

# ANALOGY AND UNDERSTANDING

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**ABSTRACT:** Analogy is taken into consideration by its didactic and heuristic functions. Analogic changes are analyzed in the form of syntactic-semantic graphs. Their recognizable structural similarity corresponds to the syntax or semantics in the analogy. The concept of analogy has subjective and objective aspects. The explanation in analogies is a dynamic transition from one concept structure to another. The possibility of analogy in the world is a statement about the disposition of the world. The possibility of analogy asserts something about the behaviour of the environment. Analogy is considered as a means of explanation and a dynamic method of cognition.

**Keywords:** analogy, synthetic-semantic graphs, structural similarity, understanding.

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### *1. Introduction*

Analogy serves as a means for explanation, for putting nearer on the way to understanding. Till this time unknown, non-self-evident, non-understanding is mediated in analogy by means of the known. In analogy there is a trust of transition, which comes from the known to until this time the unknown. It is possible by means of likeness, which connect a known subject or process with till this time unknown, non-understandable one.

ANALOGIA (ἀναλογία) has a meaning of likeness, identity, and proportionality, which comes to account and which can be thought over. ANALOGISMOS (ἀναλογισμός) takes into account a sense of speculation, observation, and opinion. A thing, which is ANALOGOS (ἀναλογος), is a proportional, adequate and acceptable. The explanation of the original meaning of the word "analogy" gives a thematic guide for the analysis of an understanding in analogy.

An explanation by means of analogy is a dynamic starting situation of cognition. It is a situation with an explicit non-understanding of something which has to be clarified and explained. The explanation has a clear direction and a fully describable aim. The aim is understandable and clear to an explaining person, at the beginning it is unclear and non-understandable to a person receiving the explanation. This gives the polarization of the situation and its structure. An explaining person tries to use something which is well known to both explaining and learning persons, and what has to be a toll facilitating understanding of something non-understandable or unknown, and which has to be, in the end, a support bringing "AHA-Erlebnis". This something known and mediating that seeing through is analogic with that which is unknown and non-understandable to a learning person at the beginning. A dialogue, explanation and description are led in continuous help of analogic relations from known to unknown. The success of explanation is in trust and reliance and it is based on assumed analogous relations. In such based explanations the understanding comes from analogy.

The dynamic situation in explanation based on analogy has this polarity: explaining-learning persons, known-unknown in analogy. The dynamic process of explanation from analogy an explaining person precedes on a learning one and also that known precedes that something unknown. At the beginning of an analogous situation there is an ignorance of something, that has to be overcome, explained and clarified by means of the previous known contents. The explanation in this situation has a clear direction and aim, which the explaining person fully realizes, the learning person need not realize it so clearly. The dynamic of situation of explanation in analogy unifies, in the end, the intellectual positions of explaining and learning persons by seeing through an experience of understanding.

An analogic explanation is based on the existence of analogy, between known and unknown (explained, studied understanding). At the first sight in cursory deduction such explanation seems to be only a bare mechanism of relations. It could appear that the starting of a dynamic explaining situation is a self-evidence of a describing contour of the known structure. In the detailed investigation it appears that a self-evidence of mechanical seeing through is only apparent and it is offered only from an outward manifestation. The self-evidence of analogy disappears if we ask about the original basis of why analogic understanding is possible. Inwardness of understanding appears as neglected.

ANALOGOS (αναλογος) makes demands on that, what quality has the known analogous object, by means of which the unknown thing has to be researched or explained: it has to be acceptably chosen, fully adequate to comprehension and understanding, adequate to previously unknown content that has to be explained. It has to be reliable to that unknown. It would not be available, neither psychologically nor aesthetically, to use some inadequate analogies. They would make a strange impression, or they would be without any effect. The choice of analogous knowledge in some demands on its quality is didactically relevant.

ANALOGISMOS (αναλογισμος) brings an analogous comparison into a position of thought opinion, which can be examined, followed, altered, about which it is possible to make considerations or judgements. It can become a subject of investigative thought. Just this is the characteristic, which is not mere mechanical transition of connections and relations in examination in analogy. An analogous explanation has its non-nominated inward presumption. A certain presumption must already be in mind of a learning person, in order that this person could acquit a relevant investigating thought, to which he has brought analogous opinion. Even if the learning person does not know nor understand at the beginning, there exists an indispensable presumption that something precedes in the mind of a learning person that makes him capable of just that next understanding in analogy. In this presumption we can see some requested didactic ability and readiness for explanation. This is in some way, the potency of analogy in mind. New knowledge is not transferred from the outside in its entirety, but it has its inward base in the learning person.

Socrates' dialogue enables us to find our own ignorance, in order that cognizance of a new insight might arise. With the help of the birth of thoughts, MAIEUTICAE (μαιευτικη), the insight of our own actual situation and ignorance in it appears, in order that the desire for the birth of a new knowledge, new insight and new thought rises. Analogous explanation is made objectively from its known content, but the presence of analogous relations from known to unknown is a guide for the dynamics of cognition and insight into a previously unknown clarification of a structure, which appears at the end in the form of AHA-effect in likeness, identity and difference. ANALOGIA (αναλογια) gives a possibility to see similar, the identical, different and proportional with respect to the previously known. The "AHA-Erlebnis" is that sudden moment of seeing through, is an experience of surprise, what it is in fact and how it is adequately insightful. ANALOGIA (αναλογια) makes easier a structure, which is a key unlock-

ing the analogous, at the beginning unaffected and unknown, later insight and understandable. ANALOGIA (αναλογία) is a key unbinding the unknown and bringing sense from its earlier understood object. An analogous unlocking of the unknown is made with the help of relations of likeness, identity and difference on the background of dimensions One-Many. Continuous-discontinuous, finite-infinite.

## *2. Analogy and understanding*

The analogy is a method of cognition; therefore it is a heuristic method. Because it consists in the comparison of the known pattern with the recognizing object, it demands an opinion of the known object and also of the recognizing one. It demands an opinion as a sense of intellectual insight. We can expect that the opinion be made up for the known object. The known object we can examine and survey its structure, properties and phenomena. A view of the known object has a surveyed structure and its sense of interpretation. For the unknown object the survey of structure and senses of interpretation are less explicit or they are totally unknown. In the extreme case the view of the unknown is continuously non-structured and non-differentiated, therefore it is unsurveyed and uninterpreted. If the unknown is to be understood, it is necessary to get a survey of structure and a sense of interpretations. The way of survey of structure, properties and phenomena of the object and the sense of its interpretation are expressible through language. The language also anticipates the possibilities of affection and understanding. The survey of structure brings to the discrete sense view and to its language expression. We recognize the analogy as a heuristic method, where on the basis of similarity of one or more known objects we make a judgement in this similarity about other previously unknown object or more objects. The analogous survey is principally a language expression. That is why the analogous survey is under the control of rules of logic and structures of language. Syntactic and semantic bases of languages are those that give the possibility of communication and understanding.

Every opinion, which has to be elucidated and expressed in descriptive evidence, must be also sooner or later involved in some syntax and semantics. Every opinion, about which we can express an understandable statement, is involved in the survey of its structure and in the composition of this structure according to its sense. Description of some opinion can have the form of the expression of symptoms, indications, involved in their composition, syntax or in their sense, semantics. Symptomatic description

is elementary compared to partial elements of an opinion and comprehends their possible states. Syntactic description expresses compositions of elements of the opinion. They're ordering in the composition of semantic relations. Semantic description expresses meaning relations. The description of a recorded opinion can be expressed as syntax, composition of structural elements according to their meaning and semantic relations. In this way the structure of opinion can be taken in its composition, syntax and in its meaning, semantics. The composition of an observed structure is ordered according to the meaning of partial structural elements. According to the syntactic and semantic structure, observed in respective opinion, we can offer questions to this opinion, further develop cognition of its composition and meaning, and according to this we can find for this opinion sensible answers. An opinion in its syntactic and semantic structure behaves as a system about which we can ask questions and from which we can deduce answers.

It is a method, which is also used, in cybernetic modelling. Klir and Valach used this method in the cybernetic modeling of text (Klir and Valach 1965). They took the written text as a system about which it is possible to ask corresponding questions, and from which is possible to find meaningful answers. Separate sentences or complete parts were modeled on their syntactic and semantic structure. Questions asked about the text were expressed as sub-structures of syntactic-semantic structures of the complete text. Answers to these questions followed from the text and were, with respect to these questions, supplementary syntactic-semantic sub-structures. During the analysis of analogic relations between an object and other contents we use this method of syntactic-semantic analysis.

If we consider a thought opinion then its syntax and semantic can be expressed in a slightly different way from the rules of linguistics. The difference is most of all that we consider as partial elements of composition meaning full parts (not single words), and relations among them are released by questions that are related to the corresponding semantic bounds.

Analogy can be free or bound. A free analogy is a light comparison, most of all with a popularized purpose, often with a lack of vagueness and a misted comparison. As an example of such analogy we can use an auxiliary comparison of water flow in pipes during an explanation of the Ohm's Law. It is a very free auxiliary comparison, which indicates syntactic-semantic agreement, establishing likeness, analogy. Because of this likeness of two syntactic-semantic structures it is possible to ask of both ones similar questions, from which understanding is evoked.

An example of bound analogy can be demonstrated in the syntactic-semantic structures of Newton's Law of Gravitation and Coulomb's Law of Electrostatics. Their word formulation is strikingly similar. Let us examine the striking likeness of their wording.

The Newton's Law: "Two mass points  $M_1$  and  $M_2$  attract each other by a force  $F$  that is directly proportional to the product of the masses  $m_1$  and  $m_2$  and inversely proportional to the square of the distance  $r$  between them."

The Coulomb's Law: "Two points charges  $Q_1$  and  $Q_2$  act on each other by a force  $F$  that is directly proportional to the product of the charges  $q_1$  and  $q_2$  and inversely proportional to the square of the distance  $r$  between them."

The striking coincidence in the wording of both laws hints at the bound analogy. The syntactic-semantic structure of both wordings is formally identical. It is possible to ask questions of the same type. Similar answers correspond to similar questions. Such coincidence of similar questions and answers are repeated in all analogically bound syntactic-semantic structures.

It is also evident that the complexity of syntactic-semantic structures gives analogic reason for the difficulty of understanding a memory. The definition of the uniformly continuous function of a set is an example of more difficult structures. It is difficult to understand the practicality of its formulation.

Another example:

"A function  $y = f(x)$  is said to have at the point  $c$  a proper  $\left\{ \begin{array}{l} \text{right - handed} \\ \text{left - handed} \end{array} \right\}$  limit equal to the number  $A$ , if for every number  $\varepsilon > 0$  exists a number  $\delta > 0$  that for every points  $x$  from the interval  $\left\{ \begin{array}{l} (c, c + \delta) \\ (c, c - \delta) \end{array} \right\}$   $|f(x) - A| < \varepsilon$  is valid."

Also in this case we have a bound analogy between the left-handed and the right-handed limits. The more complex syntactic-semantic structure is also more challenging to understand. Sometimes the analogy is so bound that analogous things are said practically in one breath, as it was shown in

the case of the definition of left and right-handed limits. It is possible to find various analogies among different knowledge and parts of curricula in strikingly similar syntactic-semantic structures. Many analogies exist among basic notions of straight-line and circular motions (acceleration-angular acceleration; velocity-angular velocity, Cartesian co-ordinates-polar co-ordinates, straight-line motion-circular motion, instantaneous velocity-angular instantaneous velocity...). Analogous relations can be found among notions concerning mechanical and electromagnetic vibrations. Free analogy can be found between the notion of a real number and a distribution (Marcus 1976). This example gives an anticipation of many heuristic relations in the whole system of knowledge on the basis of analogy. Many relations in knowledge are congruent, similar and analogous. An example of a meaningful relations can be found in some mathematical theorems (e.g. the theorem about a function bound on an interval, Weierstrass' Theorem, Darboux' Theorem, Cantor's Theorem) that are in a free analogy in mutual connection according to the common condition.

The above examples demonstrate the heuristic function of analogy. The heuristic use of analogy is evident in the function of didactic explanation; it comes into consideration in scientific discovery, in research and learning of the previously unknown. Heuristic meaning of analogy has not sufficiently conclusive logic reason, which could be transcendental from the known to the unknown. We have no reason to expect from the logic of a matter a congruency and similarity in the unknown, we only trust in it (Pelikan and Dratvova 1926). There is no logical reason to expect beforehand an analogous congruency from known to the unknown a priori, or sometimes even a full congruency. The success of logic that goes analogically to unknown is based on our experience. The trust in an analogous method is established in us by experience of use in mathematics, physics, science, technology and cybernetics. This experience found out an analogy among natural processes and mathematical ideas, and that is why it is so successful to use constructive notations in post-Galilean science. This competency seems to be inductively based. A truth certainty of analogy has modalities from uncertain to evidently certain. When the uncertainty is great an analogy is more metaphoric, allegoric. When the certainty of truth statements from analogy is great, an analogy can be a type of heuristic model. In this case when truth certainty of analogy is great, it is characteristic that syntactic-semantic structures of known and unknown are homomorphous structures, even isomorphous. Modelling and cybernetic analogous methods are based only on the assumption of isomorphic structures

between known (model) and unknown (recognizing object). An analogy brings possibilities of cognition of properties and relations between studied structures. According to types of knowledge analogy contributes to casual, functional and theological explanations.

Experience in the use of analogy is evident, frequently testified by practice. Then the basic question is the last reason of foundation of truth of analogy. What is the last reason that analogy as a heuristic method is as such possible?

If we think about the methodical parts of building of mathematics or exact sciences in general, then the use of analogy is connected with a nature of inductive methods. It is a very often-used procedure from knowledge of facts to formation of hypothesis, theory of Law. In the case of inductive procedures from an empirical material, it seems that results deduced from them cannot be postulated with definitive certainty because they do not follow necessarily, we can only deny or prove from experience. The same uncertainty is in the proof from analogy based on empirical facts. That is why we can say that proof based on induction or analogy from empirical facts has probability nature. Mathematical methods distinguish total and partial induction. The partial induction has a heuristic function that from a partial series of empirical facts it is possible to find a regular connection, which can be further testified by the examination of certainty. The complete induction is based on a syllogistic procedure. Then we get unique results with respect to initial assumptions. The process of proof and the procedure of proof by induction are the subject of the methodology of science. For methods of proving in mathematics see Thiele (Thiele 1986). Heuristic procedures based on analogy are often used and are based on properties of parallelity, similarity, proportionality and likeness.

Analogy in an exact theory (e.g., mathematics) is taken as a likeness of structures. The definition qualifications, which give basis to analogous processes, are morphism. MORPH (μορφή) is a form, likeness, figure, phenomenon, beauty, charm, and (outer) essence. It sounds here the sense of that which is offered to sense receptiveness as a form and likeness. Just form has the creation function with respect to substance. The substance, HYLE (ύλη), is related to different forms, likeness, figures, MORPHE (μορφή), which the form has a determining part in receptiveness of the world and its individualities. Without form we would perceive everything nondistinguishable fused and non-synoptically. In psychology the form, "Gestalt" was the central notion of form psychology, in the context of the works of Max Wer-



theimer, Wolfgang Köhler, Kurt Koffka, etc. They investigated phenomenal and functional domination of the whole in comparison to parts and the regularity of the whole receptiveness. An introspective analysis of gestaltism formulated the postulate of isomorphism. According to this conscious experience, physiological processes and thought processes have the whole structural form, isomorphous to the physical world (this connection with the physical world, formulated in such sense, was not verified later). The knowledge of regularity of the structured whole of receptiveness and thinking, internally organized, figures and background, sense and restructurization of forms, pregnancy of "good forms" was essential. Mathematical theories, based on morphism, are justified by mathematical methodology.

Morphisms are, in exact sciences, one of the central notions, expressing properties of likeness among various structures and mappings conserving structure. Morphism of categories is an essential notion used for the creation of character of mapping among them, e.g. in mapping a set to a set, homomorphism of groups, ring, algebra, non-continuous mapping of topological spaces and so on. Morphism of categories is an uncertain notion. Each category consists of the class of objects and the class of morphism. According to the nature of properties of morphism we can distinguish different classes of morphisms, e.g. homomorphism, isomorphism, monomorphism, epimorphism, bimorphism, endomorphism, automorphism, etc. Presented use of morphism just gives the possibility of various uses of analogy in science.

We usually take the possibility of using analogy as self-evident. If we try to prove the possibility of analogy and find reasons of assurance of certainty of analogous statements self-evidence dwindles away as quick as lightning. Then, for analogy, some worth remains in its heuristic and non-representative significance which is kept within dimensions by relations between uncertainty of a partial induction and the certainty of a complete induction and the syllogistic process. Analogy is much more taken notice than examined in complete inquiry in its last proof of why analogy is possible at all.

It is a deep philosophical question as to why speculation, observation, opinion, ANALOGISMOS (αναλογισμος), (which are based on likeness), identity, proportionality and ANALOGIA (αναλογια), are possible. In this question the inquiry into the ontologic nature of the world is included. Then we ask if observed analogy is an objective notion corresponding to the reality of being. The history of philosophy finds the most different answers. It gives evidence for the difficulty of these questions.

We find the world as a plurality of individua. This variety of forms is part of the deep unity of the cosmos. The world is not for us disintegrated and divided into unrelated parts. All individuality in the world is unique and deeply coherent, congruous. The world as the cosmos is an undivided entirety, in which the essential determination of reality is one, HEN and many in non-limited and undetermined, APEIRON (απειρων). One is determined by the fact that it is multiplied in many, many determined by the fact that it is unified in One. The cosmos has its own essentially determined unification, SYNDESMOS (συνδεσμος).

In order that One is unique, it must be itself. It must be the same, identical, and as this in the sighted. Each unique essence is insight as unique and identical. Nothing is constant and nothing is absolutely identically reproducible in origin completeness and totally. Variation, distinction, and difference make the identity. Identical remains that, which makes the thing unique and what the thing remains, by what is the thing identical. Then we can ask about what the thing is, what is its nature and essence. We do not observe the absolute identity; in this case everything would fuse. There are differences among essences according to their essential differences, distinctions. The distinction and identity of things give us the possibility to observe the identical and different. This is the basis for the possibility to observe likeness. Likeness, identity and variety are potentially for consideration and examination. Observation is the basis for ANALOGISMOS (αναλογισμος). That is why analogy as an insight and opinion is possible for the observation of a variety of similar, identical and varying things. Likeness multiplies individuality by means of identity and difference in that which is observed as analogous.

Analogy as an opinion and judgement supposes identity and difference simultaneously. Analogy is some transition from one structure and mapping, conserving the structure, to another analogous structure. It is the transition from one category in some morphism to another category. Therefore we can hold analogy as a change of opinion from one to another structure according to some morphism. In this way analogous observation has its starting point (*terminus a quo*) and its aim (*terminus ad quem*). This movement is an overpass of some limit of opinion. The original meaning of the world "terminus" is a balk in the field. Analogy is a movement of opinion from one limit to another. Identity and difference among opinions from the first and the second limit are the characteristics of this change. Thus to explain analogous it means to clarify that what is identical in this transition of opinion, and what is changed into distinction, differentiation.

The transition in terms of analogy is a change of opinion, which has something identical in both terms. This corresponds to the way of assignation of general notions in analogy.

Each general notion has its own contents and range. For transition of notions the law of indirect proportionality of contents and range of the notion is valid. If one notion has less content than another, then it has a greater range than the other notion, and vice versa. The range of notion is given by its generality. A general notion is characterized by the possibility of assignation to various particular essences in the same way.

It can be genuinely realized that a general notion is always assigned to partial essences in the same way (univocally) or, on the contrary, it is also possible that a general notion is assigned to partial essences in a different way (analogically). Univocal assignment of a general notion of various partial essences is justified in all cases when the whole general contents of notion is realized equivalency in all parts of the range of the notion. Analogous assignment of the general notion to various partial essences is justified in all cases when not the whole general contents of notion is assigned in all parts of the range of the notion, but is done only partially. Just this corresponds to analogy in its likeness and only partial identity together with some distinction. This is the reason for some uncertainty or insecurity of analogous judgements. For these reasons even a proof based on analogy has only probable validity and it can never reach the complete, exhausted certainty. Similar things are always in some way distinct and there is no complete identity with the first term. Thus in the second term the distinction of a similar thing brings some uncertainty into analogous judgements and proofs. The own nature of analogy always remains in an analogous proof. At a greater degree of uncertainty it can transform even to metaphor or allegory. On finding greater certainty it is necessary to give it a heuristic sense, when analogy is indispensable for searching for an orientation and for understanding a sense of the unknown.

Analogy in its heuristic function assumes preunderstanding. Preunderstanding is the first assumption of hermeneutics, explanation and interpretation. Preunderstanding in analogy is a way from known to unknown on the base of parable. Truth of analogy assumes an objective coherence, which exists between the objective world and the clear knowledge related to it. Furthermore it assumes the coherency, which exists between known and clear knowledge and previously unclear or even unrealized ignorance. That

what we realize as clear and frequently passed-on knowledge, is a posteriori. In order to have accessible something new in analogy, the beginning must always be in presumptions, which have a priori nature. For each new knowledge, there must be something preceding a posteriori and a priori. So preceding presumptions are real knowledge, but they are also knowledge previously unadapted and even only anticipated, knowledge which is intuitive and prototheoretical, unclear and even unrealized, which can be called fuzzy knowledge. Fuzzy knowledge is thus possibility, and potentiality of knowledge, which can have an initiation in the standard of clear knowledge, which is comprehended and understood. With respect to reality the subjective and objective aspect of notions is given in this way. Subjectivity of notion is an aspect of cognizance, a psychological aspect. The objectivity of a notion is an aspect of reality. The subjective and objective aspect is based on coherency of likeness, identity and distinction. The objective aspect in identity and difference thus underlies analogy.

Analogy in its objective gives possibility to heuristic transitions from known to unknown in contents of knowledge, and in this way it affords the possibility for transitions even from known reality to previously unknown reality. Possible thought transitions become a basis of inductive processes. The essence of analogy itself has an inductive nature; we have some confidence to it, but we cannot have sufficiently motivated transcendental identities a priori. Because of no argument, analogy also becomes in its use different modalities of truth certainties. Nevertheless, analogy is in its use very necessary and useful in modelling, which is based on different morphism. Analogy gives us the possibility of judgement, thought observation, opinion supported by likeness, identity, proportionality and variation. This analogy can not only state present things, but even predict. Then analogy is used as an inductive thought method.

Vopenka characterized mathematics as a method of prediction by means of formal calculus (Vopenka 1971). Mathematics in its exactness really uses calculus in order to find transitions behind the limit of factual evidence toward to calculated facts missing in experience. Mathematical process uses whichever transitions that guarantees exactness. Mathematization itself cannot happen without initial pre-knowledge, which is protomathematical speculation and in which it is decided about the competence and usefulness of mathematical methods. In protomathematical speculation intuition and analogy have their irreplaceable position. Mathematization of nature is based on these protomathematical speculations; has it de-

velopped up to now in Galilean motivation. This use of mathematics in nature and use of analogy within its frame was until now unproven in the question of why it is possible, and if it is possible, what does it means in its consequences. Husserl stated:

It was a fatal omission, that Galileo did not ask retrospectively about initial sense producing act, which done as idealization on initial basis of all theoretical and practical life -directly objective world (and here especially empirically objective world of bodies)- creates ideal geometric forms. In details he did not deliberate how the figment of his imagination about this world and its forms gives at first only possible empiric-objective, not exact forms, even which motivation and what new act geometrical idealization demanded in its own sense (Husserl 1965).

It really brings the possibility to use analogous reality for fundamental questions about the nature of the world. The use of analogy to reality is not self-evident. The fact that it is even possible to use analogy in contents of knowledge and in reality is evidently connected with the order of the world itself: we search and find the order of knowledge, the order of existence, the order of organic and unorganic essences, the order of God reality and the order of human action. Philosophical branches correspond to this: logic and noethics ontology, cosmology, psychology, theodicea, and ethics. The use of analogy to reality is based on the objectiveness of analogous notions.

Non-self-evidence of using analogy to reality in comparison with possible successfulness of analogous processes in the world gives us certain statements about the nature of the world. Objectivity and knowledge in power blind our modern sight of the world. Therefore, we gladly ignore the nature of individualities, to which we behave somehow, in the best case, apathetically. We do not give enough hearing, seeing and feeling to individuality and the uniqueness of each individuality. That is the way the world appears to us much more in light of neediness than in light of understanding and comprehension. Individuality and uniqueness of existence of each concrete, unique character is utterly singular to the nature of the world, which shows to us as a plurality of individua. After all one of the most meaningful non-self-evidences in the world there is just the fact that individual things exist in their uniqueness and individuality and in their coherency. If it were not true then everything would be fused and non-differentiated. In individuality and uniqueness we find even in these modern times problems of antique notions HEN (εν), One and APEIRON (απειρων), unlimited, undetermined. One is determined by the fact that it is multiplied in many. Many are determined by the fact that it is united in

One. To think One needs presumption of identity. To think identity always means to step aside and allow thought in distance and repetition. Through these elements of difference are brought into the thinking of notion. Identity and distinction give individuality and uniqueness. Distinction supposes difference. Identity and difference bring likeness to which analogy is then also related. Likeness has always alliance in something, finds sympathy, in contrast to distinction which brings, contradiction, antagonism, even disfavour. Identity and difference bring to determination of Many. The fundamental determination of the world is in coherency, based necessarily on harmony, favour, affinity, likeness, and thus the determination of the world is sympathetic in fundamental determination. If it is not true, the cosmos might have disintegrated into a series of non-continuous pieces long ago. Modern times took us away from feelings of sympathy for the world. Without that the union, SYNDESMOS (συνδεσμος), would not be possible. Only in this way cosmological integrity, sympathy, coherency and teleology are possible.

Cosmological sympathy and coherency give us the possibility to search the analogous and to find parable. We are open to understand and comprehend. Therefore our knowledge should not be based on power, but it could aspire to its re-position in knowledge, in comprehency and understanding. Knowledge a posteriori assumes its pre-understanding on the basis of parable. Each theory assumes its prototheoretical knowledge. Thus, pre-knowledge and pre-understanding can be taken as sheer potentiality of thought, as a possibility to look in. This potentiality is not complete knowledge and itself has no sharpness. On the contrary it is fully fused and fully unrealized. It must be present for each pre-understanding as a hermeneutic presumption, that we shall be capable of certain thought, act and insight. Because it is not a nature of some knowledge, but only potentiality of thought insight, it is possible to admit to speak about fuzzy-knowledge. In some way even Socrates appealed to it in *maieutic* art.

The nature of thought search is inherent, because all our knowledge sticks in something. Our present knowledge sticks in its previous thought mode. Inherency is typical for the mode of understanding and comprehency. In knowledge we always unify space and time distances. We can reconstruct the distance in the past. We can only model the distance in space. Presence is disintegrated before our eyes and gets stuck in the disintegrated past. Future only appears in presence. We overcome time and space distances. Thanks to that the world has its coherent order. We derive our ideas, par-

ables, and analogies from the coherency of the world. Otherwise we could stay in primitive images. The sun could appear and be interpreted as a bright ring. To reach the model of the Sun as a star is a long reconstruction based in many analogies. The neutrino scandal is only an example that the use of inherent analogies must not give true parable with reality. In the case of the neutrino scandal the dissonance with reality gives evidence that either we cannot correctly measure the coming stream of neutrinos from the Sun, or that we do not know something about the behavior of elementary particles, or that our idea about the model of stars is not quite correct. Analogously it would be possible to find other examples, e.g. knowledge about quasars or cosmological knowledge about the beginning and origin of the universe, in which it could be possible to show the method of reconstruction, the conclusion of information from original starting ideas, parables or analogies. We also interpret explanation and feel in some sense our information according to that inherent in knowledge. Therefore it is not indifferent from which ideas we explain the world.

In the modern time we are also sometimes overwhelmed by ideas about the full sharpness of everything. It is the results of apathetic receptiveness of the world, when we only divide, disintegrate, reduce, schematize, and deduce from the world, as if everything is given only as a mechanical part and functionally useful part. Then we ignore sympathy and coherency. We are satisfied with the phenomenon of sharpness that we use very much. Non-sharpness, non-distinctiveness are very often evident in reality, and they are also a presumption of our knowledge. Fuzzy sets and their application are only an example that even mathematizing knowledge allows, non-adapted, the event of non-sharpness. Vopenka just states that the possibility of application of infinite mathematics is based on the phenomenon of infinity, but in each form of the phenomenon of infinity of Cantor's theory of sets we can find application, in some form, of the phenomenon of non-sharpness.

Participation of the phenomenon of infinity on the phenomenon of non-sharpness enables not only to explain the phenomenon of non-sharpness by means of the absolute infinity studied in classic mathematics, but also to explain the phenomenon of infinity from the phenomenon of non-sharpness (Vopenka 1989).

Analogy, resemble themselves consist in the phenomenon of non-sharpness. The world is created by many parables. In nature we find parable as MIMESIS (μιμησις), imitation. Scheme of nature in timeless coherency, timeless composition together, SYMBALLEIN (συμβαλλειν). Cosmological coherence enables SYMBALLEIN (συμβαλλειν). We find mutual completi-

zation, composition and penetration in whole world events. Man and woman complete each other as SYMBOLA (συμβολα), as halves of life determinate to be completed. Therefore, Fink speaks about ontological underestimation of game SYMBALLEIN (συμβαλλειν) at the beginning of metaphysics (Fink 1960).

Analogy is also the game SYMBALLEIN (συμβαλλειν). Analogous recognition is the search for parable, favour, and sympathy of coherence in the world. Resemblance is then a route to knowledge, which does not always lead to knowledge in power, but gives also the possibility of knowledge in understanding, comprehension of sense, in feeling of participation and responsibility in the world of harmonic and sympathetic basis. Even to accept that analogy is possible is to look for an understanding of the world order. The possibility to think in analogy and objectivity contained in analogy gives evidence of what the world is.

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# CITY: JOURNEY, MAP, *ARGO*

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**ABSTRACT:** The paper endeavours to identify three fundamental approaches to the depiction of the urban space. The first is that of the chronicling traveller, for whom the space is always identified with the aid of events and operations which transmute into performative markings. This approach was replaced at the beginning of the modern period by representation in the form of the map. The third approach is Barthes' perceptions of the city as the *Argo* and of the urban centre as the place of encounter. Here the urban space is determined through the active participant in play and by his body.

**Keywords:** semiotics, performative markings, symbolic thought, understanding of space, city, corporeality.

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1. The chroniclers of travel
  2. Maps
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### *1. The chroniclers of travel*

When we find ourselves in a large and unknown city, where not only is it our first time there, but we also do not understand the language its inhabitants speak, so that it is truly a labyrinth for us, in searching for a particular place, we normally try to find a guide or get hold of a map.

A guide saves us from getting lost quite simply by taking us to the place we seek; the environment in which we move in the process does not cease to be unknown to us, the language of its inhabitants remains incomprehensible, but we approach our goal by following someone who is on familiar ground. We do not try to decipher what this or that sign means, but instead accept our inability to understand their instructions and warnings, accept that we do not know where we are at any given moment, and yet advance in the faith that we are getting closer to the place where we