

Jerzy Perzanowski: Complete and Annotated Bibliography of His Writings in English on Logic and Ontology

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Jerzy Perzanowski: Modal Logics, Ontology and Ontologies

PUBLICATIONS IN ENGLISH, FRENCH AND ITALIAN

1. "A linguistic criterion of structural incompleteness," *Bulletin of the Section of Logic* 1: 18-20 (1971).
2. "The first list of the deduction theorems characteristic for several modal calculi formalized after the manner of Lemmon," *Bulletin of the Section of Logic* 1: 21-31 (1971).
3. "The deduction theorems for the system T of Feys-von Wright," *Prace z Logiki* 6: 11-14 (1971).
4. The development of Cantor's definition of the set. In *Studies in the history of mathematical logic*. Edited by Surma Stanislaw. Ossolineum: Wroclaw 1973. pp. 269-274
5. "A linguistic criterion of structural incompleteness," *Reports on Mathematical Logic* 1: 13-14 (1973).
6. "The deduction theorems for the modal propositional calculi formalized after the manner of Lemmon. Part I," *Reports on Mathematical Logic* 1: 1-12 (1973).
7. "On homogenous fragments of normal propositional logics," *Bulletin of the Section of Logic* 4: 44-51 (1975).
8. "On M-fragments and L-fragments of normal modal propositional calculi," *Reports on Mathematical Logic* 5: 63-72 (1975).
9. Some ontological and semantical puzzles of Wittgenstein's *Tractatus*. In *Aesthetics. Proceedings of the 8th International Wittgenstein Symposium, 15th - 21st August 1983, Kirchberg am Wessel (Österreich)*. Edited by Haller Rudolf. Wien: Holder-Pichler-Tempsky 1984. pp. 224-230
 "The importance of the ontological component of Wittgenstein's *Tractatus* is generally recognized. And most of the contemporary philosophers (analytical at least) believe that the *Tractatus* is primarily a product of the first-rate metaphysical (*) thinker. Does it mean that Wittgenstein's ontology and the role it plays in the *Tractatus* is commonly and completely understood? Of course, we all know how rich in philosophical theories and insights *Tractatus* is. Let me mention a few of them: the picture theory of language (i.e. the theory of propositions, meaning and logical syntax), a semantical theory of logical truth (with a concept of "tautology", logical atomism, the principle of extensionality), new theory of identity, remarkable philosophy of logic, theory of philosophy as a "critique of language" as well as the *Tractatus* insights into ontology (which I am going to discuss below), epistemology (with the *Tractatus* solipsism and mysticism), religion and ethics. However, many people consider the *Tractatus* to be rather a bundle of theories and/or claims. The reason for that opinion is drawn from the *Tractatus* characteristic, aphoristical style and

its lack of (fully developed) arguments. For example, Professor Max Black underlines in *A Companion to Wittgenstein's Tractatus* on the one hand the importance of the ontological component of the *Tractatus* but on the other hand he writes that Wittgenstein's great contributions to philosophical insights mentioned above are logically independent of his views about the nature of the world (p. 27)

The main aim of my paper is to supply evidence that ontology and semantics of the *Tractatus* (as well as further philosophical theories which are to be found therein) are much more coherent and interconnected than it is usually believed."

(*) or rather ontological, if we differentiate ontology -- a theory of what and why is possible from metaphysics -- a theory of what and why exists.

10. Some observations on modal logics and the *Tractatus*. In *Philosophy of mind, philosophy of psychology. Proceedings of the 9th International Wittgenstein Symposium, 19th-26th August 1984, Kirchberg am Wechsel (Österreich)*. Edited by Chisholm Roderick. Wien: Holder-Pichler-Tempsky 1985. pp. 544-550

"[1] The modal character of the Tractarian ontology is now commonly recognized [2]. And it is clear that there must be some modal calculus (or, more carefully, calculi) implicit in the *Tractatus*. In the subjects' literature we may find several papers dealing with the question. Most of them point to Lewis' calculus S5 as the Tractarian modal logic. Is this answer right? Are arguments in its support convincing?

I do believe that:

(1°) the most popular answer mentioned above, even if true, should be argued for more thoroughly than it has been;

(2°) the modality structure implicit in the *Tractatus*, even when restricted to purely ontological modalities, is more complex than it looks in its usual descriptions, including the best available at the moment. In particular, both the basic role played by the notion of form-fundamental modality of the *Tractatus*, as I tried to argue in my *Some ontological and semantical puzzles of Wittgenstein's Tractatus* (1984) - and the question of its logic is simply omitted by the writers known to me. However, truth is only one, and if not fully recognized, irrespective of how deeply it is hidden, it sends us words about itself, mainly indirectly, through some inaccuracies and/or inconsistencies in current opinion. This applies to the question under discussion, among others, in the following way: both necessity and possibility operators implicit in S5 or in any similar logic are symmetrical, whereas these two notions in its most frequent Tractarian occurrences are not. Characteristic are also incoherencies which are to be found in claims made by the authors arguing, in fact, along the same line (compare A. Maury 1977 and G. H. von Wright 1972).

In what follows, starting with brief comments concerning D. Kaplan's, G. H. von Wright's and A. Maury's works, I will try to reexamine the problem and to provide some new arguments for a corrected version of von Wright's solution and to extend that solution by basing it on more fundamental theory of the notion of form. This theory, as you will see, provides solid philosophical foundations for relational semantics of intensional logics, foundations which are grounded on the Tractarian ontology." p. 544

[1] The paper's title clearly paraphrases the title of G. H. von Wright's master essay *Modal logic and the Tractatus* [in G. H. von Wright - *Wittgenstein* 1982, pp. 185-200]. Its ambiguity is intended, two main claims of the paper are thus hinted at. The first one concerns complexity of the modality structure of the *Tractatus* and points out several modal logics inhering in it. The second one shows the way of basing modal logics on the Tractarian ontology. To do that one reduces the fundamental notions of modal philosophy and relational semantics of modal logics (compatibility, possible worlds and relation of alternativeness) to the notion of form-the basic ontological modality of the *Tractatus* (comp. J. Perzanowski - *Some ontological and semantical puzzles of Wittgenstein's Tractatus*, 1984).

[2] The paper forms a third part of my bigger work in progress (comp. previous parts *Some ontological...*, cit. and *What is non-Fregean in the Tractarian semantics and why?* 1993) in which, after having articulated the proper place of ontology in the *Tractatus*, I am trying to formalize it.

Due to the limitation of the paper's length it is still a sort of abstract. Its full text, with all arguments developed, is intended to be published elsewhere as *Modal logics and the Tractatus* - in preparation [the essay was never published].

11. Una caratterizzazione del monismo. In *Il foglio e l'albero*. Edited by Verdiglione Armando. Milano: Spirali 1986. pp. 98-104
Originally published in Italian.

"Fin dall'inizio la filosofia europea si è confrontata con la controversia tra monismo e pluralismo concernente la questione: quante cose esistono realmente? la questione dell'uno e dei molti. Ovviamente la nostra esperienza ci dice -- Molti; ma tante false affermazioni sono basate sull'esperienza!

Nella tradizione europea ci sono due grandi linee di pensatori. La prima è quella dei filosofi monisti che incomincia con Parmenide di Elea e comprende i filosofi che sostengono che esiste *un* solo ente, che è costante e a priori. Più tardi il monismo fu generalmente connesso con la pretesa che questo ente unico sia Dio, o la Natura di essenza puramente logica. La seconda linea comprende i filosofi pluralisti e incomincia con Eraclito. Il pluralismo sostiene che ci sono molti enti mutevoli nonché -- nella maggior parte dei casi -- fenomenici. L'opposizione Monismo-Pluralismo non è una questione isolata e puramente teoretica. Ha una sua propria tensione interna, espressa in un senso del mistero per cui Uno è Molti e Molti è Uno; questa sensazione e la principale fonte del misticismo filosofico. In quanto segue cercherò di portare la luce della logica sulla controversia basilare su esposta."

12. *Essays on Philosophy and Logic. Proceedings of the XXXth Conference on the History of Logic, Dedicated to Roman Suszko. Cracow, October 19-21, 1984*. Edited by Perzanowski Jerzy. Cracow: Jagiellonian University Press 1987.

Preface: "This volume contains nearly all the papers presented at the XXXth Conference on the History of Logic which was held in Cracow, October 19th-21st, 1984.

The Conference was organized by the Department of Logic, Jagiellonian University and the Cracow Branch of the Polish academy of Sciences.

The papers published in the present Proceedings are published as preprints, whose copyright belongs to the authors. Their extended versions may be submitted elsewhere.

The potential reader should be warned that the traditional name of the Conference should be understood as 'Conference on Logic and Its History'. In fact, majority of papers published here deal with history of logic in a rather indirect way -- contributing directly to logic and/or philosophy.

This motivates the division of papers into three parts.

Papers from the third part are devoted to logical and philosophical achievements of the late Professor Roman Suszko.

It is a good tradition of Cracow Conferences that -- since 1972 -- most of them have been devoted to achievements of the most eminent representatives of the Polish logical and philosophical school.

Dedication of the XXXth Conference on the History of Logic to scientific achievements of the late Professor Suszko as well as obvious to any participant success of the Conference prove that Roman Suszko, pupil and former assistant of Kazimierz Ajdukiewicz, is widely recognized as the member of the Polish logical school in the *very* sense of the word.

The Proceedings of the XXXth Conference on the History of Logic are dedicated to the memory of Professor Roman Suszko, outstanding philosopher and logician, who was greatly respected and admired by all of us. The Editor"

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13. Remarks on propositional embeddings and degrees. In *Essays on philosophy and logic: Proceedings of the 30th Conference on the history of logic, dedicated to Roman Suszko - Cracow, October 19-21, 1984*. Edited by Perzanowski Jerzy. Cracow: Jagiellonian University Press 1987. pp. 121-136

"This exploratory paper offers, to those familiar with studying logics as consequence relations, an intriguing system of problems along with suggestions for confronting them. The author raises two questions: What is the size and number of matrices needed to characterize a logic given by a consequence relation? He motivates the questions by reminding us that for logics given axiomatically the questions are simply answered by citing the Lindenbaum algebra for the language. The answers are not so simple when we consider consequence relations. He explores answering the question of how many matrices are needed to characterize a logic by determining the number of maximally consistent extensions of the logic." (Charles F. Kielkopf)

Abstract: "When, for a given propositional logic, we take semantics (say - matrix, algebraic or relational semantics) the most natural question is to estimate it. This means to answer the question: How many and how big matrices (algebras, frames, or - in general - structures) are necessary to characterise the logic?

In the case of matrix semantics, for logics understood traditionally - as sets of formulas closed under chosen rules and substitution - the general answer is easy and well-known: as was shown by A. Lindenbaum, it suffices to take exactly one matrix with the number of elements not exceeding the number of language's expressions.

However, when we consider consequence operators, or equivalently - sets of rules, the question is much more difficult and in many cases still open.

In what follows I will discuss the first part of it: How many structures are needed to characterise a given consequence operator? My general idea is to compare this number with the number of maximally consistent, i.e. Post-complete, logics of this consequence operator."

14. Elements of monadologic (Abstract). In *Leibniz, Tradition und Aktualität: Vorträge. V. Internationaler Leibniz-Kongress Hannover, 14.-19. November 1988*. Hannover: Gottfried Wilhelm Leibniz Gesellschaft 1988. pp. 734-736
15. Ontologies and ontologies. In *Logic counts*. Edited by Zarnecka-Bialy Ewa. Dordrecht: Kluwer 1990. pp. 23-42

16. Towards post-Tractatus ontology. In *Wittgenstein. Towards a re-evaluation: Proceedings of the 14th International Wittgenstein-Symposium, centenary celebration, 13th to 20th August 1989 Kirchberg am Wechsel (Austria)*. Edited by Haller Rudolf, Haller, and Brandl Johannes. Dordrecht: Kluwer 1990. pp. 185-199

"1. Surely the above title is rather dark. Therefore, let me start with a few words of clarification. "Post-Tractatus" means either after "Tractatus" or a natural prolongation of the books' sequence: "Proto-Tractatus", "Tractatus", Hence the title of this paper means either the task of developing ontology built up after "Tractatus" clues, by taking its claims and lesson seriously, or clarification of the "Tractatus" text, by explaining notions and providing its claims with well-grounded arguments, trying thus to develop, step by step, a more advanced and better argued version of Wittgenstein's treatise.

(...)

The paper is organized as follows: I start with a general review of the ontology of the Tractatus, putting emphasis on its modalities, particularly on its notion of the form. Semi-formalization of the thesis 2.033, in which the form is defined as the possibility of the structure, leads to isolation of the basic ontological modality - making possible. The formal theory of it, which is the crux of combination ontology, is outlined in the fourth chapter of the paper. Finally, several applications of this general ontology to the starting Tractarian ontology are given." p. 185.

17. Modalities, ontological. In *Handbook of metaphysics and ontology*. Edited by Burkhardt Hans and Smith Barry. München: Philosophia Verlag 1991. pp. 560-562
18. Ontological arguments II - Cartesian and Leibnizian. In *Handbook of metaphysics and ontology*. Edited by Burkhardt Hans and Smith Barry. München: Philosophia Verlag 1991. pp. 625-633
19. Ce qu'il y a de non Fregean dans la sémantique du Tractatus de Wittgenstein et pourquoi? In *Wittgenstein et la philosophie aujourd'hui: Journées internationales Créteil-Paris, 16-21 juin 1989 à l'occasion du centenaire de la naissance de Ludwig Wittgenstein (1889-1951)*. Edited by Sebestik Jan and Soulez Antonia. Paris: Klincksieck 1992. pp. 163-177
- Translated in English as: *What is non-Fregean in the semantics of Wittgenstein's Tractatus and why?* - *Axiomathes*, 1993, 4, pp. 357-372.
20. Combination semantics: an outline. In *Signs of humanity. Proceedings of the IVth International Congress, International Association for Semiotic Studies, Barcelona/Perpignan, March, 30th - April 6th 1989*. Edited by Balat Michel and Deledalle-Rhodes Janice. Berlin, New York: Mouton De Gruyter 1992. pp. 437-442
21. "What is non-Fregean in the semantics of Wittgenstein's Tractatus and why?," *Axiomathes* 4 (3): 357-372 (1993).

"1. Certainly, of the two title questions the second - why? - is more challenging and important. But also much more difficult.

To answer it we must not only collect and evaluate non-Fregean components of the semantics of the *Tractatus*, thus comparing them with Frege's semantics - which is rather easy; but we must also go into depth on both semantics, looking at their fundamentals and trying to find their basic conceptual and methodological framework. Such research, however, is much more difficult, partly because it leads us out of semantics into the broader and more general field of ontology, and to very fundamental metaphilosophical questions: to metaphilosophical considerations - because we try to compare two general philosophical theories; to ontological investigations - because of the nature of semantics.

2. Semantics provides language with the objective interpretation establishing connections between linguistic expressions and pieces of the world. To this end, however, it must be, if not arbitrary, developed inside a framework common for a language and the world. Such a framework can be provided only by a discipline more general than a theory of language, including semantics, as well as a theory of the world, i.e. by ontology - the most general theory of being, the theory of all possibilities.

Any proper semantics is indeed based on ontology - Frege's and Wittgenstein's semantics as well.

3. Full and well-motivated discussion of the title questions requires a book rather than a short article. Therefore, I shall limit the discussion to differences in the key-schemes of both semantics, plus very brief and rather cryptic remarks concerning the general framework of this comparison.

I start with a few general remarks concerning the type of philosophy which, to my mind, is common to Frege and the young Wittgenstein. Next, I will proceed to a reconstruction of the semantic diagrams which are basic for the two semantics under investigation, emphasizing differences and trying to explain reasons for them." p. 357

22. "Locative Ontology Part I-III," *Logic and Logical Philosophy* 1: 7-94 (1993).

The First Part is reprinted in: *Art of philosophy. A Selection of Jerzy Perzanowski's Works*, pp. 87-120.

"To characterize his monograph-length essay, which is to be continued, the author writes: "The work has two aims: a philosophical one-to clarify one of the most important variants of verb-type ontologies, and a mathematical one-to enlarge the body of commonly known theories of order." A verb-type ontology is an axiomatization of the ordering relation of a use of a verb phrase based on the verb 'to be' if this axiomatization is developed for the philosophical purpose of understanding the structure of reality in so far as it is correctly represented with the use of 'to be' in question. Thus, set theory can be an ontology for 'to be a member of', while mereology is an ontology for 'to be a part of'. The author focuses on the locative use of 'to be' which means 'to be in'. Examples of such uses are 'She is in Schaan' and 'I am in her thoughts'.

The author distinguishes the locative use from other uses, especially the mereological use. In general, the locative 'is' is not transitive. Most of the work is the mathematical work of characterizing and axiomatizing the (hitherto undeveloped) ordering relation for 'to be in'. The author explicitly requests readers to judge the mathematical work on its mathematical merits." (Charles F. Kielkopf - Karlsruhe)

"The paper is organized as follows: I start with a general and brief overview of verb-type-ontologies, stressing the importance of the locative one. Next, three main relevant formal theories-of preorders, of mereologies as well as Lesniewski's Ontology - are presented. They are shown to be inadequate to formalise location.

In this survey a special emphasis is put on premereologies intermediate between classical mereologies and preorders. Premereology seems to be very useful in the field of ontology and metaphysics as the first, purely logical, approximation of the idea of condensation, i.e. the internal strength of unifying connections.

Next, I will pass to a discussion of locative ontologies, introducing them as a generalization of preorders, which fill in certain gaps occurring in both mathematical and philosophical approaches to orders. The bulk of locative ontology is presented in the Parts II and III, where locative orders are introduced and related to more familiar structures outlined previously. At the end, the philosophical content of locative ontology is presented and, finally, several cases of location in some important domains are pointed out." p. 11

23. *Reasons and causes*. In *Logic and causal reasoning*. Edited by Faye Jan, Scheffler Uwe, and Urchs Max. Berlin: Akademie Verlag 1994. pp. 169-189

"Jerzy Perzanowski starts his considerations on *Reasons and Causes* with a few general remarks concerning the ontology of causality. Next, the basic family of relevant onto-logical operators, called *makers*, is introduced. Basic axioms are worked out for a formal setting of the mechanism of causal interactions in his 'Ontologic'. Perzanowski's paper concludes with the following deep truth: 'Anyway, one thing is clear. Determinism needs further, careful and subtle discussion' (188)."

From the review of the book by Klaus Wuttich in: *Logic and Logical Philosophy*, Vol. 2 (1994), pp. 151-158.

24. *Towards Psychoontology*. In *Philosophy and the Cognitive Sciences. Proceedings of the 16th International Wittgenstein Symposium, 15-22 August 1993, Kirchberg am Wechsel (Austria)*. Edited by Casati Roberto, Smith Barry, and White Graham. Wien: Hölder-Pichler-Tempsky 1994. pp. 287-296

Reprinted in: *Art of philosophy. A Selection of Jerzy Perzanowski's Works*, pp. 135-146.

"Psychoontology is the *ontology* of the psyche and of related matters. Hence, by definition, it is a case of *particular* and *applied* ontology.

Here, following Leibniz's idea, ontology is defined (1) by its characteristic question: *How is possible?* More exactly: *How is x possible?*

Now, the level of generality of a given ontology depends on the generality of its characteristic question, i.e. on the scope of the variable x . If it is the most general of all, we obtain the general ontology, which is the study of the following, most general, version of the ontological question: *How is what is possible, possible?*

To answer it we must provide *a reason* for being possible as well as *a framework* for the study of *the ontological space* of all possibilities (2)." p. 287

(1) For a discussion of general ontology in comparison with particular ones cf. Perzanowski *Ontology and ontologies*.

(2) This is what Wittgenstein in the *Tractatus* named the *logical space*.

25. The Way of Truth. In *Formal ontology*. Edited by Poli Roberto and Simons Peter. Dordrecht: Kluwer 1996. pp. 61-130

Contents: Index 61; 1. Introduction 62; 2. Beings, the Being and Being 64; 3. Ontological connection 65; 4. Towards a theory of ontological connection 67; 5. Some classical ontological questions 73 ; 6. A linguistic intermezzo 76; 7. An outline of a Primitive Theory of Being - PTB 86; 8. Towards a Extended Theory of Being - ETB 102; 9. Parmenidean statements reconsidered and classical questions answered 122; 10. Summary 127; Acknowledgements 128; References 128-130.

26. "Fifty years of paraconsistent logics," *Logic and Logical Philosophy* 7: 21-24 (1999).

"One of the first logicians who questioned the status of the metaphysical and logical versions of the Principle of Consistency was Jan Lukasiewicz, the father of Polish logic and master of Stanislaw Jaskowski. In his classic book *O zasadzie sprzeczności u Arystotelesa* (On the Principle of Consistency in Aristotle) published in 1910 Lukasiewicz endorsed only the ethical version of the principle of non-contradiction, as the rule which defends us against permanent error and lie, and against madness.

The view of Lukasiewicz, later reintroduced and made popular by Ludwig Wittgenstein, gave rise the question of finding an interesting and sufficiently rich logic which accommodates inconsistencies, allowing for their consistent investigation.

The problem was first solved in the previously mentioned work of Lukasiewicz's student Stanislaw Jaskowski.

Jaskowski's problem was fundamental, its solution profound and inspiring. His work could therefore be described as decisive, crucial for further investigation.

And that is precisely what happened.

Jaskowski's point of departure was a discourse, the situation of a discussion. When one asks: *Is it the case that A?*, and does not know the answer, one often considers both possibilities at once.

Likewise, when defending A, one respects, at least during a honest discussion, an opponent who claims not-A. Which logic applies here?

Usually classical logic, though not in its full power and entirety. In this situation we are not ready to accept, for example, the rule of Duns Scotus, which from the contradiction: *A and not-A* allows us to infer any statement B, i.e., to conclude just everything. This is a little too much, however.

For, in real discussions between serious and honest opponents inconsistencies neither explode nor overfill the discourse.

Inconsistencies must be examined. Not prejudged. Nor worshipped as idols, as in the case of most Hegelians (excluding Graham Priest and other logical philosophers, I hope).

Quite the contrary. We examine them in order to find a remedy. In search of the understanding about their sources, reasons and real consequences.

From this perspective, the mastery of Jaskowski's solution is simply striking.

Firstly, he created a discursive calculus D2, which fulfilled all the formal criteria we tend to impose on interesting paraconsistent logics.

Secondly, his construction in its deep structure enables us to consider inconsistencies occurring in a theory T as contingent statements in a related modal theory $M(T)$ playing the role of its metatheory.

Thirdly, it often allows for the consistent examination of a given inconsistency. Sometimes even for the understanding of its mechanism and sources." pp. 23-24

27. "Combination semantics for intensional logics I. Makings and their use in making combination semantics," *Logique et Analyse* 42: 181-203 (1999).

Reprinted in: *Art of philosophy. A Selection of Jerzy Perzanowski's Works*, pp. 165-174.

Abstract: A very general framework for intensional semantics is outlined. In ontological spaces endowed with suitable ontological modalities (making possible, making impossible, etc.) a formal semantics for logical modalities (possibly, necessary, etc.) is defined. Its very idea is that x realizes possibly A if x makes possible (the combination) A .

Notice that sentences and their sets, as everything but simples, are combinations.

This idea is developed in three different ways generalizing the most common logical semantics and providing them with a natural metaphysical interpretation and foundation.

A special attention is put on the soft combination semantics which is shown to be complete for all intensional logics.

A list of conditions characteristic for basic modal logics is also provided.

"Each proper semantics must be based on ontology.

1. The above statement is a truism. But an important one. It is often forgotten, for in our time it is rather a common (and quite doubtful) conviction, that the only valuable ontology for contemporary semantics is the set-theoretical ontology.

In the past century set-theory indeed played the most important role in mathematics and logic and, in turn, in their philosophical applications. It is also true that the very paradigmatic case of a semantical analysis for formal languages, done by Alfred Tarski, is in fact a combination of set-theoretical and algebraic ideas.

Tarski - type semantics was extended in the sixties to the case of intensional languages providing us, as many believe, with a satisfactory method to deal with real philosophical problems.

2. In part, for sure, it is true. But only in part! If we distinguish, *inter alia*, between ontology of the being, including metaphysics (i.e., ontology of the world) on the one hand, and - on the other hand - the ontology of language and the ontology of mind (cf. *Ontologies and ontologies*, 1990), then by their close connection with formal investigations of concepts, set-theoretical and algebraic ontologies are closely connected with two later types of ontology, but not with the first!

Real philosophy, however, is about the being. Therefore, we are still in need of a more suitable and subtle semantics for it.

3. In what follows I will try to outline such a semantics, based on combination ontology, which is a part of a deeply modal version of a general theory of analysis and synthesis.

To this end, I will start with rather general remarks concerning modalities, with particular emphasis put on ontological ones, passing next to a rather general description of a theory of analysis and synthesis." p. 181

28. "Parainconsistency, or inconsistency tamed, investigated and exploited," *Logic and Logical Philosophy* 9: 5-24 (2001).

"In the paper, the notion of inconsistency is studied. The author proposes to use the term 'parainconsistency' rather than 'paraconsistency' with respect to inconsistent logics which contrive their inconsistency. Several illuminating examples of inconsistency are given. A brief history of the research related to the notion of (para)inconsistency is presented. Special attention is paid to the seminal contribution of Jaskowski. Ja'skowski's modal approach to parainconsistency is discussed. G'odel's and Ja'skowski's interpretations of modalities and contingencies are compared." Anna Gomolinska (Bialystok)

"Any educated person knows, or at least should know (1), that most cases of incoherencies, impossibilities and -- in a theoretical framework -- inconsistencies are rather suspicious members of a domain.

In particular, being inconsistent is a rather bad property of a theory. But why?

Our aim in the paper is, firstly, to discuss several answers to the question, and secondly, and more importantly to provide a proper frames to explain and to exploit inconsistencies. The framework which will force inconsistencies to work in a positive way, i.e., to enlarge and to deep our understanding of problems involved." p. 5

(1) With exceptions of Hegel, Hegelians, etc.

29. "A Profile of Masonic Synthesis," *Logic and Logical Philosophy* 11/12: 167-189 (2003).
 Reprinted in: *Art of philosophy. A Selection of Jerzy Perzanowski's Works*, pp. 199-222.
 "Everything is a both a product of the decomposition (analysis) of a given object into simpler objects and of the synthesis (composition) of that which is composed of simpler components. In order to come to know a given object, it is necessary to reconstruct the process of analysis and synthesis, in the one and the other direction." p. 167
 "Classical metaphysics has come back to life. Yet it has most definitely become a logical, hence scientific discipline not aligned with the Kantians, but one set against them. Those who regenerated first philosophy as a discipline were above all the fathers of contemporary logic. Conceived in the latter half of the nineteenth century, classical logic has enjoyed a era rich in developments. In chronological order, we begin with Bolzano, Boole, Frege, Peirce, and Peano, followed by Russell, Whitehead and Wittgenstein, after whom the names worthy of mention are legion.
 A second figure in the revitalisation of classical metaphysics as a live scientific philosophy was Franz Brentano, and beyond him his students and developers, amongst whom we find Kazimierz Twardowski, the father of Polish scientific philosophy.
 Brentano united scientific philosophy with descriptive psychology and a resurrected descriptive metaphysics in the style of Aristotle. His pupils divided into schools following paths which, whilst differing from each other, always remained faithful to their source. In the case of phenomenology, special techniques of eidectic analysis were introduced into the Brentanian picture. A different case is that of Meinong and his co-workers, who worked Brentanian ideas into a general theory of objects and properties." pp. 170-171.
30. "Towards combination metaphysics," *Reports on Mathematical Logic* 38: 93-116 (2004).
 Reprinted in: *Art of philosophy. A Selection of Jerzy Perzanowski's Works*, pp. 45-68.
 "Ontology is the general theory of the possibility, i.e., the theory of the realm of all possibilities -- the ontological space. Metaphysics, on the other hand, is the ontology of the world.
 The world is the realm of existing items. After Wittgenstein's *Tractatus*: The world is all what is the case. In other words, all events taken as existing complexes (facts).
 2. If we distinguish, *inter alia*, between the ontology of the being, including metaphysics (i.e., ontology of the world) on the one hand, and -- on the other hand -- the ontology of language and the ontology of mind, then we see, by close connection the later two with formal investigations of concepts, that set-theoretical and algebraic ontologies are closely connected with them, but not with the ontology of being.
 True philosophy, however, is about the being. Therefore, we are still in need of a metaphysics based on its background combination ontology with appropriate combination semantics. In need, by definition, of combination metaphysics.
 3. In what follows, I will first try to outline such a semantics, based on combination ontology, which is a part of a deeply modal version of a general theory of analysis and synthesis. Next, I will try to apply it to the analysis of the most fundamental metaphysical notions.
 To this end, I will start with general remarks concerning modalities, with particular emphasis put on ontological and metaphysical ones, passing next to a rather general description of a theory of analysis and synthesis." p. 93
31. In Praise of Philosophy. In *The Courage of Doing Philosophy. Essays Presented to Leszek Nowak*. Edited by Brzezinski Jerzy et al. Amsterdam: Rodopi 2007. pp. 375-394
 Reprinted in: *Art of philosophy. A Selection of Jerzy Perzanowski's Works*, pp. 25-40.
 The paper is an English translation by Matthew Carmody of an essay published in Polish in 2000.
 "Philosophy, in particular logic and ontology, occupy a key place in the structure of human knowledge.
 We conceive the world, one might say we grasp it, via concepts, that is mental pictures of the aspects of objects under consideration. Concepts in turn are connected according to the principles of an appropriate grammar, into propositions (logical judgments), that is, logical pictures of mentally-grasped fragments of the world.
 Concepts are junctions of information: propositions -- its pieces.
 From here comes the role of logic, being the basic theory of those pictures of the world, fragments of grasped information. The logic of names examines the relations between concepts expressed in a

given language. The logic of sentences examines the relations between propositions. This leads to an examination of the recombinations of the initial group of pictures, that is, to an examination of possibilities.

Their totality in turn constitutes the ontological space, the space of all possibilities.

Ontology, the true first philosophy, in this way creates the most general conceptual framework for the varied and diverse fields of human knowledge and strives towards the complete working-out of that framework. As a matter of fact, we owe to Leibniz the idea of the above modal definition of ontology and the opportunity of carrying out ontological research by pointing out the proper form of ontological questions: what is possible? And why? And, how is it possible?

In turn, particular ontological questions, for a given x , sound as follows: how is x possible? We have amongst other: metaphysical questions - How is the world possible? How is existence possible? And what, why and how is it that exists?: epistemo-ontological questions - How is knowledge itself possible? In particular, How is mathematical a priori knowledge of that which is real possible? Also questions of *axio-ontology* and *antropo-ontology*: What are values? How are they possible? How is evil possible? Who are people so evil?

And many other questions of this form.

The problems of real philosophy are real and great. Therefore they will be with us for as long as will survive human curiosity. For *all people by nature strive for knowledge* (Aristotle. *Metaphysics*, I, 1). including the deepest one.

This is why it is so important that reflection on these questions be carried out by true philosophers. For if philosophy, at the insistence of skeptics or under the pressure of positivists, were to give up concerning itself with its real problems, then they would fall into hands of charlatans, causing great mental and social damage.

Therefore people should not forget about philosophical questions and the right way to deal with them." pp. 378-379.

32. Modal logics of truth and falsity I. Conceptual and logical framework, and logics of the matrix approach of Boole. In *Logik, Begriffe, Prinzipien des Handelns / Logic, concepts, principles of action*. Edited by Müller Thomas and Newen Albert. Paderborn: Mentis 2007. pp. 95-112
Reprinted in: *Art of philosophy. A Selection of Jerzy Perzanowski's Works*, pp. 147-164.
Just as 'beautiful' points the way for aesthetics and 'good' for ethics, so do words like 'true' for logic.
...it falls to logic to discern the laws of truth. (Gottlob Frege - *Der Gedanke (The Thought)* p. 58

Logic stand guard at the border between Truth and False (Jan Lukasiewicz)

INTRODUCTION. "1. The old but still bright and fresh wisdom, expressed in both mottos, says that the chief task of logic is to search for the laws of truth and for rules governing transformations preserving truth, and sometimes falsity. The theory of Truth and Falsity is therefore the true kernel of logic, and logicians duty is, as Lukasiewicz said, to guard the border between Truth and Falsity.

2. In our poor, postmodern time quite a lot of people, including, unfortunately, a few logicians and many philosophers, are following rather Nietzsche than Frege trying to dissolve, at least in human beings' minds, this border together with other natural borders. They like to be happy on wanton vacation without any border, including the border between Truth and Falsity and the border between real and unreal.

Are guardians still doing their job? Do logicians fulfill their duty?

3. The masters certainly do. Recall, for example, seminal work of Tarski clarifying in set theoretical terms the classical definition of truth in the case of an extensional language, or the work of Kripke and others which extend Tarski's analysis to the case of intensional operators.

One gap however is surprising. Despite efforts of G. H. von Wright (1) and his followers we still have no reasonable, easy to catch and use, logics of Truth and Falsity, or rather logics of fundamental logical modalities: T -- *is true* and F -- *is false*.(2) Why?

The reasons are mental, not essential. As you will see, they are mainly misunderstanding and propaganda due to a false understanding of Tarski's work and Ramsey's redundancy thesis.

4. In a series of papers, with the present one as the starting item, I will outline natural T&F-logics

showing, to my surprise, that between them are most of the basic modal logics. In particular, in the present paper I will pick out T&F-logics connected with the matrix method for classical logic. T&F-logics obtained in such way are counterparts of logics implicit in the matrix (algebraic) way of Boole and the tableau method of Beth, Smullyan and Fitting (cf. Melvin Fitting, *Intuitionistic Logic, Model Theory and Forcing*, North Holland, 1969).

In subsequent papers I will outline in turn T&F-logics of algebraic automorphisms, connections from the logical square of T and F, next iterations of T and F, cancellation, and deflation. Finally, I will compare logics from my list with T&F-logics pointed out in the literature of the subject.

5. A natural consequence of my list of T&F-logics is to use them to discuss several notorious problems concerning Truth and Falsity, including the most famous one -- the Liar Paradox. In "Modal Logics and the Liar" I will show that a modal approach to the Paradox by means of suitable T&F-logics is powerful and subtle enough to catch both its kernel and mechanism.

As a matter of fact, my interest in the Liar Paradox was the starting point for my investigation of T&F-logics. Since 1986 I have lectured several times in several places trying to explain the power and usefulness of modal logic for a true discussion of the Liar Paradox and of similar obstacles to formal semantics based on the classical idea of *being true* and *being false*.(3)" (p. 95-96. N.B: *The mottos by Frege and Lukasiewicz in the original are in German and Polish*)

(1) Cfr. G. H. von Wright, *An Essay in Modal Logic*, Amsterdam, 1951.

(2) Called T&F-logics, in short.

(3) Special thanks should go to Jozef Misiek, who awoke me by his provocative claim that there are no proper T&F-logics and no reasons as well to consider the Liar Paradox to be a reasonable and genuine paradox. Read and see!

33. *Art of Philosophy. A Selection of Jerzy Perzanowski's Works*. Edited by Sytnik-Czetwertynski Janusz. Frankfurt: Ontos Verlag 2011.

The volume contains 12 essays, (the 2, 4, 6, and 9 are previously unpublished).

"Jerzy Perzanowski, born on 23rd April 1943 in Aix-Les-Bains. An outstanding Polish philosopher of international renown, he passed away on 17th May 2009 in Bydgoszcz. His original philosophical ideas include informatic monadology", "protophysics", and a rather un-usual blend of logic and ontology in what he called onto/logic where the slash is meant to suggest a quotient of ontology by logic. Perzanowski began as a logician, his early works being on modal logic, then gradually shifted his interest to "logical philosophy" (another of Perzanowski's coinages, meaning not so much philosophy of logic as philosophy informed by logic). Later, his interests turned to cognitive science and finally even to mysticism, again of a particular, logically informed, kind." p. 9.

Contents: Janusz Sytnik-Czetwertynski: Biographical Note: Jerzy Perzanowski - Real Man and Real Philosopher 9; Preface: Jerzy Perzanowski's Way to the Monadology 15; 1. In Praise of Philosophy 25; 2. Reasons for Monodeism 41; 3. Towards Combination Metaphysics 45; 4. Onto\logical Melioration 69; 5. Locative Ontology 87; 6. In Search of Onto\logical Conditions for Emergence 121; 7. Towards Psycho-ontology 135; 8. Modal Logics of Truth and Falsity 147; 9. Classical (Modal) Logics of the Square of Oppositions 165; 10. Combination Semantics for Intensional Logics. Makings and Their use in Making Combination Semantics 175; 12. A Profile of Masonic Synthesis 199; Bibliography 223-225.

34. Classical (Modal) Logics of the Square of Opposition. In *Art of Philosophy. A Selection of Jerzy Perzanowski's Works*. Edited by Sytnik-Czetwertynski Janusz. Frankfurt: Ontos Verlag 2011. pp. 165-174
35. In Search of Onto\logical Conditions for Emergence. In *Art of Philosophy. A Selection of Jerzy Perzanowski's Works*. Edited by Sytnik-Czetwertynski Janusz. Frankfurt: Ontos Verlag 2011. pp. 121-134
36. Onto\logical Melioration. In *Art of Philosophy. A Selection of Jerzy Perzanowski's Works*. Edited by Sytnik-Czetwertynski Janusz. Frankfurt: Ontos Verlag 2011. pp. 69-86
37. Reasons for Monodeism. In *Art of Philosophy. A Selection of Jerzy Perzanowski's Works*. Edited by Sytnik-Czetwertynski Janusz. Frankfurt: Ontos Verlag 2011. pp. 41-44

PUBLICATIONS IN ENGLISH AVAILABLE ON LINE

Essays published in Logic and Logical Philosophy (PDF format):

- Aim, the Scope and Editorial Policy of the Journal (1993)
- Locative ontology: One (1993) - Two (1993) - Three (1993)
- Fifty years of parainconsistent logics (1999)
- Parainconsistency, or inconsistency tamed, investigated and exploited (2001)
- A profile of Masonic synthesis (2003)
- Towards combination metaphysics (2004)
- Ontological Conditions for Emergence (Abstract) (2002) - Abstract of an essay read at the Conference *Levels of Reality* organized by Mitteleuropa Foundation

MAIN PUBLICATIONS IN POLISH

1. *Logiki modalne a filozofia* [Modal Logics and Philosophy]. Ph.D thesis, Jagellonian University 1989 - Krakov: Nakladem Uniwersytetu Jagiellonskiego.
Slightly modified version reprinted in *Jak filozofowac?* pp. 262 - 346.

"The first part of the essay contains basic information concerning the author's analysis of modalities. It presents a construction of Perzanowski-cones (a three-dimensional topography of modal calculi) as well as an outline of his combination ontology. Within this framework he elaborates a new type of relational semantics, called "combination semantics of modal logics", which generalizes standard semantics of modal systems. In a second part the author illustrates his thesis, that modal logic is the main tool of exact philosophy, particularly with respect to ontological rationalism. He presents general rules concerning formalization of the philosophical modal expressions. He uses a fragment of Wittgenstein's *Tractatus* to demonstrate various methods which allow to obtain the categorial logic of a philosophical text. The following chapters on "modal fallacy" and contingency contain an extended discussion of his attempt to a modal analysis of "(onto)logical" rationalism. The chapter "Ontic primitivity and secondarity" presents four formalizations of Ingarden's conception of moments of existence. On the one hand, this serves as an exemplification of the previously developed formalities, on the other one it shows that logic has an active influence on philosophy, conducting systematic theoretical research in it. The author's very original and interesting essay ends with an English summary. However, it would be highly desirable to obtain a full version in English or German." Max Urchs (Leipzig)

2. Perzanowski Jerzy, Pietruszczak Andrzej and Gorzka Cezary, eds. (1995). *Filozofia/Logika: Filozofia Logiczna 1994* [Philosophy/Logic: Logical Philosophy 1994]. Torun: Nicolaus Copernicus University Press.
3. J. Perzanowski (ed.), (1989). *Jak filozofowac? Studia z metodologii filozofii* [How to Philosophize? Studies on the Methodology of Philosophy] Warszawa: PWN.
4. Perzanowski Jerzy and Pietruszczak Andrzej, eds. (1997). *Byt, Logos, Matematyka* [Being, Logos, Mathematics]. Torun: Nicolaus Copernicus University Press.
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(With an Appendix by Jerzy Perzanowski: *Teofilozofia Leibniza* [Leibniz' s Theophilosophy] pp. 243-351).
8. Perzanowski Jerzy, ed. (2001). *Izydora Damska 1904-1983. Materiały z sympozjum "Non est*

necesse vivere, necesse est philosophari" Kraków, 18-19.XII.1998. . Krakov: PAU.

9. Perzanowski Jerzy and Pietruszczak Andrzej, eds. (2003). *Od teorii literatury do ontologii swiata* [From Theory of Literature to Ontology of the World]. Torun: Nicolaus Copernicus University Press.

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