

ABSTRACTS

HEURISTIC STRATEGIES

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We are presenting shortly the steps of a heuristic strategy: preliminary preparation (assimilation, penetration, information gathering by means of some universal procedures: study, reading, travels, discussions, observations, etc.); 2) inspiration (working and/or scientific hypotheses, formulate new concepts, definitions, comparisons, experiences, rational motives, demonstrations); 3) decantation (calculate, make use of inferences and logical and methodological procedures); 4) composition or construction (synthesis, inspiration, imagination, analogies, criticism, self-criticism, final conclusions, elaboration of treatises and/or theories etc.). It emerged that with discovery and invention there exist elements of logic, mathematics, methodology, psychology, favorable events, etc. We distinguished two heuristic strategies, from Max Plank's construction of quantum physics and Bertrand Russell and A.N. Whitehead's transformation of logic into a logical-mathematical formal system.

Key terms: heuristic strategy, assimilation, information gathering, inspiration, decantation, theoretical construction, *Principia Mathematica*.

KNOWLEDGE AND LANGUAGE IN THE *CRITIQUE OF PURE REASON*

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The paper debates upon the relationship between knowledge and language in the *Critique of Pure Reason*. The author holds Josef Simon's idea that "Kant does not elaborate a philosophy of language. Still, no other modern philosopher influenced more than him the philosophy of language", his paper *Kant on Language* being translated into Romanian.

Key terms: reason, language, pure knowledge, theory of knowledge

MODELS AND RULES. CONTROVERSIES IN THE CONTEMPORARY FOUNDATIONS OF SEMANTICS

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In my paper, I address the notion of meaning against the background of two opposing views in the formal semantics for logic languages, representationalism vs. inferentialism. The two conceptions about whether or not the meanings of logical connectives could be fixed through models or through

inference rules are spelled out via a pair of opposing views concerning semantics, viz. model-theoretic semantics vs. proof-theoretic semantics. The natural options are to pair off representationalism with model-theoretic semantics and inferentialism with proof-theoretic semantics. Nevertheless, there is a legitimate place for a mixed view which is *model-theoretic inferentialism*. Thus, I explore the prospects of this hybrid view which holds interesting prospects for results coming from combining the virtues of those two conceptions. I end up pointing out some problems with inferentialism, and leave open the option for a better model-theoretic representationalist conception of meaning.

Key terms: models, rules, representational model-theoretical semantics, inferential demonstrative-theoretical semantics, model-theoretical inferentialism, G. Genzen, D. Davidson, M. Dummett, R. Brandon, J. Garson

LOGIC, MATHEMATICAL LOGIC AND LOGICAL LAWS IN L.E.J. BROUWER'S VIEW

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This paper follows two of our previous articles in which we first of all tried to identify what we have called hermeneutical levels that configure the inner structure of L.E.J. Brouwer's special intuitionistic theory. We next thoroughly analyzed on those occasions the first three of these levels (the perspectives on communication, language and mathematics). Our present contribution consists of a particular focus on Brouwer's views on logic, mathematical logic and the laws of logic, integrating conclusions previously achieved through our philosophical investigation.

Key terms: Brouwer, intuitionism, mathematics, logic, mathematical logic, logical laws, law of excluded middle

THE EXTENSIONAL CALCULUS

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The *extensional language* allows us to investigate the extensional component of truth. Its formulas can receive several interpretations such as propositions about classes, existential propositions or categorical propositions. Using the properties of the extensional expressions, it is possible to calculate the validity of the inferences containing the types of propositions mentioned above. For instance, we can demonstrate that there are 1536 valid syllogistic moods, much many that the classic ones.

Key terms: set theory, extensional truth, syllogism, symbolic language, valid inferences

SUBCONTRARIETY AS NON-CLASSICAL OPPOSITION BETWEEN THE PREMISES OF CLASSICAL INFERENCES

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The starting point of this article is the tacit assumption that the non/classical and classical logic are separated as their names suggest. And the working hypothesis is that this separation is not real. More precisely, the hypothesis is that between the premises of the classical inferences there is a non-classical opposition: subcontrariety. To show this we started from the definition of the subcontrariety operator and from a number of classical inferences as non-provable stoical inferences and dilemmas. We analyzed the subcontrariety definition, re-expressing it as a relation between sets of models and between counter-models. Then we applied this definition to the premises from the aforementioned inferences. The result was that not all of them are subcontrary opposed, but most of them are. An interesting observation is that in this case introducing some non-classical marks in classical logic makes it possible to observe that the relation signified by them pre-exists in classical logic.

Key terms: subcontrariety, Stoic inferences, transitivity, model, counter-model, constructive dilemma, destructive dilemma

ON BELIEF, TRUTH, AND SOPHISM IN THE ADVERTISING DISCOURSE

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Being many times accused of using manipulative techniques and ill rhetoric, the advertising discourse defends itself by saying that its rules are different from that of logic, pertaining to the art of creating beliefs; accordingly, the advertising discourse would follow rhetoric, and not logic. Still, as long as within this discourse one often finds assertions that clearly break the rules of logic, i. e. sophisms or false statements, one has reasons to believe that advertising discourse (be it political or commercial) is meant to deceive the public or create a belief at all costs. One cannot always accept that this discourse has its own rules, as those involved in it often claim, as long as the rules of logic are universal; logic shows us the soundness of human thinking (expressed either in ordinary language or in the mathematical-symbolical one); therefore, all discourse must obey the rules of logic, otherwise being unsound. We re-open, on this ground, an old topic of social psychology above all, and we suggest another framework of analysis, a simple one, coming from logic.

Key terms: belief, truth, sophism, manipulation, rhetoric, logic

THE MIDDLE TERM IN CLASSICAL AND SPECULATIVE LOGIC

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The paper comparatively presents the statute of the middle term within the Aristotelian syllogistic and in Hegel's science of logic, given the fact that Aristotelian syllogistic has a demonstrative function, while that of Hegel has an integrative one.

Key terms: middle term, major (proton), minor (eschaton), Plato, Aristotle, Hegel

ARISTOTELIAN REDUCTION OF SYLLOGISMS AND THEIR LINGUISTIC EXPRESSION

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The paper starts from the Aristotelian theory of reducing the imperfect syllogisms to the perfect ones, in order to display the relationship between the *de facto* linguistic expression of those within the Aristotelian treatises and their logical canonic structure, together with some brief remarks on the translation into a modern language.

Key terms: perfect syllogism, imperfect syllogism, direct reduction, indirect reduction, enthymeme, logical analysis
silogism perfect, silogism imperfect, reducere directă, reducere indirectă, entimemă, analiză logică

THE JUDICATIVE ASPECT OF NONCONTRADICTION

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The present paper analyses the characteristics of opposition at the level of judgments and follows the structure of Aristotle's treatise *On Interpretation*. It examines the relationship of opposition both at the level of assertoric judgments and at that of modal judgments, touching also the issue of *future contingents*; it takes guidance from the considerations of the Greek commentators Ammonius and Stephanus and from the interpretation proposed by Constantin Noica. Our approach aims to preserve the original Aristotelian meanings regarding the opposition of judgments in the interpretative frame of a modern standpoint.

Key terms: Aristotle, *On Interpretation*, Ammonius, Stephanus, opposition of judgments, contradiction, contrariety, Constantin Noica, becoming.

JUDICATIVE MEANING OF THE KRINAMEN

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Neither classical, nor mathematical logic can explain Pauli's exclusion principle – due to which there is a qualitative diversity of the world, a complexity of irreversible processes within which ordered structures spring from the homogenous-germinating fields of matter, life, or reason. Their formalisms render the world uniform. In Hermes' logic, the world delivers the forms that spring from things and their logical situations, such that reason no longer aims towards association, but dissociation, unbinding and disjunction. The *krinamen* is the essential form taken by the tension from within the horizon created by the fundamental dissociation, and which opens, as Constantin Noica says, a logical universe that is bounded to all types of universe: physical, biological, and spiritual. The

dissociation reflects extremely diverse fields: from *hysteresis*, to the theory of wave-fronts; from nervous anorexia to the psychology of leadership, and from the applications in hydrodynamics to applications in linguistics and embryology.

Key terms: *holomer, krinamen, synaethism*, fundamental vibration, order by fluctuations, de-powering, com-penetration, complexity, self-organization.

PRELIMINARY CONCEPTS OF HERMES' LOGIC: LOGICAL SITUATION AND LOGICAL FIELD

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The Romanian philosopher, Constantin Noica, engaged into a tremendous project, i. e. to elaborate a new logic. Nevertheless, his logic seems to be not only a new logic – among others – but a new type of logic, hermeneutic logic. In order to achieve such a great goal, the very foundations of thinking were supposed to be questioned. Noica starts his logical quest by restating the fundamental concepts of logic. His two main notions – that are meant to be the basis of all logical thinking – are those of logical situation and logical field.

Key terms: logical field, logical situation, individual, category, speculative