function.

It can be said that generally there are two kinds of symbols distinguished in specialist literature. The first consists of emotional and axiologically neutral symbols, which are unequivocal, well specified, and semantically clear, and whose relation to the symbolized object is not motivated by the belief of the user that there is a causal relation or a similarity between the symbol and the object. These symbols are usually used to improve cognition or communication actions. Whereas the other kind consists of symbols which are not neutral axiologically, express emotions, are equivocal, non-specific and semantically unclear. The user is convinced that there is a causal relation or a similarity between the symbol and the symbolized object (Pelc 1996).

An example of non-iconic symbols of the first kind are logical, mathematical, physical or chemical symbols, that is: the symbol " \sim " or " \neg " stand for negation, the symbols " \supset " and " \rightarrow " are signs of implication, the symbols of equivalence are " \leftrightarrow " and " \equiv ", " \wedge " is the symbol of conjunction, " \vee " — disjunction, etc. Also, what comprises this kind of symbols is: arithmetic symbols, e.g. "+" — summing, "." — multiplication, "=" — equality, symbols of physical quantities and constants, e.g. " F " — the symbol of force, " E_k " — the symbol of kinetic energy, " U " — the symbol of electric voltage, " G " — the symbol of gravity, " h " — the symbol of Planck's constant, " c " — the symbol of the speed of light in a vacuum, symbols of chemical elements, e.g. "H" (hydrogen, Lat. *hydrogenium*), "C" (carbon, Lat. *carboneum*), "Fe" (iron, Lat. *ferrum*), and measurement symbols, e.g. "s" (second),

"g" (gram), "m" (meter), "in." (inch), "A" (ampere), "K" (kelvin), etc. An example of the iconic symbols of the first kind is — most frequently represented on maps and plans — a sign on a fuel dispenser which stands for a fuel station.

An exemplification of natural symbols of the other kind are: eucharistic symbols (bread and wine), the eagle as a symbol and an attribute of Saint John, the lion — a symbol of power and authority, as well as a symbol and an attribute of Saint Mark. Non-natural symbols of the other kind are: the sphere as a symbol of completeness and perfection, a mythological Phoenix symbolizing rebirth and indestructibility, or mandala in Hinduism or Buddhism — a symbol of the Universe.

Sometimes it is believed that symbols of the other kind designate objects which are used to communicate certain values and cause an axiological experience (Dąbska 1973: 37-38; Dąbska 1982: 125). Let's highlight here that "a neutral or axiological nature of semantic content of a sign is not related to a type of objects which function as symbols, but to a type of their pragmatic use which is assigned by the nature of objects designated by them" (Dąbska 2015).

Researchers representing specific sciences continuously find themselves in a situation when they make a choice of cognitive aims, methods and appropriate selection and analysis of collected material. Conducting cognitive activities researchers may benefit from some ready-made semiotic or methodological ideas which were created on the grounds of philosophy, or go their own way. No matter what choice is made ultimately, there are always "objective" limits of freedom of conducting scientific research. Now we shall have a look at certain limitations imposed to semioticians and methodologists by the process of scientific cognition.

IV

Scientific knowledge results from solving scientific problems. The process of scientific cognition itself has a very complex character. Components of this process are: the cognitive situation, the cognitive attitude, and products of cognitive activities. Cognitive situations are certain conditions in which research and scientific investigations are conducted (Znaniński 1987: 352). These conditions are: cognitive issues and problems which generate topics and plans of research, objects of controversies in the scientific environment, the general state of knowledge, the existing methodological apparatus (procedures, methods⁵ and research techniques,⁶ as well

⁵The method is a model selection and system of activities which are used consciously, systematically and methodically, and which allow to effectively and efficiently obtain the assumed aims of action. Scientific methods are understood here in relation to basic kinds of reasoning, that is deduction, induction, reduction, and analogy. See Kotarbiński 1982: 78-79; Kamiński 1981: 184; Ostasz 1998; Ostasz 1999.

⁶Research techniques are related to a selection of certain means to obtain particular cognitive aims. Techniques are a more specific solution and application of scientific methods. They have the character of specialist tools used in the cognitive process.

as research instruments, that is devices for observing, measuring and experimenting), scientific language and information about the research object. The cognitive attitude is, in other words, a chosen intention (aim) of solving the problem which determines the selected direction of research and takes into consideration the specified cognitive situation (Znaniński 1987: 351-355). The cognitive attitude is a reference point to develop the whole research strategy. Cognitive attitudes consist of research methods and techniques as well as research procedures, which are: the description (describing), explaining, anticipating, the idealization, defining, the conceptualization, the systematization, and the classification. (The complex and methodological system of cognitive activities, which consists of specifically chosen research procedures and appropriate research methods and techniques is called the research strategy). The fundamental products of cognitive activities are categories and concepts, models, theorems and theories.

The process of scientific cognition is individualized and depends on a certain problematic situation which faces a particular researcher. Science, understood as an activity and a product, is not assumption free. Ontological and epistemological theses mutually determine the research action (influence cognitive activities and the shape of products of these activities).

Any scientific research is conducted from three perspectives: (a) ontological, which is the vision of the world and man represented by the scientist; (b) methodological, which concerns knowledge and methodological practice; (c) axiological, which determines the system of values (Topolski 1978: 37). A special place is taken by the axiological sphere of scientific research. Philosophical assumptions of science have an effect on the choice of cognitive aims; metaphysics (ontology) and axiology undoubtedly have a heuristic value, they inspire, give meaning and validate the legitimacy of the undertaken research problems and the ways of solving them (Nowak 1984: 21-30, 35-36). Philosophical assumptions are an indispensable part of the process of creating scientific knowledge. Scientific knowledge assumes both an explicit and implicit form. In cognition there are unconceptualized factors, unverbalizable elements which become distorted when they are subject to linguistic expression.⁷ A consideration of these problems should always be within the scope of interest of researchers-humanists and methodologists of humanities.

Somebody who deals with logic, general or specific methodology of sciences, or logical semiotics faces a certain dilemma when conducting their own research projects: to describe or to prescribe. Shortly, researchers must answer the question if they are rather passive observers, or engaged participants. Let's remind ourselves

⁷According to Michael Polanyi it is the so called "tacit knowing," which is able to take the form of "tacit knowledge." The "tacit knowledge" is knowledge which cannot be verbalized. It accompanies skills which are expressed in particular actions. Expressing such skills in a language other than the language of the procedure of conducting a given action is impossible (Polanyi 1967: 3-25; Polanyi 1969a; Polanyi 1969b; Polanyi 1958: 49-65).

that methodology — which also concerns logic and semiotics — may have a dual role: it may be either an instrument which provides rules of effective research action in order to guarantee scientific success, or a means which serves to reconstruct rules of research action. In the former case we are talking about normative methodology, in the latter — descriptive methodology. Normative methodology formulates recommendations and precepts, while descriptive methodology speaks of scientific activity and its results. Methodology in its normative function meets serious obstacles, which it must not transgress. The role of both a methodologist and a semiotician is in this respect quite limited.

Let's refer here to the observations of A. Motycka who distinguishes two myths which occur in contemporary meta-methodological awareness. One of them is called the myth of methodologist-advisor, the other — the myth of self-conscious researcher. The myth of methodologist-advisor "is related to the conviction that the methodologist may provide a scientist with such a method, piece of advice, rule or hint which will allow him to remedy particular problems in the scientific research process" (Motycka 1985: 58). According to Motycka, this myth is characteristic of these methodologists and philosophers of science who "in their best, although naive intention to give help to scientists in need, devote themselves to works on constructing pseudo-methodology with a character which directly intervenes in the research process" (Motycka 1985: 58). Thus, a methodologist should not try to give scientists specific advice concerning a particular problematic situation. In scientists' minds, the myth of methodologist-advisor occurs as the myth of Good Mr. Methodologist. The myth of self-conscious researcher is related to the fact that scientists do not always have the awareness of applied cognitive activities. Hence one should be cautious about the knowledge about norms and procedures used in the research practice. The author further writes that "the juxtaposition of these two myths allows him to clearly see the delusion of methodological mythology which, by connecting the myth of methodologist-advisor and the myth of self-conscious researcher, provides a completely magical image of a scientist who, having fed the methodologist with illusions on what is true in science, awaits his advice" (Motycka 1985: 60). Obviously Motycka does not claim that scientists cannot, could not or should not have a philosophical reflection on science or express opinions in the sphere of methodological awareness. The object of research in methodology is science understood as scientists' activities and products of their activities. The methodology where the aim is to give advice to scientists, is called by Motycka a garage methodology, because science "is not a motorbike whose repairing gets described in guides" (Motycka 1985: 72). It is not an obligation of a methodologist to advise scientists what they should do in a particular situation. The fact that "science makes use of particular methods and that methodologists are professionally interested in them does not authorize suspicions and does not induce conclusions that a methodologist is the one who offers solutions to a

scientist” (Motycka 1985: 69). We agree with these remarks.

Undertaking methodological matters cannot be related to patronizing, or formulating dogmatic prescriptions about how to conduct science. Similarly, in the case of insistent propagation of semiotic conceptions and ill-considered attempts to apply them in research conducted on the grounds of humanities.

Analogously to the above mentioned distinctions, we may indicate the myth of semiotician-advisor and the myth of Good Mr. Semiotician. The former myth is the wrong conviction that semiotics, especially theoretical semiotics, is capable of providing scientists with tools allowing them to solve particular cognitive problems which they face in the course of their research practice, while the other myth is nothing else than an illusory conviction of scientists themselves about specific omnipotence of semiotics and semioticians.

Let’s remark here that the object of consideration in theoretical semiotics are semiotic properties (features) of sign. Theoretical semiotics of a higher level analyzes semiotic relations (functions) of sign.⁸ Thus understood semiotics deals with describing and defining these properties, showing relations between them and ordering these properties, classifying as well as systematizing, typologizing and explaining them (Pelc 1982a; Pelc 1982b: 223-227; see also Pelc 1992: 23-24). In short, theoretical semiotics is an embodiment of fundamental research. One of the main tasks of semiotics is to analyze functions of speech, to prepare a conceptual and terminological apparatus aimed at reporting on various transgressions against postulates of reality, unequivocality and clarity of communication, as well as to systematically review these transgressions and to indicate preventive means against them (Ajdukiewicz 1974: 15).

Semiotics provides humanities with a rich arsenal of valuable cognitive instruments, but their usage lies only in the hands of scientists. Only the knowledge of actual epistemic problems in a specific branch of science, or a given cognitive situation, could allow methodologists and semiotics to take a fully constructive stance towards research practice and effectively aid representatives of real sciences.

The complexity and multi-layeredness of the process of scientific cognition makes it considerably difficult to implement specific methodological or semiotic recommendations. The actual difficulty is an attempt to reconstruct ontological, epistemological and axiological assumptions (which are not always expressed *explicite*), and an analysis of a specific cognitive situation which inspires such and such research. In fact, scientists always wish to maintain independence in choosing the research issues as well as determining and modifying the chosen research strategy. An external interference in the cognitive process may sometimes disturb the cohesion of products of cognitive activities.

V

⁸What counts as semiotic relations is semantic, syntactic and pragmatic relations.

Observing the research practice of humanists, we can notice that there are a few different meta-theoretical approaches and attitudes. From the meta-scientific perspective there are mutually incomparable epistemological patterns, different opponent epistemological models and meta-scientific traditions (von Wright 1971: 1-33; Chmielewski 1989). As it is believed such divisions are related to different assumptions and philosophical preferences. Numerous researchers derive inspiration from other intellectual traditions: some are closer to analytical tradition, others — to hermeneutic tradition, some are in favor of naturalism, others are inclined to anti-naturalism. Not all scientists are in favor of the same models of science, that is identical normative conceptions of science, as a form of knowledge and cognition. Empirically oriented sciences on society, such as linguistics or cognitive psychology, generally prefer other epistemological patterns than descriptively oriented sciences on culture. Additionally, what overlaps with the opposition scientism — anti-scientism is a certain individual inclination and bias in favor of different semiotic conceptions.

Membership of a particular group influences the character of created works. In the face of barriers in the form of meta-theoretical convictions and attitudes resulting from adopted philosophical assumptions, some actions and propositions of semioticians and methodologists may turn out to be completely inefficient. Very often in humanistic sciences certain concepts are falsely regarded as obvious and "commonly" understood. Not infrequently problems of a semantic nature are ignored.

In works which today are considered classics, it is indeed difficult to find any reception of semiotic conceptions under consideration. Let's remember that these works were created in times when the results of semiotics were limited and difficult to access. Many authors in the past referred to their own language intuitions when analyzing rites, customs, and concepts of various societies. What often characterizes works under consideration is a broad approach to the research object, good technique and a quite precise language, but sophisticated semiotic considerations are present very rarely (Frazer 1894; Mauss 1968; Durkheim 1995; Kroeber 1952). And more than once the descriptions of customs, ceremonies, and rites contain only a brief reference concerning symbols and symbolism. Such works as a rule are devoid of a more general reflection on symbols as such (Benedict 1934; Evans-Pritchard 1962; Lévi-Strauss 1963; Lévi-Strauss 1966).

A specific case are publications of B. Malinowski which stand out as very perceptive, original and independent in terms of their considerations about semantic problems (see Malinowski 1946). A separate place, so to speak, is taken by works of prominent representatives of psychoanalysis. Researchers such as S. Freud or C. G. Jung provided no specific definitions of symbol, although they both — not identically — used this concept and understood it in their own characteristic way (Freud 1977; Jung 1981).

Nowadays we encounter a multitude of approaches towards tools created by theoretical semantics. Thus, it is possible to distinguish a few types of attitudes concerning philosophical conceptions of sign. Usually we may encounter works whose authors, describing and analyzing particular examples of symbols, rather do not talk about general matters (Eliade 1961; Eliade 1993; Roux 1988). Many researchers base on conceptions taken from works of Neo-Kantians or representatives of hermeneutics. Both of these tendencies, by the way, are represented by a certain group of philosophers who do not shun etymological considerations and remain more or less open to other epistemological approaches while making various explications (Cassirer 1923; Cassirer 1944; Ricoeur 1967; Ricoeur 1976; Gadamer 1987). More than once we may encounter works whose authors — aware of various conceptual nuances — looked for inspiration in different, sometimes very distant, intellectual traditions (Lurker 1998; Marchetti 2001; Dupré 1972; Filipowicz 1988; Czerwiński 1997).

A great number of representatives of sciences on culture and sciences on society conduct research on symbols on the basis of texts written by sociologists, anthropologists and ethnologists, and only marginally refer to works by analytical philosophers (Duncan 1968; Hałas 2001; Węclawski 1995). It happens repeatedly that even great historical syntheses which encompass longer periods in the history of a given cultural circle do not contain any — even short — semantic and pragmatic analyses (Le Goff 1988; Delumeau 1967). Sometimes it happens that works which undoubtedly stand out for their clarity and unequivocality, and written by representatives or obvious sympathizers of analytical tendency, do not contain meta-theoretical terminological analyses (Tatarkiewicz 1970; Eco 1985). Also, there is no lack of works from applied semantics in which there is no reference to theoretical semantics, while the problem of symbols and symbolism is treated only marginally (Uspenskii, Zhivov 1987). Additionally, there are cases in which the research on cultural phenomena is actually accompanied by ignorance of the problem of symbol and symbolism, and a low reception of texts from analytical philosophy (Carrithers 1992; Berger, Luckmann 1966; Cawelti 1990). Also, there appear publications which creatively combine findings of theoretical semiotics with achievements of specific sciences (Kłoskowska 1964: 77-93; Niżnik 1985; Wallis 1983b, 1983c, 1983d). Finally, there are works, usually bordering on philosophy of language, cognitive psychology, and linguistics, which not only use ideas of analytical philosophers, but additionally present their own, often polemical, competitive semiotic conceptions (Daddesio 1995; Haarmann 1990).

This whole, merely outlined, gamut of approaches determines the image of a certain sphere of research on cultural and social phenomena. It is beyond doubt that the meta-scientific approach influences the ultimate effects of undertaken cognitive investigations. If a particular scientist does not share certain values such as, e.g.: a bias towards formulating clear and unequivocal judgments and epistemic

minimalism understood as a dislike towards great metaphysical systems and a quest for "depth" or "essence" of things or phenomena, which is accompanied by the awareness of limits of human cognitive powers, then it is doubtful that this scientist will be willing to use ideas developed by analytical philosophers.

VI

Initially, we proposed to divide scientific humanities into two groups of sciences which permeate each other to some degree: sciences on culture and sciences on society. In both of these groups, the reception of semiotic conceptions of symbol is not equal or homogeneous. When looking at humanities as a whole we can see that the scope of interaction of these conceptions is quite negligible. Observing the research practice of humanists we perceive that they show a willingness to maintain a great degree of independence from the mentioned ideas. Scientists with considerable methodological awareness are substantially independent in conducting their research. On the other hand, a certain small number of researchers interested in specific sciences are also interested in philosophical reflection and improving techniques.

To sum up, let's highlight: neither semiotics nor methodology should limit researchers with strict prescriptions and postulates, it is advisable to be moderate and cautious in this respect, and formulate potential directives in a balanced way. It is not needed to impose terminological conventions too much or intervene in the conceptual network and research procedures used by scientists. One should not act as a legislator and an executioner at the same time. The role of theoretical semiotics and methodology is e.g. to provide and improve tools, while the use of these tools should be left to scientists.

For humanistic sciences, philosophical conceptions of symbol have mainly a heuristic and a systematizing value. What remains significant is the fact that the relation between philosophy and specific sciences is dual, and benefits are mutual. The results of research conducted in specific sciences may be successfully used on the grounds of theoretical semiotics, and not infrequently it happens, more than once these results are a valuable empirical and illustrative material, and may be helpful in explaining formulated theorems.

Bibliography

1. Ajdukiewicz, Kazimierz (1974) *Logika pragmatyczna*. Warszawa: PWN. In English: *Pragmatic Logic*. Dordrecht: Reidel, 1974.
2. Ajdukiewicz, Kazimierz (1985) "Metodologiczne typy nauk." In *Język i poznanie*, vol. I, 287-313. Warszawa: PWN.

3. Benedict, Ruth (1934) *Patterns of Culture*. Boston: Houghton Mifflin Harcourt.
4. Berger, Peter L. and Thomas Luckmann (1966) *The Social Construction of Reality: A Treatise in the Sociology of Knowledge*. Garden City, New York: Doubleday Anchor Books.
5. Carrithers, Michael (1992) *Why People Have Cultures. Explaining Anthropology and Social Diversity*. Oxford: Oxford University Press.
6. Cassirer, Ernst (1923) "Der Begriff der symbolischen Form im Aufbau der Geisteswissenschaften." In *Vorträge der Bibliothek Warburg*, 11-39. Leipzig: B. G. Teubner.
7. Cassirer, Ernst (1944) *An Essay on Man. An Introduction to a Philosophy of Human Culture*. New Haven: Yale University Press.
8. Cawelti, John G. (1990) "Symbols of Ethnicity and Popular Culture." In *Dominant Symbols in Popular Culture*, Ray B. Browne, Marshall W. Fishwick and Kevin O. Browne (eds.), 83-94. Ohio: Bowling Green State University Popular Press.
9. Chmielewski, Adam (1989) "Metanauki i metametanauki oraz wzorce epistemologiczne." *Zagadnienia Naukoznawstwa* 25, no. 2[98]: 211-230.
10. Czerwiński, Marcin (1997) *Sztuka w pejzażu kultury*. Warszawa: Instytut Kultury.
11. Daddesio, Thomas C. (1995) *On Minds and Symbols: The Relevance of Cognitive Science for Semiotics*. Berlin — New York: Mouton de Gruyter.
12. Dąbbska, Izydora (1973) "O konwencjach semiotycznych." *Studia semiotyczne* 4: 35-45. In English: Dąbbska 2015.
13. Dąbbska, Izydora (1982) "Symbol." In *Studia semiotyczne* 12: 125-132.
14. Dąbbska, Izydora (2015) "On Semiotic Conventions", *Studia Semiotyczne—English Supplement* 4
15. Delumeau, Jean (1967) *La Civilisation de la Renaissance*. Paris: Les Editions Civilisations.
16. Dobrokhotov, Aleksandr L. (2001) "Simbol." In *Novaya filosofskaya entsiklopediya*, vol. 3, Wiacheslav S. Stepin, Gennadii Yu. Semigin (eds.). Moskva: Mysl.

17. Duncan, Hugh D. (1968) *Symbols in Society*. London — Oxford — New York: Oxford University Press.
18. Dupré, Louis K. (1972) *The Other Dimension*. New York: Doubleday Anchor Books.
19. Durkheim, Émile (1995) *The Elementary Forms of Religious Life*. Karen E. Fields (trans.). New York: Free Press.
20. Eliade, Mircea (1961) *Images and Symbols: Studies in Religious Symbolism*. Princeton: Princeton University Press.
21. Eliade, Mircea (1993) *Sacrum, mit, historia. Wybór esejów*. Warszawa: PIW
22. Eco, Umberto (1985) *Art and Beauty in the Middle Ages*. New Haven: Yale University Press.
23. Eco, Umberto (1986) "Symbol." In *Encyclopedic Dictionary of Semiotics*, vol. 2, Thomas A. Sebeok (ed.). Berlin — New York — Amsterdam: Mouton de Gruyter.
24. Evans-Pritchard, Edward E. (1962) *Essays in Social Anthropology*. London: Faber and Faber.
25. Filipowicz, Stanisław (1988) *Mit i spektakl władzy*. Warszawa: PWN.
26. Frazer, James G. (1894) *The Golden Bough*. New York and London: Macmillan.
27. Freud, Sigmund (1977) *Introductory Lectures on Psychoanalysis*. New York: Norton.
28. Gadamer, Hans Georg (1987) *The Relevance of the Beautiful and Other Essays*. Cambridge: Cambridge University Press.
29. Le Goff, Jacques (1988) *Medieval Civilization, 400-1500*. Julia Barrow (trans.). Oxford: Blackwell.
30. Gräfrath, Bernd and Friedrich Kambartel (1996) "Symbol." In *Enzyklopädie der Philosophie und Wissenschaftstheorie*, vol. 4, Jürgen Mittelstraß (ed.). Stuttgart — Weimar: J.B. Metzler.
31. Haarmann, Harald (1990) *Language in Its Cultural Embedding: Explorations in the Telativity of Signs and Sign Systems*. Berlin — New York: Mouton de Gruyter.

32. Hałas, Elżbieta (2001) *Symbol w interakcji*. Warszawa: Oficyna Naukowa.
33. Jung, Carl G. (1981) *Archetypy i symbole. Pisma wybrane*. Warszawa: Czytelnik.
34. Kamiński, Stanisław (1981) *Pojęcie nauki i klasyfikacja nauk*. Lublin: TN KUL.
35. Kłoskowska, Antonina (1964) *Kultura masowa. Krytyka i obrona*. Warszawa: PWN.
36. Kotarbiński, Tadeusz (1982) *Traktat o dobrej robocie*. Wrocław: Ossolineum.
37. Kroeber, Alfred L. (1952) *The Nature of Culture*. Chicago: University of Chicago Press.
38. Langer, Susanne K. (1971) *Philosophy in a New Key: A Study in the Symbolism of Reason, Rite and Art*. Cambridge: Harvard University Press.
39. Lévi-Strauss, Claude (1963) *Structural Anthropology*. New York: Basic Books.
40. Lévi-Strauss, Claude (1966) *The Savage Mind*. Chicago: The University of Chicago Press.
41. Lurker, Manfred (1986) "Symbol." In *Encyclopedic Dictionary of Semiotics*, vol. 2, Thomas A. Sebeok. Berlin — New York — Amsterdam: Mouton de Gruyter.
42. Lurker, Manfred (1998) *The Message of Symbols, Myths, Cultures and Religions*. Barcelona: Editorial Herder.
43. Malinowski, Bronisław (1946) "The Problem of Meaning in Primitive Languages." In: *The Meaning of Meaning: A Study of the Influence of Language upon Thought and of the Science of Symbolism*, Charles Kay Ogden and Ivor Armstrong Richards (ed.), 296-336. New York: Harcourt, Brace & World, Inc.
44. Marchetti, Laura (2001) "Light as an Original Metaphor." *Semiotica* 136[1/4]: 245-288.
45. Mauss, Marcel (1968) *Sociologie et anthropologie*. Paris: Les Presses Universitaires de France.
46. Morris, Charles (1971a) "Foundations of the Theory of Signs." In *Writings on the General Theory of Signs*. The Hague — Paris: Mouton.

47. Morris, Charles (1971b) "Signs, Language and Behavior." In *Writings on the General Theory of Signs*. The Hague — Paris: Mouton.
48. Motycka, Alina (1985) "O użyteczności metodologii." In *Ideal racjonalności. Szkice o filozoficznych rozdrożach nauki*. Wrocław: Ossolineum.
49. Niznik, Józef (1985) *Symbole i adaptacja kulturowa*. Warszawa: COMUK.
50. Nowak, Stefan (1984) "Odmiany filozofii nauki." In *Wizje człowieka i społeczeństwa w teoriach i badaniach naukowych*, Stefan Nowak (ed.), Warszawa: PWN.
51. Ossowski, Stanisław (1966) "U podstaw estetyki." In *Dzieła*, vol. I: *U podstaw estetyki*, 177-184. Warszawa: PWN.
52. Ossowski, Stanisław (1967) "Analiza pojęcia znaku." In *Dzieła*, vol. IV: *O nauce*, 33-59. Warszawa: PWN.
53. Ostasz, Lech (1998) "Refleksje o metodach, jakimi posługuje się człowiek." *Zagadnienia Naukoznawstwa* 24, no 4[138]: 511-521.
54. Ostasz, Lech (1999) *Homo methodicus. Między filozofią, humanistyką i naukami ścisłymi*. Olsztyn: UWM.
55. Pelc, Jerzy (1982a) "Teoretyczne podstawy semiotyki." *Studia semiotyczne* 12: 157-183.
56. Pelc, Jerzy (1982b) *Wstęp do semiotyki*. Warszawa: Wiedza Powszechna.
57. Pelc, Jerzy (1992) "The Methodological Status of Semiotics: Sign, Semiosis, Interpretation and the Limits of Semiotics." In *Signs of Humanity*, vol. 1, Michel Balat and Janice Deledalle-Rhodes (eds.). Berlin: Mouton de Gruyter.
58. Pelc, Jerzy (1996) "Symptom and Symbol in Language." In *Sprachphilosophie. Ein internationales Handbuch zeitgenössischer Forschung*, vol. 2, Marcelo Dascal, Dietfried Gerhardus, Kuno Lorenz and Georg Meggle (eds.), 1300-1310. Berlin — New York: Walter de Gruyter.
59. Polanyi, Michael (1958) *Personal Knowledge: Towards a Post-Critical Philosophy*. London: Routledge and Kegan Paul.
60. Polanyi, Michael (1967) *The Tacit Dimension*. London: Routledge and Kegan Paul.
61. Polanyi, Michael (1969a) "Knowing and Being." In *Knowing and Being*, 123-137. London: Routledge and Kegan Paul.

62. Polanyi, Michael (1969b) "The logic of Tacit Inference." In *Knowing and Being*, 138-157. London: Routledge and Kegan Paul.
63. Popper, Karl Raimund (1992) "Cel nauki." In *Wiedza obiektywna. Ewolucyjna teoria epistemologiczna*. Warszawa: PWN.
64. Popper, Karl Raimund (1997) "Logika nauk społecznych." In *W poszukiwaniu lepszego świata*, 82-101. Warszawa: Książka i Wiedza.
65. Ricoeur, Paul (1967) *The Symbolism of Evil*. New York: Harper and Row.
66. Ricoeur, Paul (1976) "Metaphor and Symbol." In *Interpretation Theory: Discourse and the Surplus of Meaning*. Fort Worth: Texas Christian University Press.
67. Roux, Jean-Paul (1988) *Le sang. Mythes, symboles et réalités*. Paris: Fayard.
68. Simpson, John A. and Edmund S.C. Weiner (eds.) (1989) *The Oxford English Dictionary*. Oxford: Clarendon Press.
Elżbieta Sobol (ed.) (1999) *Słownik wyrazów obcych*. Warszawa: PWN.
69. Tatarkiewicz, Władysław (1970) *History of Aesthetics*, vol. 2: *Medieval Aesthetics*. Hague-Paris: Mouton.
70. Topolski, Jerzy (1978) *Rozumienie historii*. Warszawa: PIW.
71. Turner, Victor W. (1968) "Myth and Symbol." In *International Encyclopedia of Social Sciences*, vol. 10, David L. Sills (ed.). New York: Macmillan & Free Press.
72. Uspenskii, Boris Andreevich and Viktor Markovich Zhivov (1987) *Tsar i Bog. Semioticheskie aspekty sakralizatsii monarkha v Rossii*. In *Iazyki kultury i problemy perevodimosti*, Boris Andreevich Uspenskii (ed.). Moskva: Nauka.
73. Wallis, Mieczysław (1977) "Uwagi o symbolach." *Studia semiotyczne* 7: 91-99.
74. Wallis, Mieczysław (1983a) "Dzieje sztuki jako dzieje struktur semantycznych." In *Sztuki i znaki. Pisma semiotyczne*, 56-58. Warszawa, PIW.
75. Wallis, Mieczysław (1983b) "O rozumieniu pierwiastków przedstawiających w dziełach sztuki." In *Sztuki i znaki. Pisma semiotyczne*, 99-143. Warszawa, PIW.
76. Wallis, Mieczysław (1983c) "Semantyczne i symboliczne pierwiastki architektury." In *Sztuki i znaki. Pisma semiotyczne*, 170-190. Warszawa, PIW.

77. Wallis, Mieczysław (1983d) "Sztuka średniowieczna jako język." In *Sztuki i znaki. Pisma semiotyczne*, 144-149. Warszawa, PIW.
78. Wallis, Mieczysław (1983e) "Świat sztuk i świat znaków." In *Sztuki i znaki. Pisma semiotyczne*, 72-73. Warszawa, PIW.
79. Węclawski, Tomasz (1995) *Współczesny świat religii*. Kraków: Znak.
80. von Wright, Georg H. (1971) *Explanation and Understanding*. London: Routledge and Kegan Paul.
81. Znaniecki, Florian (1987) "Przedmiot i zadania nauki o wiedzy." In *Pisma filozoficzne*, vol. 1: "Myśl i rzeczywistość" i inne pisma filozoficzne. Warszawa: PWN.