Lectures on the
Epistemology of Semiotics
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Lectures on the Epistemology of Semiotics
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KEY WORDS: semiotics, sign, meaning, epistemology, discourse, constructivism

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Preface

Genesis of the author’s interest in semiotics

This book presents a functional view of semiotics considering language as a system of signs. In such a means- and ends-oriented perspective, the signs as meaning-bearers are detached, both in concrete and mental existence modes, from their meanings or objects of reference. Some relevant words on the genesis of the author’s contribution to the development of semiotic thought will also include his indebtedness to his preceptors, teachers, friends and colleagues. Preliminary outlines for their foundation have been developed since the late 1970s and 1980s in the Department of General Linguistics at Wrocław. Subsequent work on the following theme continued in the Institute of English Philology at Opole and in the School of English at Poznań, over the last five years, has contributed to its present state.

Between 1972 and 1999, the author of the following series of lectures used to work, from Teaching Assistant to Professor, at the University of Wrocław, respectively, in the Department of General Linguistics (1972–1976, and 1981–1999), Interfaculty Studies of Culture (1976–1980) and the Institute of Culturology (1980–1981). At the same time, from 1982 to 1984, he was a grantee of the Fulbright Fellowship for Senior Scholars: in the Department of Linguistics at the State University of New York in Buffalo (5 months), and the Research Center for Language and Semiotic Studies at the Indiana University in Bloomington (12 months). Furthermore, he received stipends under the Oxford Hospitality Scheme (1987): in the Trinity College (6 weeks), and as International Research Exchange Scholar (1991): in the Brown University English Language Program, Providence, Rhode Island (1 month), Department of Linguistics and Semiotics Rice University, Houston, Texas (2 months), Department of Linguistics at the University of Southern California and the Department of Linguistics at the University of California, Los Angeles (2 months). In 1999, he moved to the first position at the Adam Mickiewicz University in Poznań, and in 2009 at the Philological School of Higher Education in Wrocław.

As with any attempt such as this to present a synthesis of the sciences of signs from the standpoint of linguistics is indebted to many people and many publications, as the bibliography shows. For particular insights and inspiration, the author owes a heavy debt of gratitude to four
professors from the University of Wrocław, namely, Leon Zawadowski, Antoni Furdal and Stanisław Pietraszko. He would like to appreciate the role of his students, who actively took part in his lectures when the work was in progress as well as his friends and colleagues who in the same way contributed to discussions at sessions and conferences either in Poland or abroad. As regards his first findings, the author had the opportunity to submit a lecture in the Department of Speech Communication, College of Communications and Fine Arts, Southern Illinois University at Carbondale, 1980, then a paper at the Fourth International Summer Institute for Semiotic and Structural Studies, Bloomington, Indiana, 1983. Soon afterwards, he delivered a comprehensive survey of sign concepts at the Fourteenth International Congress of Linguists, Berlin, 1987. Two years later, he was invited to present his own value- and need-related concept of sign at the Fourth Congress of the International Association for Semiotic Studies, Barcelona – Perpignan, 1989.

Some of the ideas developed in this work have their origins in the research results, which were presented in the author’s book on the semiotic paradigm of linguistics (Semiotyczny paradygmat językoznawstwa, 1987). However, most of the crucial conceptions pertaining to the epistemology of semiotics and the multipolarity of the linguistic sign, have been developed in cooperation with Roland Posner of the Research Center for Semiotics at the Technical University in Berlin. A separate account of these investigative novelties was summarized in his book An Outline for Lectures on the Epistemology of Semiotics (1998). Enriched by the selected contents of the book on systemic and ecological properties of language in interdisciplinary investigative approaches (Systemowe i ekologiczne właściwości języka w interdyscyplinarnych podejściach badawczych, 1997) and several papers published later, the next monograph Epistemological Perspectives on Linguistic Semiotics (2003) has received its final shape as a contribution to linguistic semiotics. It included some parts of elaborated articles: “On the axiosemiotics of postcards” (1992), and “Verbal means as signs of human needs” (1997), “Jakob von Uexküll’s ‘Umwelt-theory’: A link between the semiotics of nature and the semiotics of culture”, delivered at a special session to Honor Thomas A. Sebeok’s 80th birth in Imatra, Finland (2000). It comprised also an extended version of the latter having been published, thanks to the invitation of Kalevi Kull, in the editorial elaboration of Winfried Nöth, as “On the biological concept of subjective significance: A link between the semiotics of nature and the semiotics of culture” in the journal Sign Systems Studies of Tartu University (2001).
Genesis of the author’s interest in semiotics

As far as this book is intended to communicate also, apart from the expression of its author’s gratitude to scholars who have contributed to his development as a semiotician, about his achievements at the international forum, the following list of conferences and congresses may serve as a detailed documentation from now on.


(9) In search of the concepts of sign and meaning in linguistics, semiotics and the theory of culture. Samarrangement med Lingvistik og Nordisk institutt, Universitetet i Trondheim [A joint meeting of Linguistic and Nordish institutes], Trondheim, Norway, March 28, 1990.


(15) Konsequenzen epistemologischer Positionen für die Bildung der Semiotik. A Lecture for Students and Faculty of Culturology in the Institute of Cultural Studies at the University of Silesia in Katowice. Katowice, Poland, March 30, 1993.


Genesis of the author’s interest in semiotics


(50) Essence and relevance: Bridging the ontological objectivism with gnoseological subjectivism in the epistemology of semiotics. *Fifth International Communicology Institute Summer Conference: Symposium: “Human Understanding: The Matrix of
The Genesis of the author's interest in semiotics


Respectively, the idea of the multipolarity of the linguistic sign from an epistemological perspective was the subject matter of author’s presentation at the Sixth Polish Philosophical Meeting, Toruń, Poland, 1995.
That topic in particular was thoroughly pondered over, with special reference to graphic illustrations of sign and referent concepts in discussions of Semiotic Seminars of the Polish Semiotic Society and the Department of Logical Semiotics at the Warsaw University conducted by Jerzy Pelc and Jacek Juliusz Jadacki, Warsaw, Poland, 1996. Of crucial importance for the author also were the lectures given at the forum of the International Summer Institute for Semiotic and Structural Studies, Imatra, Finland, 1995, 1998, 1999, 2000, 2001 as well as the 7th International Congress of the International Association for Semiotic Studies, Dresden, East Germany, 1999.

In particular, the author would like to acknowledge the stimulating role of Jacek Fisiak, whose initial indirect and later direct support of the author’s international activities, especially over the last six years, has been invaluable. Not to be forgotten are earlier inspiring meetings with Paul L. Garvin, Herbert Pilch, and Sydney M. Lamb, who had enriched the author’s knowledge through invitations to formal and informal discussions or thematic workshops. First of all, the author feels indebted to Thomas A. Sebeok, the founding father and true promoter of semiotics in the whole world, under whose direction he was able to study in the Research Center for Language and Semiotic Studies at the Indiana University at Bloomington.

Most fruitful has been a long lasting cooperation with Professor Dr. Richard L. Lanigan, which started nota bene as early as on January 20–February 18, 1980, when he was appointed as my Research Associate by the Vice-Dean of the College of Communications and Fine Arts, Southern University at Carbondale, USA, Professor Dr. Richard Bloomenberg. Three of lectures conducted at that time deserve to be mentioned here, namely, (1) Three notions of signs: Saussure, Bühler, Ogden and Richards. Department of Speech Communication Proseminar on January 28, 1980; (2) Classification (typology) of signs. Linguistics Department Colloquium on January 31, 1980; (3) Functions of language text according to Karl Bühler (and Leo Zawadowski). Class Lecture: SPCH 445 Semiology and Semiotic Communication on February 4, 1980. As a result of meetings at various semiotic conferences this cooperation was crowned with the initiatives of organizing common enterprises in Poland and the United States, among which such events deserve to be mentioned as the Fifth ICI Summer Conference: Symposium: “Human Understanding: The Matrix of Communication and Culture”. Seminar: “Communicology: Applied Pedagogy and Research”. Jelenia Góra, Poland, July 15–22, 2011, and “Philosophy of Communication”: 6th Inter-

The author feels also obliged to express his indebtedness to Daina Teters appreciating her inspiring role in the origination of the paper “The word as a trace of man” which was afterwards presented at the international conference *Metamorphoses of the World: Traces, Shadows, Reflections, Echoes and Metaphors* in 2008 and lately published in the proceedings of 2010. Further expressions of gratitude are due to Kristian Bankov, Doina Cmeciu, Eero Tarasti and Kalevi Kull who have given the author an openhanded opportunity to present the outcomes of his scientific research and publication activity at the international forum of the Early Fall School in Semiotics at Sozopol, Bulgaria, of the Romanian Association of Semiotic Studies at Bacău & Sălăcic-Moldova, Romania, as well as at the particular Summer Schools of Semiotics of the International Summer Institute for Semiotic and Structural Studies at Imatra in Finland, and Tartu Summer Schools of Semiotics at Palmse Manor and Kääriku in Estonia.

Following the initiative of Doina Cmeciu the author has been distinguished as nominated Member of the Romanian Association of Semiotic Studies. In turn, at the recommendation of the Director and Founding Father, Professor Dr Richard L. Lanigan, he has been elected Fellow of the International Communicology Institute in Washington DC, then Member of the International Communicology Institute Bureau of Regional-Continental Coordinators for Europe, and lately he also became nominated as (foreign) Member of the Semiotic Society of America. What is more, upon the motion of Professor Dr. Eero Tarasti, last year he was elected Honorary Member of the Semiotic Society of Finland.

Wrocław & Poznań, 2014

Zdzisław Wąsik
The subject matter of the handbook

Précis

*Lectures on the Epistemology of Semiotics* aim at presenting a metascientific account of the research conducted from the bird’s eye view in the domain of semiotic objects which embrace, on the one hand, the language- and culture-centered conceptions of sign and meaning and, on the other, the human-centered ecosemiotic systems of communicating selves who aggregate into discursive communities on the basis of observable interpersonal and inferable intersubjective groupings when they send and receive as well as process and interpret similar messages.

It is the first academic course book that exposes linguistic semiotics within the framework of epistemology as a theory of knowledge of how scientific objects exist (ontology) and how they can be cognized in exploratory approaches (gnoseology). Combining the linguistic, philosophical, logical and anthropological inquiries into the sign- and meaning-related questions, which have been hitherto conducted within the span of last fifteen years, it postulates to merge the domains of biological and cultural studies into the investigative paradigm of linguistic semiotics.

Regarding the novelty aspects, at least five main areas of research provide entirely inventive resolutions and creative proposals, namely, (1) an outline of metasemiotics as a network of epistemological paradigms, (2) a systemic-structural approach to the semiotic universals of language, (3) an epistemological modeling of sign and its referent relationships, (4) a solipsistic conception of subjective significance in the value-and-need- or function-and-purpose-oriented domains of human activity, and (5) a reflection on discursivism from the viewpoint of its applicability to the context of human competence. In this study, the main emphasis is put on analyzing and explaining the role of communicating selves in the formation of discursive communities linked through praxeological and axiological means of interpersonal communication and intersubjective signification.

This book offers to an adept in semiotic and linguistic studies at least three methodological benefits, deducible from the conviction: firstly, that semiotic objects are multiaspectual, and, secondly, that the subject matter of semiotic investigations can be reached through the choice of
respective epistemological perspectives, and, thirdly, that on the meta-scientific level all investigative approaches are equal in right.

The following book consists of eight lectures pertaining to theoretical issues and three supplements exemplifying the applicative values of selected conceptions in the domain of semiotic studies. Separately detached two parts comprise bibliography of works cited and consulted and index referring to authors and subjects from the main text.

Lecture One departs from the notion of epistemology as a branch of philosophy studying the nature and the grounds of knowledge as regards the limits and functional validity of various investigative approaches used in particular scientific disciplines to establish their subject matter. An analytical approach to a scientific discipline is defined here as based on the assessment of its epistemological foundations. Epistemology as a theory of knowledge is viewed as consisting of ontology (the theory of being) and gnoseology (the theory of cognition). As such it concentrates on answering how far the commitments of scientists pertaining to the existence mode of their object of study correspond to its investigative approachability. The examination of epistemological positions occupied by representatives of a given discipline is based on a guiding principle that the choice of a selected investigative approach should determine their outlook upon the nature of their object of study. In consequence, this outlook should initially determine the choice of conceptual and operational investigative apparatus offering a basis for the formulation of eventual investigative postulates. As regards an epistemological approach to the positions held by semiotics among the other scientific disciplines the author is of the opinion that it should focus on answering the questions of how the knowledge of the relevant properties of its object, or its domain (as a set of objects) of study, is formulated and ordered. As he adds, the properties of the objects being homogenous or heterogeneous, coherent or incoherent in the domain of semiotics may be revealed through different philosophical and logical positions providing a metadisciplinary basis for the methodology of particular scientific disciplines. Thus, having stated in this framework that the epistemology of semiotics is shaped by various scientific paradigms, he assumes that the properties of its objects may be studied, *inter alia*, through a set of meta-, hypo-, inter-, intra-disciplinary and disciplinary perspectives, useful for distinguishing its relevant categories and notions. In the end, the author puts forward a postulate that the epistemological assessment of specific disciplines of semiotics may aim at the elaboration of a typological matrix which allow going through all distinctions between ontological and gnoseological positions to which the theoreticians and practitioners rep-
The subject matter of the handbook representing particular schools of semiotic thought have aligned themselves.

Dealing with the question of how to delimit the investigative domains of semiotics and linguistics, Lecture Two, starts with an assertion that the most controversial issues for practitioners of modern semiotics are connected with the status and nature of the semiotic object usually equalized with the sign as an entity or the unity of the sign and its meaning or reference. For grasping the semiotic nature of language as a system of signs, it is indispensable to explain the relationship of the discipline, the object of which are the signs in general, to one of the linguistic disciplines, the object of which are verbal signs in particular. As it appears, the objects investigated in the domain of semiotics are not homogeneous. In the first dimension, semiotics investigates the sign- and meaning-related objects that are found in the realm of nature and culture. In the second, semiotic objects are investigated with regard to their meaning-indicating functions either as facts or processes. Formulating, therefore, the idea of general semiotics, one should consider the extremity of views on the scope of its investigative domain.

As the author has summarized, semioticians who define the scope of sign- and meaning-related domains, follow from at least seven positions regarding the delimitation of the semiotic threshold: (1) defined from a broadest viewpoint of evolutionary changes and metabolism, the scope of semiotics, as an investigative domain, encompasses all sign processes occurring in the cells of living organisms; (2) the investigative domain of semiotics includes everything what signifies and is used for the purposes of communication in the realm of animals, men and machines; (3) the interest sphere of semiotics consist only of the information systems and information structures, both cognitive and descriptive by nature, resulting from human knowledge and the network of relationships between language and other means that serve for memorizing, reasoning, learning and meaning-processing purposes; (4) the domain of semiotic studies is limited to interpretation and communication processes achieved by logical inferences; (5) semiotics should be interested in everything that is deliberate and conventional in human communication; (6) semiotics should investigate exclusively the objects forming the systems of interpersonal signification and communication; (7) only the arbitrary conventional systems of signification used consciously and intentionally by human beings for cognitive and communicative purposes should be recognized as true semiotic objects.

The fact that semiotics does not form a unified framework is explained through the origin of its notions and methods. They have been
shaped by separate professional-educational traditions characteristic of European and American science, as expressed through the opposition between functionalist structuralism and biologist anthropocentrism. These traditions are also reflected in the distinctive usage of the terms *semiotics* and/or *semiology*. Due to their interdisciplinary or intercontinental sources of origin, semiotics and semiology are treated as synonyms. However, some practitioners observe distinctions between semiotics (or *semiotique*) studying natural signs in the realm of organisms and semiology being interested only in the social life of conventional signs. Not widely known is the proposal that semiotics, as a doctrine of all signs, should embrace semiology limiting its interest sphere to artificial, partly conventionalized signs. A well-suited proposal has resulted from the distinction between semiotics as an investigative domain and semiology as a scientific discipline.

As it is proposed for investigative purposes semiotics might be recognized as a theory focusing on phenomena or events that carry or bear meanings. Such a theory would constitute a basis for subsequent theories depending on the answer to the questions which pertain to the essence of meaning-carriers or meaning-bearers defined broadly in terms of signs or semioses. Respectively, the task of linguistic semiotics is viewed in the search for meaning-bearers in the textual realization of language and their relations to social and cultural contexts and extratextual reality. Those meaning-bearers occupy a fixed place among other constituents found in various schemes modeling the ways and means of human understanding, which are analyzed in terms of indices (indexes or indicators), symptoms, signals, appeals, symbols, icons (iconic or mimetic symbols) as well as nonverbal and verbal signs.

Lecture Three raises the question of the semiotic properties of language. Introductory statements sum up the research on universals of language having been conducted by practitioners of linguistics and its neighboring disciplines at least in three domains: (1) as properties which may be derived from all languages of the world or (2) as communicative competencies of speakers and/or listeners which may be deduced from their communicative performances when they create and recognize linguistic utterances as phonologically diacritic, grammatically correct, semantically accurate and pragmatically appropriate, or (3) as defining characteristics of speech derivable from the contrast between verbal and non-verbal of means of communication used in the world of man and animals. The subject matter of the study presented in this chapter constitute the semiotic universals of language specified as sign- and meaning-related properties of verbal means deduced from the contrast between
the human and the non-human means of communication. Consequently, it takes into consideration, in the first instance, the interdisciplinary search for “the defining characteristics of language”.

On the basis of the state of knowledge accumulated in academic handbooks, the author has stated that the defining properties of language are not sufficiently substantiated and exhaustively ordered. In order to identify which of the discussed semiotic universals are relevant for the investigative domains of the neighboring disciplines of language sciences and linguistics proper, it is postulated to observe the boundaries between the properties pertaining to: (I) form and structure of language as a codified system of verbal signs used for cognitive and communicational purposes, (II) substance of codes and communication channels, (III) cognitive faculties and communicational abilities of humans determining the ways of language acquisition and language attrition across cultures and generations, (IV) relationships between the verbal signs of a given language and their referents, as well as between the language speakers and their knowledge of the extralingual reality. Those four groups of properties have been correspondingly subsumed under the separate classes of (A) extrasystemic and relational properties of language (groups II–IV) that belong to the investigative domain of the neighboring disciplines of language-related sciences, and (B) systemic and inherent properties of language (group I) that constitute the subject matter of linguistics proper.

The detachment of systemic and structural properties of verbal means of interpersonal communication from all its inherent and relational properties has allowed, against the background of the preceding discussion, to postulate the classificatory approach to the semiotic universals of language, which bears in mind the specific nature of language in the context of its systemic and non-systemic properties constituting the subject-matter of linguistics proper and the non-linguistic sciences of language. In such a view, the systemic properties of language are to be deduced from the comparison between verbal and non-verbal means of communication in the light of linguistic semiotics itself and not necessarily from the perspective of man’s place among other living species.

The research question posed in Lecture Four is connected with epistemological controversies over the understanding of language as a system of signs. The most disputable issues presented here are pertaining to the ontological status and cognitive approachability of the category of sign. As it has been noticed, the views of theoreticians and practitioners of semiotic disciplines are not unanimous as to whether the sign constitutes a mental, concrete or an ideal entity or whether its material shape
possesses a spiritual replica in the mind of its users. Further questions about the manifestation forms of signs refer to their material or spiritual, sensible or intelligible, concrete or abstract, extraorganismic or intraorganismic forms of being, which might be examined subjectively or objectively. What is more, semioticians still argue whether the sign is to be defined as a separate phenomenon or as a complex of related phenomena. To answer those and other related questions pertaining to the explanation of the concrete and mental nature of language in relation to reality the author proposes to check in the antique provenance of three philosophical traditions, namely Platonism, Aristotelianism (modified through Cartesianism, and Stoicism. He takes for granted that the conception of the sign as a oneness of two inseparable psychic sides expressed in Saussurean category of parole, which means both thinking and speaking simultaneously, might have been influenced by the Platonic idea of logos. But the same cannot be said, as the author believes, with respect to the conception of the bilateral sign as mental unity in which both parts of the sign are considered being in equal degree psychic. In his view, this absolute psychologist definition of the sign as a two-sided entity, which unites not a thing and a name but a concept and a sound pattern, probably originates in the late rationalist phase of Aristotelian heritage, developed under the influence of Cartesian thought. In turn, language in a triadic sequence or a unified triangle was derived from the philosophical reasoning of Aristotle, the pupil of Plato, who introduced the third element to the original dyad, consisting of sound and thought of man, namely, human intellect expressed in words (called lexis), which play a mediating role in speech. Searching for the historical roots this lecture had shown how the Aristotelian triadic sequence of thing – intellect – voice, initially replaced by three constituents, thing – concept – term of a triangular scheme, and then modified by various conceptions of a semantic triangle and a triadic or tri-relational sign, went in the direction of detaching four constituents of a semantic quadrangle, including the concrete manifestation of the sign and its referent and their separate reflections in the mind. The detachment of the sign from its referent (in logical terms, the name from its designate) was done in the antiquity by Stoics who treated the signs as corporeal phenomena that reveal something what is real but non-evident through conditional implications.

The aim of Lecture Five is, in general, to put forward the idea of epistemological equivalence to be achieved in translational praxis, and its focus of interest concentrates, in particular, around the question of how the translations of sign-related terms selected from the students’ and
editors’ lectures *Cours de linguistique générale* (CLG) of Ferdinand de Saussure reflect the epistemological, i.e., ontological and gnoseological, awareness of their translators. The object of analysis constitutes Saussurean model of the sign as a twofold entity consisting of inseparable sides that evoke each other in the mind of its user. On the basis of selected quotations from the French original of CLG with their two distinct translations into English against the background of an earlier German translation, various connotations of analyzed terms are evaluated regarding how they may exert an impact upon the recipients of educational discourse in semiotics. In concluding remarks, the author submits a postulate for an ecumenical translation where the knowledge of scholarly traditions and the epistemological connotations of disciplinary-specific terms should constitute the central aim translator’s schooling. Hence, the readers are advised to critically accept the results of translational practices being aware of their interpretative consequences.

The subject matter of Lecture Six constitutes the question of how to present the status and nature of the semiotic object equalized with the sign as an entity or the unity of the sign and its reference. As it has been deduced from historical searches, the popular conceptions of the sign (and its reference) are formulated either in terms of a unilateral sign in which the sign-vehicle and its referent are treated as separate entities or a bilateral sign whose two parts, the signifier and the signified, comprise a twofold psychical unity. Some semioticians adhere to the concept of a semantic triangle in which the sign-vehicle, its meaning (thought or notion), and its referent form separate parts, and some prefer a trilateral sign concept where the sign-vehicle, its meaning (the interpretant generating one or more signs), and its object of reference form a threefold unity. Separately noted are also the concepts of the sign as a dyadic relation and the sign as a triadic relation. As far as these sign conceptions exhibit not only differences in the usage of terminology but also in the formation of their visual representations, the postulate is put forward to find an appropriate parameter or a matrix that would contain features and constituents specific for particular approaches to their forms of being and manifestation. Having noticed that the constituents of all hitherto known sign conceptions are to be found within framework of a semantic quadrangle, the author proposes to consider the usefulness of a typological matrix, which encompasses unified explanatory and illustrative primitives. A survey of hitherto known sign conceptions, brought to the common denominator within the framework of a semantic quadrangle, demonstrates how its two main constituents, the sign and its referent, as a token and type, with their collective and individual properties
exclusively and inclusively, may be modeled as oscillating between the following epistemological positions: (A) logical positivism = referential anti-psychologism, (B) rational empiricism = psychological logicism, (C) empirical rationalism = logical psychologism, (D) absolute rationalism = mentalist psychologism.

Within the framework of Lecture Seven, anthropological and biological conceptions of subjective significance that unite both the semiotics of culture and the semiotics of nature are confronted with logical-and philosophical approaches to the meaning-carriers or meaning-processes. Special attention is paid, on one hand, to instrumental functions of meaning-carriers and, on the other, to the utilitarian values of communicational practices of meaning-creators and meaning-utilizers in social interactions. With reference to the framework of the subject-oriented investigations conducted on the bordering zones between cultural sciences and linguistics, it has been noticed that their roots should be found in the essentialist and organicist functionalism originating in the epistemology of culture, sociology and biology. In such a view, the subject matter of the domain studied by human semiotics is seen as constituting the typological approach to the community-formation potential of sign- and meaning-processing and sign- and meaning-interpreting activities of individuals who communicate while utilizing the objects found in the ecological systems of their universe as functional tools or valuable goods of culture. Exposed in such a human-centered theory of culture is the role of a subject who acts as a meaning-utilizer or meaning-evaluator and who nominates and subsumes the functional or valuable objects of culture as signs of his or her purposes or needs, belonging respectively to the investigative domains of praxeosemiotics or axiosemiotics. Accordingly, the author proposes to distinguish in the semiotic activity of human beings, acting either as senders or receivers if messages, two manifestation forms of meaning-nomination and meaning-subsumption, on the one hand, from the viewpoint of praxeology, and on the other, from the viewpoint of axiology.

Lectures are enriched by three selected supplements dealing with “an axiosemiotic analysis of postcards”, “verbal means as signs of human needs”, “the word as a trace of man”, and “from ‘Gutenberg Galaxy’ to ‘Digital Galaxy’”. In Supplement One, the postcard is exemplified in terms of axiosemiotics as a means of correspondence in interpersonal communication which is realized as a whole while being sent without an envelope by post from source to destination, with a verbal and/or non-verbal message accessible both to its author and addressee as well as to its dispatchers and conveyers or any kinds of recipients. As an object of
study, it can be analyzed in a praxeosemiotic dimension with respect to their functions (expressive, impressive and communicative) with reference to external reality as well as in relation to senders and receivers, and in an axiosemiotic dimension with respect to their values how they bear while satisfying human needs. Supplement Two introduces the reader into the question of how to apply the methods of axiosemiotic analysis to verbal means of interpersonal communication for investigating them as signs of human needs. The contents of Supplement Three, in turn, constitute a typological survey of meaning-bearers observable in verbal products of man as his species-specific behavior when he creates and interprets the extralingual world of meanings as a communicating person and participant of interpersonal communication. In relation to terms exposed in the title, the notion of the word has been derived from the connotation of the name denoting the object of philological studies and the notion of the trace will be specified against the classificatory background of semiotic objects. A characteristic property of traces is that, originating in the source or being produced by their source agents, they do not need to be present at the particular moment or place when they are received and/or interpreted by their target agents. Subsequently, Supplement Four is dealing with the lately introduced topic of author’s interest resultant from his visit to South Korea “From ‘Gutenberg Galaxy’ to ‘Digital Galaxy’ in the mediated world”. Its aim is to estimate the function- and value-related significance of writing, invented and elaborated as a surrogate of speech at particular phases in the history of humanity, with special reference to the assessment of the role of printing media in the formation of discursive communities at a local, national and global scale.
LECTURE ONE

Epistemological foundations of semiotics

1. The metascientific status of epistemology

To begin with, the application of the term *epistemology*, introduced by James Frederick Ferrier (1854: 46), follows, for the purposes of these lectures, its broader usage taken from the French dictionaries of philosophy by Didier Julia (1994 /1991/) and semiotics by Algirdas Julien Greimas and Joseph Courtés (1982 [1979]), while relating also to the distinctions of Paul Lucian Garvin (1977). Epistemology is specified as a branch of philosophy that studies the nature and the grounds of knowledge regarding the limits and functional validity of investigative approaches used in particular scientific disciplines in order to determine their subject matter. The domain of epistemology embraces not only the reflection upon methods of reasoning and investigative procedures, but also the evaluation of results characteristic of a given type of science. In this sense, epistemology occupies the highest place in the disciplinary matrix of a science, i.e., succeeding the object of study, the description of its subject matter, and the methodology determining its descriptive concepts. Thus, the aim of epistemology is a profound critique and verification of the methodological plane by testing its coherence and evaluating its adequacy in its relation to the descriptive plane.

It is assumed that an epistemological analysis of a given discipline consists in the examination of its ontological and gnoseological foundations. The task of epistemology is to investigate how far the commitment of scientists to their attendant views on their object of study corresponds to its investigative approachability. The examination of epistemological positions occupied by a given discipline is based on the conviction that the choice of a given investigative approach initially stipulates a scientist’s outlook upon the nature of his or her investigated object. In consequence, this outlook usually coincides with the choice of conceptual and operational investigative tools providing a basis for the formulation of investigative postulates. On a metascientific level, the choice of an epistemological orientation means the choice of an appropriate investigative perspective determined by both the accepted tasks of investigation and the nature of the investigated object (cf. respectively Garvin 1977: 331–351, cited by Wąsik, Z. 1987: 12–13).
2. Controversies over the boundaries of semiotic studies

An epistemological approach to the positions held by semiotics among the other scientific disciplines should concentrate on answering the questions as to how the knowledge of the relevant properties of its object, or its domain (as a set of objects) of study, is itself organized. Its purpose, as one may assume after Roland Posner (1988: 168) is to state what kinds of investigative perspectives are used for determining its specific subject matter (regarding a more extensive elaboration, cf. also Posner 2003).

For determining the epistemological position of an investigative object, it is important to distinguish between reality and knowledge, i.e., between *obiectum reale* and *obiectum formale*:

- *Obiectum reale*, i.e., reality in itself, embraces all inherent and relational aspects of an object to be studied existing independently of subjective cognition, and *obiectum formale*, i.e., knowledge of the reality, constitutes the cognitive model of the subject matter of a study distinguished by a subject of science as a set of relevant features of the object which is detached from a given investigative domain;
- *Obiectum reale* consists, in the philosophical sense, of essential and accidental qualities of things and states of affair as objectively existing beyond the knowing subject, and *obiectum formale* makes up all relevant and contingent features of cognized things and states of affair that have been known by an individual scientist, i.e., perceived, received, apperceived and conceived mentally, as a set of properties;
- Essence and accident are assumed as definitionally necessary and unnecessary qualities of intelligible forms of being. Relevance and contingency, in turn, are seen as functionally indispensable and dispensable features, i.e., the properties of sensible forms of being. Essence and relevance are referred to the same characteristic mass of things and states of affair as types, but they are not synonymous.

It might be appropriate to mention that the specification of the subject matter, construed by scientists for characterizing the nature of their domain of study or deduced from the observable features of their objects of study, depends upon the choice of a given investigative perspective or a set of concatenated investigative perspectives.

The properties of objects belonging to the domain of semiotics, which are studied from semiotic and non-semiotic viewpoints, may also be revealed by different philosophical and logical positions that provide a metadisciplinary basis for the methodology of particular scientific disciplines.
In this particular context, the conception of paradigm, widely known thanks to *The Structure of Scientific Revolutions* written by Thomas Samuel Kuhn (1970 /1962/), appears to be useful for the appreciation of investigative approaches distinguished in the epistemology of semiotics. According to Kuhn each period of a normal science in the development of a given scientific discipline is accompanied by only one framework that unites the community of scholars, i.e., a scientific paradigm. As he maintained this framework is founded on the widespread scientific achievements being acknowledged at a given stage of the development and providing the community of scholars with modeling problems and solutions.

Kuhn takes for granted that there is a definite point in time when a scientific discipline achieves its maturity, and it does so by acquiring its “first paradigm”. Prior to that event, there is the so-called “pre-paradigm” period characterized by the lack of a common framework uniting practitioners who waste their time and energy in random data-gathering and fruitless controversies about fundamentals of their discipline (cf. Kuhn /1962: 13–15/). In the light of this criterion of maturity, some research fields have never acquired their “first paradigm” and in consequence their practitioners remain locked in a chronic state of disagreement about the nature of legitimate scientific problems and methods. Kuhn (/1962: 15/) means here the social and behavioral sciences.

While reviewing Kuhnian theory relegating linguistics to the same non-scientific status as that of social and behavioral sciences, Walter Keith Percival (1976), who summarized the opinions of historiographers, had stated that it not applicable either to the contemporary state of linguistics or to the past one. According to Percival’s conviction, if there were still linguists who tended to identify the paradigms of a mature scientific community, they had to conclude that modern linguistics has not been a science from the beginning. Nor it had been a “mature science” in the Kuhnian sense. Having concluded that the application of Kuhn’s theory had failed to succeed, Percival (1976: 291) warned the practitioners of language sciences against its uncritical acceptance while arguing that it could rather lower than raise scientific standards within the domain of their study. In consequence, as he argued, it could be better especially for young linguists not to regard their own activity from a Kuhnian vantage point as they might feel impelled to give premature assent to any novel theory, which they observed as gaining wide support, for fear of being isolated as adherents of a discarded paradigm.

Accordingly, the development of linguistics is not to be described in terms of paradigms that replace each other. What the historians became
aware of were heterogeneous traditions of formation and growth of divergent approaches to language that had their own records of continuity, breaks and returns. The same approach, which had been the center of interest at a certain place or a certain time, disappeared at another one without finding any further propagator or follower. When one approach dominated, another one was still continued or a new one appeared. Despite the fact that some members of certain scientific enterprises were aware of particular revolutionary changes and that some scientific communities regarded themselves as paradigmatic ones, they had never had the opportunity to control the whole discipline.

Although the notion of paradigm as a methodological device does not need to be rejected in totality, the historiographers have proposed to be very careful in approaching its application. The success of this notion could encourage some linguists, especially from younger generations, to express prejudices against their own discipline, the picture of which would appear to them in the light of Kuhnian concepts as full of gaps and breaks.

Similarly as for linguistics, the term *paradigm* might be considered as useful for linguistic semiotics in particular or semiotics in general as a synonym of an investigative approach, including methodological standpoints, cognitive perspectives, heuristic models and concepts and, furthermore, also trends and/or theories propagated by individual scientists or scientific communities. In this sense, the *paradigm* itself is not to be presented as a closed system. It might be regarded as composed of *sub-paradigms or micro-paradigms*, constituting the part of the systems of higher range. As such, it could be distinguished as standing in relation to *supra-paradigms or macro-paradigms*, and so on, in dependence upon the hierarchy and the situation of appropriate levels of reference (e.g., *co-paradigms, hyper-paradigms, hypo-paradigms, meta-paradigms, ad-paradigms*, and the like). The science, as a system situated within other systems, does not necessary need to have all places (the so-called slots) occupied (or filled out) by hitherto-existing actual paradigms. It could have also some slots open for new potential paradigms, in traditional understanding of the term in question, for other new subsystems, models, concepts, and investigative approaches to various sides, manifestation forms, levels or structures of the investigated object. Eventually, they may be interested in paradigms that exclude each other or overlap, that belong to a superior or ulterior level, forming constituents of other paradigms of higher or lower order.
3. Investigative perspectives in semiotics

The search for investigative perspectives which have taken part in the specification of the subject matter of semiotic disciplines throughout the history of science can start from the bird’s-eye view, which considers the panorama of all ontological beliefs, doctrines, trends and directions of scientific conduct. They are collected and defined in philosophical dictionaries or books on the epistemology of sciences (cf., inter alia, Podsiad and Więckowski 1983; Podsiad 2000; Honderich 1995) under the names that refer to their notional contents, disciplinary provenance, ways of presentation, authors and/or followers.

A short list of selected investigative perspectives, may be presented in alphabetical order, as follows: absolutism, activism, agnosticism, antitelectualism, anthropocentrism, anthropologism, antiinductivism, antinaturalism, antipsychologism, aposteriorism, apriorism, Aristotelianism, associationism, atheism, atomism, behaviorism, biologism, causalism or etiologism, cognitivism, collectivism, comparativism or comparisonism, conceptualism, concretism, conditionalism, constructivism, conventionalism, creativism, Darwinism, deductivism or antiinductivism, descriptivism, determinism, diffusionism, dogmaticism, dualism, dynamism, emanationism, emergentism, emotionalism, empiricism, empiriocriticism, energeticism, environmentalism, essentialism, eventism, evolutionism, existentialism, experimentalism, explanationism, extrospectionism, finalism or teleologism, formalism, functionalism, gnosticism, Hegelianism, historism (historicism), holism, humanism, hypotheticism, idealism, idiographism, immanentism, immaterialism, immortalism, indeterminism, inductivism, individualism, infinitism, instrumentalism, integrationism, intellectualism, intentionalism, interactionism, introspectionism, intuitionism, irrationalism, isolationism, logicism, materialism, maximalism, mechanism, minimalism, monism, naturalism, nativism, Neokantism, Neoplatonism, neopositivism or logical positivism, Neotomism, nihilism, nominalism, normativism, objectivism, ontologism, operationalism, organicism, panlogism, perceptionism, personalism, phenomenalism, phenomenology, Platonism, pluralism, polymorphism, polyrealism, polytheism, positivism, pragmatism, practicism, psychologism, radicalism, rationalism, realism, reductionism, reism, relativism, skepticism, sensualism, singularism, situationism, solipsism, somatism, sophism, spiritualism, Stoicism, structuralism, subjectivism, substantivalism, supranaturalism, symbolism, theism, terminism, transcendentalism, transformism, utilitarianism, verbalism, verificationism, verisimilism, vitalism, etc.
A survey of the list of investigative perspectives elaborated by the representatives of metascientific subdisciplines, philosophers and logicians (cf. Jadacki 1985: 39) provides the follower of semiotics with a sufficient image that the task imposed upon him or her to pursue the epistemological foundations of their field of study, taken as a whole, is enormous. Besides, one should bear in mind that this list is not complete yet, for more names of particular perspectives appear in various articles and treatises dealing with specific problems of the methodology of semiotic disciplines, as, for example, (pan)experientialism, (pan)psychism, connectionism, taxonomism, systemism, synchronism, stratificationism, or generativism, not mentioned above. One should also not forget to add those perspectives that derive their names from the authors of famous systems of beliefs or dominant conceptions, as Cartesianism, Saussureanism, Chomskyanism, Marxism, Neohumboldtianism, Freudianism, Weberianism, and so on.

What is relevant for the epistemology of semiotics refers mainly to those studies performed from the frog’s-eye view in a search for positions occupied by selected authors of leading theories (cf., e.g., Hervey 1982, Sebeok (ed.) 1986, and Solomon 1989, or Savan 1983, discussed by Short 1994, and Vetik 1994). Therefore, because of the narrow scope of these lectures, attention will be focused only on those fundamental marking stones that demarcate the boundaries of semiotics and its subject matter.

4. Cognitive attitudes and cognitive standpoints

While making a commitment to a given epistemological position, the semiotician is expected to notice that the names of certain investigative perspectives sometimes express evaluative connotations, which are positively or negatively esteemed. Although this division may embrace not all of the enumerated perspectives and the borderlines between them are not clear-cut, one can nonetheless distinguish two kinds of approaches toward the nature of the investigated object. On the one hand, investigative perspectives are specified as cognitive attitudes, i.e., intro- or projections, which are based on hypothetical speculations and categorically expressed beliefs, and, on the other, as cognitive standpoints, i.e., ascertaintment statements, which refer to experiential knowledge.

Cognitive attitudes rely on investigative directives of scientists who impute certain expected properties to their object (or to the sets of objects) in their domain of study because of its (their) resemblance to the subject matter of preferred conceptions or dominating theories, which
are in fashion at a given period. Alongside cognitive attitudes, one may place also the dogmatic statements of scholars who regard their particular approach as the only admissible and legitimately scientific mode of conduct. Cognitive standpoints, in turn, represent the opinions and postulates of scientists who verify their hypotheses and convictions by means of empirical observations and proved conclusions regarding the approachability and the fundamental nature of the object under their consideration.

A remarkable difference between the two kinds of perspectives, cognitive attitudes and cognitive standpoints, appears in the derogatory and appreciative use of names given to justified or unjustified assumptions about language. It is especially visible, for example, in the case of biologism, psychologism, or historicism as opposed to biological, psychological, and historical approaches applied in the domain of linguistics and the non-linguistic sciences of language.

Biologism, as a kind of metaphorical perspective borrowed from biology, represents a cognitive attitude of linguists who regard language in terms of a living organism that may be born and may die, that lives and grows, has ancestors and descendants just like any man, animal or plant. Thus, from a “biologicistic” point of view, languages, their structures and elements are classified into species, kinds and sorts, families, offsprings and parents or described, for example, in terms of kinship, or indeed compared to a genealogical tree, and so forth. By contrast, taking a biological perspective, practitioners of a given discipline adjacent to linguistics tend to pay their attention to the interrelationships between the language faculty, understood as an innate form of human communicative behavior, and the maturation of mankind in the light of evolution and genetics. As a matter of fact, the biological perspective, as such, is grounded on the assumption that the capacity of man to make notions and to realize the cognitive function of language is a species-specific property of human beings (for more on this see, e.g., Duranti 2000/1997/, Foley 1997 or Ingold 1999/1996/).

Another example of this kind of distinction is evident in the opposition between the perspectives of psychology and psychologism. In the latter case, however, the transition from a standpoint to an attitude depends upon the aims of investigation, i.e., upon resolving the question of the essence of language manifested in the mind of its users while at the same time dealing with the problem of its approachability in investigations. So, there is an oscillation of viewpoints from the psychology of language through psycholinguistics towards the antipsychologism of empirical linguistics and vice versa.
Considering the extremity of positions which exist between a historical perspective and historicism, one may notice, on the one hand, that from the viewpoint of its history, a given language is investigated in terms of its development, being placed within the context of the development of nations, ethnic groups, communities and individuals, etc. The name historicism, on the other hand, reflects the application of the cognitive attitude of scientists who are convinced that only the historical approach to language can reveal its true nature (cf. Wąsik, Z. 1992a: 543–545).

The investigative perspectives distinguished by semioticians as relevant for specifying the borderlines of investigative domains may be classified according to their chronological order and typological systematization. In an ordering (diachronic) overview, one can learn how certain investigative perspectives had succeeded others under the influence of an intellectual “climate of opinions”, which prevailed in particular epochs, or had coexisted within the same perspective of higher or lower rank, having their breaks, continuations and returns.

As far as the systematizing (synchronic) viewpoint is concerned, one may ask whether the investigative perspectives, in question, have occurred or indeed have not occurred within the frameworks of particular disciplines. A short overview of linguistic thought against the background of the development of other sciences can supply the practitioners of linguistics with examples of how particular sciences of language have formulated their disciplinary frames of reference. They have been influenced, on the one hand, by philosophical doctrines regarding the nature of the investigated object, such as empiricism, rationalism or pragmatism, and their related forms, as logical positivism, phenomenology, dialectical materialism, etc. And, on the other hand, they have been shaped by interdisciplinary perspectives, as, among others, evolutionism, diffusionism, structuralism, behaviorism, or generativism. Among such interdisciplinary perspectives borrowed from the neighboring disciplines of linguistics, to be mentioned are, among others, those which have played an important role in the creation of linguistic models, such as biologism, historicism, psychologism, sociologism and/or anthropologism. Furthermore, one should also mention idealizationism, abstractionism, binarism, or semiotism (semioticism), which although rarely encountered are nonetheless relevant regarding the epistemological position of linguistics.
Groups of investigative perspectives may be classified *in tandem* with particular types of sciences, which have promoted the acceptance of preferred patterns of “scientificty” characteristic for particular epochs, and imitated as the modeling ones. Compare, for example, evolutionism against the background of history, archeology, botany, zoology, geology; structuralism – physics, chemistry, anatomy, logic, statistics, geography, functionalism – psychology, biology, anthropology, sociology; generativism – algebra, combinatorics, informatics, computer sciences, formal logic, cognitive psychology, and the like.

Furthermore, investigative perspectives may be classified into groups of perspectives connected with particular conceptions, interdisciplinary trends or directions of study, characteristic, as such, for particular types of sciences or for the whole of science. In consequence, these classifications afford the opportunity to apprehend the structure of concatenations between different perspectives, which may be characterized as including or excluding, mutually overlapping, tolerating, or replacing each other in the same position of the whole system of science, etc.

Searching, for example, for binary oppositions, one should mention that some epistemological positions occupied by linguists or representatives of related semiotic disciplines had usually oscillated between two poles. Such perspectives as, for example, empiricism and rationalism, monism and dualism, mentalism and mechanism (the view that all biological processes may be described in physicochemical terms), finalism and causalism governed the views on the nature of the investigated object. Besides, realism and idealism, formalism and substantialism, solipsism and collectivism are related to its manifestation forms. Methodological choices have been determined by the oppositions between: inductivism and deductivism, synchronism and diachronism, introspectivism and extrospectivism, subjectivism and objectivism, absolutism and relativism, particularism and holism, isolationism and integrationism, etc.

To appreciate the whole system of investigative perspectives characterizing particular branches of sign-related disciplines and linguistic semiotics, it would be necessary to employ a typological matrix subsuming all actual and potential philosophical standpoints, gnoseological doctrines, cognitive beliefs, or directives of study, and the like. In this context, the axis of time is unimportant. The only thing that might count here would be a positive marker showing the occurrence of a given investigative perspective which has found its reflections in a given concept or a certain theory of sign (sign processes and/or meaning). The markers of presence or absence in a typological matrix can point to the fact that some places
are occupied and some are not occupied by a given set or by particular investigative perspectives.

Numerous orientations, predominant in the history of linguistic thought, have supplied examples that linguists discovered or perceived the importance of only one aspect of language. They deemed this aspect as either exclusively scientific or decisive for the whole domain of studies while rejecting the viewpoints of their immediate opponents, and holding defensively their positions when new prospective opponents appeared on the stage proclaiming that their ideas are no longer valid. In fact, such scholars, keeping with all their might their horizons determined by a frog’s perspective, were often unable to amount to such a position from which they could observe the place of their approach to language as one amongst the possible others (cf. Wąsik, Z. 1999a).

It is suggested, therefore, to bear in mind the principle: « c’est le point de vue qui crée l’object », expressed by Ferdinand de Saussure (1922/1916: 23) in the context of linguistics, stressing that: ‘it is the investigative perspective (or a set of investigative perspectives) which creates the subject matter of semiotics’. Hence, the semiotician has the duty to consider all cognitive standpoints and cognitive attitudes as equal in rights when they remain in agreement with chosen aims and methods of investigation. At the same time, he or she has also to check their “object-related” suitability, being aware of the possibility of the mutual influence between the adherents of neighboring disciplines or followers of distant disciplines in accordance with the law of social conformity. This means, they have to know that scientists adapt to the patterns of scientific conduct prevailing in particular stages of the development of their discipline against the background of other disciplines. Not to be omitted is also the methodological determinism that results from the first investigative apparatus used by practitioners of sign- and meaning-related sciences before they become adept scholars during the first years of their research activities.

It is quite common that scientists borrow certain categories and terms or conceptual tools and methodological distinctions from a homogeneous field of study to a heterogeneous one, making certain initial assumptions about the possible or probable nature of their object. What is significant in such a transplantation of investigative perspectives should be ascertained by answering at least two questions which refer either to systemic analyses or to investigative tools. In first case, one needs to ask whether the objects being compared are isomorphic, and in the second, to inquire whether the terms and categories applied to different domains
have the same connotations as in the original discipline or interdisciplinary theory (cf. Wąsik, Z. 1992a: 545).

5. A quest for the core of epistemological commitments

Theoreticians who pave their own way towards this new academic subject, called semiotics or semiology, usually formulate questions regarding the properties which are relevant for objects studied in its domain and to the properties that may be considered as decisive for specifying the scope of the whole domain in question.

There is no agreement among the scientists, who are considered as entitled to speak in the name of general semiotics as to whether the object-related scope of their discipline should encompass signs or sign processes. In accordance with the first position, the interest sphere of semioticians lies in searching for static facts that convey meanings. Adherents of the second one claim that they should devote their attention rather to semioses as dynamic processes in which meanings are created through the network of relationships between the connected facts constituting the “functives” of information structures.

Interested to learn about the boundaries of semiotics, an outsider to the discipline or a follower of sign- and meaning-related approaches may pose questions to explain the difference between the positions occupied by leading theoreticians and practitioners of semiotics who are influential in imposing their own views on the limits of the semiotic threshold.

One might encounter also two positions regarding the question of what should be considered as the basic notional constituent of semiotics. Some logical and philosophical discussions about the ontological status of the sign reduce the problem of its function or meaning to the interest sphere of the neighboring disciplines of semiotics, either to linguistics or psychology. The extremity of such a view is derived from Charles William Morris (1975 /1938, 1964) who maintained that semiotics does not rest upon the theory of meaning. In Morris’ (1975: 44) opinion, the term meaning is to be either abandoned or indeed clarified in terms of semiotics before being transferred into domains where human capacity of sign production and generative creativity in sign use, called semiosis, is involved. A contrary position, in which the category of the sign is treated only as a prerequisite of meaning-indicating functions, can be found in various works from the sciences of language, cultural anthropology and sociology. This is especially true in relation to such synonyms of meaning as “significance” or “value” that may be found in the domain of language

5.1. The controversies over the nature of semiotic objects starts with the question whether they should be seen as er
gon ['product', 'fact'] or energeia ['process', 'action']. This perspective reflects adherence to two opposite philosophical attitudes towards the nature of the whole world, which may be labeled as factualism and processualism, expressed, for example, in atomism vs. dynamism or energetism, or eventism, and/or substantialism vs. activism or actualism.

According to atomism, the world is to be viewed as composed of elementary units and their combinations, either material or spiritual. An atomistic theory holds that these elements, which can be distinguished as minute, discrete, finite and indivisible entities, are the ultimate constituents of all reality. Supporters of dynamism would regard matter and the spirit as endowed with immanent forces capable of occasioning change and transmitting energy. Those, however, who believe in absolute energetism, would explain the world following the theories or philosophical systems that seek to explain the phenomena of nature by the action of force. In such a view, the reality should be interpreted rather in terms of physics as opposed to metaphysics. As a position that stands very close to dynamism and energetism, one should mention also eventism, which claims that the basic elements of reality constitute events conceived as occurrences and successions of causes and effects. That’s why, one should understand the world as composed of happenings rather than of enduring entities, when considering Alfred North Whitehead’s (1925: 106) view that “[n]ature is a structure of evolving process, and the universe of knowing and reality is a process in which its parts are interwoven” (quoted after John Regan in: Regan et al. 1987: vi).

Another pair of oppositions can be deduced from the division between the particle mechanics and wave mechanics, leading in consequence, to the concept of wave-particle duality in modern physics, which associates the wavelength with a material particle, and the momentum of energy with a wave, to explain the states of electromagnetic radiations. However, substantialism refers not only to the properties of material facts, described in terms of phenomena accessible to cognition. It en-

\footnote{Alluding to a famous tenet of Wilhelm von Humboldt (1767–1835), a German philosopher and linguist that language “in itself is no product (Ergon), but an activity (Energeia)” [(Die Sprache) „Sie selbst ist kein Werk (Ergon), sondern eine Thätigkeit (Energeia)“]. See Humboldt 1988: 49 [1836: LVII].}
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5.2. In discussions regarding the nature of semiotic objects, it is unavoidable to speak about the status of their components. Controversies over different epistemological positions are exhibited here in terms of three concatenated pairs of opposition, i.e., materialism vs. spiritualism as their ontological basis, monism vs. dualism as an organizing principle of their manifestation forms, and realism vs. idealism as the aspects of their cognoscibility.

Philosophical beliefs that regard matter and its motions as constituting the universe, and all its inherent phenomena, including those of mind, as due to material agencies, are considered to be opposed to beliefs that all reality is spiritual. While appealing, however, to the opposition between materialism and spiritualism, the theoretician of semiotics has at his or her disposal not only such monistic doctrines in which it is said that matter is the basic reality of the universe, or that the spirit constitutes the substance of every possible reality. They may also take into consideration the viewpoints that stress the dualism of matter and spirit. Dualistic materialism and dualistic spiritualism differ from one another to such an extent that, in the first position, spirit is shown as being derived from matter and, in the second, the spirit is believed to precede the matter. Both substances are regarded, however, as different as for their essential properties, although their coexistence may be considered as accidental or causal in character, or as established by someone’s intention. Neither should one omit pluralism mentioned in some philosophical conceptions as opposed to monism. In the context of materialistic positions, pluralism is identified with dualism, according to which matter and spirit are conceived as two separate realities entirely heterogeneous by nature, whereas spiritualistic pluralism assumes the existence of many spiritual substances.

The opposition between realism and idealism is understood in terms of attitudes that scientists maintain towards their object of study within the framework of gnoseology. Realism acknowledges the approachability of the objects external to cognizing individuals (understood as both the experiencing persons who make observations of concrete reality and the
knowing subjects who make inferences about mental reality). Nevertheless, philosophers differ as to the experiential (naïve realism) or intellectual source (critical realism) of their cognition. To the naïve realists belong the followers of the belief that the real being possesses attributes of a concrete being, accessible to experience or genetically connected with what is accessible a necessary cause to experience. For the critical realists, the beings objectively existing are concrete objects of sense perception that have an existence independent of the act of perception.

Idealism, on the opposite pole, taking as its starting point the role of consciousness, ascertains that human individuals are not able to cognize the reality, which is external to them, and they cognize only their sensations, imaginations and thoughts. According to idealism, the only accessible objects of cognition constitute immaterial constructs modeling mental reality and not the concrete reality as such. Idealists favor the belief that the cognizable reality is contained entirely within conscious minds.

5.3. Those who undertake the endeavors to resolve the problem of the approachability of semiotic objects pay attention not only to the perspectives connected with the source of their cognition as, for instance, (external) experientialism vs. (internal) intellectualism. They, appeal also, inter alia, to the pairs of ontological opposition between (concrete) sensualism and (mental) intuitionism, or objectivism and subjectivism, while relating to their gnoseological properties.

Followers of experientialism rely on the knowledge obtained through direct impressions or gain their judgements by coming into contact with external reality. Moreover, those who follow the doctrine of intellectualism tend to accept the discovery principles in internal reality alone or try to derive their knowledge exclusively from the process of thinking.

Among some gnoseological perspectives related to experientialism, one should place, on the one hand, sensualism, and, on the other, intuitionism. For the sensualists, the perceptible observation experienced by senses is a necessary and sufficient condition of any cognition. For the followers of intuitionism, the mind is not only in a position to directly perceive external reality, but also to intellectually apprehend logical dependencies creating an ideal (or absolute) model of reality (in itself). Such intuitions have better chances to occur when the cognizing individuals are able to suspend their processes of physiological perceptions and psychological imaginations dependent upon time and space.

Subjectivism is an attitude of scientists who treat the process of cognition as subordinated to individual choices and conditions of a thinking
subject or scientists who admit no other reality than that of the knowing subject. According to gnoseological subjectivism, the experiencing persons cognize reality only in such a form in which it appears to him- or herself, i.e., they cannot cognize anything apart from their own imaginations. The consequence of an ontological subjectivism is a reduction of reality to the mental construct existing for the subject or in itself.

Objectivist approaches, in turn, give precedence to the knowledge of outer objects over the knowledge of inner objects, i.e., to the knowledge of concrete facts and events, which are not grounded on the imaginings and emotions of a thinking subject. Gnoseologically, objectivists represent a realistic standpoint claiming the cognoscibility of matter with observable manifestation forms that are independent of subjective consciousness, and metaphysically, they express a realistic attitude inferring about the existence of transcendental things and states of affair that exceed the cognitive capability of experiencing persons and go beyond the comprehension limits of knowing subjects.

5.4. After having made a commitment to a certain position on the ontological and gnoseological properties of semiotic objects, the semiotician has to choose an appropriate perspective that determines the way of approaching them through the application of methodological tools. Accordingly, he or she may apply either the methods of empiricism or rationalism or eventually follow the principles of pragmatism by obtaining their data either extrospectively or introspectively, and draw conclusions, gain, interpret or test their knowledge through inductive, deductive or hypothetical kinds of reasoning.

An empiricist, in the gnoseological sense, considers experiment as the only source of knowledge and, in the methodological sense, he or she represents a conviction that the aim of science consists in arriving at inferred generalizations based on individual occurrences and/or verifications or falsification of assumed facts from the observable reality. In turn, the adherence to rationalism means, in the gnoseological sense, that the scientist shares a doctrine presupposing the priority of reason over the other powers or sources of cognition. In the methodological sense, a rationalist ascribes the dominating role to reason and not to experiment. Reason, as such, is not only a necessary but also a sufficient prerequisite for cognition; whereas the experiment serves the mind only to realize the data given prior to it. Taking the position of an absolute (extreme) rationalism, scientists regard reason and intellectual apprehension as the last instance in the appreciation of the worth of human cognition. In accordance with a pure rationalistic attitude, the so-called rational
conception of science is postulated to follow only rational criteria in the
cognitive activity characterizing the scientific conduct.

Among investigative perspectives related to empiricism but opposed
to rationalism one should mention also pragmatism, a doctrine postulating
to test the validity of certain laws or theories by drawing practical
consequences from them. For a pragmatist, truth is not attainable by
metaphysical speculations. As true only that kind of knowledge might be
considered that directs to an effective activity or that becomes true be-
cause of such an activity.

The choice between an empiricist and rationalist position towards
the sources of knowledge implies in consequence an extrospectivistic or
introspectivistic outlook on the elicitation of data. Introspectivism is a cog-
nitive attitude of those scientists who base their findings on the internal
experience only. Introspectivistic methods rely on the observations of
consciousness within the individual's body and mind. Extrospectivism, in
contrast, is a methodological standpoint of those empirically and objec-
tively oriented scientists who reject observation based on internal ex-
perience, insisting rather on the argument that the object of study is to
be approached through observations controlled outside the observer's
body and mind.

Concerning the methods of observation, it is necessary to answer the
questions concerning the basis on which a scientist has to draw conclu-
sions. In the first case, one has to answer whether to infer from individual
facts arriving at generalizations (inductive reasoning), or to apply a general
principle to the individual cases in which facts are verified (deductive rea-
soning). In the second one, one has to decide whether to test a general
hypothesis based on as many numbers of particular observations, as it is
possible, which aim at finding respective counterarguments.

In a narrower sense, inductivism is a position appreciating the exclu-
siveness or the importance of an inductive method in empirical sciences,
especially in the contexts of multiple discoveries. In a broader sense, in-
ductivism combines induction with deduction, which plays the role not
only of a formal combination, but serves also for the purposes of drawing
consequences from consecutive tests and trials. Moreover, both perspec-
tives, as such, are bound to empiricism. However, in the transcendental
philosophy, deduction consists in the introduction of general principles
of the science from the elementary structures of the mind, i.e., “catego-
ries” discovered through philosophical reflections without having recourse
to experiment. In the same context, one should situate a heuristic mode of
inductive reasoning that refers to an intellectual apprehension of a general
content, common for the whole set of certain concrete objects, based on the knowledge of particular elements of the set.

Not far from moderate rationalistic forms of reasoning, one can place antiinductivism, a position opposed to inductivism, called also deductivism, since it stresses the role of a deductive method in the empirical sciences. Antiinductivists reject the argument about the independence of the observational language from a theoretical language and the irrevocability of empirical statements. While bringing out a creative power of theoretical statements, which exceed in fact beyond the limits of experience, the followers of antiinductivism consider them as not only conventions or cognitive tools but as the most simplified and the best explained from the possible descriptions of the world.

Another intellectual form of expressing antiinductivism in the methodology of sciences is that of hypothetical reasoning. Hypotheticism stresses the role of decision making in the acceptance of tentative assumptions postulating, in opposition to inductivism, that the acceptance of a conjecture (without sufficient evidence) has to be determined by appropriate inductive procedures based on probability calculus. Hypotheticism proposes the acceptance of the principle that scientific laws should be formulated in a form mostly subjected to refutations through experiments. Only laws that have proved themselves as reliable in the face of strenuous testing trials can deserve to be acknowledged as scientific.

5.5. Further questions refer to the source of origin of semiotic objects asking whether they constitute purposeful artifacts or a goal-directed activity, whether they have been designed by a certain creator or have appeared as a result of an unforeseen revolution, and, finally, whether they are explainable in terms of animate-life forces or inanimate physical-chemical forces directing the existence modes of organisms. These questions may be answered through the choice of confronted positions, in the first case, finalism vs. causalism or teleologism vs. etiologism, in the second, creativism vs. emergentism, and, in the third, between vitalism vs. mechanism.

Those who stress the importance of final causes assuming that natural and historic processes are determined by their ultimate purposes follow an attitude of finalism, called also teleologism. Accordingly, regarding the categories of intentions and purposes, philosophers distinguish four kinds of teleology: metaphysical, transcendental, immanent, and anthropocentric. Scientists who believe in metaphysical teleology claim that the development of the world is subordinated to a final purpose. Disciples of transcendental teleology accept the explanation that the world and all
things possess, apart from an immanent purpose, also a purpose laying beyond them. Adherents of immanent teleology, in turn, trust in the conviction that the purpose of the world and all things is included in their presence. However, followers of anthropocentric teleology consider man as the purpose of all things and the purpose of itself. At the opposite pole to finalism one can find the perspective of causalism which is connected with etiology. Followers of etiologism prefer to explain the source of events and validity of procedures as a chain of causes and effects and not as an act of striving towards purposeful ends.

According to creativism the world is believed to be created out of nothing only by a free act of God. In addition, the being of the world may be considered as based on continuous creation, which constitutes the conservation of the world. In contrast to the belief that everything has been created, the antimechanic theory of emergentism states that the world undergoes continuous changes. During such changes new and distinct qualities develop all of a sudden by way of unexpected leaps and emerge on a higher level always in novel shapes, which happen to be better than the previous ones. However, one has to recall also interpretations, according to which a rational and spiritual factor is seen as resultant from an emergent revolution.

Some semioticians being influenced by the philosophers of biology, who distinguish between animate and inanimate matter, lay emphasis on the origin of life as irreducible to physical and/or chemical processes. Following the vitalists’ tenets, they believe that, within an organism, there exists an innate vital principle – called \( \text{élan vital} \) (a vital force or impetus) after Henri-Louis Bergson (1911 [1907]: 126–127) with reference to “entelechy” (a vital agent or force directing growth and life), a term introduced by Aristotle (of Stageria, 384–322 B.C.) – which purposefully directs its course of development. Empirically trained semioticians, however, who reject the autonomy of life, support their beliefs by mechanistic theories saying that the workings of universe can be explained by physics and chemistry exclusively. According to mechanism, the laws of mechanics dealing with energy and force, in their relation to material bodies, following the axioms of geometry and the principle of dynamics, are sufficient enough to explain the existence of physical, biological and psychical reality.

5.6. The range of occurrence of semiotic objects may be determined by the choice of scientist’s positions to naturalism, immanentism or transcendentalism. Within the limits of these attitudes, one has to commit oneself either to panexperientialism, pantheism, panpsychism or
panmentalism. Another dimension form here the questions as to whether a practitioner of semiotics should follow an idealistic attitude of solipsism, and whether he or she should believe in collective solipsism or follow an objectivistic standpoint of collectivism.

Naturalism, apart from the uses of this term pertaining to religion or morality, is considered to be a mode of philosophical thinking which glorifies nature and excludes supranatural and spiritual facts. A semiotician, who assumes a naturalist attitude in the cosmological sense, regards nature as the ultimate reason of its own existence and activity while rejecting the existence of any transcendental reality.

The philosophy of immanentism states that all elements of reality are mutually included in themselves being closely interconnected. As such they constitute a single and unique reality, which is cognizable by senses everywhere (panexperientialism), in which one can ubiquitously perceive the indwelling force of God (pantheism), or in which a universal presence of spirituality or mentality is assumable (panpsychism or panmentalism). A subjectivist idealistic perspective of immanentism supports the view that reality does not exist independently of cognition, and that it constitutes a set of contents embedded within consciousness. As opposed to objectivist realism, it assumes that the existence of things and affairs beyond cognition is only the matter of belief. Thus, what really exists for the followers of immanentism are the objects of thought.

According to a solipsist view, the contents of thought are connected with the mind of an individual self. Closely related is here the position of collective solipsism assuming the existence of a general human mind which is externalized through the minds of individuals (cf. Thomas Albert Sebeok and Sydney MacDonald Lamb in: Sebeok, Lamb & Regan 1987: 12 and 18–19). In an extreme version solipsism even claims that it is impossible to provide evidence for the occurrence of the world which is external to the individual self, including the knowledge of others. As such, it stands in opposition to collectivism which assumes that only social groups constitute the objective reality for empirical studies. Thus, for objectively inclined researchers, who reject immanent solipsism, only the collective nature of semiotic objects is sure as realized in social products and behaviors.

Semioticians who adopt the position of transcendentalism tend to believe that, apart from immanent reality, there are also forms of being that go beyond any parameters of human knowledge; and, to cognize them exceeds the boundaries of any experience. Hence, transcendental semiotic objects are to be considered as situated above and independent of the limitations of material universe.
5.7. The boundaries of semiotics may also be specified by the scopes of the domains in which semiotic objects occur or by the scope of the definitions of semiotic objects, wherein the focus of interest constitutes the essence of Man (anthropocentrism), God (theocentrism), Life (biocentrism), or the Sign in itself (semiocentrism).

In consequence, the apprehension of the object-related scope of semiotic domain may result from the acceptance of viewpoints regarding: (1) whether the semiotic objects exist only in the cognizable world (in the physical and psychical reality, outside the body and inside the mind, in the physical reality both extraorganismic and intraorganismic by nature) or also beyond the reality of the cognizing individual, and (2) whether the semiotic objects occur in the realm of God only, God and Man, in the realm of Man only, or in the realm of all living systems, belonging to the properties of an individual human being or a group of individuals constituting the community of those who share the same semiotic system as a means of mutual understanding.

6. Conclusion

The assessment of epistemological foundations of semiotics, of its specific disciplines, may start with the elaboration of a typological matrix embracing all ontological and gnoseological positions occupied by theoreticians and practitioners of semiotics representing particular schools of sign- and meaning-related thought. However, serious problems connected with the patterns of scientific conduct may arise in connection with their adherence to a given scientific discipline or a dominant disciplinary paradigm. Special attention requires a potential incommensurability of views represented by those respective authors or schools of thought.

Nevertheless, having recognized that all investigative paradigms, as a network of related perspectives, are equal in rights on a metascientific level, the scientists may start with the choice of their views upon the nature of investigated objects, the status of their components, as well as the organizing principles of their existence modes. In he next instance, it will be necessary to determine the properties of objects with regard to: their genesis and range of occurrence as well as the scope of the domains in which the scientists usually study them, the approachability of their cognizable aspects, the source of their cognoscibility and the methodological and conceptual tools serving to expose their functional relevance.
LECTURE TWO

Delimiting the scope of linguistic semiotics

1. The domain of semiotic studies

The subject matter presented in this lecture is determined by the view of language as a semiotic system. Semiotics is treated here, in a much-generalized way, as a domain which encompasses any meaning-bearers (i.e., *semeia*, plural of *sēmeion*) and/or processes of meaning-creation (i.e., semioses), and furthermore meaning-interpretation in the realm of communicating subjects. Included into the realm of semiotic objects the signifying products or communicational events, distinguished by a researcher as relevant for his or her investigative purposes, may be treated either as correlates of certain functions, values of their objects of reference, expressions of subjective needs or as motives of communication participants. Thus, semiotics in itself appears to an adept scientist as an interdisciplinary or multidisciplinary theory utilizing the achievements of all those traditionally recognized academic disciplines which deal, very broadly taken, with the concepts of sign or meaning, communicative means or communicational events, as their descriptive categories.

The task of linguistic semiotics is to search for meaning-bearers in the domain of spoken and written texts, their social and cultural contexts and extratextual reality. Analyzed in terms of verbal signs and non-verbal signs, such as pure symbols, iconic or mimetic symbols, symbolic signals and appealing signals as well as signaling indices (indexes) and symptomatic indices (cf. p. 114), they occupy a unique place in particular schemes modeling the ways and means of human signification and communication. Among the other variables featuring interactive encounters in the realm of man, one may distinguish such communication constituents that relate to sources and destinations of information, channels of communication, communication media as well as contexts and situations accompanying the mutual understanding of communicators, etc. The typology of interpersonal relationships in dyadic, small group, public or mass communication belongs, however, to the subject matter of the neighboring disciplines of linguistic and semiotic studies, which are usually discussed within the framework of a general communication theory.

Language is located here within the broadly understood systems of communication, in order to show how the verbal means of communica-
tion should be understood either in the sign- and/or meaning- or sign-product- and/or sign-process-related terms. The interest sphere of this study situates itself on the level of metascientific investigations. As such, it does not deal with applicative problems, but focuses on the state of the art within semiotics as it is. Therefore, it classifies different approaches to semiotic objects and to the domain of semiotics, without taking any standpoint towards them. It concentrates rather on the consequences resulting from a particular epistemological position taken for granted in accordance with a certain investigative goal.

For grasping the nature of language as a semiotic system it is indispensable to explain the relationship of the discipline, the object of which are the signs in general, to one of the linguistic disciplines, the object of which are verbal signs in particular. As it appears, the objects investigated in the domain of semiotics are not homogeneous.

2. The nature of the semiotic object

Before going into details about the discussion as to what constitutes the subject matter of semiotics, one has to state, in the first place, that its domain constitutes both the objects of culture and the objects of nature. As such, it may be studied with respect to their sign- and/or meaning-related properties, either from factual or processual viewpoints. Formulating the idea of general semiotics some authors commit themselves to the wide scope, some to the medium, and some others to a very narrow scope of their domain of investigation.¹

Less conservative philosophers of modern semiotics, as, for example, Giorgio Prodi (1977), discussed by Felice Cimatti (2000) and Winfried Nöth (2001a), as well as John Deely (2001) propose to consider the existence of protosemiotics or physical semiotics in nature which refers to an

¹ The history of the term semiotics and its investigative object goes back to antiquity. It was Hippocrates (460–367 B.C.), the founder of medical sciences, who supposedly coined the label for the discipline “semeiotike”, as a branch of medicine that studies semeia, i.e., symptoms of illnesses (cf. Danesi 2002: 29). As John Deely (2000: 23–37) points out, the Greek term Σεµειον [semeion] was equalized with the Latin signum in the Middle Ages. Hence, the broad understanding of the English term sign is due to St. Augustine (Augustinus Aurelis, A.D. 354–430), the bishop of Hippo, who distinguished both signa naturalia and signa conventionalia counterpoised as signa data in the realm of man to signa sacra. The term semiotic, i.e., Σεµιοτική [semiotike], appeared as a synonym of “the doctrine of signs” for the first time in the writings of John Locke (1632–1704), Essay Concerning Human Understanding of 1690, who omitted epsilon separating mu from the iota in the Greek word Σεµιοτική [semiotike].
assumed pre-biological world, asking whether there is final causality also outside of the mind of an interpreting subject in objects that serve as potential signs. Moreover, another question is raised as regards the intercourse between metaphysical and physical semiotics derived from the belief that there is continuity between mind and matter, according to which “semiosis is ... the origin, matter the end of cosmic evolutions” (Nöth 2001a: 23). However, there are traditional theorists (cf. Garvin 1977; Baron 1979, and Douglas 1982, or Halliday, Lamb & Regan 1988, discussed by Wąsik, Z. 1987: 102–104) who define the scope of sign- and meaning-related domains with reference to the world of living organisms regarding the delimitation of semiotic thresholds (an outline of which is based on the distinctions of Morris 1964: 1; Sebeok, Lamb & Regan 1987: 7–13; Regan et al. 1987 /1982/: 2–6, and Pelc 1982: 200–222. Cf. also Hervey 1982: 3–4).

The objects constituting the investigative domain of semiotics are heterogeneous and incoherent. In the first dimension related to its material or formal aspects, semiotics investigates both natural and cultural objects. In the second dimension pertaining to its cognitive perspectives, semiotic objects are investigated with regard to their meaning-indicating functions either as facts or processes.

From a broad perspective, semiotics is characterized as studying all sign processes in the realm of living organisms together with evolutionary changes and metabolism. Within a narrow scope, the semiotic domain is reduced to arbitrary sign systems used intentionally for cognitive-communicational purposes of human agents.

Intermediating positions occupy semioticians interested in everything that performs a significative function and serves for the fulfillment of communicational tasks. Hereto belong also the opinions that semiotics should include the whole sphere of knowledge, i.e., all cognitive and descriptive means, by which humans conceive, memorize and make meaning. There are also views limiting the domain of semiotics only to inferred objects of interpretation or to everything that is purposeful and conventional in human communication or solely to objects organized in systems of interpersonal signification and communication. Formulating, therefore, the idea of general semiotics, one should consider the extremity of views on the scope of its investigative domain, as follows (cf. Hervey 1982: 1–8, and Wąsik, Z. 1998: 12–13, 2003: 14–15, 2005: 88, 2009b: 124–125):

(1) Broadly defined, the scope of semiotics, as an investigative domain, encompasses sign processes in the realm of all living systems, includ-
ing the cell, from the viewpoint of evolutionary changes and metabolism (Thomas Albert Sebeok);

(2) To the domain of semiotics belongs everything that signifies and is used for the purposes of communication in the realm of animals, men and machines (Charles Sanders Peirce, Charles William Morris);

(3) Semiotics studies only information systems and information structures, both cognitive and descriptive by nature, including the whole sphere of human knowledge and the network of relationships between language and other means with which humans memorize, think, learn and make meaning (Sydney MacDonald Lamb);

(4) The domain of semiotic studies is limited by logical inferences occurring in human interpretation and communication processes (Jerzy Pelc);

(5) Semiotics should be interested in everything that is deliberate and conventional in human communication (John Langshaw Austin, John Rogers Searle);

(6) Semioticians devote their attention mainly to objects guided by organizing principles that form systems of interpersonal signification and communication (Roland Barthes, Algirdas Julien Greimas);

(7) As truly semiotic objects are regarded only arbitrary conventional systems of signification used consciously and intentionally by human beings for the purposes of cognition and communication (Ferdinand de Saussure, Louis Trolle Hjelsløv, and others).

Without having a general model that specifies, by way of a logical definition, the genus proximum and differentia specifica of the objects studied within its domain, a practicing semiotician has sometimes at his or her disposal only a list of specific fields in which they occur. Following Umberto Eco (1979: 9–14), they may find there such investigative domains or objects as zoosemiotics, olfactory signs, tactile communication, codes of taste, paralinguistics, medical semiotics, kinesics and proxemics, musical codes, formalized languages, written languages, unknown alphabets, secret codes, natural languages, visual communication, systems of objects, plot structure, text theory, cultural codes, aesthetic texts, mass communication, rhetoric, etc.

The explanation of the very fact that semiotics is not a uniform system of investigation but rather a network of different approaches should

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be found in the provenance of its basic concepts and methods. The frames of reference encountered in semiotic works are usually formed on a primary level by different disciplines such as philosophy and logic, linguistics and the theory of literature, natural sciences and mathematics. On a secondary level, they are derived from different layers of extradisciplinary traditions of study, distinguishing, for example, the focus of interest characteristic of European science from the interest sphere specified in American scientific works. Semiotic terms and categories are derived, henceforth, from incommensurable paradigms that confront the pupils of Ferdinand de Saussure with the adherents of Charles Sanders Peirce, the followers of functional structuralism with the followers of biological behaviorism, the theoreticians of culture with the theoreticians of nature (cf. Hervey 1982: 1–8, discussed also by Wąsik, Z. 1987: 97 and 2003: 16).

3. Semiotics vs. semiology – a domain and/or a discipline?

Incommensurable traditions are reflected also in the alternative, exclusive, inclusive or discriminate usage of the terms semiotics and/or semiology. Due to their interdisciplinary or inter-continental source of origin, semiotics and semiology are treated as synonyms (discussed in Pelc 1982: 10–14 and 29; cf. also Sebeok 1974: 211–264, mainly 211–213 and 239). However, some practitioners observe distinctions between semiotics studying natural signs in the realm of organisms and semiology being interested only in the social life of conventional signs (mainly Christian Metz and Algirdas Julien Greimas, cf. Pelc 1982: 15). Not widely known is the claim of Peter Wunderli (1976: 33–68, mainly 57 and 68) that semiotics, as a doctrine of signs in the broadest sense, should embrace semiology limiting its interest sphere to artificial, partly conventionalized signs. Accordingly, a well-suited proposal has resulted from the distinction between semiotics as an investigative domain and semiology as a scientific subject (Louis Hjelmslev and early Umberto Eco, for a discussion see Wąsik, Z. 1987: 100–101 and 2003: 16–17).

Different backgrounds of scientific traditions are reflected in the use of the terms — semiotics and/or semiology — referring to both the investigative domain and the discipline of study, alternatively, separately, inclusively or exclusively, as presented in the following more detailed statements.

(1) Semiotics and semiology are synonyms. Independently of their definitional content and range of validity, semiotics and semiology are
viewed as being concerned with the domains of signs. The use of either of them depends upon the choice of a particular mode or direction of study. It may be either European or American, linguistic or logical and philosophical, structuralist or behaviorist in provenance (see, in particular, Pelc 1982: 10–14 and 29, cf. also Sebeok 1974: 211–264, mainly 211–213 and 239);

(2) Semiotics and semiology deal with different domains of signs. Semiotics deals with biological signs within natural sciences, and semiology with social signs within human sciences (cf. Pelc 1982: 15);

(3) Semiotics, being originally a much wider term, encompasses semiology. According to this standpoint, semiology is to be considered as a separate kind of semiotics interested in artificial and partly conventionalized signs (following the interpretation of Wunderli 1976: 33–68, cf. especially 57 and 68);

(4) Semiotics is a particular domain of signs, and semiology is a scientific discipline dealing with all types of sign domains. Considering this fourth standpoint, one can say that there are various kinds of semiotics that make up the investigative field of semiology (for details see Waśk, Z. 1987: 100–101).

One has to consider the fact that the domain of semiotics, estimated on a methodological plane, possesses various aspects and forms of manifestation occurring in the realm of man, animal and plant, or even in the realm of all living systems. Hence, the properties of semiotic objects can be studied not only from the perspectives that contribute to the disciplinary subject matters of linguistics, sociology, psychology, anthropology, biology, and the like. They may be exhibited also in the light of interdisciplinary theories, such as, for example, the theory of communication, the theory of systems, the theory of being, etc. Such a statement might be supported by the assumption that the object or the set of objects studied by semiotics in sign-related terms is to be viewed as a partial system situated within the other systems of higher rank. Since the semiotic object simultaneously enters the composition of various dependencies in the external and internal reality, it can be approached with regard to its multiaspectual nature expressed through its inherent and relational properties from various perspectives and formulated as subject matter of various definitional models.

It is clear, therefore, as some beginners in this field might argue, that semiotics is both an interdisciplinary theory and a multidisciplinary scientific discipline. In the latter case, it is composed of those subparts of academically recognized disciplines which use either the concept of sign and meaning or the concept of sign processes, as one of their descriptive
categories characterizing their object of study although not necessarily their subject matter proper. The evidence for such a statement may be found in the opposition between the general and particular scope of related inclusive disciplines, as in the case, for example, of:

- linguistics, which studies language vs. semiotics of language, which studies linguistic signs (or linguistic sign processes),
- culturology (a theory of culture proper), which studies culture vs. cultural semiotics (or anthroposemiotics), which studies cultural signs (or cultural sign processes), or
- biology, which studies living beings vs. semiotics of nature (or biosemiotics), which studies natural signs (or natural sign processes), both intraorganismic and extraorganismic in character, etc.

4. On the investigative scopes of linguistics and semiotics

4.1. Language as *obiectum reale* vs. language as *obiectum formale*

Linguists may determine the autonomy of their object of cognition by abstracting language as *obiectum formale* from language as *obiectum reale* embedded in different heteronomous dependencies by specifying their subject matter and its various aspects, by stipulating its domain of occurrence, or by enumerating tasks and methods on the investigative level, etc. Since such a phenomenon as an overall human language representing or including every natural language does not exist at all, and only various linguistic systems situated on various societal, ethnic, or national levels are accessible to cognition are, the distinction between language as *obiectum formale* vs. language as *obiectum reale* entails also the opposition between language as a definitional model in general and languages as ecologically determined specimens in particular.

In order to answer the question of what the formal object of linguistic studies is, one has to know the boundaries between the systemic facts of language and non-systemic facts of language. One has to be aware of the fact that there are also other disciplines which are interested in the concrete manifestation forms of particular languages in their social environments but from non-linguistic viewpoints (cf. Grucza 1983: 282).

For separating the facts to be described as linguistic objects from the facts that belong to the domain of other sciences depends on the criteria employed in the delimitation of “extra”-linguistic from “intra”-linguistic facts, one has to decide which of the properties of language become autonomous as a tool of interpersonal communication and which pos-
Lecture Two

sess a heteronomous character, being dependent on the biological and psychological conditionings of individual users.

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SCIENCE OF LANGUAGE

Scheme 1. Semantic relationships between the terms related to the division of linguistics, the properties of language and the linguistic and non-linguistic sciences of language

One should determine the boundaries between the subject matter of the so-called “external” linguistics and the subject matter of “internal” linguistics, following Ferdinand de Saussure’s suggestion (adapted from Wąsik, Z. 2003: 36–38). However, the claim that “external” linguistics is interested in the external facts of language and that internal facts of language are studied by “internal” linguistics has to be rejected. In accordance with the belief of Leon Zawadowski, there are also external facts of language belonging to the domain of linguistics that result from the relation of text elements to extratextual reality (cf. Zawadowski 1966: 75 and Saussure 1922: 40–43 and 261). Following his reasoning, it is better to distinguish between the relational and inherent properties of language, bearing in mind that there are two kinds of relational properties, namely, “lexical-relational properties”, which are *ipso facto* language-specific, and “ecological-relational properties”, which are to be considered as non-language-specific. In an attempt to define the subject matter of “internal” linguistics, one needs, therefore, to detach grammatical-inherent and lexical-inherent as well as lexical-relational properties, which form the system of language, from the ecological-relational properties, which are to be subsumed under the non-systemic properties of language. The latter, encompassing the subject matter of the so-called “external” linguistics, are to be studied within the domain of the so-called non-linguistic sciences of language (cf. Scheme 1).

Accordingly, linguists have to separate the system of language from the ecology of language (cf. Haugen 1972: 324–339), while detaching the grammatical-inherent and lexical-inherent as well as lexical-relational properties from the so-called ecological-relational properties of language (cf. Zawadowski 1966: 75). From the viewpoint of ecological conditionings, in which the languages of the world function as separate, major,
and small or minor, systems of signification and communication, the specification of non-systemic properties of languages seems to be useful for typological purposes. Ecological properties incorporate *inter alia* such variables as, for example, name, history, users, territory, standardization and codification, domains of use, symbiosis with other languages in contact, forms of struggle for independence, language loyalty and ethnic solidarity, legal status and attitudes toward language.

4.2. Investigative domains of linguistics and the sciences of language

Owing to the multiaspectuality of language, it is important to delimit those properties that constitute the subject matter of linguistics from those, which serve as criteria for defining the scope of the subject matter belonging to the other non-linguistic sciences of language or to their neighboring disciplines (as illustrated in Scheme 2).

![Scheme 2. The sciences of language and the division of linguistic subdisciplines](image)

To separate the domain of linguistic study from the investigative domain of the neighboring sciences of language it is enough to observe the distinction between ‘language as an object’ of study and ‘language as a relational property’ of objects studied by other disciplines. For example, as far as the object of anthropology is concerned, the scientist may be curious about what the definitional attributes of the category of man are. For a psychologist, the performance of language abilities can be treated as a clue as to how the mind (psyche), being the principal object of his or her study, operates. Furthermore, in the sociology of language, the social group (society) is a formal object of study and the language spoken by this group serves as a criterion determining its scope. Accordingly, one can say that language can be studied from the viewpoint of non-linguistic
sciences in the ecology of man, i.e., in the communicational settings of
individuals and collectivities.

Linguistics proper studies language as a principal object, but some-
times in relation to its ecological settings and sometimes in abstraction
from the ecology, in which it functions. In the first case, heteronomies
of language – studied by neighboring disciplines, such as, for instance,
anthropology, psychology, and sociology – are assigned as properties of the
formal object of linguistic studies, namely, as that of anthropolinguistics,
psycholinguistics, and sociolinguistics. In these ‘ecolinguistic’ disci-
plines, language constitutes the main object of study, and man, mind or
society are used as criteria embracing the scope of objects studied in the
domains of the so-called heteronomous linguistics. Secondly, it is the
case that the so-called autonomous linguistics claims to study linguistic
facts solely on the intrasystemic ground. Linguists try to make generali-
izations about the systemic properties of language as a whole or describe
and compare systems of particular languages of the world, while ab-
stracting them from the ecology of their individual speakers, social
groups, or ethnic, national, or international communities.

The boundaries of autonomous linguistics are to be delimited from
those of the heteronomous linguistics and the ecological sciences of lan-
guage by the distinctions made between language as *obiectum reale* and
language as *obiectum formale*. But the division of autonomous linguis-
tics into the domains of general linguistics and particular linguistics is a
consequence of the distinction between a theoretical approach to the
systemic properties of language as a definitional model and a material
one to languages as ecologically determined specimens.

Regarding the subject matter of autonomous linguistics, one has to
take into account that the language as a definitional model is not to be
equated with the properties characterizing all languages of the world or a
selected language in particular. It is also not “language in itself” which is
specified in terms of observational statements as the subject matter of
comparative linguistics. Correspondingly, systemic properties of ecologi-
cally determined languages are studied in typological linguistics in
search of their primary and secondary, universal and exclusive, isomor-
phous and allomorphous manifestation forms, and in historical linguis-
tics – their origin and evolution, separation and unification, continuity
or disappearance of structures which realize respective communicative
functions.
4.3. Overlapping and exclusive scopes of linguistics and semiotics

The relationships between linguistics and semiotics can be viewed from two-dimensional perspectives. With reference to their place among other sciences, in relation to anthropology, ethnology, sociology, philosophy, psychology, and biology, one should treat linguistics and semiotics as parallel disciplines, but as to their common sign-communicational perspective – as disciplines overlapping with regards to their respective scopes. Very often the latter view is located in the fourth place among the opinions of linguists deducing their positions from semiotics or the opinions of semioticians deducing their positions from linguistics, while discussing who borrows from whom terms and investigative procedures. These opinions may be grouped as follows:

(1) Semiotics is descended from linguistics. Semiotics utilizes categories and terminological distinctions elaborated on the ground of linguistics describing the ways of verbal communication to present other ways of communication in which non-linguistic or non-language-like semiotic systems are applied.

Linguistically oriented semioticians formulate their attitudes towards the priority of language studies for the elaboration of semiotic categories based on two generally held beliefs. The first attitude refers to the conviction regarding the leading role of linguistics in all domains in which the interdisciplinary perspectives, such as, structuralism, functionalism, formalism, generativism, tagmemism, stratificationism, or cognitivism, derive their descriptive terms from the analysis of the linguistic system of signs. The second one is based on the premises of the metadesignational nature of language which takes for granted that every semiotic system, including not only every natural language but also every artificial language, is translatable into every (hitherto existing) ethnic language.³

³ The term metadesignation has a long history. Going back to the antiquity it is related to the idea of metalanguage. As Christof Hubig (in Sebeok, ed. 1986: 529–531, entry: meta-) and Jacek Juliusz Jadacki (in Sebeok, ed. 1986: 445, entry: metalanguage) point out, it was Stanisław Leśniewski (1886–1939), a Polish logician and philosopher who introduced for the first time in the history of modern semiotics the distinction between “language” and “metalanguage” [Polish język – metajęzyk]. This distinction was put forward (in oral presentations of 1931 and widely accessible publications of 1935 and then 1956) by Alfred Tarski with reference to the area of the theory of truth (cf. Tarski 1956 [1935]). A separate study to “The problem of metalanguage in linguistic historiography” was devoted by Ernst Friderik Konrad Koerner. For discussion and bibliography see: Koerner 1993.
The assumption regarding linguistics as a “pilot science”, put forward by Joseph H(arold) Greenberg (1971 /1970/), was enthusiastically expounded, primarily during the period of structuralism, when this discipline has reached its highest stage of development as far as the notional and methodological apparatus in the domain of systemic studies is concerned. Scientists, therefore, acknowledged that linguistics was a more mature science in comparison to semiotics, being still in the course of formation. This opinion is grounded as long as the terms and categories determined for a narrow scope of linguistics as a science of verbal signs are applicable to all domains of semiotics as a discipline which deals with all potential signs, satisfying in that way all representatives of respective specific disciplines. One should, however, recall the fact that the general principles embracing all semiotic facts within the scope of its investigative domain might be sometimes either irrelevant or too reductionistic against the background of the facts studied in natural languages.

There is no absolute certainty whether the anthropocentric belief is correct that the capability to communicate by using verbal signs in the realm of man could guarantee understanding every form of communication, not only among humans. Hence, one should relegate to the metaphorical sphere the conviction that semioticians are able to successfully utilize methods of linguistic studies in the description and interpretation of the so-called language of architecture, music, painting, sculpture, inter-human relations, kinship, or genetic relationships, etc.

The practice of misusing linguistic terms and categories or of conducting such analyses that resemble the linguistic methods in application to non-language-like objects, or also of searching for parallelisms between heterogeneous objects, does not guarantee that the results of such investigations can be accepted as valuable every time and everywhere. The fact that such investigations are performed where one imitates linguistic approaches does not necessarily mean that they should be recognized as relevant for all remaining aspects of investigated and described objects which belong to the domain of respective scientific disciplines.

(2) Semiotics constitutes a superordinate discipline for linguistics. This statement results, in the first instance, from the praxis of placing language among other semiotic facts. It starts from a semiocentric point of view.

However, taking for granted that the investigative domain of semiotics has been properly specified, one should remember that linguistics in the broadest sense contains not only semiolinguistics within its domain.
There are also other linguistic disciplines, which aim at describing the remaining non-semiotic heteronomies of ecologically determined languages in particular and the definitional model of language in general. Therefore, one has to reject many of the “pansemiotic” claims of certain promoters of semiotics, according to which their field should be seen as embracing all domains of human activity and knowledge.

(3) Linguistics and semiotics are regarded as separate disciplines with mutually exclusive scopes, when the role of linguistics is absolutely limited to the studies of language, and the investigative domain of semiotics encompasses only semiotic facts which are non-linguistic by nature.

The investigative praxis and mutual relationships among representatives dealing with theoretical connections between the two disciplines show, however, that the fourth opinion has won, namely:

(4) Linguistics and semiotics have investigative scopes which are partly overlapping and partly mutually excluding. Both the former and the latter disciplines pose investigative goals which are not to be placed under a common denominator, and which are to be mutually separated in the core of their interest sphere. Linguistics intersects with semiotics mainly within the scopes of the theories of sign and meaning, as well the systems of signification and communication. However, both disciplines have different methodological and conceptual frameworks that result either from various heteronomies of language, irrelevant for semiotics, or from the nature of other semiotic objects which do not belong to the interest sphere of linguistics.

From the viewpoint of the sciences of language, there is no need to pursue the results of all semiotic investigations achieved in the domains, in which the investigated objects are non-language-like, when they are irrelevant for linguistic studies. As far as semiotics is concerned, one should also remember that not all investigative aims and results of linguistic investigations and not all investigative techniques and procedures applied in various linguistic disciplines as well as non-linguistic sciences of language can be treated as useful for the methodology of semiotic studies in extenso.

When semiotics and linguistics are placed on the opposite poles with regard to the scopes of their investigative domains, then it is enough to bear in mind the distinction between the inherent properties and the relational properties of the investigative objects of respective disciplines,
i.e., one should define what the main object of study is and what its aspects under investigation constitute. That means that intermediating positions between the investigative domains of semiotics and linguistics are occupied by linguistic semiotics and semiotic linguistics.

Semiotics is interested in the sign and meaning relationships as its main object of study in relation to or independently from the aspects of other objects belonging to the investigative domains of related disciplines. Linguistic semiotics, regarded otherwise as semiotics of language, studies the sign and meaning relationships, as an investigative object of semiotics, mainly in relation to language. Semiotic linguistics, in turn, called also as semiolinguistics, studies the language as a principal object of linguistics exclusively in relation to its semiotic properties. Furthermore, linguistics proper studies the language as a principal object solely with regards to its systemic structural properties, but sometimes independently from other aspects of its semiotic functionality.

Theoretical reflections over the status of semiotics are affected by its interdisciplinary character, which practically means that there must exists a multiplicity of voices on the level of a metasemiotic discourse. In order to take part in this discourse, one has to undertake the endeavors towards a systematization of conceptual and methodological frameworks useful for a given disciplinary field of study, which are specified from the beginning. For a linguist, it means starting with semiotic investigations within the standardized context of linguistics.

A researcher who arrives at semiotic deliberations on the ground of language sciences has to be aware of the need for the unification of terms, which are utilized in the bordering zones between linguistics and semiotics. He or she should also bear in mind the requirement for the choice of those theories basing on which they could order the interrelationship between different methodological procedures applied in both domains. Striving for a unity of theory and method, they must possess full knowledge about the peculiarity of the investigative domains characterizing both disciplines in question, namely, semiotics and linguistics, when they choose only one aspect connected with the sign- and meaning-related nature of language.

A "pilot-oriented" approach to their own investigative domain necessitates for researchers of language sciences that they assess the complexity of problems connected with the theory of sign, in order to avoid eclectic operational tools or procedures marked by one-sided reductionism, which is sometimes characteristic of contemporary human sciences. Consistent with their investigative aims, they should then differentiate between semiotic and non-semiotic aspects of their object of study.
5. Specifying the status and the tasks of general semiotics

In the context of multifarious understandings of the semiotic object, it would be important to ponder the introduction to the methodological duties of integrational linguistic semiotics the following investigative tasks: (a) to determine the epistemological status of linguistics as a science of verbal signs among the other sciences dealing with interpersonal communication from the viewpoint of anthropology, psychology and sociology, (b) to inquire into the sign-communicational role of language in the cognitive activities of individuals and interpersonal relationships, (c) to explain the provenance of semiotic terms functioning in current theories of language, methods of observation and validation of investigative techniques in linguistics; as well as, (d) to conduct studies on the epistemological awareness of linguists in the educational discourse and translational praxis.

In the investigative domain of semiotics, there are various meaning-bearers, which are produced and interpreted by communicating subjects. As such, semiotics has a status of an interdisciplinary perspective, utilizing the achievements of traditionally recognized disciplines, which place among their descriptive categories the notions of sign and meaning, and more broadly taking, means and processes of communication. Included into the realm of semiotic objects, verbal expressions that bear certain meanings are to be considered from the perspective of their users, producers or receivers as correlates of certain functions, values or contents deduced from the domains of their references.

To the theoretical objectives of linguistic semiotics belongs the search for meaning-bearers in the domain of natural language texts in their relation to extratextual reality and environmental conditions of language use. Those bearers of meaning situated on various levels of the hierarchy of non-verbal or verbal signs enter the composition of semiotic variables into the model of interpersonal communication.

Among the constituents of various schemes modeling different types of human communication, to be distinguished are also variables which are oriented towards the source and destination of information, towards the channel of communication and media, and the contexts and situations accompanying the processes of mutual understanding between individuals and groups of people. People usually communicate in dyadic and small groups extending to public and furthermore to mass aggregations. Separate types of communication, occurring in the realm of man, form intrapersonal (solipsistic) and organizational (collective) communication.
The subject matter of semiotic-communicational studies constitutes interpersonal relationships deduced from verbal and non-verbal behavior of people participating in communicational events, which are analyzed in term of interactions and/or transactions. Relations described as interactions among participants of communicational events are characterized by the mutual exchange between sources (authors, senders) and destinations (addressees, receivers); that is to say, each communication participant functions in interchangeable roles, sending or receiving, processing or interpreting appropriate messages. The notion of transaction implies that people are not always identical in different social relationships and communicational situations. They change and adapt mutually to themselves in dependence of social, cultural, physical and personal conditionings of communication.

The ontological status and gnoseological approachability of the semiotic object in accordance with the assumptions of its forms of manifestation belongs, without any doubt, to the central problems that should be analyzed in the light of epistemology. Such a reconstruction has to concentrate on the search for investigative perspectives, which form the background of different sign and meaning conceptions and their applicative consequences.

Given the plurality of approaches that descend from various disciplines dealing with methodological tools of semiotics, one has to be very careful in posing demands for a restrictive use of the terms introduced by some theoreticians of general semiotics. Acknowledging the autonomy of every specific discipline of semiotics, one should be aware not only of the diversity in classificatory approaches to semiotic objects, but also of the “climate of opinions” that has influenced different ways of thinking and contributed to the formations of different methodological and conceptual frameworks.

A number of contemporary disputes over the relevant properties of semiotic objects have undoubtedly found their origins in the different traditions of studies carried out in philosophy, logic and the methodology of sciences:

Firstly, whether the semiotic objects are material or spiritual (corporeal or intelligible, physical or mental), concrete or abstract, real or ideal, subjective or objective, extraorganismic or intraorganismic by nature,

Secondly, whether the semiotic objects manifest themselves in the form of a monolateral entity or a plurilateral unity of related (two, three, or four) constituents, a relation or a network of relations between constituents, and
Finally, whether the semiotic objects should be studied extrospectively or introspectively, in relation to meaning-creators or meaning-utilizers, as implicative phenomena, non-artificial or artificial, non-inferred or inferred, non-conventional or conventional, non-arbitrary or arbitrary in character, through tokens as variants of a general type or through types as invariants encompassing common features of tokens, in individual or collective occurrences, in the realm of man only, in the realm of all living systems, or in the universe of all possible mortal and/or immortal forms of beings and creatures, including the extraterrestrial and the divine.

To resolve these and related problems it is necessary to state, in the first instance, what kinds of semiotic objects one is interested in. Then one should specify the domain in which they occur. The search for investigative perspectives that characterize the epistemological foundations of general semiotics, as a unified subdiscipline dealing with theoretical statements, and of specific semiotic subdisciplines, formulating their conclusions on the basis of observational statements, belongs to the domain of metascientific studies.

The task of metascientific investigations is to be viewed in finding parameters and construing general models or schemes that could serve as a matrix thereby allowing one to reduce to a common denominator and to classify all specific concepts and approaches that characterize the diversity of particular semiotic subdisciplines. From the viewpoint of metascience, all epistemological positions that contribute to the formation of terms and concepts subsumed to general semiotics should be seen as equal in right when they do not contradict each other with reference to the aims and methods of investigation elaborated in the disciplinary-specific subdivisions of semiotics. Definitions of specific concepts, classifications of specific objects can, however, be taken into account only when they respond to the cognitive standpoints of semioticians without imposing on them any cognitive attitude which would lead them to fruitless modes of investigation or valueless directions of study.

General semiotics has to follow such a perspective or sets of perspectives that distinguishes and/or that distinguish its subject matter as an aggregate of characteristic properties of its objects studied in its domain against the background of the investigative domains of other scientific disciplines. However, terminological distinctions made on the grounds of general semiotics should be general enough in order to avoid forcing the practitioners of semiotic subdisciplines to make commitments to any epistemological position that might appear to them as too reductionistic or irrelevant.
To be mentioned here is the practice of oversimplifying the complex nature of semiotic objects as well as sign- and meaning-related issues to the point of minimizing their importance or distorting their image. Anyway, as to the present state of the art, semiotics is a heteronomous field of scientific activity. Its striving for autonomy does not need to mean a struggle against diversities in opinions, but rather a pursuit of knowledge towards the explanation of positions and criteria that have contributed to the development of different conceptions concerning its subject matter motivated by individual histories of particular semiotic subdisciplines.
Lecture Three

Exploring the semiotic universals of language

The following lecture is based on the author’s paper “The search for universals of language in a semiotic perspective”, delivered for the first time at the 29th Societas Linguistica Europaea Annual Meeting: “Universals versus Preferences (In Synchrony and Diachrony)”, in Klagenfurt on September 4–8, 1996. Popularized in his subsequent monographs in English (Wąsik, Z. 1998 and 2003), its main ideas have been elaborated for the presentation (cf. Wąsik, Z. 2005) “In search of semiotic universals of language among design features of human communication systems” in the Global Semiotics Section, directed by Eero Tarasti, at the International Summer School for Semiotic and Structural Studies under the auspices of the IASS/AIS. Imatra, Finland, June 11–19, 2005. Some of the results of these explorations have been also published lately (Wąsik, Z. 2007).

The so-called “universals of language” have been explored by practitioners of linguistics and its neighboring disciplines at least in three domains: (1) as properties which are to be found in all languages of the world (mainly Joseph Harold Greenberg, and Uriel Weinreich) or (2) as communicative competencies of speakers and/or listeners which may be deduced from their communicative performance when they create and recognize linguistic utterances as phonologically diacritic, grammatically correct, semantically accurate and pragmatically appropriate (Noam Avram Chomsky, Dell Hathaway Hymes, and their followers), or (3) as defining characteristics of speech derivable from the contrast between verbal and non-verbal means of communication used in the universe of humans and animals (Charles Francis Hockett, Stuart A. Altmann, and Charles Egerton Osgood).

1. A search for the defining characteristics of language

The subject matter of this lecture constitutes the search for the defining characteristics of language conducted by Hockett (1959a /1958/, 1959b, 1960a, 1960b, 1966 /1963/) against the background of classificatory proposals done by Altmann (1962, 1967), as well as Hockett & Altmann (1968) along with further extensions delivered by Osgood.

However, the set of properties in Hockett’s framework, as to their number and arrangement, had been developed gradually. As one can read from Table 1, the seven key properties of language which he proposed in 1958 (Hockett 1959a /1958/ had been extended to thirteen in 1960 (Hockett 1960a), then the sixteen properties, and afterward supplemented with three additional characteristics in 1963 (Hockett 1966 /1963/).

Table 1. Charles F. Hockett’s key properties of language (/1958/, 1960a, 1960b and /1963/)

<table>
<thead>
<tr>
<th>1958:</th>
<th>1960:</th>
<th>1963:</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) duality,</td>
<td>(1’) vocal-auditory channel,</td>
<td>(1’) vocal-auditory channel,</td>
</tr>
<tr>
<td>(2) productivity,</td>
<td>(2) broadcast transmission</td>
<td>(2) broadcast transmission</td>
</tr>
<tr>
<td>(3) arbitrariness,</td>
<td>and directional reception,</td>
<td>and directional reception,</td>
</tr>
<tr>
<td>(4) interchangeability,</td>
<td>(3’) rapid fading,</td>
<td>(3’) rapid fading,</td>
</tr>
<tr>
<td>(5) specialization,</td>
<td>(4’) interchangeability,</td>
<td>(4’) interchangeability,</td>
</tr>
<tr>
<td>(6) displacement,</td>
<td>(5’) complete feedback,</td>
<td>(5’) complete feedback,</td>
</tr>
<tr>
<td>(7) cultural transmission</td>
<td>(6’) specialization,</td>
<td>(6’) specialization,</td>
</tr>
<tr>
<td>(10’) displacement,</td>
<td>(7’) semanticity,</td>
<td>(7’) semanticity,</td>
</tr>
<tr>
<td>(11’) openness,</td>
<td>(8’) arbitrariness,</td>
<td>(8’) arbitrariness,</td>
</tr>
<tr>
<td>(12’) tradition,</td>
<td>(9’) discreteness,</td>
<td>(9’) discreteness,</td>
</tr>
<tr>
<td>(13’) duality of patterning</td>
<td>(10’) displacement,</td>
<td>(10’) displacement,</td>
</tr>
<tr>
<td></td>
<td>(11’) productivity/openness,</td>
<td>(11’) productivity/openness,</td>
</tr>
<tr>
<td></td>
<td>(12’) cultural transmission/tradition,</td>
<td>(12’) cultural transmission/tradition,</td>
</tr>
<tr>
<td></td>
<td>(13’) duality of patterning</td>
<td>(13’) duality of patterning</td>
</tr>
<tr>
<td></td>
<td>(14’) prevarication</td>
<td>(14’) prevarication</td>
</tr>
<tr>
<td></td>
<td>(intentional avoidance of truth or deception),</td>
<td>(intentional avoidance of truth or deception),</td>
</tr>
<tr>
<td></td>
<td>(15’) reflexiveness,</td>
<td>(15’) reflexiveness,</td>
</tr>
<tr>
<td></td>
<td>(16’) learnability</td>
<td>(16’) learnability</td>
</tr>
</tbody>
</table>

Having proposed a fixed set of properties amounting to sixteen, Hockett detached the group of ten properties as “a defining set for language”. In his opinion, any system that has openness, i.e., 11’, displacement – 10’, duality – 13’, arbitrariness – 8’, discreteness – 9’, interchangeability – 4’, complete feedback – 5’, specialization – 6’, rapid fading – 3’, and broadcast transmission with directional reception – 2’, deserves to be called a language; so far “any language manifested by our own species will be called a human language” (Hockett 1966: 15).
The remaining six characteristics among sixteen, as: *vocal-auditory channel – 1*, *semanticity – 7*, *cultural transmission/tradition – 12*, *prevarication – 14*, *reflexiveness – 15*, *learnability – 16*, appeared to Hockett as non-defining properties. In his view, every language must possess such a property as semanticity, assuming that the contrast between arbitrariness (included into the defining set) and iconicity (to be eventually included among the non-defining properties) would make no sense at all. All the same, he assumed as possible that “every language has prevarication ... and reflexiveness ...; at least every human language does” (Hockett 1966: 15).

Table 2. Stuart A. Altmann’s and Charles F. Hockett’ design-features of language subsumed under five frameworks pertaining to animal communication (Altmann 1967, Hockett & Altmann 1968)

<table>
<thead>
<tr>
<th>Framework A: features determined by the channel or channels</th>
<th>Framework B: features derived from the social setting</th>
<th>Framework C: features expressing the behavioral antecedents and consequences of communicative acts</th>
<th>Framework D: features reflecting continuity and change in the nature of communication systems</th>
<th>Framework E: features of repertoire and of messages for a single system</th>
</tr>
</thead>
</table>

Charles F. Hockett’s “key properties of language” had been elaborated in turn by Stuart A. Altmann, who used to work in the field of behavioral ecology and sociobiology of primates, although within the so-called “design-feature approach to animal communication”. In Altmann’s contributions, first individually (Altmann 1962 and 1967) and then cooperatively (Hockett and Altmann 1968), the emphasis was shifted from the properties of language – as far as he was not sure about their universality – to the so-called “design features” of communicative behavior of humans against the background of “all organic behavior of any sort, or even of the behavior of all matter, living or inert” (Hockett and Altmann...
1968: 61). One has to emphasize that Altmann (1967, cf. Hockett and Altmann 1968: 63–71) was probably the first researcher who subsumed the sixteen “design features” (recorded as DF) of Hockett (/1963/) under certain types of groupings, called frameworks (A, B, C, D, E), cf. Table 2.

Nevertheless, his proposal cannot be approved in totality from the viewpoint of structural linguistics, having in mind that such design features undoubtedly determine the intrasystemic properties of language, as: (1) Arbitrariness, Semanticity, Openness, in addition to Discreteness and Duality of Patterning; whereas (2) Prevarication, Reflexiveness, Specialization, Displacement are to be seen as another group of extrasystemic properties of language. Likewise, against the background of the correctly classified relational properties of language, which pertain the physical-acoustic nature of communication, as (3) Vocal-Auditory Channel, Broadcast Transmission and Directional Reception, as well as Rapid Fading (of the Voice Sound), one should subsume under the same framework pertaining to a communicating individual and community such features as (4) Interchangeability, Complete Feedback, Tradition and Learnability.

Having been inspired by the exchange of opinions at a conference of 1961 devoted to language universals, which have been published in 1963, Charles E. Osgood (1980: 47, see especially his footnote there) undertook another elaboration of Hockett’s ideas. As a result, he submitted a slightly similar set of the so-called defining characteristics of language, having been enriched more quantitatively than qualitatively. As to the primary set of six defining characteristics of language, Osgood (1980: 10–14) has postulated that they should be general enough to serve as criteria for evaluating the nature of communication in the realm of all species.

Thus, anything that is to be called a language must have, in Osgood’s view, signals that [1] nonrandomly recur in some communication channel, [2] are producible by the same organisms that receive them and manifest themselves in such nonrandom dependencies as [3] pragmaticity, [4] semanticity, [5] syntacticity, and [6] combinatorial productivity. With these six hypothetically assumed characteristics in mind, Osgood sees the need to accept the existence of a language among some animals; the absolute NO-answer he declares with regard to clams, partly YES to birds and dogs and a certain YES to the ways of communication among bees and apes.

Ten additional characteristics Osgood (1980: 20–26) postulates to accept as decisive to get through the threshold of being a language when they are to be determined as a species-specific property of man. The first
five of them Osgood used to specify – without any comments on the use of terms – as “structural” and the remaining five as “functional”. If there is something which is a language and deserves “to be called a human language”, it must be distinguished, according to Osgood (1980: 20–23), by such “structural characteristics”, not only involving [7] use of the vocal-auditory channel, and resulting in [8] nondirectional transmission but directional reception as well as [9] evanescence in time of the forms in the channel, but also requiring [10] integration over time of the information derived from the physical forms and the necessity of [11] providing prompt feedback to the sender of his or her own messages. Noticeable is in Osgood’s highlighting that the enumerated structural characteristics are relatable to combined functions of the physical nature of sound and the biological nature of human organism.

In turn, the necessary qualities of human language have to be determined, in Osgood’s (1980: 23–26) depiction, by the following “functional characteristics”: [12] the semantic relations between forms and meanings must, in general, be arbitrary rather than iconic, and [13] the forms in the channel that distinguish meanings must be discretely rather than continuously variable. It also appears indispensable for Osgood that those forms in the communication channel are [14] analyzable hierarchically into levels of units-within-units, with [15] large numbers of units at each higher level being exhaustively analyzable into relatively small numbers of components at each lower level. A final place occupies Osgood’s functional conditioning according to which the [16] extension of a language within the species, both generationally and geographically, must be via experience (learning) rather than via inheritance (maturation).

As Osgood (1980: 26–32) argued, apart from these sixteen defining characteristics of language, considered hitherto as universals, one should additionally take into account a number of other qualities consisting of two types of five non-defining characteristics, without which, as he claimed, a language would be still regarded as a human language though a rather strange one.

The first type of those five additional characteristics (cf. Osgood 1980: 27–29) reflects certain intellectual and cultural traits that are common to human species rather than linguistic regularities that pertain to messages of any given language: [17/1] propositionalizing, stating that messages “are testable as to their truth and falsity”, [18/2] prevarication – “messages can be intentionally false, deceptive, or meaningless”, [19/3] reflexiveness – “messages can be used to talk about other messages and/or their components”, and finally, [20/4] learnability, stating
that messages of any language “can be acquired by any normal human being” plus [21/5] translatability – “any natural human language can be translated into any other human language”.

The second type in Osgood’s record (1980: 29–32) constitutes those five non-defining characteristics of language, which form rather statistical than absolute universals across all languages of the world and the levels of their entities, units and constructions, as far as they are based on psycholinguistic performance principles and their interactions, such as: [22/1] the rules of selection and combination of alternative forms; [23/2] the principle of progressive differentiation of meaning-signaling forms; [24/3] the least effort principle stating that “the higher the frequency-of-usage level (1) the shorter the length of forms, (2) the smaller the number of forms, and (3) the larger the number of different meanings (senses) of the forms used”; [25/4] affective polarity – “affectively positive forms are distinguished from affectively negative forms (1) by marking (either overt or covert) of the negative members of pairs and (2) by priority of the positive members of pairs in both the development (in the language and in the individual) and from sequencing in messages”; [26/5] the Pollyanna Principle – “affectively positive forms and constructions are more diversified, more frequently used, and more easily processed cognitively than affectively negative forms and constructions”.

To discuss the constituents of Osgood’s typology of language universals, summarized in Table 3 as a search for the so-called “defining characteristics of language”, which evaluate the nature of communication in the realm of all species, against the background of Hockett’s “key properties of language” and furthermore Altmann’s contributions as “design features of language” (cf. Table 1 and Table 2), one has to take into consideration only the absolute universals, i.e., sixteen of the so-called defining characteristics and five of the so-called non-defining characteristics of language, without taking any position to the question whether they are exhaustive or completely substantiated.

A deeper analysis has shown that the characteristics distinguished by Osgood overlap in their principal part with the characteristics of Hockett, without taking into account their order, with an exception, however, that slightly different treatment had such properties of language as specialization and duality in Hockett’s distinctions, and pragmaticity and syntacticity in Osgood’s counterpropositions. A remarkable modification of Hockett’s approach to broadcast transmission and directional reception constitutes Osgood’s characteristics referring to recurrence of forms
in communication channel and integration over time of forms derived from physical forms.

Table 3. Charles E. Osgood’s search for the so-called defining characteristics of language to evaluate the nature of communication in the realm of all species (1980)

<table>
<thead>
<tr>
<th>Defining characteristics of language considered as semiotic universals</th>
<th>Non-defining characteristics of language</th>
</tr>
</thead>
</table>

To the new proposals of Osgood one should include hierarchical and componential organization and also translatability of languages. The property of translatability seems to be obvious, because it can be derived from the learnability of language.
2. Semiotic properties of language in the light of structural linguistics

On the basis of the knowledge accumulated in contemporary academic handbooks, one can state that the defining properties of language have been neither in Hockett’s nor in Osgood’s works sufficiently and/or convincingly substantiated and exhaustively ordered. The cause of such a state is to be seen in unclear criteria for formulating what a definition is from a logical point of view. Nothing is to be found about the next kind to which language as a defined object might be compared.

What we have as an alternative at our disposal is an elaborated set of heterogeneous characteristics exposing only specific differences. For example, from an intrasystemic point of view, only such properties might be relevant, as: arbitrariness, discreteness, duality, hierarchicality, componentiality, syntacticity, semanticity, openness (or productivity in other terms). As standing very close to the domain of language sciences one can view the property of pragmaticity. However, pragmaticity being user-and-communication oriented should be relegated to the extra- systemic properties of language.

Furthermore, among the intrasystemic properties of language, structuralist linguists may notice the lack of a double class character of verbal signs expressed through the division of morphemes into grammatical and lexical, which is nota bene not the same as the double articulation of verbal signs into meaningful and diacritic segmental entities, i.e., morphemes and phonemes. Without doubt philosophers of language would also add such properties as, for example, transparency and gestalticity of verbal means used in communication.

As far as most of Hockett’s and Osgood’s properties of language along with some additionally proposed in our discussion above have a fixed position in the epistemology of linguistics, it will be worthwhile to explain them again in terms of semiotic linguistics, as presented in Table 4. To identify which of the discussed semiotic universals are relevant for the investigative domains of the neighboring disciplines of language sciences and linguistics proper, it has been postulated to observe the boundaries between the properties that pertain to:

(I) the form and structure of language as a system of verbal means of signification and communication;
(II) the substance of codes and the channels of communication;
(III) the cognitive faculties and communicational abilities of human beings determining the ways of language acquisition and language attrition across cultures and generations;
(IV) the relationships between the verbal means as signifiers and their signified referents in the extralingual reality, as well as between the verbal means and their speakers and hearers in accordance with pragmatics of communication (cf. Wąsik, Z. 1987: 69).

<table>
<thead>
<tr>
<th>Ecological-relational and lexical-relational properties of language</th>
<th>Grammatical-inherent and lexical-inherent properties of language</th>
</tr>
</thead>
</table>

The above distinguished four groups of properties (I–IV) might be subsumed under two separate classes of “extrasystemic properties of language” (groups II–IV) that belong to the investigative domain of the neighboring disciplines of language-related sciences, as, for example, psychology of language, (cultural) anthropology of language, philosophy of language or logic, and their auxiliary disciplines, as, for example, articulatory or acoustic phonetics within the domain of natural sciences (anatomy and physics) and “intrasysemic properties of language” (group I) that belong to the subject matter of autonomous linguistics proper.
2.1. Extrasystemic properties of language

From the viewpoint of substantial properties of codes and the channels of communication we can separately distinguish four types of characteristic features (abbreviated henceforth as Language Properties = LP):

[LP 1] vocal-auditory, stating that phylogenetically conditioned verbal signs have a phonic character; they are emitted through the vocal tract and received by ear; [LP 2] centrifugal transmission and directional reception – sound waves expand in all directions (centrifugally), but they are received from that direction in which the receiver finds himself while listening; [LP 3] evanescence in time – phonic substances of speech sounds due to physical laws are transitory and volatile; [LP 4] linear integration over time – receivers apprehend sound waves as a sequence of segments arranged in a line.

Considering sensorial and intellectual properties of language with reference to the receptive and productive activities and the cognitive and creative capabilities of language users and language doers, one is able to separate two subgroups of species-specific properties of humans. The first subgroup refers to their biological characteristics, as [LP 5] interchangeability of sender-receiver roles, stating that the communicating individual who can be both a sender and a receiver of his or her signs and the signs of other individuals can produce, perceive and reproduce their own or foreign signs as many times as they want; [LP 6] complete (total) feedback – the sender, while speaking, can not only simultaneously perceive reactions of others, but he or she can also react to the form and content of what they emit him- or herself; which also gives them the possibility of controlling and/or correcting their errors.

The second subgroup of sensorial and intellectual properties of language relates to cultural distinctiveness of mankind, as: [LP 7] cultural transmission, stating that languages are not genetically inherited, but generationally transmitted through education and participation in culture; [LP 8] creativity, learnability and forgetability – as far as speech faculties can be inherited, every representative of the species homo sapiens, understood also as homo animal symbolicum, can not only acquire every language but also create his or her own linguistic system, or forget a given language which they have learned; [LP 9] translatability – the feature of learnability implies also the feature of translatability of every language learned by users as a second, third or fourth, and so forth, language; [LP 10] conventionally determined changeability in time and variability in space – bearers of a given language, as members of communicative communities can contribute, on the basis of social agreement or contacts between different languages or their different va-
rieties, not only to the formation of new but also to mixed languages or their new functional and stylistic varieties as well as new expressions and utterances never heard before in a given language, etc.

Referential-utilitarian properties of significative means, realized in communicational events, constitute another group of properties characterizing language that depend upon the will, competence and intention of language users. Among them we can distinguish, in the first instance, [LP 11] specialization, stating that language performs not only expressive and evocative functions but also have developed various kinds of significative and communicative functions; [LP 12] contextuality – the meanings of verbal means of communication specify themselves in dependence of contexts and/or “con-situations”; [LP 13] translocation – using memorized and uttered verbal signs of a certain language we may speak about things remote in time and space; [LP 14] metadesignation (metalinguistic reflexivity) – since verbal signs are things by nature that serve the purposes of speaking about other things, we may speak in a language also about the language as an object of extratexual reality; [LP 15] prevarication – the extralingual reality of verbal signs can be both true and false, observed and inferred, abstract and concrete, as well as imagined and real; it can be perceived as ambiguous or meaningless; [LP 16] pragmaticity – linguistic utterances can be interpreted directly according to its literal word-for-word value, i.e., locutionary meaning, or indirectly while exerting an impact upon receivers as a result of their illocutionary force; [LP 17] intentionality – the sender can deliberately manipulate with a communicative sense of an utterance, while changing its literal referential value in indirect speech acts; [LP 18] transparency – conventionalized verbal signs lacking ambiguity or illocutionary force are usually transparent by nature as far as receivers understand them immediately as denoting the objects of reference; [LP 19] gestalticity – verbal signs used for artistic and pragmatic purposes happen to be “gestaltic”, i.e., possessing a shape or configuration of properties that cannot be derived by the summation of its component parts, so that the receiver does not grasp their locutionary meaning directly, but he or she interprets them in dependence of their illocutionary force or inferred intertextuality; [LP 20] autonomization (lexicalization) – in everyday use verbal signs strive to become independent from derivational meanings of their constituents so that their user does not identify or remember their morphological motivation, etymology or phrase-structure rules.
2.2. Intrasystemic properties of language

When the semiotic properties of language are not searched for in the domain of its speakers and hearers or their functional environments, but within the realm of verbal means which humans utilize for the purposes of signification and communication, i.e., when the object of definition is the language in itself, and not human being in relation to language, then a separate group among semiotic universals can be distinguished, as far as the intrasystemic properties of language are concerned.

Accordingly, language among the other semiotic systems distinguishes itself through such properties which can be labeled as lexical-grammatical properties of verbal means of signification and communication: [LP 21/1] semantic referentiality, stating that the semantic function of verbal signs results from their substitutive character, i.e., from their reference to the extrasemiotic reality based on implication. Verbal signs are not parts of extrasemiotic reality. The relation between signs and their objects of reference always repeats in a similar way, although always in new surroundings, in the processes of interpersonal communication as well as in the cognitive processes of mental associations and inferences; [LP 22/2] conventional arbitrariness – the relationship between verbal signs and their objects of reference in the extrasemiotic reality is not natural by origin; it depends upon the social usage and customs conditioned by free and non-motivated choices; [LP 23/3] discrete distinctiveness – verbal means of signification and communication are not continuous and global by nature; they are articulated and perceived as text elements being mutually distinguishable and replaceable in the same contextual environment; [LP 24/4] double articulateness – verbal means can be divided on the morphological and phonological level into smallest meaningful text elements (morphemes) and smallest diacritic text elements (phonemes); [LP 25/5] morphological duality – verbal means can be divided on the morphological and semantic levels into two classes of signs: categorial and entitative, i.e., grammatical and lexical morphemes; [LP 26/6] bipartite significance – verbal means as textual constituents of predication frames can be divided on the syntactic level into sentences and word phrases that realize on the logical and semantic level both the function of propositions and the function of locutions; [LP 27/7] functional and compositional hierarchicality – regarded as subordinating text elements of lower order function within entities, units or constructions of higher order on the basis of hierarchical subordination: phonemes within morphemes, morphemes within semantemes (stems), semantemes within words, words within phrases (word groups), phrases within sentences, sentences within utterances, utterances within...
discourses, discourses within texts, and texts are defined as the last instance in terms of verbal signs opposed to non-verbal signs. On superordinating level – text elements of higher order consist at least of one entity, unit or construction of lower order, i.e., text consists at least of one discourse, and discourse consists at least of one utterance, utterance consists at least of one sentence, sentence consists at least of one phrase, phrase consists at least of one word, word consists at least of one semanteme (stem), semanteme consists at least of one morpheme, morpheme consists of at least of one phoneme. In the last instance, phoneme is a further indivisible entity constituting a bundle of simultaneously realized diacritic features of human speech sounds; [LP 28/8] binary isomorphism of text structures – basic (segmental) text structures, for example, syllable, stem, word, phrase, clause, sentence, are, as to their binary forms, identical on each level of the hierarchy of language elements having both a constitutive component and an accessory component. For example, for a syllable, the constitutive component is a vowel or semivowel, for a stem – a lexical morpheme, for a word – a stem, for a phrase – a determined word, for a clause – verbal phrase, for a sentence – the main clause. Accessory, on the contrary, for a syllable is a consonant, for a stem – a derivational affix, for a word – an inflectional ending, for a phrase – a determining word, for a clause – a nominal phrase, for a sentence – a subordinated clause; [LP 29/9] syntagmatic integrativity and paradigmatic commutability – verbal signs can create entities, units and constructions appearing in form of segments and/or suprasegmental features. Examined in their functioning on the level of utterances and locutions both the simple signs, and the composed signs are regarded as complex signs of higher order as to their global meaning, where the sum of their components does not equal the sum of their partial meanings. All meaningful forms as simple signs or composed signs are considered as members of the same syntactic paradigm when they can replace each other alternatively within the same context of locutions and/or utterances; [LP 30/10] combinatorial-productive openness – the system of language functions as an open system, so that its users have the opportunity to produce an infinite number of signs from a finite number of simple elements and conventionally established phraseological constructions.

The specification of ten (1–10) among thirty (LP 1–30) intrasystemic properties of verbal means of interpersonal communication, as those characteristic features of language that belong to the investigative domains of autonomous linguistics in opposition to the extrasystemic properties that may constitute the interest sphere of heteronomous lin-
guistics or the non-linguistic sciences of language can lead to the specification of its semiotic definition under the condition, that language will be confronted with other systems of understanding on the basis of searching for the *genus proximum* of the linguistic sign among the other semiotic objects.

Against the background of the preceding discussion, it is postulated that the classificatory approach to the semiotic universals of language has to bear in mind the *genus proximum* and *differentia specifica* of language in the context of its intrasystemic and extrasystemic properties constituting the subject matter of linguistics proper and the non-linguistic sciences of language. In such a view, the semiotic properties of language are to be deduced from the comparison between the verbal and non-verbal means of communication in the light of linguistic semiotics itself and not necessarily from the perspective of man’s place among other living species.
Searching for historical roots of sign conceptions

1. Ontological status and cognitive approachability of language in the light of sign conceptions

To the most arguable issues belongs the ontological status and cognitive approachability of the sign. The views of theoreticians and practitioners of semiotic disciplines are not unanimous as to whether the sign constitutes a mental, concrete or an ideal entity or whether its material shape possesses a spiritual replica in the mind of its users. Further questions about the manifestation forms of signs refer to their material or spiritual, sensible or intelligible, concrete or abstract, extraorganismic or intraorganismic forms of being, which might be examined subjectively or objectively. Semioticians still argue whether the sign is a separate phenomenon or a complex of related phenomena. One can encounter views according to which signs are specified either as a monolateral entity or a plurilateral unit comprised of interrelated constituents, or as relations between those constituents. Those and other controversies have undoubtedly their roots in three philosophical thinking about the concrete and mental nature of language in relation to reality, namely Platonism, Aristotelianism (modified through Cartesianism), and Stoicism (for the discussion of terms see Koyré 1961 and Sebeok, ed. 1986).

2. The dual character of the sign

2.1. Platonic logos and Saussurean parole

It was Plato (427–c. 347 B.C.), a Greek philosopher, who started the dualistic idealism assuming that speech and thought are inseparable, and that both capabilities form a unity, called logos. On the basis of the belief that speech is a faithful replica of thought, the followers of Plato had put forward a postulate to study verbal activities for gaining the knowledge of how the mind of humans works.
2.2. The sign as a oneness of two inseparable psychic sides

Undoubtedly, Ferdinand de Saussure, a Swiss linguist, might have been inspired by the Platonic idea of *logos* (1922: *passim* and 101) when he introduced, in his lectures, a category of *parole* underlying both speaking and thinking simultaneously. However, as not exactly fitting within the context of Platonism, even though appealing to the idea of duality, one has to consider Saussure’s conception of the bilateral sign as a mental unity composed of *signifié* and *signifiant*, usually rendered as “signified” and “signifier”, and inappropriately equated with “signification” and “signal” following Roy Harris’ translation into English (cf. Saussure 1983 [1972 /1916/]: 67), in which both parts of the sign are considered as a oneness of two inseparable sides, being in equal degree psychic.

![Diagram of Saussurean concept and image acoustique as concept and sound pattern in Roy Harris' translation (Saussure 1983: 11–12)](attachment:saussure_diagram.png)

An absolute psychologist definition of the sign as a two-sided entity, which unites, in Saussure’s view, not a thing and a name but a concept and a sound pattern, probably originates, following the opinion of Eugenio Coseriu (1967: 81–112), in the late rationalist phase of Aristotelian heritage, developed under the influence of Cartesian thought by the authors of the Port-Royal grammar. Although published anonymously, the authorship of this grammar, the so-called *Grammaire générale et raisonnée* [A general and reasoned grammar] of 1660,¹ has been ascribed to Claude Lancelot (1615–1695) and Antoine Arnauld (1612–1694). As Jacques Bourquin (1991: 346) points out “The grammar be-

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longs to the rationalist current of thought ... deeply influenced by René Descartes (1596–1650)”, French philosopher and mathematician.

2.3. The unity of speech and thought in *parole* as the realization of language

Saussure’s (1922 /1916/: 155–169) lectures exhibit, however, not only a rationalistic view of the sign as a unity of two mental sides: concept ‘concept’ (interpreted also as ‘image’ or ‘notion’) and *image acoustique* ‘acoustic image’. One of *Cours de linguistique générale* chapters devoted to the concept of linguistic value (*valeur*, after Léon Walras) shows explicitly Saussure’s adherence to the Platonist unity of (external) expressions and (internal) thoughts. Speaking about the unification of thought with sound material, Saussure exposed the understanding of language as a system of pure relations: “In order to realise that the language itself can be nothing other than a system of pure values, one needs only consider the two elements which are involved in the way it functions, ideas and sounds” (Saussure 1983: 110). However, having in mind its role in the creation of basic sign structures, he considered language as a domain of articulation where the idea establishes itself in the sound and where the sound stands as a sign for an idea. As he maintained: “Linguistic structure might be described as the domain of articulation ... Every linguistic sign is a part or member, an articulus, where an idea is fixed in a sound, and a sound becomes the sign of an idea” (Saussure 1983: 111).

In one of his further statements, Saussure shows how language operates as a carving pattern in speaking and thinking processes. As he argues, the function of language in relation to thought consists not in providing concrete means for the vocal expression of mental images but in mediating between thought and sound so that their interrelationship leads to a mutual delimitation of entities. “The characteristic role of a language in relation to thought is not to supply the material phonetic means by which ideas may be expressed. It is to act as intermediary between thought and sound, in such a way that the combination of both necessarily produces a mutually complementary delimitation of units” (Saussure 1983: 110).

Interpreting Saussure’s ways of reasoning, one may say that (1), language orders thoughts on one plane and speech sounds on another giv-

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ing them both forms, and (2), language forms itself as a consequence of mediating between the substances of internal ideas and external sounds.

Thought, chaotic by nature, is made precise by this process of segmentation. But what happens is neither a transformation of thoughts into matter, nor a transformation of sounds into ideas. What takes place, is somewhat mysterious process by which ‘thought-sound’ evolves divisions, and a language takes shape with its linguistic units in between those two amorphous masses. One might think of it as being like air in contact with water: changes in atmospheric pressure break up the surface of the water into series of divisions, i.e., waves. The correlation between thought and sound, and the union of the two, is like that. (Saussure 1983: 110–111)

2.4. Hjelmslevian duality of the sign: Expression and content as two functives united by a sign-function in speech and thought

Inspired by Saussurean conception of language as a correlation between thought and sound in “parole”, Louis (Trolle) Hjelmslev, a Danish linguist, presented his own vision of the sign, which resembles, on the one hand, the Platonic notion of “logos”, but reflects, on the other hand, the Aristotelian way of delimiting the substance from the matter through the form. Hjelmslev (cf. 1963 /1961/ [1953: 13 and 52–58] {1943}) confirmed Saussure’s claim about the duality of the sign, but he proposed to regard its two sides in terms of functives: expression form and content form connected by a sign-function. By this, Hjelmslev rejected the widespread opinion of logicians that the sign is to be described as something that stands for something else. In Hjelmslev’s view, the sign is not an expression that points to a content outside the sign itself, but a two-sided entity, which acts in two directions: “outwards”, i.e., the substance of expression and “inwards”, i.e., to the substance of content.

As Hjelmslev assumed, without linguistic signs the so-called substance of expression would be a disordered row or an unorganized mass of sounds, to which none of language users could ascribe any content. Furthermore, the substance of content would appear as an unordered set or shapeless mass of thought of things and states of affairs, which had no boundaries and were not classified. By form one should understand in Hjelmslevian sense an abstract scheme or a principle organizing structural relations between functives connected with each other by a sign function in both planes: in the plane of expression and the plane of content. Similarly as in Saussure’s, in Hjelmslev’s view (1963: 44), the form operates as a curving pattern on both planes of the linguistic sign which are connected with each other, making them mutually subordinate as both the substance of content and the substance of expression. What constitutes a formless continuum in both planes, what has been ordered
differently by the form of each of the languages in particular, Hjelmslev proposed to call “matter”. As he explained, the so-called “purport” of substance, following the English translation, constitutes the “factor that is common ... and that remains common to all languages” (Hjelmslev [1953: 46], quoted in: Siersema 1965 /1955/: 148). According to Hjelmslev, the same matter can exist in different languages receiving only a different shape, i.e., a different form. And what this shape determines, are exclusively the functions of language, the sign-function and the functions, which are derived from them. Matter itself remains, in each case the substance for this or the other form. As it results from Hjelmslev’s formulations, the “matter” (of content or expression) can become a “substance” only then, when it appears in the role of a functive connected by a sign-function with “form” (of content or expression). The substance is, in Hjelmslevian terms, this part of the matter of content or expression, which constitutes a concrete product or derived and organized by the form that has been created by man for the purposes of communication through verbal signs. How should one see the terms distinguished by Hjelmslev in the context of the plane of expression and the plane of content in language? In accordance with the interpretation of the author of this conception himself, matter in the plane of expression should constitute all kinds of sounds emitted by people in different languages. The speech sounds, forming constituents of signs of a given language, in which people communicate, are to be determined as a substance of expression plane. However, phonemes, by means of which those signs are distinguished from other signs in the system of language, should be treated as belonging to the form of expression plane. A good analysis of Hjelmslevian view of the plane of expression is provided by Siersema (1965: 146):

As an example of the elements marked off in this way by different languages in the expression plane Hjelmslev gives “the continuum made by the median profile of the roof of the mouth, from the pharynx to the lips”. (What is meant is, of course, the sounds produced in the various places of this “continuum”, not the continuum itself). In familiar languages this zone is usually divided into three areas, a back k-area, a middle t-area, and a front p-area, Eskimo and Lettish, however, have two k-areas, whose lines of division do not coincide in the two languages. Eskimo places the boundary between a uvula and a velar area, Lettisch between a velar and a velopalatal area. This, too, might be schematically represented.

<table>
<thead>
<tr>
<th></th>
<th>p</th>
<th>t</th>
<th>k₁</th>
<th>k²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sier.</td>
<td>p</td>
<td>t</td>
<td>k₁</td>
<td>k²</td>
</tr>
<tr>
<td>Esk.</td>
<td>p</td>
<td>t</td>
<td>k₁</td>
<td>k²</td>
</tr>
</tbody>
</table>

Scheme 1: The zones of p, t, k area in the segmentation of the expression plane (adapted from Siersema 1965: 146)
As far as the plane of content is concerned, Hjelmslev illustrated the difference between matter, substance and form, on the basis of examples from semantics and morphology. As the most representative he referred to appear, for example, the segmenting and naming of the color spectrum in different languages of the world. The spectrum of colors as such constitutes for the observer an objective matter. The segments of spectrum delimited by the names of appropriate colors for particular languages constitute the substance of the plane of content.

However the scope of names, forming determined semantic fields, by which particular languages of the world differ one from another, are treated as facts belonging to the form of the plane of content. In the plane of content, the substance of words denoting colors is a continuum of the length of light wave; and the form introduced by considering the lexical oppositions denotes different colors in dependence of an ecologically determined language. Particular languages transform this continuum into perceivable and established distinctions, being equal as to their number or different in one or another language, once at the same point of the continuum, once at different points. Again we may utilize the analysis of the color spectrum quoted by Bertha Siertsema (1965: 145), which Hjelmslev ([1953: 49]) represents it as in the Scheme (2):

... Welsh, for instance, has in its content plane the element 'glas', which covers the English content-element 'blue'. But it also includes the bluish green which the English call no longer blue but green, plus the bluish grey which in English is called 'gray'; it covers part of the English content-elements 'grey' and 'green'. For the other shades of grey, the brownish ones, the Welsh have another word "llwyd", which also includes, however, what English is called 'brown'.

<table>
<thead>
<tr>
<th>English</th>
<th>Welsh</th>
</tr>
</thead>
<tbody>
<tr>
<td>green</td>
<td>glas</td>
</tr>
<tr>
<td>blue</td>
<td></td>
</tr>
<tr>
<td>gray</td>
<td>llwyd</td>
</tr>
<tr>
<td>brown</td>
<td></td>
</tr>
</tbody>
</table>

Scheme 2: The content plane illustrating the segmentation of colors (adapted from Siertsema 1965: 145)
To sum up, one can conclude that as a Platonist, Hjelmslev believed that the so-called sign-function unites both internal mental facts with external physical facts which men have at their disposal. Using his terminology, one may say that the amorphous mass of thought, the matter of content, as well as the amorphous phonic continuum, the matter of expression, are organized by the form of each plane into the substance of expression and the substance of content. Although Hjelmslev treated the substance as a part of the matter organized by the form, he favored in fact Saussure's (1959: 122 [1916: 169]) statement that “language is a form and not a substance” [« la langue est une forme et non une substance »]. Consequently, in opposition to functionalists of the Prague School investigating the substance of language as semantically relevant, the pupils of Hjelmslev from the Copenhagen School were called formalists (cf., inter alia, Umberto Eco in: Sebeok (ed) 1986: 943–946, and Teresa E. Hołówka in: Sebeok, ed. 1986: 937).

A separate reflection of Platonist ideas has been also found in the distinction between Bedeutung ‘meaning’ and Kundgabe ‘manifestation’ introduced into the philosophy of language by Edmund Gustav Albrecht Husserl (1859–1938), a German philosopher, born in Austria. According to Husserl (1970 [1913 /1900/] & 1970 [1913 /1901/]; 1970 [1913]; 2008 /1916–1937/), the act of speaking forms an intentional act of meaning, where the meaning is embodied in the verbal signs as spoken. Hence, meaning and manifestation were, for Husserl, mutually exclusive as phenomena when tied as products of speech to indication (cf. Richard Leo Lanigan in: Sebeok, ed. 1986: 697).

3. Language in a triadic sequence or a unified triangle

3.1. The mediating role of human intellect

Aristotle (of Stageria, 384–322 B.C.), the pupil of Plato, introduced the third element to the original dyad, consisting of sound and thought of man, namely, the things in reality he learns, and communicates about. In comparison to Plato, Aristotle made progress by distinguishing the thought about reality from the expression of this thought in words (called lexis), as two heterogeneous phenomena.

The Aristotelian triadic sequence was reinterpreted by William of Ockham (alias Occam, an English scholastic philosopher, 1285–1347) giving the rise to a nominalistic triangle. However, the translated terms of Aristotle: res – intellectus – vox [‘thing – intellect – voice’] were replaced by Ockham through: res – conceptus – terminus [‘thing – con-
cepts – term’]. For Aristotle, concepts mediated between things and words, and in Ockham’s depiction concepts were tied to things by a natural bond, and the relation between words and things was based, on a convention. And Ockham believed that thinking activities can be carried out not only by manipulating words in an acoustic or in a voiceless mental form, but also that mental acts can be performed without words (verbal thinking vs. pure thinking).

Against the background of medieval conceptualism, the idea of Aristotle had been deviated by his rationalist continuators in the just mentioned Grammaire générale et raisonnée [A general and reasoned grammar] of 1660. According to a rationalist hypothesis, the thinker was supposed to operate with concepts directly and to make use of words only when his or her accounts of reasoning were to be communicated to others. As far the relation between reality, thought and language is concerned, the Aristotelian threefold sequence reappeared in the assumption of the spiritual intermediate world (Germ. *die geistige Zwischenwelt*), put forward by the followers of Wilhelm von Humboldt’s idealistic conception of nature (for details see Helbig 1973: 122–126; cf. Humboldt 1988 [1836]). In the 20th century, the Aristotelian triad has also found its expression in the works of American linguists, Edward Sapir and Benjamin Lee Whorf widely known under the label of Sapir–Whorf hypothesis regarding the conception linguistic determinism in human cognition, but with the stress on the sequence: “language, thought and reality” (cf. the title of Benjamin Lee Whorf’s book of 1956). The Aristotelian idea about the mediating role of the human mind, through the innovations of Scholastic thinking, has undergone further modifications. It is still continued by the interpreters of the writings of American philosophers, Charles Sanders Peirce, and Charles William Morris pertaining to pragmatism and the relationships between human actions and various signs created by man. Peirce elaborated (around 1897) the concept of a trilateral sign, or a triad, as an ideal unity of three constituents (cf. Eco 1979/1976/: 60–61). This concept, however, cannot be uniformly interpreted. From one formulation, distributed in his writings, one can conclude that Peirce understood (1) the sign as a threefold representamen consisting of a sign-vehicle that is capable to stand for its object and to signify its interpretant which produces another sign referring to the same object. From another, one might view (2) the sign as a triadic relational structure that participates in generating different interpretations of meaning by producing other signs determined by the same object.

With reference to the latter understanding of the subject matter of semiotics, it is worth emphasizing Charles Sanders Peirce’s idea of con-
tinuous semioses the limits of which are demarcated by the so-called ultimate interpretant of the sign. It points the way towards a dynamic view of a sign action that generates an interpretant itself. However, since every sign can generate an interpretant, which is another sign in turn, and every interpretant can be a sign, the distinction between both terms is analytically relative, as exposed by Joseph Ransdell, a Texan philosopher in the US (discussed by Sebeok, ed. 1986: 675–81). What’s more, as far as any given sign is itself an interpretant of a prior sign of the same object, it seems obvious that the distance between the sign and its object is greater when more intermediating signs are generated in the process of interpretations.

In the same context, as important for the theory of sign production, it is appropriate to mention Friedrich Ludwig Gottlob Frege, a German mathematician, logician and philosopher, who was also interested in resolving the problem of how to approximate the meaning of a given sign through the explanation of its senses. As discussed by Eco (1979: 60–61), Frege is usually mentioned as the originator of a triadic scheme (developed around 1892), in which three elements: Zeichen, Sinn, Bedeutung (literally: ‘sign’, ‘sense’, ‘meaning’, interpreted as: ‘sign’, ‘meaning’, ‘indication’) are engaged in grasping the meaning of a sign, as an ideal object, through other signs of the same language (cf. Frege 1892: 100).

3.2. The semantic triangle and its interpretational variants

As closer standing to Aristotle than to Ockham, one should consider the conception of a semantic triangle widely known under the names of Ogden and Richards /1923/, adapted in Figure 3, in which all three of its constituents form separate entities, and only one of them is called a sign.

```
[2]

[1]   [3]
```

Figure 2. Separate constituents of a semantic triangle in particular enumerations

Comparing diverse interpretations of the names distinguished, as enumerated in Figure 2, under the three [1–3] constituents of a semantic triangle, one can encounter more or less appropriate substitutes for
original terms. As seen from the proposals of selected authors visualized in Figures 3–7, these terms brought to the common denominator constitute, in fact, four separate parts a semantic quadrangle (cf. Figure 8).


\[
\begin{align*}
\text{THOUGHT (or reference)} \\
\text{SYMBOL} \\
\text{REFERENT}
\end{align*}
\]

Figure 3. Charles Kay Ogden’s & Ivor Armstrong Richards’ original terms of a semantic triangle (cf. Ogden & Richards 1949 /1923/: 11)


\[
\begin{align*}
\text{MEANING} \\
\text{WORD} \\
\text{REFERENT}
\end{align*}
\]

Figure 4. Gustav Stern’s constituents of a semantic triangle (cf. Stern 1965 /1931/: 37)


\[
\begin{align*}
\text{SENSE} \\
\text{NAME} \\
\text{THING}
\end{align*}
\]

Figure 5. Stephen Ullmann’s linguistic adaptation of a semantic triangle (cf. Ullmann 1952: 22)
There are however, also adherents of the conception of a semantic triangle who have tried to make use of Saussurean bilateral sign conception, as, for example: John Lyons: [1] form—<WORD>—[2] meaning (concept) – [3] referent (cf. Figure 6) and Pierre Guiraud: [1] symbol, both a signifying form and its acoustic image – [2] reference, i.e., a signified concept – [3] referent, i.e., a named thing (cf. Figure 7).

The most remarkable divergence occurs in the interpretations of the term symbol used by Ogden and Richards. Therefore, the beginner in the field of semiotics has to choose from amongst different proposals.

![Figure 6. John Lyon’s four constituents within the scheme of a semantic triangle (cf. Lyons 1968: 404)](image1)

It will be crucial to decide whether “symbol” is a word, a name, a form of a word, or whether it is both a signifying form and its acoustic image. John Lyons introduced the term word as a unity of form and meaning, whereas Pierre Guiraud treated as “the physical form” and “its mental reflection” as two sides of a symbol. While Lyons referred the term form to a mental part of the word and Guiraud to a concrete one.

![Figure 7. Pierre Guiraud’s placement of Saussurean bilateral sign within the scheme of a semantic triangle (after Guiraud 1976 [1972 /1955/]: 21), translation of terms is mine: ZW)](image2)
To state divergences in the terminological formulations of the semantic triangle, one has to check the ontology of sign and referent relationships distinguished in the structure of confronted schemes.

![Diagram of the semantic triangle](image)

Figure 8. John Lyons’ and Pierre Guiraud’s constituents of a semantic triangle interpreted within the framework of a semantic quadrangle

One can easily understand why it was impossible to place the four constituents into the angles of a triangle. It is especially noticeable in the sign conception of Pierre Guiraud, where at least four separate entities are to be distinguished in the following definition (interpretation after French original and Polish translation is mine: ZW):

1. the sign itself, and
2. the mental image of the sign,
3. the mental image of the object of reference, and
4. the object of reference itself.

The sign is a stimulus [1], i.e., a sensorial substance, the mental image [2] of which is associated in our mind with the image [3] of another stimulus [4], and the function of which is to evoke the latter for communication [« un signe est un stimulus – c’est-à-dire une substance sensible – dont l’image mentale est associée dans notre esprit à celle d’un autre stimulus qu’il a pour fonction d’évoquer en vue d’une communication. ». (Guiraud 1974 [1971]: 29).

4. Detaching the sign from its referent
4.1. The implicational nature of the unilateral sign

Along with Plato and Aristotle, one should mention the Stoics who made a major contribution to the theory of sign and meaning in antiquity. The main source of philosophers’ knowledge about their teachings, including those of Chrysippus (c. 280–296 B.C.), are the critical treaties (among others, Against the Logicians, Against the Mathematicians or
Searching for historical roots of sign conceptions

Against the Grammarians) of Sextus Empiricus (fl. c. 180–200 A.D.),
one of the representatives of the Skeptics (cf. Dąmbska 1973; some texts
are available in the English translation done by Robert Greg Bury
1933–1949: Sextus Empiricus. Cambridge, MA: Harvard University
The importance of the Stoics for semiotics has been recognized in at least
four areas (for details see: Sebeok 1976: 27, Rollin 1976: 41–44, David

(1) The Stoics treated signs as corporeal phenomena that reveal some-
thing that is real but non-evident through conditional implications;
(2) The Stoics distinguished between logical inferences, as ideal and in-
corporeal by nature, and psychological judgments expressed in cor-
poreal sentences;
(3) The Stoics viewed all signs as existing materially either in form of a
sensible or intelligible both in the cosmic or human soul and in the
speaking or thinking activities. Only the meanings of the signs in-
ferrered through logical reasoning were considered as possessing an
ideal form of existence;
(4) The Stoics noticed that signs occur not only in the realm of human-
kind but also among animals, but only humans can combine the past
and the future with the present and speak about signs that are refer-
ents of other signs.

St. Augustine (Aurelius Augustinus, A.D. 354–430, one of the Latin
fathers in the early Christian Church; bishop of Hippo in North Africa),
a medieval philosopher, although a Platonist with respect to metaphysi-
cal matters in theology, has been included among the continuators of
Stoic thinking with respect to the semiotic nature of language. It was he
who placed signs among things the function of which is to signify other
things, and who put forward the idea of “metadesignation”, i.e., of the
ability to speak in signs about other signs, as the main characteristics of
humans. To the most quoted of sign belongs his definition: “Signum est
enim res praeter speciem, quam ingerit sensibus, aliud aliiquid ex se
faciens in cogitationem venire” (Aurelius Augustinus, 397–426, De
doctrina Christiana, Liber secundus, I. 1. [A sign is that thing which,
besides the impression it makes on the senses, causes something else
beyond itself to come under one’s knowledge (trans. is mine: ZW)].

One has, however, to notice that St. Augustine’s attitude to the na-
ture of meaning is, in fact, Aristotelian. It is probable that his doctrine
about verbum interior [“the inner word"], seen not as a replica of the
spoken word of any language known by speakers, but identified with mental images, may well have its source in the Aristotelian belief. Having identified the meaning with thoughts of things that are developed in the mind of human individuals, Aristotle believed that while words of national languages differ from one another, their mental counterparts must have universal character for the whole humankind.

In the same context, as it has been noticed by Rostilav Pazukhin (1983: 63), Anicius Manlius Severinus Boethius (A.D. 475?–525?), Roman philosopher and statesman, interpreted mental images as specific natural signs of things. The compromise between the Augustinian tenet of the heteromorphism of speaking and thinking – including the assumption that thoughts could be formed by means of mental signs before they were expressed in words – and the Boethian interpretation of Aristotle found its reflection in the sign theory of Ockham. As a result of Ockham’s nominalistic views (mentioned above in the context of Aristotle) the logical theory of propositions was developed claiming that there are two varieties of sentences having dissimilar structure and composition: mental sentences (propositiones mentales) and spoken sentences (propositiones vocales). However, in the investigative practice, modern logicians who adopt a positivistic attitude toward language understand the propositional content as referring to an ideal or abstract counterpart of a sentence, the bearer of truth or falsity.

Along these lines, it might be appropriate to emphasize that the contemporary usage of the term proposition has reflected the Stoics’ mode of reasoning, when stressing the conditional character of logical inferences. To sum up, one should add that the teachings of Stoics has influenced not only the Scholastic philosophy in the Middle Ages, but has also survived within the modern propositional logic developed from a positivistic and objectivistic point of view. As a semiotic approach to language is present in the work of contemporary logicians and linguists adhering to the distinction between indication and signification, between natural and conventional signs. It is especially true with respect to the heritage of the Vienna Circle, and the Lwów–Warsaw School following a perspective of positivism (cf. Pazukhin 1983: 61, Louis G(erald) Kelly in: Sebeok, ed. 1986: 715–721, Dąmbska 1973: 7–14, Simone 1973: 19 and 31, Jacek Juliusz Jadacki in: Sebeok, ed. 1986: 479, Teresa E. Holówka in: Sebeok, ed. 1986: 936 and 939f).

4.2. Linguistic functionalism as a heritage of Stoic tradition

Stoicism is also embodied in the sign concept of Karl Ludwig Bühler, standing very close to the Prague School in respect to linguistic function-
alism, while footing at the same time on the psychological foundations as far as the theory of apperception is concerned. For Bühler (cf. 1965/1934: 28–36, and 1990 [1982 /1934]: 34–36), the principal property of a sign was seen in its representational function (die Darstellungsfunktion). In Bühler’s interpretation, the sign was defined as a sensible phenomenon standing for something else, and functioning as a tool of communication. With reference to “the principle of abstractive relevance” (das Prinzip der abstraktiven Relevanz), Bühler stated that not all concretely realized features of the sign are important for the fulfillment of its communicative function (die Mitteilungsfunktion). However, some of them, which constitute its functionally relevant features, may appear as redundant in the event that they become reduced without disturbing the process of communication, and supplemented by receivers through their apperception (i.e., through the traces of their memorized experiences). Karl Bühler contributed to the instrumentalist functionalism of the Linguistic Circle of Prague, the result of which was the distinction between phonetics and phonology. The instrumentalist view of language exposing the functionality of elements that play a serviceable role in relation to their users or makers arouse however in the intellectual climate of opinion prevailing in art and architecture.

The instrumentalist functionalism arose in the “climate of opinion”, prevailing in Austria, Switzerland and then in Germany after World War I, which promoted the perspectives of purpose-and-need-oriented rationalism in architecture, utility products, and environmental urbanist constructivism. Within an instrumentalist approach to function, the main attention of researchers was paid to abstractively relevant features inherent in the structure of elements playing a serviceable role with regard to human needs and social requirements (cf. Wąsik, E. 2011). Through the mediation of constructivism in applied arts instrumentalist functionalism turned into a kind of functionalist structuralism, which aimed at the demarcation of what is typical and general from what is accidental and individual, researchers were interested to determine what is functionally relevant and irrelevant in the structure of their objects of study.

As a mode of thinking and tendency among intellectuals and architects, functionalism was opposed to expressionism. The propagators of functionalism postulated to consider the needs of average people while producing the utility goods which are rationally conformed to the requirements of everyday life and are not falsified by abundant ornament and useless form. The rationalist principle demanded that architecture and applied arts reflect pure relationships between humans and their
environment while taking account of their biological, social and culture creative nature. The followers of rationality principle in art and architecture exposed the adequacy of function in relation to purpose. and argued that the beauty is the mirror of what grows as a result of appropriate use for specified purposes.

In Bühler’s instrumental model of language (das Organon Modell der Sprache, cf. Figure 9), the sign was defined as a sensible phenomenon standing for something else (aliquid stat pro aliquo) and functioning as a tool by means of which one person communicates to another person about the real things and states of affairs lying beyond the sign itself.

For Bühler, the fundamental property of the sign was seen in its symbolic function, i.e., its semantic capacity to represent other objects. Bühler defined the communicative function of language along with the symbolic function of its signs in terms of a threefold performance of language while considering the role of the linguistic sign in its relation to the sender as a symptom, in its relation to the receiver – an appeal signal, and to the extralingual reality – a symbol („Dreifach ist die Leistung der menschlichen Sprache, Kundgabe, Auslösung, Darstellung“. Bühler 1965: 28).
The circle in Figure 9 illustrates the phenomenon of the sound, that is, the actual word spoken. The triangle demonstrates the linguistic sign and shares common space with the circle in some areas, while extending beyond it in other areas. This overlapping exposes the two key features of the relationship between the sign and its physical realization. Where the circle overlaps the triangle, the phenomenon sound contains more acoustic information than the sign does. The triangle also envelops space beyond the circle. This means that some part of the message may be missing, due to either misspellings or omissions on the side of the sender, or because the channel is subjected to interferences. In this case, receivers are still able to fill in the gaps to create a meaningful message when they can mentally supply what got lost. This phenomenon is what Bühler has called an ‘apperceptive enlargement’ (eine apperzeptive Ergänzung).

The sign conception of Karl Bühler was developed in the works of Leon Zawadowski, Professor of general linguistics at the University of Wrocław in the 1950s and 1960s (cf. Zawadowski in: Meier 1961: 225, and Zawadowski 1970: 28–49). In details, Leon Zawadowski presents the so called “linguistic theory of language” based on inductive methodology of function-oriented textual linguistics, in his academic handbooks of 1966, *Lingwistyczna teoria języka* (A linguistic theory of language), and 1975, *Inductive Semantics and Syntax: Foundations of Empirical Linguistics*. The core of his theory constituted the definition of language as a semantic system with grammar and universal lexicon in a functional and ecological sense, i.e., the system that can be used everywhere by everyone for every task as a set (of classes) of text elements serving to communicate about the (set of classes of referents in the) extratextual reality.

Departing from a disciplinary-specific perspective of linguistics, Zawadowski, treated the sign as a token of a type of text-elements that represents a token belonging to another type of elements, called referents or extratextuals. He also opted for considering complexes of characteristic (functional) features of texts and extratextuals as a signifier and meaning (i.e., the signified).

Zawadowski (1975) distinguished between the sets of individual and normal-usage features, on the one hand, and the mass of characteristic properties of the simple sign as a text-element and its referent, standing in a semantic relation of representation (T and R), on the other. By this he subsumed meaning-bearers and meanings to the same category of observable objects. For example, his description of the T-element contained such features, as, in particular: (1) the boundary of the total mass of sounds, (2) independent characteristic set, i.e., independent part of
phonic social norm, (3) minimum differential set (phonemic, phonological, 'relevant', 'functional', or 'distinctive').

Accordingly, in the description of the referent understood as an R-element of extratextual reality, one can find respectively: (1) the boundary of the total mass of referent, (2) independent characteristic set, i.e., fundamental meaning (norm of referent), and (3) minimum differential set (minimum differential meaning). Regarding the individual and social features of signs and their referents, Zawadowski labeled them as accidental features and reserve non-differential features, being redundant as such.
Epistemological awareness in translational praxis

1. Presenting the objective of study

In this lecture, the aim of the following presentation is, in general, to put forward the idea of epistemological equivalence to be achieved in translational praxis, and its focus of interest concentrates, in particular, around the question of how the translations of sign-related terms selected from the students’ and editors’ lectures *Cours de linguistique générale* (CLG) of Ferdinand de Saussure reflect the epistemological, i.e., ontological and gnoseological, awareness of their translators (see Wąsik, Z. 2009a: 415). The object of a detailed analysis constitutes here Saussure’s model of the sign as a twofold entity consisting of mental parts, a signifier and a signified, which mutually imply each other. Comparing selected quotations from the original of CLG with their two translations into English against the background of an earlier German translation, the author will evaluate various connotations of analyzed terms pondering how they may exert an impact upon the recipients of educational discourse in semiotics. In concluding remarks, the demand for an ecumenical translation is postulated where the knowledge of scholarly traditions and the epistemological connotations of disciplinary-specific terms constitute the central aim translator’s schooling. Hence, the critical approaches to the translational praxis, with special reference to its interpretative consequences, which have place in academic teaching, appear to be indispensable (for details see Wąsik, Z. 2009a: 415–428).

2. On the idea of an epistemological equivalence in translation

To explain the investigative perspective of his inquiry, the author departs (cf. Wąsik, Z. 2003: 13; 2009a: 415; more on this see chapter 2) from an assumption that epistemology deals with the philosophical foundations of human knowledge being accumulated in the body of theories and methods resultant from the research activities of scientists. Accordingly, an epistemological analysis of a given scientific disciplines is aimed at examining to what extent the scientists are aware of the cor-
As to the evaluative aspects of translational praxis constituting this investigative domain, the category of epistemological equivalence is considered at a word level following the classificatory proposals of Mona Baker (1992: 11–12); for details see the entry equivalence compiled by Dorothy Kenny (1998). However, in agreement with the claim of Jean-Paul Vinay and Jean Darbelnet (1995 [1968 /1958/]), the notion of equivalence is associated not only with a semantic search for corresponding expressions which are listed in bilingual dictionaries. At this point, it is worthwhile to quote the opinion of the authors who state that “the need for creating equivalences” should arise from the situations, to which the translated texts refer, because the entries in the dictionaries can not always be recognized as exhaustive (cf. Vinay and Darbelnet 1995: 255–256). Even if the semantic equivalent of an expression in the source language text is available in a dictionary, it is not enough to create an accurate translation. In fact, the equivalence-oriented translation could be viewed as a kind of procedure that “replicates the same situation as in the original, whilst using completely different wording” (Vinay and Darbelnet 1995: 342).

Bearing in mind the terminological distinctions of Vinay and Darbelnet introduced in their work of 1958, practitioners of linguistic semiotics should be aware of the fact that for arriving at translational equivalence the stylistic impact of the source language text has to be maintained in the target language text. This estimated impact might eventually be redefined, following Eugene Albert Nida’s proposals (1964: 159), as a dynamic correspondence based upon “the principle of equivalent effect” between the terms functioning in appropriate texts of source and target languages, which have been regarded as two different codes in Roman Osipovich Jakobson’s framework (1971 /1959: 233/) for whom “translation involves two equivalent messages in two different codes”.

In the light of pragmatics, it is worth mentioning that the terms being translated should have, according to Juliane House (1977: 203), the same argumentative or expository force. To be added is also the conviction of Eugene Albert Nida and Charles Russell Taber (2003 /1982/: 200) who state that the equivalent effect occurs in a situation when a translator seeks to translate the meaning of an original term in such a way that the target language wording will exert the same communicative impact on the target text addressees as the original source language wording did upon the source text addressees.
Entering the domain of the following study from a methodological perspective, one has to take for granted that the epistemological commitments of translators regarding the existence mode and cogniscibility of objects, to which the translated terms in question refer, might undoubtedly be stipulated by their choice of investigative attitudes acquired through education or borrowed from the climate of intellectual opinion prevailing at a specific time in a respective discipline of science.

3. Ferdinand de Saussure’s bilateral sign as a type of semiotic object

The object of analysis selected for the domain of translational study excerpted from Saussure’s lectures constitutes his absolute-rationalist model of the sign as an indivisible entity of two sides evoking each other in the mind of a communicating individual during his or her understanding and interpreting activities. A comprehensive survey of terminological distinctions derived from logical, philosophical and linguistic semiotics would be relevant for presenting the position of this bilateral-sign concept among all models of the sign which have been originated in the sciences of language and culture (cf. Wąsik, Z. 2009b: 126–127).

Worth mentioning, in this context, is the question of their existence modes, where the signs are specified in terms of a monolateral entity or a plurilateral unit comprised of interrelated constituents, or (a network of) relations between those constituents. Further questions refer to the manifestation forms of signs, namely, whether they appear in material or spiritual (sensible or intelligible, physical or mental), concrete or abstract, real or ideal forms of being, being examined subjectively or objectively in their extraorganismic or intraorganismic manifestations. Accordingly, from a gnoseological perspective, signs are approached either extra- or introspectively, through individual tokens or general types, occurring in the realm of humans only; in the realm of all living systems, or in the universe of creatures, extraterrestrial and divine in nature.

4. Controversies in the translation of the constituents of the sign as a twofold entity

Comparing the selected quotations excerpted from the French original of CLG with their two distinct translations into English against the background of the preceding German translation, the author of this study will try to evaluate various connotations of analyzed terms while
pondering how they may exert an impact upon the recipients of educational discourse in semiotics. The following three groups of examples should illustrate the search for translational equivalence in rendering the French terms of (1) the mental representation of linguistic signs in « concepts » and « images acoustiques », (2) the definition of the bilateral sign: « Le signe linguistique unit non une chose et un nom, mais un concept et une image acoustique », and (3) the replacement of « concept et image acoustique » respectively by « signifié et signifiant ».

4.1. Translating the mental sides of linguistic sign

The two sides of the sign called originally concept and image acoustique had no uniform interpretations in languages other than French when Saussure's lectures, published by his pupils after his death, came to the foreground of semiotic structuralism in Europe among linguists and later sociolinguists and anthropologists of culture. Compare excerpted fragments from the original translated into German, English in two different versions (the second one is marked by a bold font).

[I]

Le point de départ du circuit est dans le cerveau de l'une, par example A, où les faits de conscience, que nous appellerons concepts, se trouvent associés aux représentations des signes linguistiques ou images acoustiques servant à leur expressions. Supposons qu'un concept donné déclanche dans le cerveau une image acoustique correspondante : c'est un phénomène entièrement psychique, suivi à son tour d'un procès physiologique : le cerveau transmet aux organes de la phonation une impulsion correlative à l'image : puis les ondes sonores se propagent de la bouche de A à l'oreille de B : procès purement physique. (Saussure 1922 /1916/: 28-29)

Figure 1. Ferdinand de Saussure’s concept and image acoustique as mutually implying each other mental constituents of a bilateral sign

Der Ausgang des Kreislaufs liegt im Gehirn des Einen, z. B. A, wo Bewußtseinsvorgänge, die wir Vorstellungen schlechthin nennen wollen, mit den Vorstellungen der sprachlichen Zeichen oder akustischen Bilder assoziiert sind, welche zu deren Ausdruck dienen. Stellen wir uns vor, daß eine gegebene Vorstellung im Gehirn ein
Lautbild auslößt: das ist ein durchaus psychischer Vorgang, dem seinerseits ein physiologischer Prozeß folgt: das Gehirn übermittelt den Sprechorganen einen Impuls, der dem Lautbild entspricht; dann breiten sich die Schallwellen aus dem Munde des A zum Ohr des B hin: ein rein physikalischer Vorgang. (Saussure 1931 [1922 /1916/]: 13–15)

Suppose that the opening of the circuit is in A’s brain, where mental facts (concepts) are associated with representations of the linguistic sounds (sound-images) that are used for their expression. A given concept unlocks a corresponding sound-image in the brain; this purely psychological phenomenon is followed in turn by a physiological process: the brain transmits an impulse corresponding to the image to the organs used in producing sounds. Then the sound waves travel from the mouth of A to the ear of B: a purely physical process. (Saussure 1959 [1916]: 11–12)

The starting point of the circuit is in the brain of one individual, for instance A, where facts of consciousness which we shall call concepts are associated with representations of linguistic signs or sound patterns by means of which they may be expressed. Let us suppose that a given concept triggers in the brain a corresponding sound pattern. This is an entirely psychological phenomenon, followed in turn by a physiological process: the brain transmits to the organs of phonation an impulse corresponding to the pattern. Then sound waves are sent from A’s mouth to B’s ear, a purely physical process. (Saussure 1983 [1972 /1916/]: 11–12)
In the German edition of 1931, Hermann Lommel translated the French term *concept* ('concept') as *Vorstellung*, (i.e., '/mental/ image' or '/mental/ idea') and *image acoustique* ('acoustic image') as *Lautbild* (i.e., 'sound image'). As a consequence, the difference between the epistemological positions of German and French terms would be more understandable if one confronts with each other the definitions of *Vorstellung*, and the German *Begriff* (which is exactly an equivalent of the French term *concept*).

With reference to a lexicographic sense, one has to explain that the German entry word *Vorstellung* refers, in effect, not to the meaning of mental ‘image’ or ‘idea’, as a product, but rather to mental ‘imagination’; whereas the imagination itself is to be understood as a psychical process involving, in the consciousness, an evocation of the images of objects and situations which, at a given moment, do not effect the sensorial organs of a human individual but are based on past perceptions and/or fantasies (cf. Wąsik, Z. 1987: 113; 2009a: 421).

As far as the German *Begriff* is concerned, it might be eventfully translated not only as 'concept' but also as 'notion' into English. One has to be aware, at this instant, of the synonymous or vague connotations of both terms *notion* vs. *concept* occurring in the English philosophical literature, as it has been noticed by Alfred Tarski who expressed serious doubts in his endnote no. 4 to the article “The semantic conception of truth and the foundations of semantics” (Tarski 1944: 341–375): “sometimes they refer simply to a term, sometimes to what is meant by a term, and in other cases to what is denoted by a term. Sometimes it is irrelevant which of these interpretations is meant; and in certain cases perhaps none of them applies adequately”.

It is obvious, therefore, why the term *notion*, etymologically pertaining to “knowledge” and/or “cognition” (cf. the derivatives of Latin *noscere* ‘to come to know’ or *notificare* ‘to make known’ having its roots in the Greek *gignósechein*) has never been applied in the translation of
Saussurean terms. As a matter of fact, only the English “conceive” as a verb of action might be compared with the respective derivational base of German *begreifen*, in the meaning ‘to grasp the meaning’ or ‘to understand’.

The English term *concept* (descendent from Latin *conceptum* ‘something conceived’, originally neuter of *conceptus*, a past participle of *concipere*; cf. Old French *conceivre* having its roots in the Latin *concipere* ‘to take fully’, ‘take in’ composed of *con- + -cipere*, a combinatorial form of *capere* ‘to take’) refers to the meaning (connotation) of a name, mental equivalent of the set of features characteristic for objects, to which the name is referred, i.e., their designates in particular (cf. Wąsik, Z. 1987: 113; Random House 1997 /1995 {1992}/: Webster’s College Dictionary; discussed by Wąsik, Z. 2009a: 421).

Differences in the understanding of the original terms of Saussure’s depiction of the nature of the sign have without doubt their source in the lack of the distinctions between an “imaginationist” psychology, which pertains to the mental activity of visualizing the shape of cognized and perceived phenomena and events as individual tokens and a “conceptualist” psychology, which exposes the mental recollection of characteristic (or similar) features of phenomena and events formed and concluded as general types. Being engaged in the translation of the two sides of the bilateral sign, one has to take for granted that both the *signified* and the *signifier* might be rendered in terms of imaginative reflections evoked by sensorial-perceptive features of things and names in the consciousness of sign-utilizers.

In the same way also, within the framework of a conceptualist psychology, making a reference to the knowledge about the characteristic sets of tokens and types of signs as well as their designates, one is entitled to assume that both the signified and the signifying sides have mental equivalents of these sets in the consciousness of their users, namely, the conceived minimal mass of differential features of a referent, should have as a counterpart the conceived minimal mass of differential features of a sign-vehicle. However, such a distinction does not exist, in the logical, philosophical or psychological terminology, as the conceptual features of the sign, in other words, a conceived, i.e., mental reflection of characteristic features of a sign corresponding to the concept of a referent (cf. Wąsik, Z. 1987: 113; discussed by Wąsik, Z. 2009a: 421).

A careful researcher being trained in the epistemological distinctions of psychology may become aware of the fact that the German translator has located both terms of Saussure within the domain of an imaginationist psychology, pertaining to mental associations which form a mental con-
figuration having the properties that cannot be derived by the summation of its component parts.

As to the English translation of French concept and image acoustique their word-for-word translations in terms of “concept” and “acoustic image” had functioned in the intellectual climate of opinion of linguists and semioticians until the time when the two respective terms were first rendered as concept and sound-image by Wade Baskin, and then replaced by Roy Harris, in his translation of CLG, through the terms concept and sound pattern. To explain his reasons for rendering image acoustique not as ‘acoustic image’ but as sound-image the former editor, Baskin, made the following observation in a footnote:

The term sound-image may seem to be too restricted inasmuch as beside the representation of the sounds of a word is also that of its articulation, the muscular image of the phonational act. But for F. de Saussure language is essentially a depository, a thing received from without (see p. 13). The sound-image is par excellence the natural representation of the word as a fact of potential language, outside any actual use of it in speaking. The motor side is thus implied or, in any event, occupies only a subordinate role with respect to the sound-image. [Ed.] (Saussure 1959: 66)

Harris’ proposal of to introduce the term sound pattern appears to be suitable for subsuming both sides of the bilateral sign under the same epistemological position. It is remarkable that both concept and sound pattern belong to the conceptualist psychology, as far as they refer to the types of similarities between particular tokens of the sign constituents. With reference to the position of earlier English terms in Baskin’s translations one has to state that sound-image and the original French term image acoustique, remain in the same domain of an imaginationist psychology; whereas both the English term concept and the French concept are to be subsumed under the heading of a conceptualist psychology.

Figure 1.4. Possible German rendering of Saussurean concept and image acoustique as two mental sides of a bilateral sign within the framework of conceptualist psychology following Roy Harris’ translation into concept and sound pattern
As far as the German translations are concerned, *Begriff* and *Lautmuster* would possibly be more appropriate as translational equivalents against the background of the English *concept* and *sound pattern* which coincide with each other as belonging to the domain of a conceptualist psychology. In this sense, the terms *sound pattern* and *Lautmuster* would be placed in opposition to *sound image* and *Lautbild* in English and German.

4.2. Searching for translational equivalence in the definition of a bilateral sign

A similar problem, as with the translation of its constituents, occurs also with the definition of the linguistic sign as a two-sided psychic entity (exactly saying as a psychic entity with “two facets”) translated from the original: “Le signe linguistique unit non une chose et un nom, mais un concept et une image acoustique”.

There is, however, a noticeable exception in the English proposal of Roy Harris, rendering the statement: ‘The linguistic sign unites not a thing and a name, but a concept and an acoustic image’, having been known from the climate of opinion as a literal, word-for-word translation by: “A linguistic sign is not a link between a thing and a name, but between a concept and a sound pattern”.

More divergences are seen in the translation of the second consequential statement: “Ces deux éléments sont intimement unis et s’appellent l’un l’autre” [‘these two elements are intimately united and *appeal* (to themselves), each to the other’]. Against the background of the German translation: „Diese beiden Bestandteile sind eng miteinander verbunden und entsprechen einander“, the sentence in question might be rendered in the following words: ‘These both constituents are closely linked to each other and correspond each to the other’. Probably closer to Lommel’s translation stands the interpretation made by Harris with reference to the idea of a *linking* relationships assumed to exist between the two sides of the linguistic sign. Compare, in this respect, the first part of Baskin’s translation: “The two elements are intimately united, and each recalls the other” with Harris’: “These two elements are intimately linked and each triggers the other”.

The same, however, cannot be said about the second part of the sentence as regards the equivalence at a word level, when one confronts the French phrase « *s’appellent* l’un l’autre » with the German „entsprechen einander“ and the English (in Baskin’s translation) “each recalls the other” or (in Harris’ translation) “each triggers the other”.
In French, the latter phrase, « s’appellent l’un l’autre », means exactly ‘evoke each other’, which is not at all reflected in the German „entsprechen einander“ (which should be literally rendered as ‘correspond to each other’). As regards the sentence: “These two elements are intimately linked”, to be added is, at the margin of this particular study devoted to the analysis semiotic terms only, that the English word “intimately” can be seen rather as a literal substitute of the French « intime » , than an equivalent at a word level, as it is the case with the German „eng“ where both refer to the meaning of ‘close’, or, to be more exact, ‘tight’.

4.3. Detecting incongruous renditions of two mental sides of the linguistic sign

Having evaluated the selected quotations, an attentive semiotician who is trained in the distinction between the physical domain of observable concatenations of facts or processes and the logical domain of inferable associations linking related factual or processual phenomena, may

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1 The following usage of the terms physical domain and logical domain has been adapted, in an entirely modified version, from Victor Huse Yngve (1996: 209–210) against the background of empirical and rational semiotics.
find out that Baskin’s terms in English, *signified* and *signifier*, could be considered rather as standing quite close to the translational equivalents of Lommel’s terms in German. Comparing, however, *Bezeichnetes* and *Bezeichnung* (*Bezeichnendes*), from the translated text with *Bezeichnetes* and *Bezeichnendes* from the graphical depiction of the twofold sign as presented in Figure 2.1., he could expect also a word-for-word rendering of French *signifié* and *signifiant* by ‘signified’ and ‘signifying’ in English. He might also come to a conclusion that *signifiant* in French and *Bezeichnendes* in German represent a gerund form derived from the verb and functioning as a noun. As a matter of fact, *signifier* and *signifying* are two different word forms. The grammatical category, to which the word *signifier* belongs, is an ad-verbal noun composed of the word stem *signif-* (from the word basis *signify*) and an inflectional affix -er. Accordingly, in confrontation with the French original and Lommel’s translation into German, Baskin’s passage might have been formulated as follows: “I propose to retain the word *sign* to designate the whole and to replace *concept* and *sound-image* (*acoustic image*) respectively by *signified* (*signifying*) and *signifier*...”.

Nevertheless, against the background of semiotic tradition, one has to regard Harris’ replacement of Saussurean terms *signifié* and *signifiant*, by *signification* and *signal* as epistemologically incommensurable. A potential reader or participant of educational discourse is to be made aware that the word *signification* connotes, without a doubt, an act of indicating an object in the domain of reference, that is, the process of referring to meaning, content, importance or sense of a given sign; whereas *signal* implies a token of a concrete type of the sign which evokes feelings, reactions of sign-utilizers or indicates either an observed or concluded representation of its object of reference in the extrasemiotic reality. Hence, the difference between *signification* and *signal* lies in their belonging to two different existence modes of the signifying and the signified parts of the sign; exactly saying, to the logical domain of rational associations and the physical domain of verbal behavior. But the same cannot be said about the imputed meaning of ‘signified’ and ‘signifier’ (eventually ‘signifying’) as translational equivalents of *signifié* and *signifiant*. Compare the selected quotations:

[III]

Nous proposons de conserver de mot *signe* pour désigner le total, et de remplacer *concept* et *image acoustique* respectivement par *signifié* et *signifiant* ; ces derniers termes ont l’avantage de marquer l’opposition qui les sépare soit entre eux, soit du total dont il font partie. (Saussure 1922: 99)

Ich schlage also vor. Daß man das Wort *Zeichen* beibehält für das Ganze, und Vorstellung bzw. Lautbild durch *Bezeichnetes und Bezeichnung* (*Bezeichnendes*)
ersetzt; die beiden letzteren Ausdrücke haben den Vorzug, den Gegensatz hervorzuheben, der sie voneinander trennt und von dem Ganzen, dessen Teile sie sind. (Saussure 1931: 78–79)

Figure 2.1. Hermann Lommel’s translation of Saussurean signifié and signifiant

I propose to retain the word sign [signe] to designate the whole and to replace concept and sound-image respectively by signified [signifié] and signifier [significant]; the last two terms have the advantage of indicating the opposition that separates them from each other and from the whole of which they are parts. (Saussure 1959: 67)

Figure 2.2. Wade Baskin’s translation of Saussurean signifié and signifiant

We propose to keep the term sign to designate the whole, but to replace concept and sound pattern respectively by signification and signal. The latter terms have the advantage of indicating the distinction which separates each from the other and both from the whole of which they are part. (Saussure 1983: 67)

Figure 2.3. Roy Harris’ translation of Saussurean signifié and signifiant
In concluding remarks, the necessity of an ecumenical translation is to be postulated, in which the familiarity with the scholarly traditions and the knowledge of the epistemological connotations of disciplinary-specific terms within the boundaries of competing schools of scientific thought might constitute the core of translator’s attention.

Accordingly, critical approaches to the translational praxis with special reference to the problem of epistemological positions of educational semiotics against the background of scientific heritage appear to be useful. Bearing this postulate in mind it might be advisable to replace Baskin’s term *signifier* by *signifying* as a grammatical equivalent of *signifiant* and *Bezeichnendes* and Harris’ term *signal* by *significate* as a mental equivalent of the respective term *signifier*. 
Modeling the multipolarity of semiotic objects

1. Searching for epistemological foundations of sign-and-meaning relationships in the domain of semiotic studies

The issue raised in this lecture is how to present the status of semiotic objects equalized with the sign as an entity or the unity of the sign and its reference and the nature of semiotic meaning. As has been summarized in the search for historical roots, popular conceptions of the sign and its reference or meaning that prevail in semiotic tradition are formulated either in terms of a unilateral sign in which the objects playing the signifying and signified roles are detached as separate entities or a bilateral sign whose constitutive sides, the signifier and the signified, comprise a twofold unit. Some semioticians adhere to the concept of a semantic triangle in which its three constituents form separate entities, and some prefer the concept of a trilateral sign where its three constitutive sides form a threefold unit.

Bearing in mind that the existing varieties of sign conceptions exhibit not only differences in the usage of terminology but also in the formation of their visual representations, it was indispensable to find a parameter that would contain features and constituents specific for particular approaches to their forms of being and manifestation. Having noticed that all constituents of hitherto existing sign conceptions are found within the composition of a semantic quadrangle, it is proposed to consider its usefulness as a typological matrix, which encompasses appropriate explanatory and illustrative primitives.

In the search for descriptive parameters, this lecture aims at validating the applicative value of a positivist’s sign conception, in which the sign-vehicle as a meaning-bearer is detached from its referent as a meaning. In this instance, according to the functionalist principles of abstractive relevance, the unilateral sign conception is discussed as distinguishing between the sets of individual- and normal-usage features and the mass of characteristic properties of the sign and its referent(s). And, in another instance, the emphasis is put on providing evidence about how the combined empiricist and rationalist perspectives may be useful for illustrating the multipolar nature of semiotic objects with regard their concluded essence and the observed relevance.
Another kind of distinction that can have an impact upon the number of sign conceptions depends on the answer to the question whether the sign is to be regarded as a token or a type (in the sense: a specimen or a class, an item or a kind). The distinction, however, between tokens and types concerns not only the manifestation forms of signs but also of the objects they stand for, refer to or signify, represent, evoke or indicate, namely to those objects, which are named referents.

Having reviewed the array of all known sign conceptions brought to the common denominator within the framework of a semantic quadrangle, the lecture demonstrates how its two main constituents, the broadly defined sign and its referent, as a token and type, with their collective and individual properties exclusively and inclusively, in their mental and concrete manifestation forms, may be modeled as oscillating between logical positivism, rational empiricism, empirical rationalism, and absolute rationalism.

Primary attention in semiotics is given not only to the manifestation forms of signs but also to the nature of their meaning. However, the term meaning does not stand in one-to-one correspondence to various formulations of the notional scope of the sign as a basic category of semiotics. Hence, a representative of a particular semiotic discipline has to decide which among the various specifications of meaning deserves to be treated as a semiotic concept and which should be labeled as a non-semiotic one.

2. Asking for the genus proximum of the sign among other types of semiotic objects

To distinguish the sign from a non-sign, one has to ask for its genus proximum. In this context, the well-known formula aliquid stat pro aliquo, 'something stands for something else', applied by Karl Ludwig Bühler who defined the verbal sign as “the phenomenon susceptible of sense perception, normally an acoustic phenomenon” [„das sinnlich wahrnehmbare, gewöhnlich akustische Phänomen”] (cf. Bühler 1990 [1982/1934: 25, 40]: 31, 47, see Wąsik, Z. 2003: 96), does not appear to be advantageous for the purposes of linguistics, because it requires elaborating an extensive set of differentia specifica. In order not to oscillate between various conceptions, one has to find a determining feature common for all notional scopes of the term sign. And such a proposal may be deduced from the classification of semiotic phenomena, specified as something that is recognized as it appears or as it is experienced by senses, or
sensorial *stimuli*, understood as something that excites the body and activates the mind.

The definitional properties of the sign as a cognizable *phenomenon*, as exposed in Figure 1.1., may be determined by the four positively marked levels of (i) implicative vs. non-implicative, (ii) artificial vs. non-artificial, (iii) semantic vs. non-semantic or (iv) arbitrary vs. non-arbitrary phenomena.

![Figure 1.1. A classificatory approach to cognizable and apprehensible phenomena](image)

An alternative explanation can be also made in terms of stimuli preferred by mind-and-body-centered practitioners of semiotics. As illustrated in Figure 1.2. (adapted from Wąsik, Z. 2009b: 126, 2010d: 561), one may utilize also the distinctions between: (i) associated vs. non-associated, (ii) intentional vs. non-intentional, (iii) inferred vs. non-inferred, (iv) conventional vs. non-conventional stimuli. To be more precise, in the last instance, following the usage according to which the term *conventional* is often reduced, especially in the linguistic works, to the meaning of the term *arbitrary*, i.e., free and non-motivated.

![Figure 1.2. A classificatory approach to sensorially perceivable and mentally apprehensible stimuli](image)

Taking into consideration that language is usually defined as a system of signs, one has to be aware that the notion of the sign should occupy the lowest place in the hierarchy of sensible phenomena or stimuli (cf. Wąsik, Z. 1987: 107, 2003: 97, 2005: 89, 2009b: 126, and 2010d: 561).
Figure 2. Verbal and non-verbal signs among other types of semiotic objects

Figure 2, in turn, illustrates that semiotic objects can appear in the role of:

- **index** as an implicative phenomenon (or a non-associated stimulus),
- **symptom** as an implicative non-artificial phenomenon (or an associated non-intentional stimulus),
- **signal** as an implicative artificial phenomenon (or an associated intentional stimulus),
- **appeal** as an implicative artificial non-semantic phenomenon (or an associated intentional non-inferred phenomenon),
- **symbol** as an implicative artificial semantic phenomenon (or an associated intentional inferred stimulus),
- **icon** as an implicative artificial semantic non-arbitrary phenomenon (or an associated intentional inferred non-conventional stimulus),
- **sign** as an implicative artificial semantic arbitrary phenomenon (or an associated intentional inferred conventional stimulus).

Thus, the linguistic sign may be viewed in the hierarchy of semiotic objects as an: (1) implicative vs. non-implicative phenomenon or associated vs. non-associated stimulus, i.e., index vs. non-index, (2) artificial vs. non-artificial (natural) phenomenon or intentional vs. non-intentional stimulus, i.e., indexical symptom vs. signal, (3) inferred vs. non-inferred phenomenon or semantic vs. non-semantic stimulus, i.e., signaling appeal vs. symbol, (4) arbitrary vs. non-arbitrary stimulus or conventional vs. non-conventional phenomenon, i.e., iconic symbol vs. signifying symbol.
3. On the typology of sign conceptions regarding their manifestation forms and ontological status

The varieties of sign conceptions discussed in the previous lecture exhibit not only differences in the terminology but also in the formation of their visual representations. In consideration of the need for their comparison, one has to elaborate a matrix that contains all features and constituents specific for particular approaches to their ontological status (cf. Wąsik, Z. 1998: 48, 2003: 100, 2005: 90, 2009b: 128, and 2010d: 562).

The sign = as an entity, a unity, a relation or a relational network

the relation

E = extraorganismic (concrete, sensible)
I = intraorganismic (mental, intelligible)
S = stimulus (sign-vehicle, signifier, expression)
R = reaction (referent, signified, content)

IS  IR
ES  ER

Figure 3. A matrix for the typology of sign conceptions with respect to their ontological status

Through the application of a unified scheme, as presented in Figure 3, one can expose at least seven types of sign conceptions according to their ontological status (discussed from a historical perspective in Wąsik, Z. 1995: 209–217). An overview of semiotic thought (cf. Chart 1, adapted from Wąsik, Z. 1998: 49–50, 2003: 100, 2005: 90, 2009b: 127, and in particular 2010d: 563) has shown that the manifestation forms of the sign are expressed in:

(I) the conception of a unilateral sign in which the sign-vehicle and the referent are treated as separate entities,

(II) the conception of a bilateral sign where its signifier and its signified constitute a twofold mental unity,

(III) the conception of a semantic triangle in which the sign-vehicle, the meaning (thought or notion), and the referent form separate parts,

(III') the conception of a trilateral sign where the sign-vehicle, the meaning as an interpretant generating (an)other sign(s), and the object of reference constitute a threefold unity.
Chart 1. ONTOLOGICAL VARIETIES OF SIGN CONCEPTIONS

I. The unilateral sign

\[ \begin{array}{ll}
\text{(a)} & \text{IS} \quad \text{IR} \\
\text{ES} & \text{ER} \\
\end{array} \]

II. The bilateral sign

\[ \begin{array}{ll}
\text{(β)} & \text{IS} \quad \text{IR} \\
\text{ES} & \text{ER} \\
\end{array} \]

III. The semantic triangle

\[ \begin{array}{ll}
\text{(γ)} & \text{IS} \quad \text{IR} \\
\text{ES} & \text{ER} \\
\end{array} \]

IV. The semantic quadrangle

\[ \begin{array}{ll}
\text{ES} & \text{ER} \\
\end{array} \]

I'. The sign as dyadic relation

\[ \begin{array}{ll}
\text{ES} & \text{IR} \\
\text{ER} & \text{IR} \\
\end{array} \]

II'. The sign as dyadic relation

\[ \begin{array}{ll}
\text{ES} & \text{ER} \\
\end{array} \]

III'. The trilateral sign

\[ \begin{array}{ll}
\text{ES} & \text{IR} \\
\text{ER} & \text{IR} \\
\end{array} \]

IV'. The quadrilateral sign

\[ \begin{array}{ll}
\text{IS} & \text{IR} \\
\text{ES} & \text{ER} \\
\end{array} \]

III''. The sign as triadic relation

\[ \begin{array}{ll}
\text{ES} & \text{IR} \\
\text{ER} & \text{IR} \\
\end{array} \]

IV''. The sign as tetradic relation

\[ \begin{array}{ll}
\text{IS} & \text{IR} \\
\text{ES} & \text{ER} \\
\end{array} \]
Separately noted should be also (II') the sign as a dyadic relation and (III') the sign as a triadic relation. So far, the quadrilateral sign as an entity or the sign as a tetradic relation (or a fourfold relation), i.e., a network of relationships between four “sign-arguments”, has been not postulated at all. Anyway, such types as (IV') and (IV'”) appear as admissible (when the bilateral or trilateral sign or the sign as a dyadic relation or the sign as triadic relation might be considered as theoretically admissible or justifiable). Some conceptions are distributed in semiotic works, e.g., Iα (Karl Bühler, cf. /1934/), Iβ (Aurelius Augustinus Hipponensis, c. 397–426, cf. Lecture Four, p. 91), Iγ (Wiesław Łukaszewski, 1974), Iδ (Louis Trolle Hjelmslev, {1943}), II (Ferdinand de Saussure, /1916/), II’ (Sydney MacDonald Lamb, 1991), IIIα (William of Ockham, [c. 1323]), IIIβ (Charles Kay Ogden and Ivor Armstrong Richards, /1923/), IIIγ John Lyons, 1968), IIIδ, and IV (Pierre Guiraud, [1971]). Some others are potential or occur as parts of other conceptions, as, e.g., I(δ) within II, and Iβ within IIIβ, Iγ within III(γ). However, do not fit within the proposed framework, but may be explained in terms of accepted primitives, the conceptions of (III') the trilateral sign (Gottlob Frege, 1892, Charles Sanders Peirce, c. 1897, discussed in Lecture Four, p. 86–87), and (III') the sign as a triadic relation (Charles Sanders Peirce, c. 1897).

\[
\begin{array}{c}
\text{○} = \text{individual properties of } S \text{ as the } \\
\text{sign or the sign as a token} \\
\text{□} = \text{individual properties of } R \text{ as the } \\
\text{referent or the referent as a token}
\end{array}
\]

![Figure 4a. The sign and its referent as constituents of a semantic quadrangle](image)

Bringing the explanatory and illustrative primitives to a common denominator, as illustrated in Figure 3, above, and Figures 4a and 4b respectively (after Wąsik, Z. 1996: 290, 1998: 51, 2003: 102, 2005: 91, 2010d: 566), one may notice that all ontological varieties of sign conceptions embrace four elements of (IV) a semantic quadrangle, namely: (1) an externalized repraesentans (i.e., the externalized signifying object as a concrete sign), (2) an internalized reflection of the repraesentans (i.e.,
the internalized signifying object as a mental sign), (3) an externalized *repraesentatum* (i.e., the externalized signified object as a concrete referent), and (4) an internalized reflection of the *repraesentatum* (i.e., the internalized signified object as mental referent).

Chart 2a. *SIGN AND REFERENT IN Multipolar Relationships*

(A) Concrete *sign* stands for concrete *referent* = ES implies ER

```
| IS | IR |
```

```
ES  ER
```

(B) Concrete *sign* triggers mental *referent* = ES implies IR

```
| IS | IR |
```

```
ES  ER
```

(C) Mental *sign* is referred to concrete *referent* = IS implies ER

```
| IS | IR |
```

```
ES  ER
```

(D) Mental *sign* is linked to mental *referent* = IS implies IR

```
| IS | IR |
```

```
ES  ER
```

With respect to mutual relationships between the constituents of this semantic quadrangle in question, which have been illustrated in Chart 2a and furthermore Chart 2b, one may notice four kinds of ontological implications in the observed and inferred reality, namely:
(A) A sensible extraorganismic sign implies its sensible extraorganismic referent, i.e., ES⇒ER, rendered as concrete sign and concrete referent;
(B) An intelligible intraorganismic sign implies its sensible extraorganismic referent, i.e., IS⇒ER, rendered as mental sign and concrete referent;
(C) A sensible extraorganismic sign implies its intelligible intraorganismic referent, i.e., ES⇒IR, rendered as concrete sign and mental referent;
(D) An intelligible intraorganismic sign implies its intelligible intraorganismic referent, i.e., IS⇒IR, rendered as mental sign and mental referent.

In the context of the notion of signs, which function as meaning-bearers in the domain of other semiotic objects, as heterogeneous presents itself the notion of meaning, which should be, therefore, discussed separately.

4. The sign and its referent as a token and/or a type within the framework of a semantic quadrangle

Another kind of distinction that can have an impact upon a number of multipolar relationships between constituents of sign conceptions depends on the answer to the question whether the sign is to be regarded as a token or a type (in the sense: a specimen or a class, an item or a kind). The distinction, however, between tokens and types concerns not only the manifestation forms of signs but also of the objects they stand for, refer to or signify, represent, evoke or indicate, namely to those objects, which are named referents.

In a much-generalized way, it is initially assumed that the main task attributed to signs consists in representation. In order to state what the representation of a certain sign is, one has to determine the status of the representans to which it corresponds, i.e., whether it is localized on the level of indication, signalization, symbolization, or signification. Specifying, for example, the concept of a verbal sign (a word, a name, a locution or a text element, and the like) for the needs of language sciences, one should rather opt for its narrow understanding on the level of signification, i.e., as an arbitrary semantic intentional associated stimulus.

It is a matter of epistemological preferences as to what names are ascribed to the constituents or the entities of the domain of signification. They may be specified either as the signifier and the signified or as sign
and referent, *repraesentans* and *repraesentatum*, *significans* and *significatum*. They may be also treated separately as sign and designate, sign and significate or name and designate (*nominatum*, *signum* and *significatum*, *signum* and *referred*, *designator* and *designatum*, and the like). To avoid adherence to any psychological or logical conception, it might be appropriate to use the term *referent* for the *repraesentatum* of the sign as relatively unmarked. In disciplined usage, the term *designate* entails the counterpart of a name considered under the aspect of truth, and *significate* connotes rather the meaning of an abstract correlate constituting the *raison d’être* of the sign.

![Diagram](image)

Figure 4b. The sign and its referent as a token and a type in a unified scheme of the semantic quadrangle

Taking for granted that “signs” and their “referents” – either real or fictitious, sensible (corporeal) or intelligible, observed or concluded – constitute objects, in the philosophical sense, manifesting themselves as tokens and/or types, they may be explained within the framework of a unilateral sign conception according to Karl Bühler’s view (/1934: 223–234/) as constituents of a semantic quadrangle (cf. the respective terms in Figure 4, adapted from Wąsik, Z. 1996: 290).

However, the relationship between “signs” as tokens and types, as singular tokens, or as abstract types and their “referents” as tokens and types, as singular tokens, or as abstract types, are more complicated when they appear in 3 x 3 kinds of combinations (as has been shown in Figure 5).
The potential relations: a, b, c, d, e, f, g, h, i (which are shown in Figure 5) may be multiplied by the four kinds of possible unilateral sign conceptions: A, B, C, D (cf. Chart 2a and 2b) and interpreted within the framework of a semantic quadrangle.

Thus, one can expose in reality 36 kinds of combinations between signs and their referents, as extraorganismic objective or intraorganismic subjective tokens and/or types, inclusively or exclusively, as one may deduce from Chart 2b presenting an epistemological overview of signs and their referents according to their multipolar relationships (cf. Wąsik, Z. 1996: 291–292).

Chart 2b. SIGN AND REFERENT IN MULTIPOLAR RELATIONSHIPS

(A) Concrete sign stands for concrete referent = “ES ⇒ ER”
(B) Concrete sign triggers mental referent = “ES $\Rightarrow$ IR”

(C) Mental sign is referred to concrete referent = “IS $\Rightarrow$ ER”

(D) Mental sign is linked to mental referent = “IS $\Rightarrow$ IR”

As one may figure out from Charts 2a and 2b in comparison with Chart 1 (cf. Wąsik, Z. 1998: 52–53, and 2003: 103), depending on the choice of an epistemological position the relationships between the con-
stituents of the unilateral sign, selected as a matrix, namely the sign and its referent may oscillate between: (A) logical positivism, referential anti-psychologism = concretism, (B) rational empiricism, psychological logicism = moderate psychologism, (C) empirical rationalism, logical psychologism = moderate psychologism, and (D) absolute rationalism, extreme psychologism = mentalism.

5. Semiotic and non-semiotic concepts of meaning

In view of the fact that a number of sign conceptions does not correspond to the number of the definitions of meaning (cf. Wąsik, Z. 1987: 121, and 2003: 104–105), semioticians often resign from using the term meaning while replacing it by other synonymous expressions, as, for example, sense, importance, reference, value, or significance. They know, as a matter of fact, that how to specify the essence of meaning depends on the choice of answers given to the following instances of questions:

(1) whether the meaning is a process or a product, a token or a type, and, as such, whether it is ideal or real, abstract or concrete, concluded or intentional, objective or subjective;

(2) whether the meaning resides in the signifier side or in the signified side of the sign, and, as such, whether it constitutes a part or a whole, and furthermore, inherent or relational properties of the sign or its referent;

(3) whether the meaning is to be detected from extrospective or introspective observations of the effects the sign causes upon feelings, reactions or behavior of the sign users;

(4) whether the meaning should be concluded from the interrelationships among signs and/or between signs and their referents, signs and their users, signs and their contexts of use, and/or among the users of the signs (cf. Wąsik, Z. 1987: 121, and 2003: 104–105).

To answer these questions, it is necessary to state the meaning of what kind of semiotic objects one is interested in, and for what particular aims. One should determine the context and domain in which the meaning manifests itself, i.e., in the realm of humans only, in the realm of all living systems, or in the universe of all possible sign processes, including extraterrestrial and divine. Being, for example, interested in the meaning of verbal signs, one should be aware of the fact that to select this definition from a variety of proposals, it is necessary to commit oneself to a certain epistemological position regarding the ontology and gnoseology of
the subject-matter in question, which should be determined as meaning-
ful “in itself” or “for someone”, or in relation to something, etc.

Semioticians of language have at their disposal an extensive list of
meaning conceptions (for references to primary and secondary sources
see Wąsik, Z. 2003: 105–106). This list may be summarized through the
following ascertainments and enumerations.

For those who adhere to the positions of nominalistic philosophy
meaningful is (cf. Schaff 1961, and 1970: 120–122, and Jacek Juliusz

(i) the mere name of an abstract idea or of a mental concept, or of a
complex of common properties assigned to individual referents.

Followers of Plato (c. 427–347 B.C.) working within the framework
of idealistic realism believe that the meaning exists (cf. Holger van den

(ii) as an abstract idea independently of corporeal referents.

Conceptualists (adhering to the compromise between realism and
nominalism and regarding universals as concepts), in turn, identify the

(iii) a set common properties subjectively attributed to individual
referents of the sign.

Similarly, associationists, basing on the philosophy of John Locke
(1975 /1690/), are convinced that the meaning is (cf. Pelc 1982: 233):

(iv) an idea or an image of the referent which is formed in the
thought of the users of a sign.

Classical, at a related point, are the distinctions between connota-
tions vs. denotations, intensions vs. extensions of the sign, derived from
the logic of John Stuart Mill (1843), when opposing conformism to refer-
entialism, according to which the meaning might be attributed to:

(v) a set of common properties of the type of referents (cf. Pelc 1982:
240, and Jadacki in: Sebeok (ed.) 1986: 1139) or

(vi) a set of referents belonging to the same type, qualified as a mean-

Respectively, for the followers of concretist or mentalist connection-
ism meaningful is (cf. Weisgerber 1929: 34, 178–179, and Zinovyev 1973:
15–16):

(vii) a relation between the sign and its referent, between the signi-
fier and the signified of a twofold mental sign, or the mere fact that
such a relation exists where the sign represents (designates) certain objects, and the semiotician knows which ones.

Besides, in the context of sign-processing and sign-interpreting activities of cognizing and communicating subjects, the meaning is identified with:

(viii) the translatability of a sign into other signs, as one may deduce from the philosophical thought of Gottlob Frege, Charles Sanders Peirce.¹

Likewise, not to be omitted is the view of phenomenologists who state that the meaning is:

(ix) a reference to all emotional and cognitional processes of the sign users directed toward intersubjective and intentional objects, deduced, *inter alia*, from the works of Edmund Gustav Albrecht Husserl (1970 [1913 /1900/], 1970 [1913 /1901/], and 1970 [1913]) or Roman Ingarden (1973 [1931]).²

Practitioners of communication studies put forward, after Wilfrid Stalker Sellars (1974),³ the concept of the meaning:

(x) “as a functional classification”, which aims at a functional specification of the system of rules, consisting of all permissible moves made at various levels and dimensions of conceptual activities of communicating individuals that govern the role of a verbal sign in the language and behavior of a linguistic community.

Moreover, representatives working in the pragmatics of speech communication promote also the understandings of the meaning:

(xi) as a mode of how to use the sign, following the proposal of Ludwig Josef Johann Wittgenstein (1922 [1921], 1953 [1953]), or else (cf. Ranjit Chatterjee in: Sebeok (ed.) 1986: 1164),

(xii) as a disposition how to react to the sign or to its designate with reference to logical behaviorism represented by Charles William Morris (1964, and 1975 /1938/).⁴

¹ See the view of Frege’s 1892: 100) and Peirce’s (around 1897) concepts of triadic signs, as discussed by Umberto Eco (1979 /1976/: 60–61) and commented by Joseph Ransdell (see in: Sebeok (ed.) 1986: 675–681).
² Discussed extensively among the other enumerated concepts of meaning by Jerzy Pelc (1982: 289–294).
Representatives of connectionist contextualism, in the same way as Adam Schaff, a Polish philosopher, expose the relational view of the meaning (cf. Schaff 1960: 321, 374 or 1961: 614):

(xiii) as a structure or a reflection of the relations among signs in a given system, between signs and objective reality, sign users and signs, sign users and objective reality, and among sign users themselves.

Promising is also for the followers of “multimodal logic”, put forward by Richard Montague (*intern alia* 1974 /1970/), and the continuators of “truth-conditional semantics”, developed by Donald Herbert Davidson (1984 /1967/), the relative conception of the meaning:⁵

(xiv) as a set (or a class) of all possible worlds in which the given utterance of a verbal sign is true.

6. Concluding remarks

In the investigative domain of semiotics, there are various meaning-bearers, produced and interpreted by communicating subjects. As such, semiotics has a status of an interdisciplinary investigative perspective, utilizing the achievements of traditionally recognized disciplines, which place among their descriptive categories the notions of sign and meaning, and more broadly means and processes of communication. Included into the realm of semiotic objects, verbal expressions that bear certain meanings are to be considered from the perspective of their users, producers or receivers as correlates of certain functions, values or contents deduced from the domain of their references.

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Meaning as a subjective construct

1. Experiential and communicational sources of subjective knowledge

In this lecture, a logical-philosophical approach to meaning-carriers or meaning-processes is juxtaposed with the anthropological and biological conceptions of subjective significance unifying the semiotics of culture with the semiotics of nature. Special attention is paid to practices and patterns of meaning-creation and meaning-utilization in social interactions. The subject matter of the domain studied by human semiotics is specified in terms of sign- and meaning-processing and sign- and meaning-interpreting activities of communicating selves who utilize the objects found in their subjective universe as functional tools or valuable goods of culture. The roots of such subject-oriented conceptions of sign and meaning will be traced in the, praxeological, i.e., function- and purpose-oriented or the axiological, i.e., value- and need-oriented view of culture.

Thus, exposed in a human-centered theory of culture is the role of a subject who acts as a meaning-utilizer or meaning-evaluator, and who nominates and subsumes the objects of culture as signs of purposes or needs. With regard to the semiotic activity of human beings a proposal is put forward to distinguish two forms of meaning-nomination and meaning-subsumption, either from the viewpoint of praxeosemiotics or axiosemiotics. Praxeosemiotic nominations and subsumptions are connected with the ascription of functions to the objects hitherto as being useful for certain purposes, and the axiosemiotic nominations and subsumptions result in the transfer of products and behavior of people to the realm of cultural objects with respect to their goodness.

Subjective and intersubjective sources of meaning are additionally discussed in the light of constructivism. When similar schematic constructs come into being in the minds of members of a certain linguistic community, as a result of recurring interactions, it is understandable that they find reflections in the commonalities of the expressions of meaning-bearers. One can suppose that people integrate with each other individually on the basis of observable verbal means of expression and in accordance with inferable comprehension of meaning-bearers.
2. Anthropological and biological foundations of human semiotics


However, the information base on the semiotic paradigm of linguistics had to be extended against the background of recent trends that appeared in the non-linguistic sciences of sign and meaning. In the meantime, a new neuroscientific turn had emerged unifying the frameworks of scholars in the domain of biology, psychology and anthropology, philosophy and even arts around the philosophy of mind and consciousness (cf. Andrade Perez 1999; Brier 1999, 2000; Emmeche 1999; Stjernfelt 1999).

Abandoning a dualistic distinction between body and mind biologically inclined scientists started to speak in favor of a monistic notion of the “embodied mind” (cf. the works of Emmeche 1992; Emmeche & Hoffmeyer 1991; Hoffmeyer & Emmeche 1991; Hoffmeyer 1996 [1993]). Worth noticing is the topic of the conference at Bennington College in Vermont in early November 1999, which focused on the embodied mind and the Baldwin effect. Philosophers of biology, semioticians, brain/mind specialists, and communication theoreticians convened there to evaluate the relevance of the suggestion of James Mark Baldwin (1861–1934, an American psychologist), concerning the idea of adaptive evolution (cf. Baldwin 1896), according to which “the ability of individuals to learn can guide the evolutionary process” (Kull 2000: 46). A detailed account is provided by David Depew (2000: 7):

The general idea of the Baldwin effect is that learned behaviors can affect both the direction and the speed of evolutionary change. If an organism chances during its lifetime to acquire habits or exhibit behaviors which permit more effective interaction with its environment, ... it will probably leave more offspring. If, moreover, by means of directed habituation, imitation, and other forms of learning it can pass that innovation along to offspring, relatives, and other organisms with which it is socially interactive, then descendents of such individuals or groups will on the whole do better reproductively in a given environment than individuals and groups not possessing the forms of habituation and learning in question. If protracted over transgenerational time, ... this process will shift the phenotypic trait
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distribution in the population toward a preferred, but from the perspective of inherited factors, only permissible plasticity of behavior in the face of environmental change.

Worth mentioning here is the biological concept of “embodied semantics” derived from interactions between organisms and their natural and cultural environments, i.e., subjective knowledge gained through sensory actions in cognition “embodied in the lived histories of organisms, their communicative, cultural and linguistic practices” (Foley 1997: 177). Enactionism is a perspective related to the subjective enactment of the world in sensory cognition or “the meaning as enaction”, has recently been developed by a representative of anthropological linguistics, William A. Foley (1997), within the framework of biological and cognitive studies on man. It is based on an enactive approach to meaning, understanding and cognition proposed by Chilean biologists Humberto Romesín Maturana and Francisco Javier Varela Garcia (1980, 1987) and continued later in the works of Francisco Javier Varela Garcia, Evan Thompson, and Eleanor Rosch (1991).

Besides, exploring bridges between biological and cultural studies within the framework of semiotics, researchers (inter alia, Biltz 1981; Ingold 1989, Kull 2000) started to pay more attention to comparative studies of habits and behavior of humans and animals. Still other subjects have evoked the interest of the practitioners of semiotic disciplines (e.g., Ingold 1992, 1999 /1996/; Teherani-Kröner 1996; Kull 1998b; Nöth 1996, 1998, 2001a, 2001b; Coletta 1999) within the span of the last two decades: social behavior in animals, animal and human ecology, cross-cultural studies, agricultural ecology, environmental policy, etc.

Theories of sign and meaning that originate from an anthroposemiotic view of culture (cf. Eco 1979 /1976/: :22–29, 177 as well as Pietraszko 1980 and 1982: 139) might be confronted with biosemiotic approach to nature of Jakob von Uexküll (1982 [1940]) and the son of Jakob, Thure von Uexküll (1970, 1979a, 1979b, 1982a 1982b, 1984, 1987 /1981/, 1990, 1992, 1993), bridged by the common framework in which the sign is regarded as a type of object of nature or culture, where the meaning tends to be specified as a relational property attached to this object by a subject. In such conceptions, the emphasis is on the interpretative activity of the subject who subsumes the objects as significant. Firstly, when they fulfill certain functions with respect to his or her aims, goals or purposes or secondly, because they possess certain values for

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1 Contemporary views of what cognitive semiotics is are best summarized in an exhaustive paper of Jordan Zlatev (2011).
satisfying his or her needs, desires and/or expectations (cf. Wąsik, Z. 1987:124–131).

Respecting the fact that over fifty years ago, Alfred Louis Kroeber and Clyde Kluckhohn (1952) in their book *Culture: A Critical Review of Concepts and Definitions*, compiled a list of 164 different definitions of culture equalized either with the process of civilization or with the cultivation of uniquely human faculties of taste, reason, values, and intellect, this lecture will expose only those anthropocentric conceptions of culture which regard it as an integrated system of human activity or institutions that satisfy human needs and fulfill social requirements or a system of patterns and norms of behavior which is respected by individuals or groups participating in social interactions.

Not to be forgotten are also proposals advocating another existence form of sign and meaning, which can be concluded from the view of culture as final effect of learning. As such, the semiotics of culture is assumed as consisting in the knowledge of people, i.e., in a directly unobservable ideational order. Being called the culture proper, the ideational order is distinguished from the phenomenal order of perceivable events along with their concluded regulations. In other words, the latter are subsumed under a materialistic behavioral manifestation of culture. However, system- and structure-oriented semioticians of culture who adhere to the heritage of instrumentalist linguistics prefer to devote their attention to the rules generating the sphere of the so-called cultural texts and their (significative) functions (cf. “Theses on the Semiotic Study of Culture” at Tartu University, summarized by Peeter Torop 1999; see also Uspensky, Ivanov, Toporov, Piatigorsky, Lotman 1973 [1973]; Lotman 1974, 2005 [1984]).

2.1. Semiotic-communicational view of culture

In the introduction to his theory of semiotics, Umberto Eco (1979/1976/), an Italian philosopher and literary writer, takes for granted that culture, as a whole, should be investigated as a communicational phenomenon based on systems of signification. Eco explains how meanings and their systems develop in human culture in terms of the creation of tools and the exchange of commodities.

For Eco, there was no culture before, even when an *Australopithecus* transformed a stone into a tool for the purpose of splitting the skull of a baboon. As he maintains (Eco 1979: 22), culture was born just when a human being (I) determined the function of the stone, (II) started to call it “a stone that serves for something”, and (III) recognized it as that kind of
stone that corresponds to the Function $F$ and that has the Name $Y$ (cf. Figure 1, adapted from Eco 1979: 23).

Having encountered the particular stone $S$-token 1 and having used it as a means for performing a certain Function $F$, Australopithecus comes some days later upon a second stone $S$-token 2, which he recognizes as a representation of the same type. The mere ability of subsuming $S$-token 2 along with $S$-token 1 into an abstract model $S$-type standing for the same Function $F$ is a semiotic activity of ascribing meanings to encountered functional forms, i.e., sign-vehicles.

In Eco’s depiction, a new semiotic dimension has been added to this process of cultural meaning-creation when the possibility exists of giving a name to that general type of object, i.e., the stone as a tool. The name denotes the stone-type as its meaning and connotes the function $F$ in particular that is performed by stone-tokens as signifiers.

Whoever uses the object called $S$-token 1 for the first time must consider how to transfer the new acquired meaning, a new type of information namely that it stands for $F$, from this time to the next day. Thus, a name given to it seems to be an appropriately elaborated mnemonic device, which mediates between cultural objects and their possible functions.

Thanks to the exchangeability of sender-and-receiver roles, the cultural object may also become the content of potential intrapersonal communication. The transmission of knowledge from an individual of today to the same individual of tomorrow and to other individuals of the same human kind contributes to the fact that, within a society, every function of an object becomes transformed into the sign of its virtual use.
In a similar way, Eco applies semiotic concepts to the analysis of economic relationships that govern the exchange of commodities. What Eco assumes, the same cultural objects, which are discussed as functional types in Figure 1, may be considered as commodities $C$-token 1 and $C$-token 2 in accordance with their exchange value $EV$ (a process shown respectively in Figure 2, adapted from Eco 1979: 25).

In accordance with Eco’s reasoning, the economic relationship between the objects exchange in the culture as commodities (belonging at the same time to different types) becomes significant in reality when the value of these commodities is expressed within the same exchange parameters elaborated in a particular culture.

Based on the distinction used by Karl Marx in *Das Kapital* (cf. Marx 1867, 1885, 1894), the exchange value parameter $EV$ may refer back, in Eco’s view (1979: 25–26), to human labor $HL$ as being indispensable to for the production of both $C$-token 1 and $C$-token 2. All commodities can be correlated through the more sophisticated cultural device of money $C$-type, i.e., another type of commodity, which functions as a universal sign of $EV$ expressed in quantities.

![Diagram](image)

Figure 2. The signifying relationship between human labor, money as a commodity-type and the exchange value of commodities

The objects, stones and commodities, illustrated schematically in Figures 1 and 2 have been analyzed only with respect to their singular function. However, within the representation of culture in its totality, one should take into account every possible function of a given object, its

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2 The origins of the distinction between human labor and exchange value can be traced back to Marx’ 1857 *Grundrisse* manuscript, where in “The Chapter on Money (Part II)” he already distinguished between particular labor and general labor, contrasting communal production with production for exchange (see Marx 1973 [1953 /1857]).
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According to Eco (1979: 26–28), every cultural aspect should be considered as a separate semantic entity. The systems of cultural significa
tion should be analyzed in terms of semantic fields established for the structures of sign-vehicles in their multidimensional semantic analysis. He illustrates the multidimensionality of semantic analyses of cultural objects with the example of “automobile”. “Automobile” is to be analyzed not only as a semantic entity, which is connected with the sign-vehicle, e.g., /automobile/ in English. “Automobile” becomes a full semantic unit having many aspects when it is placed on the axis of oppositions and relations with other units. It can be opposed to “carriage” or “bicycle” or “feet”, when one distinguishes between different kinds of transportation, for example, “by car” vs. “on foot”, etc. “Automobile”, as such, can be analyzed from different perspectives or considered on differed levels, physical, mechanical, economic, social or linguistic (semantic), etc. Thus, semiotics is interested in such levels, on which the car is treated as a sign-vehicle of certain value, for example, utility and/or symbolic value when they designate the social status and/or prestige of its owner, when they co-determine the comfort, speed of ride, etc. Similarly, as in the verbal communication where the sign-vehicle of the type /automobile/ can become the meaning of another sign-vehicle of the type /car/, the exchange value of one cultural good can become the meaning of some other goods that are to be also found in the code of cultural semiotics.

2.2. On the origins of axiosemiotics as a study of signs in relation to values of objects in the domain of human culture

In addition to the definition of culture as a class of rules generating the sphere of so-called cultural texts with their significative and communicative functions, one should also highlight a distinction of two orders in the system of culture, the semiotic and the “axiotic”, which were postulated under the label of axiosemiotics by Stanisław Pietraszko (1928–2010), the founder of cultural studies in Poland.

In the light of Pietraszko’s (1982: 139) distinction, culture is seen as a system of axiosemiotic regularities occurring between the values and meanings that condition and determine the modes of human life, and that become realized (materialized) in the sphere of products and the behaviors of people. Pietraszko regards the axiosemiotic activity of humans as an ascription of new values and meanings to objects hitherto known as cultural or natural. The ascription of new values to objects by the subjects of culture contributes to the creation of new things in an
epistemological sense and transferring them to another class of reality. In the case of the acquisition of new meanings, a new value-related situation takes place in their relation to cultural subjects. The “axiosemiotic nomination” of things, resulting in the transfer of products and behaviors of people to the realm of cultural objects, is not always taking into consideration their utilitarian role. An object can possess, apart from its functionality, an axiological significance given to it through the ascription of a certain value. Accordingly, an “axiotic” act (Pietraszko’s term) may be accompanied by a semiotic act when a cultural object enters into a new relation with the subject of culture (see Pietraszko 1980: 60, 66–69, discussed and quoted by Wąsik, Z. 1987: 130–131).

2.3. A need-oriented concept of meaning in the subjective universe of living organisms

Viewing semiotic approaches to culture from function-oriented and value-oriented perspectives, one can see, in consequence, the necessity of finding a superior frame of reference. It appears that the ascription of meaning to objects having certain functions or values is not only a *modus operandi* that might be regarded as exclusively characteristic of human subjects.

The semiotics of culture may be also highlighted by using the distinctions of the semiotics of nature, in accordance with the representatives of the so-called *Umwelt-Forschung*, who adhere the Uexküllian concept of meaning. Jakob von Uexküll investigated how living organisms perceive their environment and how this perception determines their behavior. He called his investigative method *Umwelt-Forschung*. In 1926, he founded the *Institut für Umweltforschung* at the University in Hamburg. The term *Umwelt*, in the sense of the subjective world of an organism, was coined in his book of 1909, *Umwelt und Innenwelt der Tiere*, and the idea of functional circles (Germ. *Funktionskreise*, which used to be translated into English as “functional cycles”), cf. as illustrated in Figure 3. Jakob von Uexküll added in the 2nd edition of it in 1921.

As Kull points out (1999: 390), “in his article of 1907 he still uses the term *Milieu*, as different from *Außenwelt*”. Worth mentioning here is the term *die Eigenwelt des Menschen* proposed by Hans Petersen (1937). Interesting is the comparison of *Umwelten* to “soap bubbles” (Uexküll, T. 1982b: 3) in the context of “environmental pipes” (*Umweltröhren*) introduced by Jakob von Uexküll (cf. 1973 /1928 {1920}: 70, 108)). The first one refers to the environment of a living organism at a given moment as a circle (*Funktionskreis*), and the latter is meant to illustrate the
sequence of all environmental circles that this organism has to pass throughout its whole life being understood as a determined journey.


According to this investigative attitude, which has been labeled as biosemiotism – in accordance with the term specified by Thomas Albert Sebeok (1974) and extended by Martin Krampen (1981, 1992), being popularized by Sebeok (1989/1979/) with reference to Jakob von Uexküll’s theory, as well as Anderson et al. (1984), Kull (1998a, 1999),
and Hoffmeyer (1997, 1998) and Marcel Danesi (2000), all living systems take part in the process of creating and utilizing meaning. At the outset, even the simplest forms of life, the unicellular systems, have the ability to respond to external impulses through species-specific reactions characteristic of each individual being. Conclusively, as opposed to products and commodities, all living organisms, because of their capability of meaning creation and meaning utilization, are to be exclusively treated as autonomous systems (cf. Uexküll, T. 1982b: 7).

Plants and animals share the capacity to sort stimuli, encoding them as signs. Self-regulating processes, called homeostasis, play an important role in their individual development, which ends in death. Living systems tend to maintain their internal stability through interactions with the environment, owing to the coordinated response of their parts to any situation or stimulus that might disturb their normal condition or function. Within such a framework, from a biosemiotic perspective, according Thure von Uexküll (1984: 188): “A sign is something that signifies to the activity of a living system something that has significance for the maintenance of the structure, the homeostasis of this system (its system needs)”. This view is also supported by the following explanatory statement:

In order to realize my purpose of translating Peirce’s formula into a concept of biological relationship, I shall have to consider two factors: (1) When a living system is the ‘somebody’, the subject, for whom signs and their significates have a meaning, it is materially an open system ... It retains its structure, its homeostasis, in open exchange with its environment. (2) Living systems are active system. They maintain their homeostasis by their own activity. (Uexküll, T. 1984: 188)

The structure of semiotic processes looks different in the realm of plants, described by phytosemiotics, from the way it looks in the realm of animals, which belongs to the descriptive domain of zoosemiotics. In comparison to animals, plants do not have a nervous system for processing signifiers and they have no specialized effectors for acting on something that is signified. So, the structure of phytosemiotic processes should be described, as Thure von Uexküll (1984: 188–189) points out, in terms of cybernetic relations. In accordance with these relations, a change in the homeostasis of the system caused by its environment or its own metabolism deviating from its reference value means for the system a need for activity to restore the substances necessary to maintain its homeostasis. In the realm of zoosemiotics, living systems have specialized receptors for receiving signs, a nervous system, that processes them, and specialized effectors, which exert an influence upon something that is signified. Hence, within the functional circle of animals "A perceptual
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sign (e.g., a smell of food)” can be defined as “something that signifies to the living system the need for an activity – its behavior – that has significance for its hunger-needs (e.g., obtaining a food object)” (Uexküll, T. 1984: 189).

According to Thure von Uexküll (1984), the organisms of animals possess such a level of complexity that simple phytosemiotic sign processes are included in the zoosemiotic sign processes. This means that when a food object appears within the subjective universes of animals, it only creates the conditions for phytosemiotic processes within their bodies. The grasping and eating of a food object create in the gastrointestinal tract the conditions for the activation of the phytosemiotic processes that signify to the intestinal cells that they must absorb the needed substances. The object “food” contains carbohydrates, fats, and proteins – the signified “some-thing” for these phytosemiotic signs.

Discussing the biosemiotic conception of meaning in its relation to the anthroposemiotic theory of culture, we have restricted our interest to the so-called Umwelttheorie of Jakob von Uexküll (1982 [1940], cf. also 1921 /1909/), in the light of which certain objects can be said to possess an “ego quality”. In this subject-oriented theory the understanding of what the meaning is, with reference to the role of a meaning-receiver and/or meaning-utilizer, receives primary attention. In the realm of biosemiotics, the sign is described as something that has a meaning for someone because of something. Certain objects from the environment can become and function as meaning-carriers when they possess the qualities which are significant for the fulfillment of subject-related needs, as, e.g., “drinking-quality”, “eating-quality”, “sitting-quality”, “obstacle-quality”, “climbing-quality”, etc. (cf. Uexküll, J. 1982: 28 and passim)

Analyzing examples provided by Jakob von Uexküll, one may consider the use of the stone in the following situation:

Let us suppose that an angry dog barks at me on a country road. In order to drive it off, I pick up a stone and frighten it off with an adept throw. Nobody who observes this process and afterwards picks up the stone would doubt that it was the same object ‘stone’, which first lay on the road and then was thrown at the dog (1982: 27).

As Jakob von Uexküll (1982: 27) points out, analyzing the semiotic situation of the stone in relation to the man and the dog: the physical and chemical properties of the stone have remained the same but the object itself has been transformed into another kind of object, because it has changed its meaning. As long as it was part of the country road, the stone served as support for the walker’s feet.
In his second example, Uexküll (1982: 28–29) notices that what possesses certain meanings for people happens to be neutral objects in the subjective universe of dogs can. Thanks to properties which can be utilized under certain circumstances, for the dog, as a house-occupant, many things in the kitchen have only a sitting-quality, a climbing-quality, or perhaps only an obstacle-quality – especially chairs and cupboards, which may contain books or washing. All the small household effects, such as spoons, forks, matches, and the like, do not exist in the world of a dog because they are not meaning-carriers. However, a great number of things will exist for the dog as far as they have an eating-quality or a drinking quality (cf. Uexküll, J. 1982: 29).

The third example, analyzed by Jakob von Uexküll (1982: 29–31) to explain his subject-oriented understanding of meaning is the blooming meadow. Even for different subjects who are in it, the meadow is not the same one can consider the role of the stem in a blooming meadow-flower, which functions as the meaning-carrier in four kinds of subjective universes, i.e., in the Umwelt of:

(1) a girl picking flowers, who gathers herself a bunch of colorful flowers that she uses to adorn her bodice;
(2) an ant, which uses the regular design of the stem surface as the ideal path in order to reach its food-area in the flower petals;
(3) a cicada-larva, which bores into the sap-path of the stem and uses it to extract the sap in order to construct the liquid walls of its airy house;
(4) a cow, which grasps the stems and the flowers in order to push them into its wide mouth and utilizes them as fodder.

In Jakob von Uexküll’s explanation (1982: 31), each Umwelt forms a closed unit, for example:

(1) the color of the blossom serves as an optical perceptual cue in the girl's Umwelt;
(2) the ridged surface of the stem functions as a feeling perceptual cue in the Umwelt of the ant;
(3) the extraction point presumably makes itself known to the cicada as a smell perceptual cue;
(4) the effector cues are mostly imprinted upon other properties of the meaning-carrier by the subject,

where respectively:

(1) the thinnest point of the stem is torn apart by the girl as she picks the flower;
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(2) the unevenness of the stern’s surface serves the ant both as a touch
perceptual cue for its feelers and as an effector cue-carrier for its feet;
(3) the suitable extraction-point that is made known by its smell is
pierced by the cicada, and the sap that flows out serves as building
material for its house of air;
(4) the taste perceptual cue of the stem causes the grazing cow to take
more and more stems into its chewing mouth.

Every act of perception and operation imprints its meaning on the
meaningless object and thereby makes it into a subject-related meaning-
carrier in the subjective universe. That is, following Uexküll’s reasoning,
“the picking of the flower transforms it into an ornamental object in the
girl’s world. Walking along the stem changes the stem into a path in the
ant’s world, and when the cicada-larva pierces the stem, it is transformed
into a source for building material. By grazing, the cow transforms the
flower stem into wholesome fodder” (quoted after Uexküll, J. 1982: 31).

In the analyzed Umwelten, the flower stem, acting as a meaning-
carrier, was in each instance confronted with a new meaning-receiver
that could also be described as a meaning-utilizer. The four meaning-
utilizers, the girl, the ant, the cicada-larva, and the cow, used the flower
stem: as decoration, as path, as supplier of material for the building of a
house, and as food, respectively. To the selected subjects, for which the
stem is the carrier of meaning, one should add the whole plant. The stem
is part of the plant. Thus, the whole plant should be treated as its subject.
However, the whole plant cannot be considered as a meaning-utilizer
when forced to receive the meaning of other subjects, which is not in its
own interest. The meaning of the flower stem within the plant is its place
in the homeostasis of the organism as system, but the plant as a subject
finds itself in relation to other utilizers of its stem in a position of “toler-
ance of meaning” (Germ. Bedeutungsverduldung). The tolerance of
meaning for other subjects can be inconvenient for the plant in different
measures, for example, when it is picked, tore to pieces, perforated or
chewed by another subject. As Jakob von Uexküll (cf. Uexküll, J. 1982:
59–60, especially 71; see also Uexküll, T. 1982: 83–87, Glossary) has
pointed out, in nature, one may encounter many situations of that kind,
when subjects and their parts become meaningful objects for other sub-
jects, when they find themselves within “functional circles” (Funktions-
kreise) of medium, food, enemy, and sex.
3. Interpretation of meaning as a nomination and subsumption of significant objects in the praxeosemiotic and axiosemiotic spheres of culture

3.1. Between purpose-oriented functions and need-oriented values

Considered against the anthropological and biological conceptions of meaning, the problems of function or value of significant objects and the needs or purposes of living subjects appears to constitute a link between the semiotics of culture and the semiotics of nature. The subject matter of human semiotics comprises in consequence those relevant properties of cultural objects which are distinguished in sign- and meaning-processing and interpreting activities of communicating individuals as functional tools or valuable goods.

Accordingly, one can distinguish two manifestation forms of semiotic nomination and semiotic subsumption of natural objects under the objects of culture, on the one hand, from the viewpoint of praxeology, and on the other, from the viewpoint of axiology. With reference to the distinctions made by Stanisław Pietraszko (1980) and Umberto Eco (1979), as well as against the background of Jakob von Uexküll (1982) biological conception of subjective meaning, culture is defined, in the following approach, as a set of regularities occurring between the signs of functions or the signs of values that become realized in non-verbal and verbal products of the activity and attitudes of human beings which co-determine and condition the modes of their life and behavior. In such a human-
centered theory of culture, the role of a subject who acts as a meaning-utilizer or meaning-evaluator, i.e., who nominates and subsumes the particular objects of nature under the types of cultural objects as signs of purposes or signs of needs are especially exposed.

In the semiotic activity of human beings, who interchangeably play the role of senders or receivers of messages, the particular nominations and subsumptions of natural objects as types of cultural objects from the viewpoint of praxeosemiotics are connected with the ascription of functions to the objects hitherto being not useful for certain purposes. In turn, the nominations and subsumptions from the viewpoint of axiosemiotics result in the transfer of products and behavior of people to the realm of cultural objects, which begin from that time on to be utilized as valuable for satisfying someone’s needs.

![Diagram of praxeosemiotic and axiosemiotic spheres of culture](image)

Figure 4. Subsumption of objects under the signs of functions or values in the praxeosemiotic and axiosemiotic spheres of culture

Thus, in such praxeosemiotic and axiosemiotic conceptions of culture, as visualized in Figure 4, the emphasis is placed on the interpreta-

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5 Praxeosemiotics, as a new term, has been used for the first time in the book of Tadeusz Wójcik (1969), devoted to the theory of the optimal sign. Its roots are to be found in Tadeusz Kotarbiński’s (1965 [1955]) conception of praxeology (or rather praxiology) as the theory of efficient action. Nevertheless, the notional content of the term praxeosemiotics introduced and modified the author (Wąsik, Z. 1997b: 348, 1998: 58 and, subsequently, 2003: 119), as a parallel term to axiosemiotics, has been merely referred to the theory of a purpose-oriented action.

6 The notion of axiosemiotics, introduced by Stanisław Pietraszko (1980) in his article „O sferze aksjosemiotycznej” [On the axiosemiotic sphere], has been developed by the author (Wąsik, Z. 1992c and 1997b) in his subsequent articles: “On the axiosemiotics of postcards” and “Verbal means as signs of human needs”. For details, see Wąsik, Z. (2003: 113–114, and, especially, 119–120).
tive activity of a “signifying subject” who subsumes the cognized objects of nature being introduced into the sphere of culture (“object-token 1” and “object-token 2”) as significant, firstly, when they fulfill a certain “function” with respect to his or her “purpose” and, secondly, because they possess a certain utilitarian “value” for satisfying his or her “need” (meant as a signaled systemic lack), desire or expectation. An object of cognition, found in the surroundings of social life-world, can possess, apart from its praxeological “significance” also an axiological “significance”.

For the aims of their specific interpretation, the particular terms, depicted in Figure 4 (adapted after Wąsik, Z. 2003: 120, 2005: 94, 2009: 132) have been defined as follows:

- **object** is a perceivable thing or event in a praxeosemiotic or an axiosemiotic sphere of culture;
- **signifying subject** is a meaning-utilizer (meaning-creator, meaning-receiver), to be understood as a subject of culture (i.e., a living system with an ego-quality), who subsumes and/or utilizes objects of culture (object-Token 1 and object-Token 2) under the object-type of either a praxeosignificate or axiosignificate;
- **praxeosignificate** is a functional object of culture, regarded as a significant tool, i.e., a sign of function;
- **axiosignificate** is a valuable object of culture, regarded as a significant good, i.e., a sign of value;
- **tool** is an object of culture which serves a certain function enabling the fulfillment of a subjective purpose of a meaning utilizer;
- **good** is an object of culture which possesses a certain value enabling the satisfaction of a subjective need of a meaning utilizer;
- **significance** is the meaning of an object of culture for the subject of culture with respect to its relevance for being subsumed under a sign of function, i.e., a praxeosignificate, or a sign of value, i.e., an axiosignificate;
- **function** is a role which is played by a tool while serving a goal-oriented purpose intended by a subject of culture;
- **value** is a relational property of an object of culture that satisfies a subjective need of a subject of culture;
- **purpose** is an aim to be fulfilled, or a goal to be reached, an end to be gained or and objective to be attained, which means for the activity of a subject of culture an impulse to utilize a tool for performing a serviceable function;
Meaning as a subjective construct

- **need** is a systemic lack of an organism to be satisfied which means for the activity of a cultural subject an impulse to restore a disturbed equilibrium in his or her biological urges, psychological wants, desires or social expectations;
- **fulfillment/satisfaction** is the utilization of a tool or a good which is significant for a certain purpose or a need of the subject of culture with respect to its function or value;
- **nomination/subsumption** is a semiotic detection and/or recognition of the object-token 1 with object-token 2 as identical with the general properties of the object-type.

As it results from the interpretation of individual constituents of Figure 4, an object of culture can possess, apart from its pragmatic functionality, an axiological significance. In the same (or similar) communicational context, a “praxeotic” act or an “axiotic” act may be accompanied by a semiotic act when a cognizing subject enters into a new relation with a cognized object. The ascription of significance to objects known before as natural or cultural with regard to their functions or values contributes, in fact, to the creation of new types of semiotic objects, called respectively, either as “praxeosignificates” or as “axiosignificates” while transferring them from one kind to another kind of reality.

However, there is no contradiction between a function- and purpose-oriented approach and a value- and need-oriented approach to language and culture. Both praxeological and axiological formulations of sign and meaning (as subjective significance), as one may deduce from the constituents of the action-oriented model of human culture, reveal only an aspectual difference between the same cultural objects which are significant for the subjects of culture either from the viewpoint of their function or value.

Having in view the analytical applicability of the praxeology- and /or axiology-oriented model of cultural “semiospheres”, while appealing to Yuri M. Lotman’s (2005 [1984]) term, practitioners of semiotic studies may investigate all semiotic systems of culture either from the viewpoint of instrumental function they execute in fulfilling communicational purposes of the subjects of culture or from the viewpoint of utilitarian value they exhibit for satisfying their respective needs.

3.2. Physical and logical domains of human semiotics

In human semiotics, the subject of a scientist’s interest encompasses the sign- and meaning-related properties of communicating selves that
come into being in the realization of their communicational purposes or the satisfaction of their needs considered on the one level as the real selves and on the other as participants of social communication. From such a viewpoint, the sign-vehicles of semiotic objects belong to the observable relational properties of communicating selves as concrete persons within the physical domain (see Lecture Five: footnote 1 on page 106, cf. Yngve 1996: 209–210).

However, when the concrete objects hitherto belonging the scope of physical domain, start to be subsumed by subjects in accordance with their abstracted features under potential tools or goods as signs of functions or values, they are immediately placed within the boundaries of the logical domain. Accordingly, the concept of the physical domain must be counterpoised to that of the logical domain. It seems obvious that, in the investigative field of human-centered semiotics, scientists are not in a position to study the semiotic properties of communicating selves as inferred subjects, which are unobservable. The logical domain appears to be indispensable as a counterpart of the physical domain, as far as the content of intentional communication cannot be directly tested. It may be inferred through the intersubjective knowledge of communication participants as a set of dispositional properties that may be activated in observable products and behavior of people.

Thus, the subject matter of a scientist’s interest in human semiotics encompasses those inferable properties of cultural objects that are relevant for the realization of communicational purposes or the satisfaction

Figure 5. A subsumption of observable objects under the inferable signs of functions or signs of values in nature and culture
Meaning as a subjective construct

of needs of cultural subjects. As it is shown in Figure 5, the concrete objects, hitherto belonging to the scope of physical domain, start to be subsumed in accordance with their abstracted features under potential tools or goods as signs of functions or signs of values they are immediately placed within the boundaries of the logical domain.

4. Constructing the meaning of communication participants

Cognitive models may be, in the span of human life, replaced by others based on inferential, slightly altered or entirely innovative, constructs when the experiential domain of a cognizing subject expands as a result of his or her subsequent searching explorations. Replacement of models depends on human expressions of meaning which is changeable.

Taking into account the concept of meaning as a subjective and intersubjective subsumption of significant objects which occurs in human communication, one should expose the praxeological semiotics and the axiological semiotics within the framework of constructivism.

4.1. Considering the subject-related concept of meaning from a constructivist perspective

Constructivism, taking the notion of construct as its point of departure within the framework of epistemology, is a cognitive attitude of a knowing subject which manifests in a certain semiotic system understood in terms of behaviors and products of communicating individuals who transmit and interpret pre-constructed meanings. In the present form, highly developed under the influence of cognitive sciences, constructivism is founded upon a generalized assumption that people create their own view of the world they live in on the basis of reflections of their individual experiences. That’s why contemporary constructivists expose the role of an individual self as the cognizing subject and maker of meanings. In this particular context of solipsistic constructivism, each individual is regarded as generating his or her own mental model which allows him or her to understand (or to make sense of) the world by selecting and transforming information, formulating hypotheses, and coming to decisions that rely on his or her personal cognitive structures. Cognitive structures provide the basis for meaning creation and deciphering through mental schemata or models organizing the experience of an individual, which allow going beyond the information provided to him or her by sent and received meaning-bearers.
From the position of epistemological constructivism, the meaning-bearers constituting semiotic means of communication are detached from the meaning belonging to extrasemiotic reality. Reality, in turn, is defined either as observable data or as inferable constructs. Being independent from the cognizing subject, data usually appear as immediate objects of perception accessible in direct or indirect experience, i.e., through senses or their instrumental extensions. Contrariwise, constructs are considered as sets of cognized or assumed properties of the objects as they appear in the mind of the knowing subjects. In the epistemology of sciences, constructs can be conceived or generated on the basis of mental inductive abstraction and deductive composition.

4.1.1. Personal constructivism in the perception of reality

Personal constructivism was initiated by George Alexander Kelly in his book *The Psychology of Personal Constructs* of 1955, who claimed that “man looks at his world through transparent patterns or templates which he creates and then attempts to fit over the realities of which the world composed” (Kelly 1955: 8–9). The main emphasis of a personal constructs theory was put upon the person’s perception of the world, which depends on his or her mental frames of reference. Thus, a construct was seen as a subjective depiction of some event in the person’s surrounding, i.e., a way of looking at something which should be then tested against the observable reality of the environment.

Among the most crucial consequences taking place in the application of constructs to the interpretation of the world in human communication to be mentioned are:

(1) patterns – people anticipate future facts and/or events according to their own interpretations of recurrent reality;

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7 One has to expose that constructs, in Kelly’s framework (1955: 15–20, 46–77, 95–98; cf. also 1970), are not seen as abstracted from existing realities; rather, they are imposed upon real events. According to Kelly, all constructs are bipolar and dichotomous, and when a construct is used to construe an event, only one pole is being activated. Examples of dichotomous constructs include: good vs. bad, just vs. unjust, stable vs. unstable, constant vs. changeable, honest vs. dishonest, liberal vs. conservative, healthy vs. sick, flexible vs. dogmatic, warm vs. aloof, heavy vs. light, religious vs. not religious, normal vs. abnormal, etc. There are always some alternative constructions available to choose among in dealing with the world – even, as measurements will vary depending on which inertial frame it is taken from. Constructive alternativism means that a person is capable of applying alternative constructs to any events in the past, present or future. This is analogous to the different measurements that the persons in different frames of reference usually make.
Meaning as a subjective construct

(2) individuality – people have different experiences and therefore construe facts and/or events in different ways (i.e., persons differ from each other in their constructs);

(3) range – constructs are limited to a particular range of appropriateness, called the focus of convenience (i.e., they are not relevant to all situations);

(4) comparability – to the extent that people have had experiences similar to others, their personal constructs tend to be similar to the construction systems of those other people;

(5) commonality – people are able to communicate with others because they can construe typical constructions.

The definition of personal constructs, understood as a preferential frame of reference or interpretation scheme that every cognizing individual imposes upon reality while subsuming concrete objects to certain classes of objects with regard to their alternative meanings, underwent further modifications under the influence of subjectivist cognitivism and social constructivism. Thus, the personal constructivism which exposed the role of previous knowledge was reduced to subjective constructivism basing on experiential knowledge achieved during the interpretation of cognized phenomena and the ascription of contextual meanings to them by particular communicating selves. Any personal form of cognition and subjective interpretation of any event was seen as relative. Social constructivists assumed that interpersonal communication might lead to the creation of similar personal-subjective constructs in the minds of human individuals who are raised in the same reality of everyday life.

4.1.2. Subjectivity of solipsistic signification and intersubjectivity of collective communication

Personal-subjective constructs form the basis not only for a similar perception of the world but also for unified behaviors against the objects evaluated with respect to their utility. Personal constructs, expressing subjectively defined referential meanings, constitute the most important factors which determine all forms of social behavior, including the verbal form of communication.

Elaborated in the domain of sociology, the idea of social constructivism is rooted in philosophical theories dealing with the relationships between the inner world and outer world of man. Social constructivism has expanded, however, beyond the theory of cognition, explaining the way in which human individuals accumulate their knowledge about the outer world, the investigative questions of which are focused around the theory
of perception. The foundation of sociological constructivism constitutes an assumption that social reality is shaped by information gained by particular human beings as organisms in interaction with their environment.

As pointed out by Peter Ludwig Berger and Thomas Luckmann, the authors of *The Social Construction of Reality*, originally published in 1966, man is a social being and his contacts with external environments is mediated by symbols. In the opinion of Berger and Luckmann knowledge, related in a certain way to reality, is incessantly connected with certain contexts and social situation, insofar as it is always created by society and transmitted among its actual members. However, apart from social factors, this knowledge is determined in nature by historical, psychological as well as biological factors.

In society constituting a sphere of objective facts which consist of externalized products of human activity, the cognized phenomena and states of affair become internalized and thus personified through subjective meanings. Hence, it is the language which “objectivates the shared experiences and makes them available to all within linguistic community, thus becoming both the basis and the instrument of the collective stock of knowledge” (Berger and Luckmann 1966: 68).

Following the conviction of social constructivists, society is the creator of knowledge, although an individual human being, as an organism, experiences, *de facto*, the reality while receiving various kinds of information from the environment. The stock of everyday knowledge is created due to social interactions; this knowledge is – as one can say after Berger and Luckmann – negotiated and approved among particular members of society (cf. 1966: 19–46).

A certain kind of a social construct is the reality of everyday life or the world of life, which comes into being as a result of communicational activities. The reality of everyday life or the world of life is considered as one of many realities, albeit a basic one. But it is not identical with the really-existing objective world. As a result of interactions, it becomes an intersubjective world, that is, the world which is shared by an individual with other individuals.

As Peter L. Berger and Thomas Luckmann state: “The reality of everyday life further presents itself to me as an intersubjective world, a world that I share with others. This intersubjectivity sharply differentiates everyday life from other realities of which I am conscious. I am alone in the world of everyday life without continually interacting and communicating with others as it is to myself. Indeed, I cannot exist in
everyday life without continually interacting and communicating with others” (1966: 23).

An individual can have access to the subjectivity of other individuals as Peter L. Berger and Thomas Luckmann argue: “Human expressivity is capable of objectivation, that is, it manifests itself in products of human activity that are available both to their producers and to other men as element of a common world. Such objectivations serve as more or less enduring indices of the subjective process of their producers, allowing their availability to extend beyond the face to-face situation in which they can be directly apprehended” (1966: 34).

Human expressivity manifests in products accessible both to their creators and to other people: These real objects, which are observable and which become symptoms of actions or their meaning-bearers, Berger and Luckmann consider as elements of the common world. Noteworthy, among such elements are, for example, bodily symptoms, gestures, postures, certain movements of hands legs, etc., which are accessible to communicating individuals in immediate contacts.

In the communication by voice, the sound waves are objectivated as elements of common world: “A special but crucially important case of objectivation is signification, that is, the human production of signs. A sign may be distinguished from other objectivations by its explicit intention to serve as an index of subjective meanings. To be sure, all objectivations are susceptible of utilization as signs, even though they were not originally produced with this intention” (Berger and Luckmann 1966: 35).

4.1.3. Sociology of knowledge on subjective constructs and intersubjective comprehension

One of the examples of social constructivism constitutes the so-called sociology of knowledge in the domain of science and education, which has been conceptually applied inter alia by James Moffett (1983, 1987), Margaret D. Roblyer, Jack Edwards, Mary Anne Havriluk (1997) who claimed that:

(1) the personal constructs of communicating individuals are distributed in the form of reported speech and may contribute to common understanding processes only as types of intersubjectively shared experiences;
(2) mutual comprehension belief is based on the assumption that when one communicator employs a mental construction reflecting his or her own experience, which is similar to that employed by another, then they both may understand each other effectively;
(3) when the construction processes in the mind of a particular individual appear as supposedly similar to those of the other communication participants, then he or she may be involved in the social activity of playing a specified role for a given community.

Departing from the cognitivist constructivism as an investigative perspective, the views of sociologists of knowledge and theorist of education are founded on the premise that, by reflecting on their individual experiences, people construct their own view of the world they live in. Each cognizing subject is seen as generating his or her own “rules” and “mental models” in search of ways of making sense of the world. Thus, constructivists place the main emphasis on the individual self as a “maker of meanings” who selects and transforms information, formulates hypotheses, and comes to decisions, relying on his or her personal cognitive structures. Cognitive structures, i.e., mental schemata or models, provide meaning and organize the experiences of an individual allowing him or her to go beyond the information given to him or her previously. To sum up, learning, discovering and communicating, therefore, are considered in different varieties of constructivists’ theories as searches for meaning which consist of adjusting subjective mental models to accommodate new personal experiences, in which individuals construct new ideas or concepts based upon previously acquired knowledge. Consequently, embedded in social contexts, individuals are viewed as life-long learners, discoverers and/or communicators.

While cognitive constructivists, emphasize the “individual as a personal scientist”, i.e., an individual subject of science, who creates and understands the meaning of phenomena organized in his or her mental world, social constructivists postulate how best to consider the manner in which personal-subjective meanings and understandings grow out of social encounters, as far as sociality is defined in terms of meaning negotiating activities within the framework of social interaction. An example of social constructivism is the sociology of knowledge and education dealing with how subjective constructs of communicating individuals may be distributed effectively in form of reported and shared experiences.

The mere notion of the subjective construct, understood as a frame of reference or a scheme for the interpretation of reality, suggests that every individual person, as a cognizing subject, subsumes concrete objects to certain classes of objects with regard to their meaning. It is supposed that interpersonal communication can lead to creating intersubjectively similar constructs in the minds of people who interact within the same linguistic and cultural reality.
In a recent intellectual climate of opinion, personal-subjective constructivist's stance has been reduced to the assumption that the process of cognition is based on the continuous interpretation of cognized phenomena and that the ascription of meanings to them occurring in steadily changing contexts and situations of social, physical and psychical world is manifested in the mind of an individual human being.

Any interpretation of any event is relative; as a consequence, there are no absolute, correct frames or preferential frames. In this way, subjective constructs form the basis not only for a similar personal perception of the world but also for unified behaviors against the objects evaluated with respect to their utility. Moreover, subjective constructs, expressing individually defined referential meanings, constitute the most important factors which determine all forms of social behavior, including the verbal form of communication. When similar schematic constructs come into being in the minds of members of a certain linguistic community, as a result of recurring interactions, it is understandable that they find reflections in the commonalities of the expressions of meaning-bearers. People integrate with each other individually on the basis of observable verbal means of expression and in accordance with inferable comprehension of meaning-bearers.

4.1.4. Knowledge and meaning from the perspective of radical constructivism

For radical constructivists, Ernst von Glasersfeld (1995, 1988, and 2001) and Alexander Riegler (2001), as well as Alexander Riegler, Markus Peschl and Astrid von Stein (1999), working in the fields of science and education, it is useless to think about knowledge as representing external reality independently of a knowing subject. In the view of radical constructivists, knowledge depends upon the activity of cognizing individuals who strive towards a subjective organization of their experiential domains and not to the discovery of an objective world that exists beyond their capacities of cognition.

Perceived as a mind-depended entity, the cognizing subject appears as an epistemological solipsist being unable to transcend the domain of his or her individual experience. The scientific or unscientific theories they encounter or construe, on their way to apprehending knowledge as sets of propositional contents, appear only as conceptual models that help him or her only to manage their experiential domain.

Taking into account the role of the human self in the apprehension of reality through the organization of personal experiences and in the acquisition of knowledge about reality through the subjective process of its
reception and conception, constructivists assume that ontological reality is not cognized in its totality but only in part depending upon its accessibility to sensory perceptions and that knowledge does not depict the gnoseological reality but only reflects its conceptual form, being stored in the mental spaces of individual cognizers. Thus, one can assume after Glasersfeld (1989: 162) that “knowledge is not passively received but actively built up” in the minds of human experiencers and that “the function of cognition is adaptive and serves the organization of the experiential world, not the discovery of ontological reality”. Accordingly, the constructivists’ positions to the personal-subjective property of meaning, which result from a collective character of culture realized in human signification and communication systems, may be summarized as follows:

(1) meaning is a personal-subjective construct that depends upon an individual who makes it;
(2) meaning does not reside in non-verbal or verbal means which individuals produce and transmit for communicating about their emotional and conceptual contents, and, for that reason,
(3) meaning cannot be passed on as an entity in the same manner as meaning-bearers; hence,
(4) language and culture as semiotic systems have to be regarded as composed of meaning-bearers which trigger communicational activities within the cognitive domains of particular communicating individuals; and
(5) communicating in a given semiotic system is based on the continuous mental processing and interpreting of meaning-bearers, which are being produced and received; whereas mutually shared meanings happen only to be assumed.

Cognitive models may be, in the span of human life, replaced by others based on inferential, slightly altered or entirely innovative, constructs when the experiential domain of a cognizing subject expands as a result of his or her subsequent searching explorations. Replacement of models depends on the expressions of individual’s attitudes towards the life world in which he or she functions.

To sum up, one can notice that there is a link between a subjective universe of meaning developed in the biosemiotic Umwelt theory and the personal-subjective construct theory elaborated by representatives of modern cognitivism and radical constructivism. What has to be extended in the approach to the solipsistic view of the inner self is the theory of the social construction of reality. Human individuals develop through the perception of the things and states of affairs being reflected in their mental
spheres as images of iconic nature. Another kind of solipsistic knowledge is related to the concept formation on the basis of collective communication. Important is here to take into account the distinction between an imaginationist psychology, which exposes the mental visualization of the shapes of cognized and perceived phenomena and events as individual tokens, and a conceptualist psychology, which exposes the mental recollection of notional properties of phenomena and events specified and inferred as general types (i.e., containing the minimal mass of differential features). As far as the only empirically accessible object of cognition is the communicating individual, the whole life-world of communicating groups is to be viewed in the light of collective solipsism.

From a constructivist perspective against the background of distinctions between the praxeological and axiological subsumption of semiotic objects in the realm of human culture, any ego- and group-specific meaning may be viewed as a constructive self-determination or self-awareness of individuals in their belonging to different communicative collectivities. Thus, one can conclude, while making reference to the distinctions introduced by Bethan Benwell and Elizabeth Stokoe (2006), that a function- or value-oriented identification of an individual self with purposes and/or needs shared by members of a particular collectivity is manifested through his or her adoption of discursive practices and discursive genres characterizing the semiotic inventory of this collectivity in question.
Towards an idea of interdiscursive competence

The subject matter of this lecture constitutes a discursive view of human communication considered in relation to semiotics as an academic discipline investigating the verbal and non-verbal behavior of humans in terms of products and processes of meaning-creation and meaning-utilization. With respect to the notional content of the title, it will be indispensable to specify the understanding of discourse as the realization of language and culture in human interactions which contribute to the formation of ecologically determined systems of communication.

1. Confronting polydiscursivism with polyglotism

In the introductory part of this lecture, the notion of polydiscursivism will be discussed against the background of the referential value of polyglotism. The term polyglot, usually referred to a person who speaks, writes, or reads several languages, originates from the Greek polyglottos meaning ‘many-tongued’, where poly- as an Antique Greek form of the stem of polys with the meaning of ‘much’ or ‘many’ is attached to the Greek (Attic) glottos with the meaning of ‘tongued’, constituting as such an adnominal adjective of glôtta ‘tongue’. Under the term polyglotism, one can, therefore, understand the competence of an individual who is able to speak or write several languages; but it can also mean the situation in which the same text is contained in several languages, similarly as in the case of polyglossia where multiple languages coexist as means of communication in the same area.

If one tries to search for antique roots of the term discourse, one has to adjust its understanding to the contemporary usage of philosophers and philologists, as well as communication-oriented sociologists and politicians. Discourse, namely, coming from the Latin (Middle Latin) discursus, which meant in the Late Latin period ‘conversation’, derives

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1 The etymology of discussed terms have been consulted with the Webster’s College Dictionary (Random House 1997 /1995 (1992}) and The Oxford Essential Dictionary of Foreign Terms in English (Speake & LaFlaur 1999).
its etymology from the Latin *discur* (*rere*), i.e., ‘to run about’ or ‘running to and fro’ (where *dis* as a prefix from Latin with the meanings ‘apart, asunder’ is combined with the Latin verb *currere* ‘to run’ and the Latin suffix of verbal action -*sus*, a variant for -*tus*), has always been applied for connoting rather a highly formalized discussion of a subject in speech or writing, as a treatise, debate, dispute, or official address.

Against the etymological background, from the antiquity to modern times, representatives of discourse studies have followed the postmodern understanding of their investigative object derived from the works of the French philosopher Michel Foucault (1926–1984). The present usage of the term discourse was indeed initiated in Foucault’s (1972 [1969]) *Archaeology of Knowledge* [*Archéologie du savoir*] although a similar notion of it could be traced in the intellectual climate of opinion regarding verbal communiqués placed above a sentence.

While pondering the status of linguistic and semiotic discursivism within the framework of a terminological distinction between discourse – text – language, a special stance might be taken towards the idea of cultural polyglotism, derived from the notion of cultural text, as well as towards the notions of semiosphere introduced to the semiotics of culture by Yuri Mikhailovich Lotman (2005 [1984]) against the background of the notions of biosphere and noosphere pertaining to the life and activity of human individuals as organisms and members of communicative collectivities.

2. Discursivism as an investigative perspective

To begin with, discursivism will be regarded here as an epistemological position of scientists who analyze their investigative object from a discourse-oriented perspective. It is assumed that an epistemological analysis of a given object of a scientific discipline consists in the examination of its ontological status and gnoseological approachability. To determine the scope of the selected perspective, the notion of discourse will be explained in terms of relational properties of meaning-bearers or meaning-processing activities embedded into the social roles of communication participants depending upon the rules of language and culture.²

The notion of discourse will be placed against the background of the distinctions made by philologists in a broader context of social sciences.

² The notions of discourse, in the context of philological and sociological studies and discursivism as an investigative perspective, have been discussed more extensively by the author (Wasik, Z. 2010b) in his article “On the discursive nature of human interactions in linguistic and cultural ecosystems”.
Practitioners of philological studies, linguists and theoreticians of literature, refer the term discourse above all to the socially and culturally determined properties of the types of texts or text-processing activities characterizing the domains of language use in human communication. But those who study the semiotics of human communication might see discourse as a material manifestation of language and culture in sensible meaning-bearers, defined in terms of text-like objects playing the semiotic functions of indicating, signaling, appealing, symbolic, iconic, i.e., pictorial or mimetic signs in verbal and non-verbal behavior of communication participants.³

3. Discursive ecosystems as aggregations of communicating selves

Seen from the perspective of social and cultural studies, discourse is to be specified in terms of semiotic codes and processes that link individual communicating selves taking part in group interactions, as observable persons and inferable subjects, into interpersonal and intersubjective collectivities when they create and interpret the meanings which are embodied in material bearers forming the verbal or non-verbal means and modes of human understanding. The respective semiotic objects occur as the realization of language and culture in various domains of human communication, determined by such functional circles, interest spheres or thematic preferences of people, etc., as, for example, family, neighborhood, market, festival or carnival, magazine, school, church, funeral home, cemetery, office, bank, parliament, army, law, courtroom, prison, hospital, communication roads, media and, information centers, feminism, anti-colonialism, green peace movements, and the like.⁴

To establish a social typology of discursive communities as aggregations of communicating selves into discursive communities that interact in temporary or long-lasting encounters, it will be necessary to specify the common tasks they realize for the satisfaction of their survival needs

³ Cf. the program of the workshop “Unfolding the semiotic web in urban discourse” which had been formulated by Richard Leo Lanigan, Roland Posner, Daina Teters, and Zdzislaw Wąsik (2009).
⁴ The following subparts constitute a slightly modified version of some text-passages adapted from the earlier publication of the author under the title “On the discursive nature of human interactions in linguistic and cultural ecosystems” (Wąsik, Z. 2010b: 36–45, and 47–49), which have been also adapted for the purpose of the article being recently in press: “Towards an idea of urbanity as a discursive way of human life in the city – Developing a conceptual framework” (Wąsik, Z. 2011).
and cultural values, as well as the fulfillment of public requirements and environmental conditionings. Accordingly, various occupational domains of social services create the basis for the distinction of discursive communities, such as: administering, governing, municipality service, food and utility supply, commodity and public transportation; manufacturing, industrialization; advertising, marketing, trading, banking, taxation; canalization, sanitation, waste removal; road and shelter building, designing, renovation, housing, hostelling, education, health-caretaking, hospitalization, interment, relaxation, recreation, gardening; defense, execution of penalties, controlling of morality or standard conduct, exclusion, elimination, inclusion, incorporation, custody, arrest; civic gathering, public corporation, tourisms, and the like.

Having in view the role of language and culture in the realization of communicational tasks, one may take into consideration a number of the so-called functions of speech communication, texts or signs, as, for example, argumentative, cognitive, collaborative, communicative, competitive, conative, conflictive, controlling, convivial, deceptive, deferential, degrading, delimitative, diacritic, discriminating, distortive, emotional, enculturating, evocative, excluding, experiential, expressive, heuristic, ideational, identifying, imaginative, impressive, including, informational, informative, instrumental, interactional, intrapersonal, interpersonal, logical, ludic, manipulative, metalingual, persuasive, phatic, poetic, pragmatic, prevaricating, regulatory, representative, ritual, semantic, separating, significative, stimulative, symbolizing, textual, transactional, or unifying.

What is more, both linguistic pragmatics and the pragmatics of social communication expose the interactive goals realized by communication participants through the content of verbal and non-verbal meaning-bearers, such as, for example, asking for, giving and/or receiving help, advice, opinion, suggestion; showing tension or tension release, solidarity, unity, commonality or discord, conflict or accommodation, cooperation or competition, contempt, disrespect or admiration, appreciation, approval, disapproval; exercising authority, power, control, influence, supremacy, pressure.

Bearing in mind the classificatory approach to speech acts, extended in a broader context of culture to communicational events, one might take into consideration the semiotic properties of communicators that are determined by such task- or purpose-, or goal- or aim-oriented acts as, for example, accepting, accusing, admiring, advising, agreeing, an-

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5 In this context, worth mentioning is a category system of twelve kind of messages for analyzing interactive goals in order to code communication behavior for research developed by Robert Freed Bales (1950 /1949/, 1950, and 1970).
nouncing, appealing, applauding, approving, arguing, asking, asserting, begging, calming, cheering, claiming, clarifying, complying, confirming, congratulating, consoling, counseling, cursing, defending, demanding, denying, disagreeing, emphasizing, encouraging, evaluating, falsifying, flattering, greeting, illuminating, informing, instructing, inviting, joking, laughing, maintaining, mocking, noticing, notifying, obeying, observing, offering, ordering, pleasing, praising, promising, proposing, quarrelling, reassuring, recommending, refusing, rejecting, repeating, reporting, reprimanding, scorning, stating, suggesting, thanking, threatening, verifying, warning, welcoming, etc.

Insofar as significative-communicational systems are constituents of human culture, one can expose their properties in the light of disciplines that study the ecological factors influencing the life of human individuals as sign-creators and sign-utilizers. While focusing on communicating selves who aggregate into particular ecosystems located at various levels of group stratifications, one may study their behavior as semiotic properties of individuals and collectivities determined by the interrelationships of affinity, ethnicity, occupation, religious conviction, political or economic status, etc. Thus, on account of various forms of interactions, the societal ecosystems in question might be examined within the scope of the so-called ecology of discursive communities in relation to their constitutive elements as parts of communication systems, individuals playing certain roles of participants in group communication, verbal and non-verbal means, channels and communicational settings.

One should stress, however, that the ecologically determined communities, as constituents of larger communities united through common tasks, develop due to the interactions between its members. The occurrence of interaction can be noticed when the products of human behavior

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6 As inspiration source for a functional approach to speech acts, the author has utilized, in the first instance, the works initiating the investigative domain of pragmatics, as How to Do Things with Words by John Langshaw Austin (1975/1962), and developing the goal-oriented classification of performative utterances, as, among others, Principles of Pragmatics by Geoffrey Neil Leech (1990/1983).

with their environmental props are observable as semantically relevant objects linking participants of communication with each other. However, the interpretation of observable facts, that is, the ascription of meaning to them in terms of referential semiotics, either by communication participants or by researchers, can only be based on subjective inferences.

Investigating a given semiotic network formed within an ecosystem of communicating selves and their aggregations into communicating collectivities, one may notice that the manifestation forms of verbal and non-verbal meaning-bearers, which are unequally put into use, appear to be polymorphous when they are formed in dependence on their environments. As such, in relation to sources and/or destination of information, these meaning-bearers occur on various strata of society in a twofold manner, namely, as relatively changeable practices and also stabilizing patterns of interpreted discourses.

4. Dimensions and autonomy of discursive communities

Against the background of terminological apparatus of language-centered communication studies, it is important to introduce distinctions between linguistic communities, on the one hand, and discursive communities, on the other. The relationships between those kinds of social groupings in which individuals take part are depending upon the modular view of language as embedded into the culture or the holistic view of culture as including language as one of the systems of meaning-bearers belonging to the realm of human semiotics. The boundaries of linguistic communities are determined by the use of one and the same language. Discursive communities, however, may exist even if communication participants use different varieties of the same language or even different languages functioning as mutually translatable for the tasks of communicating selves. Common discourse types are decisive for the mutual understanding between individuals and groups taking part in more or less organized professional or confessional, national or international group communities which are linked by various types of bonds, as, for example, artistic, banking, commercial, industrial, legal, military, monetary, religious, standardization, and the like.

The use of a human-centered framework enables researchers to treat discursive communities in terms of dynamic systems with core and periphery because individual communicating selves as parts of constantly changing collective groupings are dependent upon the ecological variables, which determine the modes of their existence and formation into relatively self-governing entities. As far as the lower-order communities
are often subsumed within those of a higher order, any ecologically
determined community may be described as developing and becoming
more or less autonomous from any point of view independently of
whether it is incomplete or complete, with respect to its physical con-
stituents. For example, the typology of discursive communities distin-
guished on the basis of their ecological embedding, might consider both
hierarchy and inclusiveness of their distance; stronger discursive com-
munities allow for those which are further from the core of society, and
which thus develop to “autonomous agents”. One could examine the
direction in which long-lasting discursive communities develop; from
heterogeneous discursive selves and their groupings to homogeneous
discursive communities with stable bonds. As a result, one could observe
what types of interacting subordinate groups (along with their particular
spheres of influence) evolve in time and space, eventually becoming eth-
nic, national, religious, professional or natural and cultural ecosystems.

The semiotic properties of communicating selves as persons partici-
pating in discursive communities and as members of communicating
groups are changeable depending on biological, psychical, social, cultural,
and other ecological conditionings which co-determine the modes of
their functioning and the direction of their development. Because the
discursive communities of a lower order are situated within the commu-
nities of a higher order, the autonomy principle refers here to the self-
government of a mall-group applying its own laws and functioning within
the larger structures of a particular discursive community.

As a consequence, any ecologically determined community might be
observed as developing and becoming more or less autonomous from
any point of view independently of whether it is partial or complete in
character. Interpreted and described in terms of sign- and meaning-
oriented studies, the relations between communicating selves as persons
and subjects, can serve as a basis for the distinction of various types or
kinds of interacting groups in terms of semiotic properties. Thus, any
typological survey of ecologically determined discursive communities
may consider at least six qualifiers positioned under the three stages of
their autonomy, as: (1) discreteness and peculiarity, (2) separateness and
independence, (3) self-existence and self-reliance. In accordance with

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8 Some of the ideas regarding the understanding of autonomy, which might character-
ize communicative communities, were initiated in the abstract of Z. Wąsik (2000),
"On the heteronomous nature of language and its autonomization from the proper-
ties of communicating individuals and linkages". They had found, in turn, their ex-
tensions and creative elaborations, including also respective bibliographical refer-
these qualifiers of autonomy, one may notice that some communities are
stronger and some are weaker and that stronger communities may in-
clude those which are weaker; similarly, some particular communities
may be considered as less distant or more distant from the core of an
aggregated discursive community.

One may examine the conditionings under which heterogeneous
communities with temporary bonds become more or less homogeneous
with permanent bonds. This means, one can find out what types of sub-
ordinate groups interacting with each other evolve and establish them-
Selves in time and space into autonomous ecosystems on ethnic, national,
international as well as confessional, professional or natural and cultural
levels. Considered in another dimension, primary discursive communi-
ties may aggregate into discursive communities of secondary, superordi-
nate or subordinate, active or passive, short-lasting and long-lasting,
durable and non-durable, loose and compact types. Hence, each individ-
ual might be seen, as a member of various smaller discursive communities
and larger discursive communities determined by their communicative
domains of life and thematic cynosures or ecological niches in which
they are formed. In the latter case, each community is determined by
extra-communicative factors depending on the environmental condition-
ings under which the communicating selves as members of group collec-
tivities live.

When one says that a given language and a given culture have autono-
mized themselves by establishing a unified system of meaning-bearers,
one should bear in mind the fact that it is only a relative autonomy.
While acquiring the state of autonomy, a given language or a given cul-
ture, rather their standard varieties as opposed to sublanguages and sub-
cultures, become independent from their individual members in terms of
shared means of (inter)lingual and (inter)cultural communication.

What has been recognized and utilized by given communities, as a stan-
dard state in a given language or in a given culture, is imposed upon the
members of linguistic and cultural communities by virtue of social
sanctions. The pressure of society, expressed, for instance, in rejection
and acceptance, punishment and reward, or stigma and charisma, makes
the individual participants of communication adjust themselves to com-
mon rules without being authorized to introduce any changes in the col-
lective character of the semiotic system formed by conventions of discur-
sive communities.

The factor of relativeness explains the occurrence of multilingualism
and multiculturalism while contributing to the differentiation of linguistic
and cultural communities into minorities and majorities and while
indicating that a particular language and a particular culture are subjected, in their genesis and functioning, to collective customs and conventions. It depends upon the agreement of individuals and communities, situated hierarchically on various societal strata, who contribute to the development of a shared means of communication in the domain of language and culture proportionally to the degree of their standardization and codification.

Thus, language and culture as communication systems must be detached from individuals in order to provide patterns of standard realizations, which have to be followed by descendants of those participants of linguistic or interlingual and cultural or intercultural communication who have given rise to its origins and development. The facts that some communities get rid or are deprived of their own vernaculars or of their local cultures, or that a given foreign language or a given culture can become the property of many discursive communities, speaks also in favor of the idea of separating languages and cultures from individuals and social groups.

5. Existence modes and manifestation forms of language and culture

In determining the autonomous status of language and culture as human-centered systems, the most important problem lies in the selection of an appropriate perspective concerning their existence modes. On account of their concrete and mental, static and dynamic, substantial and relational properties, the manifestation forms of semiotic ecosystems in society may be specified in terms of at least one of the six existence modes of language and culture:

(1) Language and culture manifest themselves in collectively accepted patterns of sensible meaning-bearers which are transmitted by the source meaning-creators and interpreted by target meaning-utilizers as the verbal and non-verbal means of intersubjective signification and interpersonal communication;

(2) Language and culture sustain themselves in the consciousness of source meaning-creators and target meaning-utilizers as the mental equivalents of sensible meaning-bearers being processed and interpreted as verbal and non-verbal means of intersubjective signification and interpersonal communication;

(3) Language and culture recur in the concrete sign-transmitting and sign-receiving activities of communicating persons who possess
physiological endowments for the production and reception of sensi-
ble meaning-bearers as the significative means of interpersonal com-
munication;

(4) Language and culture endure in the mental sign-processing and sign-
interpreting activities of communicating persons who possess commu-
nicational abilities which allows them to create and recognize sensi-
ble meaning-bearers as significative means of interpersonal commu-
nication being distinguishable from each other, formally correct, se-
mantically true and pragmatically adjusted to respective contexts and
situations;

(5) Language and culture are deducible from socially abstracted networks
of the relational values of significative means which are externalized by
individual communicators in their concrete sign-transmitting and sign-
receiving activities;

(6) Language and culture are assumable from networks of associations be-
tween the mental equivalents of significative means and their relational
values which are internalized by individual communicators in their
sign-processing and sign-interpreting activities.

It has to be noticed that all the enumerated six existence modes of lan-
guage and culture – in the products of verbal and non-verbal meaning-
creation and meaning-utilization, in the processes of sign-transmission
and sign-reception, in the processing and interpreting of verbal and non-
verbal products as meaning-bearers, in the relational values of verbal
and non-verbal products being realized in communicative performance
and memorized through associations in communicative competence\(^9\) –
constitute extraorganismic and intraorganismic properties of communi-
cating selves as observable persons and inferable subjects.

In opposition to communicative performance, communicative com-
petence or networks of associations, which depend upon the physiologi-
cal and mental capabilities of individual communicators, only the sets of
externalized patterns of verbal and non-verbal products, as well as their
relational properties, become independent from the will of particular
members of certain collectivities when they function as a means of social
communication. But in the real world, language and culture, as proper-
ties of collectivity, do not constitute the sets of observable data. They
may be only imagined as theoretical constructs consisting of the means
and contents of interpersonal and intersubjective communication that

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\(^9\) A historical survey of the development and understanding of the term *competence* is
provided by E. Wąsik in her book *Język – narzędzie, czy właściwość człowieka?*
are typified from observable changes in individuals when they are engaged in communicational activities. What can concretely be singled out are no more than referential behaviors of communicators. If truth be told, their interpretational practices have to be mentally inferred from the shared knowledge of communication participants. Thus, in the physical dimension, communicating selves are linked with each other as persons through sensible meaning-bearers carried out in their sending and receiving activities. In the logical dimension, intersubjective links come into being through the mutual understanding of people when the communication participants negotiate and confirm the meaning of verbal and non-verbal means through interpretative practices and referential behavior on the basis of internally concluded commonalities of experience or knowledge about the same domain of reference.

Considering the role of semiotic means in the formation of discursive communities, on the basis of observable and inferable similarities in the referential behavior of human beings and their interpretational activities, one can, in consequence, distinguish two additional existence modes of language and culture, where:

(7) Language and culture unite communicating selves into concretely observable, dynamic interpersonal groupings when they produce, emit, perceive and receive sensible meaning-bearers through a respective physical channel;

(8) Language and culture can be deduced from the intersubjective groupings that occur between members of discursive communities when they understand or interpret received meaning-bearers in the same way, referring them to the common extrasemiotic reality known to each communicating individual separately.

6. Postulating the concept of (inter)discursive competence

Investigating the semiotic properties of humans in the domain of language use in interpersonal communication, one can correspondingly single out skills and knowledge and/or abilities and expectations of communicators, labeled as their linguistic competences, which enable them to communicate with others while creating, distinguishing, delimiting, recognizing, interpreting and ascribing appropriate semantic and pragmatic values to verbal means of communication, produced as utterances in respective acts of speech.

The term competence has entered the domain of linguistic theory owing to the proposal of Noam Avram Chomsky (1965: 3–15). According
to the intention of the author, this term was referred to the grammatical knowledge applied in actual speaking (Chomsky 1965: 3): “Linguistic theory is concerned primarily with an ideal speaker-listener, in a completely homogenous speech community, who knows its language perfectly and is unaffected by such grammatically irrelevant conditions as memory limitations, distractions, shifts of attention and interest, and errors (random or characteristic) in applying his knowledge of the language in actual performance”.

Later on, with the inclusion of phonemic and semantic capability of speakers, the notion of linguistic competence referred to the totality of linguistic knowledge, the abilities and habits of an ideal speaker-listener who functions in a homogeneous linguistic community. Sociologically inclined linguists, following Dell Hathaway Hymes (1962, 1966, 1971, 1972), added here a pragmatic component along with the notion of communicative competence emphasizing that the acquaintance with the use of language in everyday life is indispensable for the comprehension of much of linguistic form (cf. also Vanderveken 1990–1991, 1991).

Instead of assessing what can be said in a language, practitioners of language studies had rather to account for, as summarized by Muriel Saville-Troike, “what can be said when, where, by whom, to whom, in what manner, and under what particular circumstances” (1982: 8). In consequence, the area of communicative competence was proposed to involve knowing not only the linguistic code but also to deal with the social and cultural knowledge that speakers were presumed to have for using and interpreting either linguistic or semiotic means of communication in different situational contexts.

Embedded into the notion of communicative competence, semiotic competence exposes the importance of both linguistic and cultural codes which speakers employ every time and everywhere for the purposes of mutual understanding. One can thus say that semiotic competence is specified as encompassing the total set of signs referring to human skills and knowledge which discursive communities utilize in certain surroundings or situations of language- and culture-related communication. Due to these skills and knowledge communicating selves, as observable persons and inferable subjects, are bound through verbal and non-verbal domains of signification with the extralingual and extrasemiotic domains of reference being conditioned by physical, biological, psychical and social reality of human life-world.

In general, one can say that the semiotic properties of communicating selves develop through their participation in different linguistic acts of speech, or more broadly taking, in different cultural events of com-
communication, i.e., when they function in different discursive communities. While forming and improving their linguistic and semiotic competences, communicators can acquire, among others, the abilities to choose appropriate verbal and non-verbal means determined by their desired or expected aims in a specific context-dependent situation. Competent participants of communication have to know how to lead and foster a talk, to conduct a debate or discussion in order to convince someone of something, to persuade someone from something, to diminish the impact of an imposition or to mitigate the conflict.

One can encounter, for example, some recipients of academic education who are able to write a popular or scientific article as well as to give a formal lecture. But a special talent is undoubtedly needed for composing a poem, a novel or an artistic essay. It is, nevertheless, a matter of special training to learn how to formulate a report, to prepare an advertisement, a slogan and/or to choose a motto for a particular topic.

Participants of social communication who function in the role of clients or customers have to possess or acquire the practical skills and knowledge of how to use professional advice or services of others, for example, of a lawyer, a priest, a bank counselor, a therapist or an architect, etc. Successful applicants must possess appropriate communicative competences, for example, how to receive benefits or subsidies from an institution, social agency, governmental bureau, etc., or how to seek sponsorship or patronage from a financial endowment while filling out a special request form or writing an applicative letter of intention, and the like.

Skilled conversationalists usually know how to choose appropriate introductory hedges for certain context-dependent types of utterances. Similarly, special aptitudes should be possessed by those individuals who are expected to give a ceremonial speech, to make an occasional toast in a festive ritual in which a drink is offered as an expression of honor or goodwill, or to deliver a sermon during specific kinds of religious services, etc.

To sum up, the conceptual content of competence – introduced to the domain of discourse studies – could be specified in terms of dispositional properties of individuals, which enables them to effectively communicate with other individuals as “the significant others” in task- and role-oriented speech acts under the pressure of collective sanctions. As it appears, such attributes of communication participants as efficiency and acceptability are, as a matter of fact, connected with the modeling processes of personality traits in the development of their multi-discursive and inter-discursive competence, governed by the rules of generationally
transmitted traditions and socially construed norms. In search of *genus proximum* of this human property of being competent, which implies possessing a capacity of personal skills and subjective knowledge, the original concept of idealized linguistic competence is to be confronted with an extended scope of communicative and cultural competence.\(^{10}\)

Borrowed to the domain of language pedagogy, psychology and sociology, and developed as a pre-constructed set of individual qualities, from the neighboring disciplines of linguistics, such as psycho- and sociolinguistics, linguistic pragmatics, discourse studies or semiotics of communication, the notion of communicative competence might be broadened, for example, through managerial, occupational, instructional, organizational, and/or expert competences. In addition, a more general term metacompetence might also be useful for encompassing the referential characteristics of particular types of competences along with their cognitive, affective, ethical, functional, personal or behavioral aspects.

Accordingly, it is assumed that participant of social communication as such must be able and be taught to simultaneously and interchangeably function in various discursive environments. While paraphrasing the metaphor of polyglotism applied to culture, one could finally state that the communicating individual as a “cultural polyglot” must be able to cope with texts coming from different cultures, i.e., he or she must know how to communicate in and understand “multiplicity of cultural languages”. In other words, they must be described as possessing the so-called intercultural competence.

Bearing in mind the principles of effective communication, one has to realize that the adequacy of human competence is also connected with the developmental formation of an ego- and group-specific identity, considered particularly in terms of collective solipsism, i.e., as the self-determination or self-awareness of individuals and groups in their belonging to occupational, organizational, ethnic, national, or international collectivities, and the like. To end with, one can say that explorations in the domain of communicational properties and subsumptive attitudes of people may provide evidence that both the competence and identity of individuals and groups can be judged and measured, pre-defined and designed, rejected and abandoned, imposed and controlled, etc.

\(^{10}\) Cf. the article of Franz Emanuel Weinert (2001), “Concept of competence: A conceptual classification”. 
SUPPLEMENT ONE

An axiosemiotic analysis of postcards

To begin with, the first sample of function- and value-oriented analysis of cultural objects, this chapter deals with postcards (cf. Wąsik, Z. 1992b, 1992c) as a means of interpersonal communication. Its object constitutes the postcard seen from a holistic outlook, i.e., the pasteboard card of a regulation size used for correspondence among people, and sent as a rule without an envelope by post. As such the postcard bears open information, which is accessible not only to senders and receivers but also to those who dispatch and convey it from source to destination. To the visible elements of this information belong, among others:

1. a verbal message and/or the pictorial one (usually on the reverse side);
2. an address showing details about the place of destination (as, e.g., the name of the person to whom the postcard is to be delivered, and where this person may be found);
3. an official postage stamp of a specified face value (as a means and evidence of prepayment of postal services);
4. a postmark officially impressed, giving the place, date and hour of dispatch or arrival of the postage.

In this contribution, the main attention is paid to postcards as examples of realized (i.e., fulfilled) mail; from such a view, they are not treated here as objects of potential collections or with regard to their particular contents. It is taken for granted that with respect to the understanding of culture as a system of texts functioning in human communication, a practitioner of semiotic studies may describe postcards in terms of indices, symptoms and signals, icons, symbols, and verbal signs. Correspondingly, as examples of fulfilled correspondence, particular instances of postcards can be analyzed in that order according to their functions (expressive, impressive and communicative) in relation to external reality and to their senders and receivers.

A postcard may be examined as a symptom in relation to a sender, as well as a humanistic indicator of the society and time, in which it has been produced. The subject matter of study are types of inherent messages, iconic or graphic, verbal, etc., coming from the author or producer.
of a particular card. These messages can be considered as the symptom of a sender when they allow researchers to identify his or her taste, emotional attitude, esthetic preferences, etc.

Receivers may sometimes detect the social position, educational status, age or sex of a sender, by the kind of card selected, which displays the qualities and utility value of communicative means in conformity with appropriate social conditionings and the communicational situation. Concerning the sender’s choice of a postcard, one should bear in mind that it could play, with regard to the form of its message, the role of an appeal signal or a symbol. It may serve an impressive function, evoking feelings and reactions of its receivers, or a semantic function, when used as means of signification and communication.

Independently of the fact that the postcard is used as an information carrier, it takes part in social interactions. Hence, its interpersonal function must also be given prior attention. Postcards are namely sent by an individual sender to an individual receiver, by many senders to one receiver or by one sender to many receivers. As such, they contribute to the creation of social networks that unite particular categories of people in dyads and groups linked through the relations of kinship, profession, politics, private confidences, etc. Precisely put, they contribute to the formation of linguistic and semiotic collectives, united by the exchange of information, and phatic communities, the goal of which is simply to maintain interpersonal contact.

As regards its communicative function, the postcard can be analyzed with reference to its stimulus effect in the case when certain attitudes or behaviors are expected by receivers, depending upon some specific details communicated by its senders. It can be regarded also as a means of persuasion, manipulation, therapy, etc. Investigation of the communicative value of postcards in relation to the surroundings of their senders and receivers is also worthy of mentioning. They should be analyzed as elements of systems, within which they enter in certain relations and oppositions, depending upon cultural, regional, ethnic, interpersonal, stylistic and occasional-utilitarian contexts (cf. Wąsik, Z. 1992b: 22–23).

Concerning postcards as cultural goods in the axiosemiotic sphere of culture, one must first distinguish the communicational needs of people, which can be satisfied by the exchange of information; these distinctions are based, inter alia, on Abraham H. Maslow’s (1943) and Henry A. Murray’s (2008 /1966 {1938}/) classifications. Furthermore, one may be interested in the communicative values of the postcards as seen in opposition to other means capable of satisfying the same needs of people. That is, one may pose questions concerning their specific character
An axiosemiotic analysis of postcards

Among the other types of messages sent by post or among other carriers of the same meaning transferred through different channels of communication. Another kind of question may be posed with reference to some contextual and situational conditions that limit the use of postcards and their distribution in interpersonal contacts.

From the viewpoint of axiosemiotics, postcards are to be treated not only as cultural goods that possess certain values for the satisfaction of human needs, but also as meaningful signs of subjective needs that can be satisfied through the utilization of their respective communicative values. Therefore, they are specified as having certain meanings for the subjects of culture.

The meaning of a postcard as a cultural object becomes realized when the user of it, its sender or receiver, subsumes it under a certain type of cultural good with particular respect to an acquired value. In consideration of both perspectives, an axiosemiotician might say that the objects of culture are to be regarded not only as signs of acquired values but also as signs of satisfied needs.

The question arises what are the specific human needs that postcards might satisfy. First, they function as signs of integrative values and/or needs. Being exchanged between senders and receivers on the occasions of special, private and social events, on holidays as well as visits to foreign countries, unusual places, etc., postcards constitute not only genres of speech. Playing the role of congratulations, wishes, greetings, announcements, and the like, they foster and satisfy the socialization needs of individuals while uniting them with representatives of different or identical spheres, in terms of business, closeness, familiarity, friendship, intimacy or proximity, etc.

Sometimes to send a card belongs to an expected form of behavior or to an obligation even. For example, when spending the time abroad or otherwise far from home, people usually prepare lists of persons, family members, close acquaintances, friends and colleagues to whom they ought to send a token of our remembrance.

The card may feature an attractive view or be composed of many pictures accompanied by a short verbal comment. On the list of receivers, the sender can place some persons who are very important or who would eventually envy the dispatcher’s achievements or opportunity to be somewhere, to participate in something important, etc.

It is insignificant, sometimes, that the same card with the same message is sent to different receivers. What counts is the desire to renew contact, to get in touch with the receiver of the postal card. On sending it, the sender not only pays the costs, but also shares the time and energy
taken in selecting and purchasing it, filling it with written words, addressing and putting a postage stamp on it, and finally depositing it in a respective mailbox. People who fail to comply with this duty are often seen as “indolent” or “uncooperative” in sharing the joy, which results from any kind of correspondence or communicational exchange, etc.

As to their form and content, the postcards might be interpreted as signs that make known the needs for exhibition of their authors and senders. They also express a purposefulness of choice made by those persons who project, order, produce, and select them. For example, among the authors of postcards, one finds the owners of renowned hotels and expensive inns, authorities on famous localities, promoters of spas, beach and health resorts, or the municipalities of frequently visited towns and cities, as well as political, social or religious organizations, and the like. They might be interested in advertising, popularizing, celebrating, or commemorating certain events, places, anniversaries, individuals, etc. Such peculiar events or facts include, for example, Olympic Games, festivals, the scenes from the Holy Scripture or from Greek and Roman antiquities, painting or sculptures in famous art galleries, the animals in a zoo or plants in botanical gardens, famous writers, poets, scientists or politicians, etc.

The type of postcard received by a given addressee depends also upon the intentional choice of its sender. Family members, relatives and close friends exchange postcards on the joyful events of New Year, Christmas, Easter or St. Valentine’s Day. We usually select one pictorial message for a person who is interested in horse riding and a different one for those who collect the pictures of architecture or the reproductions of paintings. One kind of information is sent to the member of a certain political party and another one to addressees who declare themselves as belonging to a certain religious belief. Hence, the choice of a postcard with the pictorial verso showing the place visited by the sender, visualizing an event he or she participated in, etc., expresses his or her pride in it, a wish to be admired, and to show things just to experience effect upon others. In such a behavior, one can see the signs of a need for esteem, and a desire for recognition.

In other cases, a postcard might be viewed as a token of generosity, when it is meant as a small gift. Writing only to get in touch with the addressee also can mean sharing the same views or the same emotions. While exchanging news about them, senders also have the opportunity to communicate their needs for expressing love, for sharing things and feelings with someone, for being affiliated to somebody.
Among other problems that might also be analyzed under the label of axiosemiotics, one should place also the needs and expectations of the receivers of postcards. They demand more attention, however, in separate, detailed investigations into such matters as culturally embedded conditionings that govern the principles of politeness, irony and banter, as well as the principles of textual rhetoric and effective communication.
Supplement Two

Verbal means as signs of human needs

1. Preliminary remarks

As a second analytic example, in which an axiosemiotic view of cultural objects is discussed against the background of praxeosemiotic conceptions of sign and meaning, one may take language utterances studied in the context of communicational events (cf. Wąsik, Z. 1997b). The acceptance of the notion of culture as a system of significative tools fulfilling certain functions in the realm of human communication presupposes, in language sciences, the analysis of verbal means according to their respective functions or respective purposes (communicative goals) achieved by interlocutors.

2. Locutionary and illocutionary functions of utterances

Apart from the semantic function, which is explainable through the direct reference of textual elements to their extratextual reality in terms of “locutionary meaning”, practitioners of language sciences also study pragmatic functions of utterances that occur in indirect speech acts. Studying language utterances from the viewpoint of their “illocutionary forces”, they usually consider, among others, Geoffrey Neil Leech’s classifications, in Principles of Pragmatics, which concentrate on the strategy of means-ends analyses “according to how they relate to the social goal of establishing and maintaining comity” (cf. Leech 1990 /1983/: 104–105):

- competitive functions: ordering, asking, demanding, and begging;
- convivial functions: offering, inviting, greeting, thanking, and congratulating;
- collaborative functions: asserting, reporting, announcing, and instructing;
- conflictive functions: threatening, accusing, cursing, reprimanding, etc.
Another approach to the communicative impact of speech products results from the proposal of Aleksy Awdiejew dealing also with pragmatic foundations for the interpretation of utterances (1987: passim, discussed by Wąsik, Z. 1997b) who has distinguished, for example, three types of illocutionary functions of language utterances:

- modal functions: certainty assumptions, modal vagueness, and doubt;
- emotive functions: dissatisfaction, satisfaction, disappointment, appreciation, condemnation, self praise, praise, boasting, criticism, compliment, flattering, sympathy, admonition, reprimand, excuse, envy, accusation, jealousy, dispraise;
- active functions: proposal, obligation, advice, warning, request, invitation, rejection, hesitation, command, threat, recommendation, suggestion, etc.

In an instrumentalist approach to verbal means of communication, a practitioner of particular applied disciplines of semiotic studies may apply, among others, the methodological apparatus of pragmatic linguistics and sociological pragmatics. Appropriately, he or she may search for the functions of utterances and/or the purpose and communicative strategies that interlocutors choose for a given speech act or communicational event, e.g., to inform, to ask, to flatter, to insult, or to mock the other person.

However, as concerns the inclusion of language utterances in the axiosemiotic sphere of culture, representatives of value-oriented disciplines may treat them as tokens of cultural goods. Their studies may aim at distinguishing those needs of people that are satisfied by verbal means and exchanged in the interpersonal communication (cf. Parsons et al. 1967/1951; see also Ross 1974/1965).

Semioticians may also be interested in searching for values that the verbal means in question express as against the nonverbal means of human communication. For example, linguistically inclined semioticians may pose questions as to the dispositional values of language utterances expressed through different channels of communication.

Inquiring into what kind of needs can be satisfied by verbal means that the communicating individuals use in indirect speech acts, the practitioner of semiotic disciplines may distinguish among the objects of investigation, for example:

(1) boasting – where the linguistic expressions of individuals are evaluated as realizations of their needs for dominance, for exhibition, or
Verbal means as signs of human needs

for sharing things with others; for example, senders’ utterances can be treated as signs of needs for esteem, the need to be noticed, recognized, etc.;

(2) offering, inviting – as exponents of the need for sharing things, the desire for being accepted or approved, the need to feel part of a social group, etc.;

(3) apologizing – as expressions of the need for deference, to conform to customs, for abasement, the desire to admit blame in order not to be rejected, etc.;

(4) praising and complementing – as signals intentionally appealing to the needs of others, expressing the need for affection and approval, the need for deference, or the indiscriminate need to please others, etc.;

(5) criticizing, blaming – the need for aggression, for power, for dominance, the need to have control over others, the need for intraception, i.e., to understand and analyze others, their behavior, the object they possessed, etc.;

(6) joking – in short, the need for inclusion in a social group, the need for exhibition, for example, to show off one’s wit, etc.;

(7) greeting – the need to nurture, to be sympathetic to others, to show affection, the need for affiliation, the desire to belong to a chosen group of people. By greeting others individuals usually express their need to be accepted by them and/or to feel strong attachment with them, and sometimes the need for exhibition, the desire to be noticed and recognized, etc.

These enumerated samples of analyses have shown that the meaning of verbal means may be investigated not only from the perspective of their functions but also their values. Moreover, since the semiotics of communication investigates not only monosemous signs, but also analyzes the contexts, in which they appear as polysemous entities, one should bear in mind that verbal means can not only have many functions but also many values, both as tools of communication and as cultural goods. In order to study verbal means within the framework of axiosemiotics, one has to extend the interest sphere of linguistics proper into the realm of the sciences of language that border on sociology, psychology, and the theory of culture.
3. Final remarks

To sum up, one could state that in the world surrounding people and in the subjective universe surrounding other living organisms, objects can occur as neutral or as potential carriers of meaning. As such, they have to be subsumed under selected categories of semiotic objects with respect to the possession of properties that enable them to substitute (stand for) other objects, to be utilized for performing certain tasks or to satisfy certain needs of given subjects.

Thus, the meaning of signifying objects can be derived either from the relation between the expression of a signifier and (1) a signified content, or (2) a signified function, or (3) a signified value of the cultural and natural objects subsumed by the interpreting subjects under the semiotic objects.
SUPPLEMENT THREE

The word as a trace of man

1. Semiotic substantiation of the theme

The subject matter of this piece of writing constitutes a methodological survey of conditionings in which the word as a meaning-carrier of humans becomes a trace of their creative and interpretive activity in interpersonal communication. Referring to terms exposed in the title, the notion of the word is derived from the connotation of the name denoting the object of philological studies and the notion of the trace is specified against the background of semiotic objects. What is characteristic of traces is that, originating in the source or being produced by source agents, they do not need to be present when they are received and/or interpreted by their target agents.

As regards the word as a trace of mankind, one has to consider, on the one hand, the metamorphoses of human universe resulting from the linguistic and communicative performances of social groupings, and on the other, the changes taking place in the environments of human individuals on a uniquely personal level. Investigating the changes in the life-world of man, one can notice two trace-leaving processes that come into being, namely, (1) “the wording of the world” due to the naming and terminological ordering of objects and states of affairs, and, (2) the objectification of language where its speakers know “how to do things with words”. Considering the subjective changes in the performance of communicating selves, one may utilize the theory of memes according to which the word might be interpreted as an indicator of borrowed or inherited features from one language into another or as an exponent of human preferences in the creation of new meaning-carriers that minimize their communicational effort. Linguistic performances of people provide evidence for their immersion in the general knowledge and cultural heritage, being especially visible in literary works and/or in translations between languages. Likewise, the preceptor-oriented studies may reveal the traces left by particular authors as a source of inspiration when they are anonymous or intentionally omitted.
2. Specifying the notional scopes of *word* and *trace*

Before specifying the subject-matter of this study, it is indispensable to explain the notional contents of two terms exposed in the title of its presentation, namely, the *word* and the *trace*. The notion of the word will be deduced from the connotation of the name denoting the object of philological studies and the notion of the trace will be highlighted against the classification of semiotic objects. Both the word as an investigative object and the trace as an investigative perspective are referred to the results of the linguistic-communicational activity of humans as an investigative domain.

The point of departure, namely the “word”, is connected here with the Greek *lógos*, the second part of the names *philology* and *philologist*. The former one, *philology*, denotes a specific field of scientific activity and a specific subject of institutional teaching, and the latter, *philologist*, a particular specialist performing a certain role in science and education. Descended from the Latin *philologus*, subsequent to the Greek *philologos*, “philologist” means ‘the lover of the word’, where the form *philos*, from the Greek *philos*, connotes the meaning ‘loving’, ‘treating with love’ or just ‘taking care of’. Likewise, ‘the love for the word’, as the object of philological studies, is the devotion to the study of texts primarily spoken and secondarily written. Relevant is that *lógos* might be rendered as “word”, “speech” and/or “discourse”, regarding its derivation from the Greek verb *légein* denoting ‘to chose’, ‘to collect’, ‘to speak’, and, what is more, even as “proportion” or “relation” understood in the antique philosophy as the notional principle which governs the order of universe. To be added is also that *lógos* was rendered in Christian theology as *Word* denoting the second person of the Holy Trinity, i.e., the Word of God, the light and the source of life, embodied in Jesus Christ.\(^1\)

The understanding of the “trace” in the following approach to the properties of the word might be explained from the viewpoint of things which fulfill a substitutive function with respect to other things for the sake of their makers or utilizers. In the first instance, the trace can be evaluated in terms of semiotic objects distinguished as a mark (Gk *semeion*, i.e., an indicating sign), a name (Gk *ónoma*, i.e., a verbal designation of things, persons, places, states, phenomena, etc.), and a symbol (Gk *symbolon*, i.e., a token of an object broken into two parts, which means only when it is reunited with another token into a single entity; a token of identity verified by comparing its other half; cf. Gk. *symballein*

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\(^1\) The etymology of Greek terms has been checked in *Webster's College Dictionary* (Random House 1997 /1995 (1992)/).
‘to bring/put/throw together’, e.g., ‘a contract’). In the second, the position of traces is to be considered within the framework of associated stimuli or implicational phenomena, as indices (or indexes), symptoms, signals, appeals, symbols, icons (pictorial or mimetic symbols), as well as non-motivated verbal signs forming the modes and means of human understanding (see Wąsik, Z. 2003: 96–98; cf. Lecture Six p. 114). In the third, the quality of the verbal sign as a trace might be also exhibited against the background of various representations of reality, for example, reflection (mirroring), photography, picture (painting), model, scheme, map, including replicas, and the like.

The traces as tokens or types of natural and cultural objects are considered as possessing, within the boundaries of communicational reality of humans, both the features of non-motivated and motivated, non-intentional and intentional, non-artificial and artificial, non-teleological and teleological phenomena and states of affair being created involuntary or voluntary, without or with an aim-in-view, etc. What appears to be an essential property of traces is their “translocation in time and space”, that is, when they are received and/or interpreted by their target or destination agents (as recipients, addressees, and the like), the source agents of their origin (as authors or spokesmen, as senders or emitters) do not need to be present at a particular moment or place. Thus, traces constitute material objects representing something that exists immaterially when they are perceived. By saying that the traces make present what is absent here/there and now/then, it is meant that their implied objects or domains of reference belong to the inferential extrasemiotic reality.

With reference to the theme of this presentation, its aim is to answer how the humans contribute to metamorphoses of the world through the word as a means of signification and communication. Its point of departure makes up the assumption that the word as a property of its creators is changeable by nature when considered in terms of a meaning-creating activity in opposition to a meaning-carrying fact. Therefore, the subject matter of this trace-related study constitutes a typology of verbal meaning-carriers to be observed in products resulting from the species-specific behavior of people who create and interpret the universe of meanings as communicating individuals and participants of interpersonal communication. To be more precise, its principal interest sphere pertains to conditions under which the words might be treated as vestiges of humans’

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2 The author’s sources of inspiration are here the works of a postmodern philosopher Michel Foucault (1970 [1966], 1972 [1969]) and a semiotician Umberto Eco (1979 /1976/).
Supplement Three

communicational customs, assuming that the basic function of language is to form interpersonal and intersubjective communities of speakers and receivers who send and receive, produce and understand messages in a similar way. These conditions of word-processing acts, as, for example, inherent and relational properties of language in use, constitute, in one dimension, the levels of particular linguistic systems and, in another dimension, the domains of human life in which they function as a means of communication.

3. Pragmatic-communicational conditionings of trace-leaving processes

Studying the word as a trace of mankind, a practitioner of semiotic studies might be interested, in general, to learn how human universe changes its nature as a result of linguistic activity of social groupings on ethnic or national, regional or professional, global or local levels, and, in particular, to make a survey of the changes that take place in the environments of human individuals when they communicate on a uniquely personal level.

In the case of group communication, there are two trace-leaving processes that come into being, firstly, “the wording of the world” due to the naming and terminological ordering of objects (things and states of affairs) and, secondly, the objectification of language when its speakers know “how to do things with words”. Anybody who distinguishes between a folk and scientific nature of experience can notice that the names given to objects on the basis of their conventional usage and arbitrary choice are not identical with the names grounded on the acceptance of classificatory or typological principles. It is especially visible,

3 The changeability of language as a relational property of mankind is presented with popular exemplification in the book *Words: An Illustrated History of Western Languages*, edited by Victor Stevenson (1983).
4 Worth quoting is the famous slogan title of Leo Weisgerber’s article (1955): „Das Worten der Welt als sprachliche Aufgabe der Menschheit“ [The wording of the world as the task of humanity]; cf. also Weisgerber 1953.
5 The founder of general theory of terminology was Eugen Wüster, an Austrian engineer and lexicographer, one of the pioneers in the standardization of scientific terminology. Worth noting are the titles of his two books: *Einführung in die Allgemeine Terminologielehre und terminologische Lexikographie* (Wüster 1979) and *Internationale Sprachnormung in der Technik. Besonders in der Elektrotechnik (Die nationale Sprachnormung und ihre Verallgemeinerung)* (Wüster 1931).
when one confronts, for example, the names of kinship or colors in everyday life with the names of species in botany or zoology. Similarly, anybody who belongs to the community of knowers or believers may easily understand the difference between a referential value of utterances or expressions that predicate about ordinary facts or nominate the domains of human life in time and space (for example, places, times, events, towns, rivers, cities, etc.) and a binding force of utterances or expressions that perform the new types of social facts (for example, official documents, marriage contracts, oaths, curses, bets, legal verdicts, and the like). Correspondingly, the traces of personal activity based on the expressive and impressive functions of verbal means in interpersonal communication are to be confronted with the cultural and social traces of typical human activity (as, for example, commemorative inscriptions on rocks or trees, stones or tables in churches, cemeteries, graves or even houses in which renowned personalities used to live or make a stopover).

Taking into account, furthermore, the theory of memes, the word might be interpreted as an indicator of borrowed or inherited features of language. As a meme one understands any verbal or non-verbal product or behavior of humans that can be transferred from individuals to individuals, from groups to groups, from generations to generations by imitation or learning, both in a conscious and unconscious way. Among memes one can enumerate not only observable practices, habits, fashions either in technology or cultural customs, like poems, songs or dances, and the like, but also intersubjective beliefs, attitudes, convictions, emotions, and knowledge that stay behind them in mental spaces of communicating individuals as, for example, ideas and concepts, propositional contents and theories that unite people referring to the same intersubjective experience when they communicate. In speech, memes are seen as disseminating themselves in broadcast messages through the social-semiotic sphere of chains and aggregations of communicators in the same manner as infectious diseases.

Speech can be interpreted as providing evidence for preferences and motivations in the formation processes of vocabulary and grammar. The same statement refers to lexical borrowings, cultural transfers of prod-

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7 Representative is a cross-linguistic study of Ian Davies (2005) on “Colour terms”.
8 The term meme was coined in 1976 by Richard Dawkins in his book The Selfish Gene aimed at extending the principles of the theory of evolution in order to explain the spread of ideas and cultural phenomena; cf. Dawkins 1989 /1976/, and 1982, as well as 2006.
ucts along with their names, variability and changeability of languages, the phenomena of linguistic substrates, superstrates or adstrates, as well as linguistic interferences occurring as mental transfers of native structures in language contact situations. The terms substrate and superstrate stand for the contact relationships between the language of invaders and the language of indigenous population. A substrate situation occurs when the language of invaders places itself upon the language of indigenous population in view of that it has a greater prestige even though some features still remain in the core or periphery of the language as traces of the previous indigenous structures.

The superstrate situation takes place when the language of indigenous people absorbs only some marginal features of the superimposed language because of the minor prestige of invaders. Superstratal traces may be found in the speaking habits of indigenous people first and foremost in the pronunciation or vocabulary. As parallel to substrate and superstrate linguists have also coined the term adstrate to describe mutual influences between languages spoken on the territories inhabited by neighboring populations. Thus, one could find the traces of grammatical and lexical properties in the structure of adjacent languages or their dialects.

While cultural transfers are outcomes of collective intercourses and borrowings, interferences have a solipsistic character, as far as they oc-

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9 Lexicostatistics is a statistical technique used in glottochronology for estimating how long ago different languages have evolved from a common source language. Glottochronology refers to historical-comparative methods being interested in the time at which languages started to differentiate in lexical and grammatical form, departing from the assumption that the basic (core) vocabulary of a language, the so-called Grundwortschatz in German, changes at a constant average rate. This assumption was submitted by Morris Swadesh (1955, 1972), against the background of an earlier work of Robert Lees (1953).

10 The term substrate was introduced to the domain of linguistic studies by Graziadio Isaia Ascoli in 1876, and elaborated more thoroughly in the first of his glottological letters edited in 1881; cf. Ascoli 1876 and 1881 /1881–1882/. The first letter and the two others of Ascoli (1881 and 1886), became known to the international world of science a year later due to the translation of Bruno Güterbock, authorized by the author himself; cf. Ascoli 1887.

11 The term superstrate was introduced by Walther von Wartburg in 1932; see Wartburg 1932, cf. also Wartburg 1978 /1936/.

12 The term adstrate comes from the works of Marius Valkhoff in 1932; see Valkhoff 1932.

13 The notification about phenomenon of verbal interference is a heritage of Uriel Weinreich’s work of 1953, entitled as Languages in Contact; see Weinreich 1974 /1953/. It was Robert Lado who popularized the notion of interference in the context of applied linguistics; see Lado 1957.
cur in mental spaces of individuals. Linguistic interferences in the mind of second-language learners are based on the reduction of image schemata, composed of concepts and sound patterns, to their equivalents from the first language previously acquired in a natural way. In short, interference can be described as an influence of the first-language patterns upon the patterns which are processed mentally and physiologically in the second language. Linguistic interferences may be considered in terms of positive or negative transfers. The latter is the source of errors in the acquisition of a foreign language, affecting, for example, patterns of pronunciation, word formation, inflectional morphology and phrase or sentence structures. One should stress, however, that verbal interference takes place not in the system of a language but in the text-processing activities of communicating individuals who transfer mental patterns of meaning-carriers and their interpretations as meaning-bearers from the competence of one language to the performance of another, from the discursive patterns of one language to the discursive practices of another one. As a matter of fact, there are several links between members of different groups where the word mediates in such transactions as face-to-face communication, written correspondence, commercial trades, commodity exchanges, sexual coupling and transportation traffic.

Exposing, therefore, the social nature of communicative communities where conversation, talk, colloquy and parley dominate, one has to distinguish between speech communities, intercourse communities, called in German Verkehrsgemeinschaften or kommunikative Gemeinschaften, and discursive communities. Linguistically inclined studies

14 In the view H. Douglas Brown (1994: 90), linguistic transfer is a superordinate term for interference.

15 It was Leonard Bloomfield (1933: 42) who proposed the term speech community for the groups of people interacting with each other by means of speech. Exposing the notion density of communication (Bloomfield 1933: 46), he delineated sub-groups of people within a speech community, the members of which “speak much more to each other than to persons outside their sub-group” (Bloomfield 1933: 47) from “[o]ccupational groups, such as fishermen, dairy workers, bakers, brewers, and so on, have, at any rate, their own technical language” Bloomfield (1933: 50).

16 The term Verkehrsgemeinschaften was used by Adolf Bach in Geschichte der deutschen Sprache (1938), undoubtedly with reference to the term Verkehr encountered in the linguistic publications of Hugo Mario Schuchardt; cf. Sachregister in the edition of Leo Spitzer (1928 /1921/).

17 One should mention here also the Polish term wspólnoty komunikatywne ‘communicative collectivities’ which Ludwik Zabrocki (1963) had introduced while describing the origin and the development of Germanic languages. In a more detailed article of 1970 he used the German term kommunikative Gemeinschaft ‘communicative community’ as opposed to Sprachgemeinschaft ‘speech community’; cf. Zabrocki
expose speech relations among communicators as attributed by system-specific properties of a particular language. However, the rise and existence of Verkehrsgemeinschaften are determined by extrasystemic properties of different languages, their standards, dialects and varieties, the speakers of which are engaged in various conjugal intercourses, as industrial, technological, religious, cultural, political, and/or matrimonial ones. As to the discursive or discourse communities, their nature depends on the realization of communicational tasks in various domains of social life realized among representatives speaking the same language at the national level or different languages at the international level. Their existence is determined by certain types of texts or text-formation activities of communication participants embedded into their roles played in society and culture. Thus, as to the usage of words, communicating individuals in speech communities are united and in discursive communities divided according to their group membership.

The word as a trace may exhibit the tendencies of minimizing the communicational effort of speakers that result in the reduction of sounds or omission of frequently realized lexical items, due to the principle of redundancy. In the case of individual speakers the spoken (or written) word may sometimes be recognized or serve also as an exponent of their social, professional, regional or ethnic identity. More detailed issues, which deserve to be exposed here, are inborn aptitudes and capabilities of human individuals to acquire a given language, to be bilingual or multilingual.

(1980 [1970]: 147). For Zabrocki it is the family which forms the smallest natural communicative community. However, as he adds subsequently, there are also some other kinds of communicative communities which are formed by the school class, factory staff, church commune, scientists, medical doctors, inhabitants of a village, a town’s ideological block, inhabitants of a state and, in the end, the inhabitants of the whole world (Zabrocki 1980 [1970]: 147). For relevant quotations and discussions see Chruszczewski 2006: 52–53.

18 The term discourse community, introduced into the scientific usage by Martin Nystrand (1982), had been thoroughly elaborated by John M. Swales (1990: 25–27) who proposed six characteristics identifying, in his view, a group of individuals as a discourse community, i.e., sharing public goals, mechanisms of intercommunication, information and feedback, one or more genres of speech, and a specific lexis.

19 The tendency of humans to expend a least effort in a frequent communication had been noticed by George Kingsley Zipf (1929, 1949) who initiated the applicability of statistics in linguistic. Zipf discovered that in all languages of the world: (1) the sounds which are easy in pronunciation are more frequent than the difficult ones, (2) the most frequent words are hence short words, (3) all words become shortened with time, and that (4) the frequency of newly appearing words increases in accordance with the increase of the degree of their abstractness.
Not to be forgotten are also the cases of language attrition (when the number of speakers diminishes), negative or positive transfer of lexical elements in the expression plane and the content plane (when the contact situations occur between language speakers who belong to different cultures). Linguistic performance of individuals may be studied as evidence of their competence and immersion in the generally available knowledge and cultural heritage. Moreover, the word is not only a trace of human abilities in creating artistic poetry or prose, it might be also considered as a clue to the understanding how the general mind works in which the minds of individuals are embedded.

4. Investigative implications and postulates

To postulate the domains of linguistic inquiries, one should add that the word is to be seen not only as an expression of intimate spirituality of human individuals but also as a trace of nations, communities to which they belong. Relevant for consideration are the esthetics and style of the word as reflecting the cultural tradition of mankind. Their traces are especially visible in literary works, in translations from a given language into other languages, in the choice of expressive and/or impressive means. Sometimes the preceptor-oriented studies may reveal the traces left by other authors as a result of inspiration source or even plagiarism. To describe the nature of intertextuality, in postmodernist approaches to literary texts of secondary degree, where their author is declared “to be dead” in terms of “the archeology of knowledge” or in which the source of their origin or inspiration is not documented or intentionally omitted, like forgeries, fakes, falsifications, imitations, and the like, the term *palimpsest* has been used. According to an antique or mediaeval usage *palimpsest* refers to a parchment (i.e., the skin of sheep, goats, or other animals prepared as the leather for writing on) or another kind of material from which the original writing has been partially or completely erased or scraped to make room for another kind of writing. Known

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20 The term *archeology of knowledge*, proposed by Michel Foucault (1972 [1969]), refers to a preceptor oriented study of human discourse.

21 As an author who sees secondary texts as palimpsests, one has to mention Gérard Genette (1997 [1982]).

22 According to Webster’s *College Dictionary* (Random House 1997) the term *palimpsest*, documented in English between 1655 and 1665 through the mediation of the Latin noun form *palimpsestus*, originates from the Greek *palimpsestos*, meaning ‘rubbed again’, as a compound word-form of *pálin* ‘again’ + *psestós* ‘scraped’, ‘rubbed’, as an adjectival form from the verb *psán* ‘to rub smooth’. Cf. also *The Oxford Essential Dictionary of Foreign Terms in English* (Speake & LaFlaur 1999).
from the 17th century in English the nominal form *palimpsest* along with its adjectival form *palimpsestic* was understood later on as a novel text written by hand on materials from which one could see traces of another earlier handwritten text. A special attention deserves furthermore the statistical analysis of linguistic means identifying the semiotic traces the authors of texts when they are anonymous or not identified.

5. Selected examples of verbal-communicational traces in cultural spheres of human life-world

Speaking about the implications and postulates of such a broadly defined scope of the investigative domain, it might be important to provide also a few widely known examples (being also available in online encyclopedias or dictionaries) excerpted from cultural spheres of human life-world, which pertain to a particular individual, social or ethnic group and to the language of mankind in general.

(1) Traces of morphological and semantic motivation are to be found in marked or unmarked practices of naming and/or categorizing extralingual objects of reference, as, *inter alia*: (a) in conventional word-formations: Germ. *Kugelschreiber*, Engl. *ball pen* or *ballpoint*, also *ballpoint pen*, French *le stylo à bille*, *stylo-bille* or *pointe-bille*, cf. Polish *długopis* a ‘long writing’ means, (b) in customary commemorations, etc.: *Sixtus* (the sixth son in the family), Gagarinka (the girl’s name glorifying the first flight to Cosmos by Jurij Gagarin), or (c) in emotional signals of adherence to the representatives or followers of a certain political leaning: *Franz, Franziska, Francesca, Joseph, Josephine* (the most popular name in the Austrian provinces during the rule of Kaiser Franz Joseph), *Adolph (Adolf), Adolphine (Adolfina), Hitlerike* (after the first and last name of the German chancellor during the Nazi time), *Vladlena, Ninel* (blended or sound-inverted forms of Vladimir Lenin), or even (d) in inferred indices of a flattering

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23 To be mentioned is here the metaphor of “the city as the text”, to which the term *palimpsest* has been referred by Vessela Lozanova and Roland Posner (1999). Worth quoting is their statement in this context: „In the 20th century entire cities were deliberately wiped out. Wars were waged to decide who should re-write the areas erased. But everyone could have known from the start. Wiped out cities cannot be rebuilt by wiping out further cities. Texts that have grown over the centuries cannot be re-written in decades. Even the most magnificent reconstruction programs are worth less than the lives of those who were sacrificed for them“ (Lozanova & Posner 1999: 2). An extensive work pertaining also to palimpsests as texts in the philosophy of the postmodern city represents the monograph of Ewa Rewers (2005).
submission to imposed rules: *Stalinka, Stalingrad* (former *Caricin, and later Wolgograd*) *Stalin-Straße, Karl-Marx-Allee, Karl-Marx-Stadt*, (*Karl Marx Town*, former and later *Chemnitz*), and the like.

(2) Furthermore, in contact situations between the bearers of the same language and/or of different languages, one could trace: (a) the generational transmission of similar sounds, as *mama, papa, dada, nana*, or cognate words, as *deva* in Sanskrit *deus* in Latin and *Zeus* in Greek, etc., (b) the remnants of substrate and superstrate relationships, cf. e.g. Eng. *cheese, school*, and Germ. *Käse, Schule* against the background of Lat. *caseus, schola*, etc.; likewise, the Nynorsk *kyrkje*, Eng. *Church*, and Germ. *Kirche*, against the background of Greek *kyri* (*a*) *kôn (dôma)* ‘the Lord’s (house)’ *kyriaké* ‘dem Herrn gehörig’, (c) the acceptance of synonyms and suppletive forms as a result of borrowings, e.g., by English speakers from Scandinavians, and later from French Normans, engaged in various conjugal intercourses: *to and till, sick and ill*, cf. also *sickness and illness* vs. *malady*; forms of “to be”: *am, are, be, is, was, were, been, being* (as historical vestiges of “aran”, “beon” and “wesan”), (d) the expansion of behavioral memes realized in specific blends, interjections or particles, as, e.g., “O.K.” (*oll or orl korrect* representing *all correct*), “KO” (a knockout in boxing), “Hi!” (*hey*! or *how-are-you*!), “Gee!” (used in a slang to express an anger but surprise or pity in the sense of English *Jesus!*), “Exactly!” (*that’s right/true*, Germ. *genau!*, Polish *dokładnie!*, Italian *exactamente!*), (e) interferences as equivalents from the first language previously acquired in a natural way, e.g., in idiomatic expressions, as, e.g., *“How many years do you have?” instead of “How old are you?”; similarly: *“Wie alt bist du?”*, *“What hour it is?” instead of “What time is it?”*, *“Welche Stunde ist es?” instead of „Wieviel Uhr ist es?” or „Wie spät ist es?”* ‘How late it is’ (comp. respectively in French « Quelle âge as-tu? » ‘Which age do you have?’ « Quelle heure est-il? » or Polish structures „Ile masz lat?“ ‘How many years do you have?’ „Która jest godzina?” ‘Which (of the order) is the hour?’).

(3) Interesting instances of inter-generational transmission that belong both to the domain of naming motivations, mentioned under (1), and the domain of intercultural borrowings, specified under (2) might be found also in the linguistic customs concerning the division of time or quantity, as the testimony of earlier distinctions which are etymologically forgotten, for example, (a) *Sunday* is the first day and *Saturday* is the last of the week, cf. in Portuguese, historically: *Do-
mingo (‘primero dia’ ‘first day’) – Segunda-feira (‘segundo dia’ ‘second day’) – Terça-feira (‘terço dia’ ‘third day’) – Quarta-feira (‘quarto dia’ ‘fourth day’) – Quinta-feira (‘quinto dia’ ‘fifth day’) – Sexta-feira (‘sexta dia’ ‘sixth day’) – Sábado (‘último dia’ ‘last day’), and the usage after the ISO (International Organization for Standardization) normalization: Segunda-feira (‘1° dia’ ‘1st day’) – Terça-feira (‘2° dia’ ‘2nd day’) – Quarta-feira (‘3° dia’ ‘3rd day’) – Quinta-feira (‘4° dia’ ‘4th day’) – Sexta-feira (‘5° dia’ ‘5th day’) – Sábado (‘6° dia’ ‘6th day’) – Domingo (‘último dia’ ‘last day’), and practically, one can encounter in the meaning of ‘Sunday’, e.g., in Colombia, Séptimo día ‘seventh day’), (b) Wednesday is the middle day of the week, compare, for example, German: Sonntag – Montag – Dienstag – Mittwoch (‘mid-week’) – Donnerstag – Freitag – Samstag; Polish: niedziela – poniedziałek – wtorek – środa (‘mid-week’, cf. “dzień w środku tygodnia” ‘the day in the middle of the week’) – czwartek – piątek – sobota; Finish: sunnuntai – maanantai – tiistai – keskiviikko (‘mid-week’) – torstai – perjantai – lauantai, (c) Monday is the first and Sunday is the last day of the week, compare, for example, Polish: poniedziałek (= “dzień po niedzieli”, i.e., the day after Sunday) – wtorek (from “wtóry” as a synonym of “drugi”, i.e., ‘2nd day’) – środa – czwartek (‘4th day’) – piątek (‘5th day’) – sobota – niedziela (Polish “nie działać” means ‘do not work’, i.e., ‘not a working day’); Latvian: pirmdiena (‘1st day’) – otrdiena (‘2nd day’) – trešdiena (‘3rd day’) – ceturtdiena (‘4th day’) – piektdiena (‘5th day’) – sestdiena (‘6th day’) – svētdiena (‘holly day’), (d) Saturday is a bathing day in Scandinavian languages (Old Norse laugardagr, laug ‘bad’; Old Danisholverdag), compare, for example, Faroese: mánadagur – týsdagur – mikudagur – hósdagur – friggjadagur – leygardagur – sunnudagur; Danish: Mandag – Tirsdag – Onsdag – Torsdag – Fredag – Lørdag – Søndag; Finish: maanantai – tiistai – keskiviikko – torstai – perjantai – lauantai – sunnuntai, (e) September, October, November, December are the vestiges of the Roman calendar, which was initially lunar, when the year had ten months with March as the first and December as the tenth month, compare in English (from Latin): [January, February – added in the later Roman Republican calendar], March – April – May – June – July – August – September (‘7th month’) – October (‘8th month’) – November (‘9th month’) – December (‘10th month’), etc.

(4) The realization of the principle of least effort in verbal behavior has left its traces: (a) in the historical changes of frequent words and their structures, compare, for example, Lat. *lingua teodisca*, Germ.
Deutsch and Norwegian Tysk; Eng. English and Faroese enskt, Germ. Norwegisch, Norwegian Norsk; Germ. Schwedisch and Swedish svensk, etc., (b) in the fast-speech reduction of redundant communicational features, cf., e.g., I don’t (I do not), He’ll (he will, he shall), he’d (he would, he should, he could); I wanna talk to you (I want to talk to you), I’m gonna be (I am going to be), It’s gonna be all right (It is going to be all right).

To sum up, one has to remark that only the language-and-context-specific explorations might reveal the metamorphic nature of humans investigated in the domain of their control and reference. The subject matter of such studies should constitute then the trace-leaving types of interpersonal transmission of meaning-carriers and their intersubjective interpretations derived from the texts and text-processing activities of communicating agents embedded into their social roles and culture.
SUPPLEMENT FOUR

From “Gutenberg Galaxy” to “Digital Galaxy”

1. Appreciating the role of printing media for humanity

The topic discussed in this supplement belonging to the interest sphere of human-centered media semiotics was written as a contribution to the sessions of the International Conference: *Humans, Media and Communication Paradigms: Respecification of Printing Media in the Age of Smart Media*, organized by Cheongju Early Printing (Jikji) Museum, Korea, and Korea Communication Association (Cheongju City, South Korea, September 17–18, 2012). As such it aimed at making acquainted its local and international participants with the possibility of a function- and value-related assessment of the significance of writing, invented and elaborated as a surrogate of speech at particular phases in the history of humanity, while devoting special attention to the impact of printing media on the formation and growth of task-oriented discursive communities at a local, national and global scale. At the same time, it had also acknowledged the testimony of UNESCO’s Memory of the World Program1 that the earliest metal movable-type technology for printing was applied in Korea. The text of this contribution had been prepared in an entry-like form summarizing the hitherto collected knowledge consistent with the author’s outlook on language and culture as a coexistence of semiotic spheres. Therefore, in addition to some theoretical-ordering ideas and distinctions, the provenance of commonly available information was marked after particular phrases or utterances by references to authors and dates of their works, which have been added in the bibliographical part.

2. Writing in the developmental phases of human civilization and mass media technology

The first phase in the evolution of human civilization was marked, assumably 50 000 years ago in prehistory, by the emergence of modern

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1 Available at: www.unesco.org/new/en/communication-and-information/flagship-project-activities/memory-of-the-world/homepage/
behavior in humans (cf. Brown 1991; Mithen 1996) expressed through oral skills in performing arts, religious beliefs and exchange of information. It was the point at which the representatives of the species Homo started to develop their creativity and accumulation of knowledge on the basis of symbols and verbal means of expression connected with the origin and expansion of languages and the development of human intelligence achieved through cultural transmission and genetic inheritance.

The second phase was inaugurated by the appearance of writing (cf. Crystal 1987; Coulmas 1996; Schmandt-Besserat 1996) as a medium substituting oral message. The first writing systems were invented approximately at the beginning of the Bronze Age in the late Neolithic of the late 4th millennium B.C. They expanded in pictographic, ideographic, logographic, syllabic and alphabetic systems (cf. Crystal 1987; Danesi 2002). A culminating point, however, for the second phase was the expansion of written media for wider communication, which started up with the invention of books (cf. Roberts & Skeat 1983) along with their organized collection in libraries for legal, literary and diplomatic purposes. The history of libraries (cf. Johnson & Harris 1976), collected in palaces and temples, began around 1200 B.C. in Syria. In the philological world, it was the Library of Alexandria from the 3rd century B.C. which was the most famous.

The third phase is a central signpost of human civilization beginning the history of printed media. The brand name of Printing Revolution (cf. McLuhan 1962, 1964; Danesi 2002), is usually attributed to Johannes Gutenberg’s invention of the mechanical printing press (around 1439) based on movable types made of metal and oil-based ink due to its impact on the mass production of books in Europe. However, the idea of applying a movable-type printing system to the publication of written texts has been known since the 11th century in the Eastern world under the influence of Chinese culture (cf. Widmann 1974; Pan 1998), first on the basis of wooden, around 1040 in China, and then metal types, around 1230 in Korea. The latter led to the publishing of the Jikji (translated as “Anthology of Great Buddhist Priests’ Zen Teachings”) at Heungdeok temple in Cheongju in 1377, the world’s oldest hitherto existent metalloid-type book (cf. Twyman 1998), which had been nota bene printed 78 years before Gutenberg’s Biblia Sacra (1455).

The fourth phase in the advancement of mass-media communication crossing the boundaries of oceans and continents had begun at the early years of the 19th century, with the surrogate of print represented through a Morse code. Telegraph was the first electrical appliance for the transmission of alphabetically based messages send and received by electrical sig-
From “Gutenberg Galaxy” to “Digital Galaxy”

From “Gutenberg Galaxy” to “Digital Galaxy”

nals (positive and negative Voltage pulses) over long distance wires. Then, at the beginning of the 20th century, it was succeeded by a wireless telegraph based on a prototype of a radio where electromagnetic waves became a means of transmission for sending text-based messages. Soon afterwards with the invention of a telephone, it was the typewriter which could be connected to wireless devices. Starting from the 1920s the whole globe was united by a teleprinter network, called “telex network”. A concurrent form of telegrams appeared at the end of 1970s, namely, faxes (facsimiles) used for transmitting the scanned printed material through the telephone system where both text and images converted into a bitmap appeared in analog technology (that is, coded and decoded as a wave in its original form).

Digital Network Technology (using numerical calculations of discrete values) marks the fifth phase in the development of mediated world. The spread of personal computers and worldwide webs close to the end of the 20th century contributed to the digital transmission of written texts in form of e-mails (apart from voice, video and other data) within the framework of the so called Integrated Services Digital Network (ISDN) over the public telephone network. In the sound-related context, written and printed (including copied and faxed) text messages have been sent and received via Internet and cell phones to the communicators connected by Wireless Local Area Network (WLAN) in all places. Perhaps, a unique place in the “Digital Galaxy” (cf. Danesi 2002) is occupied by the surrogate of print in form of a two-dimensional barcode called the Quick Response Code (QR). Invented by the Japanese in 1994, it is now widespread globally (cf. BS ISO/IEC 18004 2006 /2000/) for encoding trademarks, addresses, Uniform Resource Identifiers (URIs), tickets in public transportation, place reservations in the airplanes, and the like.

3. Writing as a discursive constituent of social life-world

3.1. Semiotic properties of writing and in relation to speech

From a semiotic perspective, writing in relation speech is to be regarded as a sign- and meaning-related ability of human organisms to communicate, while processing, transmitting, receiving and interpreting verbal messages. From such a viewpoint, the invention of writing has been rightly placed on a higher evolutionary ladder of Hominid Species following the emergence of speech and semiotic consciousness.

Realized in verbal means of signification and communication, writing, similarly as speech, may be discussed with respect to the semiotic
universals of language (cf. Wąsik, Z. 2003). As to the substance of codes and channels of communication, speech distinguishes itself through four kinds of properties (SP): (1 SP) *vocal-auditory* stating that phylogenetically conditioned verbal means of signification and communication have a phonic character; they are emitted through the vocal tract and received by ear; (2 SP) *centrifugal transmission and directional reception* – sound waves expand in all directions (centrifugally) but they are received from that direction in which the receiver finds him-/herself while listening; (3 SP) *evanescence in time* – phonic substances of speech sounds due to physical laws are transitory and volatile; (4 SP) *linear integration of phonic segments over time* – receivers apprehend sound waves as a sequence of segments arranged in a line.

Regarding the properties of writing (WP) in comparison to speech, the respective four groups have parallel sets, as follows: (1 WP) *a graphic-visual channel*, that is, the notational symbols used in writing are produced in a graphic scaffold and received by eyesight; (2 WP) *a vertical, horizontal or circular, sequential or interrupted production and a focused perception of two-directionally delimited segments*, that is, the sequence of symbolic-notational lines, starting in one direction, from right-to-left, left-to-right or from top-to-bottom and then turning at the end of the line in a reversing direction, is usually written or printed from the beginning to the end but may produced and read depending upon their prominence in size, shape and color; (3 WP) *permanence in space and durability in manifestation forms*, that is, the written form of notational symbols consist of or are placed on solid materials reflecting light waves in a relatively similar way always and everywhere; (4 WP) *two-dimensional linear arrangement over space*, that is, the symbolic-notational segments appear in sequences being delimited by the width and heights of the area on which they are placed.

3.2. Discourse, text and language

Due to the social nature of human communication, all communicating individuals who speak a given language produce texts, which are embedded into various kinds of role- and context-oriented discourses. To begin with, discourse (cf. Wąsik, Z. 2011) might be defined in terms of texts or, broadly taking, signs and text- or sign-processing activities that link communicating individuals taking part in group interactions, as observable outer selves and inferable inner selves, into interpersonal and intersubjective collectivities when they send and receive or process and interpret the material bearers of meanings realized through non-verbal or verbal means and modes of understanding. The particular texts and
text-processing activities or signs and sign-processing activities take place as the realization of language and culture in various domains of social-life world, determined by functional circles, interest spheres or thematic preferences of people, etc.

Texts and signs, as investigative objects of linguistics and semiotics, have one essential aspect in common, namely, their referential functions. A text is thus a type of a sign that stands in a semantic and categorial relationship with its referents from the extralingual and extrasemiotic reality. Bearing in mind the distinction between the three levels of abstraction, as “discourse, text and language” along with “discourse, sign and culture”, one can assume that text types are to be derived from various types of discourses, and language in general or a language in particular from various types of texts. Thus, one can take for granted that the so-called natural language is a system of types of texts and text-processing activities which execute communicative and performative functions and exhibit intentional and conventional values while fulfilling the instrumental purposes and satisfying the utilitarian needs of humans in various discursive domains of social life-world.

3.3. Speech and writing in the formation of discursive communities

To characterize human activity in text- and sign-related terms, discourse might be specified here as the spoken and written realization of language and culture in interpersonal encounters, which contribute to the aggregation of means- and purpose-oriented communities in the domains of social life-world. With reference to the terminological apparatus of language-centered communicational studies, it is important to introduce the distinction between linguistic communities, on the one hand, and discursive communities, on the other (cf. Wąsik, Z. 2011). Against the background of linguistic communities and discursive communities, one has to consider the status of speech communities (cf. Bloomfield 1927) and writing communities as standing in inclusive, exclusive, and intersecting relationships. Hence, one can state that there are members of linguistic communities who belong to various discursive communities, and members of discursive communities who simultaneously belong to various linguistic communities. Some speech communities may use the same writing system, whereas some writing communities may consist of different speech communities. Accordingly, one may conclude that a linguistic system unites par excellence a speech and writing community altogether. In view of that, societies are to be understood as a dynamic aggregation of discursive individuals and discursive communities united by similar communicative and performative functions as
well as intentional and conventional values of texts and text-processing activities.

4. Instrumental and utilitarian properties of writing in the semiotic spheres of culture

4.1. Praxeological and axiological concepts of subjective significance

For considering writing in instrumental and utilitarian terms, this essay departs from the definition of culture as a set of regularities that occur between the signs of functions or signs of values and become realized in non-verbal and verbal products of the activity and attitudes of human beings which co-determine and condition the modes of their life and behavior (cf. Waśik, Z. 2003, and Figure 4 on page 141 of this handbook).

In such an anthropocentric conception of culture, the emphasis is placed on the interpretative activity of a “signifying subject” who subsumes the cognized objects of nature and culture (“object-token 1” and “object-token 2”) as significant, firstly, when they “fulfill” a certain “function” with respect to his or her “purpose” and, secondly, because they possess a certain utilitarian “value” for satisfying their “need” (meant as a signaled systemic lack), desire or expectation. An object of cognition, found in the surroundings of social life-world, can possess, apart from its praxeological “significance” also an axiological “significance”.

As follows, one can say that a semiotic act usually takes place in the communicational context when a cognizing subject enters into a new relation with a cognized object. The ascription of “significance” to objects known before as natural or cultural with regard to their functions or values contributes to the creation of new types of semiotic objects while transferring them from one kind to another kind of reality, called respectively, either as “praxeosignificates” or as “axiosignificates”.

Having in view the analytical applicability of the model, practitioners of semiotic studies may investigate all semiotic systems of culture either from the viewpoint of instrumental function they execute in fulfilling communicational purposes of the subjects of culture or from the viewpoint of utilitarian value they exhibit for satisfying their respective needs.
4.2. Conclusions and investigative postulates

To sum up, writing, with special reference to its use in printed media and their electronic representations, might be discussed in the light of functionalist, on the one hand, and utilitarian, on the other, approaches to verbal texts as means of both communication and art. Therefore, taking the praxeological and axiological perspectives, it will be necessary to bear in mind the classificatory listing of functions, in one dimension, and the typological survey of values, in another dimension, with respect to writing assumed as a cultural object of study.

Without specifying, whether one has in mind the natural language as an exponent of mankind, ethnicity or group identity, language varieties, speech acts or speech genres of communication, linguistic faculties and cognitive abilities of humans, or constituents and structures of verbal means realized in various contexts of language use, etc., one might list a number of the so-called language functions, which reflect in fact the satisfaction of individual needs or social requirements of people through the realization of communicational tasks by written means of signification, such as, for example, cognitive, communicative, controlling, convivial, discriminating, enculturating, evocative, excluding, experiential, expressive, ideational, identifying, imaginative (creating one’s own world), impressive, including, informational, instrumental, interactional (mediating someone’s togetherness with people), interpersonal, ludic (realizing entertainment purposes), regulatory, representative, ritual, separating, stimulative, symbolic, unifying, etc.

It is obvious that people not only communicate to inform each other or to express their commonalities in views or beliefs by the execution of speech acts; they also create new things in a pragmatic sense as (cf. Austin 1975/1962/), for example, affiliation, bequest, bet, compliment, curse, declaration, invitation, memorial, oath, privilege, promise, separation, title, wedding, will, etc. These things are performed by uttering only (a sequence of) words that are volatile as sound waves, so that writing may serve to provide a durable evidence for the acts of speech in form of appropriate documents of commitment, contract, debt, divorce, duty, identity, inheritance, legacy, marriage, obligation, possession, and the like.

Writing systems take part as linkage-creating devices for the formation of discursive communities in such domains of social life, as, for example, army, association, bank, cafeteria, cemetery, church, cinema, corporation, courtroom, factory, family, festival, carnival, hospital, information center, law, market, media, municipality, museum, neighborhood, office, opera, parliament, prison, restaurant, roads, streets, school, service, shop, theater, workshop, etc.
At a global scale, central for the development of human communication at all and an absolutely starting point for the rise of mass communication on the national and international level was the invention of mechanical text printing. Its result was a rapid exchange of information that contributed to an increase of literacy, instigation of social and religious liberation movements, anti-colonialism, feminism or green peace movements, and so forth, as well as organization of learned societies and advance in technological civilization.

For the users of verbal means of mutual understanding in a generational, national, and cultural transmission of knowledge, it is convenient when the writing systems are relatively stable. In an opposite case, editors of written texts have to make use of a philological method (cf. Crystal 1987) of emendation in correcting changed parts of messages and explication in unfolding their historical and contemporary meanings. One can say that they thus appear in the role of intertextual or interlingual translators.

In this context, special attention deserves the idea of cultural polyglotism (cf. Lotman 2005 [1984], and Wąsik, Z. 2011), resulting from the metaphor of a cultural text, according to which the communicating individual as a “cultural polyglot” is seen as able to cope with texts coming from different cultures (similarly as from different discourses); that is, he or she knows how to communicate in and understand “multiplicity of cultural languages”. Hence, he or she must be described as possessing the so-called intercultural in the same way as interdiscursive competence (cf. Wąsik, Z. 2011).
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