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Selected bibliography on the Ontology of Wittgenstein's *Tractatus*

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Bibliography

1. Allaire, Edwin. 1963. "The *Tractatus*: nominalistic or realistic?" In *Essays in Ontology*, edited by Allaire, Edwin, 148-165. The Hague: Martinus Nijhoff. Reprinted in: I. Copi & R. Beard (eds.), *Essays on Wittgenstein's Tractatus*, pp. 167-186.

2. Anscombe, Elizabeth. 1989. "The Simplicity of the Tractatus." *Critica. Revista Hispanoamericana de Filosofia* no. 21:3-14.

3. Anscombe, Gertrude Elizabeth Margaret. 1959. *An Introduction to Wittgenstein's Tractatus. Themes in the philosophy of Wittgenstein*. London: Hutchinson University Library.
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4. Arabi, Oussama. 1982. *Wittgenstein: langage et ontologie*. Paris: Vrin.

5. Armstrong, David Malet. 1986. "The nature of possibility." *Canadian Journal of Philosophy* no. 16:575-594.

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7. ———. 1963. "Stenius on Wittgenstein's *Tractatus*." *Theoria.A Swedish Journal of Philosophy*:176-204.
    Reprinted in: E. D. Klemke (ed.), *Essays on Wittgenstein* (1971) and in: J. V. Canfield (ed.), *The Philosophy of Wittgenstein: A Fifteen Volume Collection. Vol 1: The Early Philosophy, Language as Picture* (1986).

8. Black, Max. 1964. *A Companion to Wittgenstein's Tractatus*. Cambridge: Cambridge University Pres.

9. Bloom, Stephen L. 1971. "A completeness theorem of 'theories of kind Wittgenstein'." *Studia Logica* no. 27:43-56.

10. Bogen, James. 1972. *Wittgenstein's Philosophy of Language: Some Aspects of Its Development*. London: Routldge and Kegan Paul.
    Chapter 1: The picture theory and the *Tractatus*' ontology, pp. 14-101.

11.   ———. 1996. "Wittgenstein's *Tractatus*." In *Routledge History of Philosophy. Volume IX: Philosophy of Science, Logic and Mathematics in the Twentieth Century*, edited by Kearney, Richard, 157-192. New York: Routledge.

12.   Bonino, Guido. 2004. "Russell, Frege e la forma logica nel *Tractatus*." *Rivista di Estetica* no. 44:47-59.
       The main aim of this paper is that of suggesting that Wittgenstein's notion of logical form -- as it appears in the *Tractatus Logico-Philosophicus* -- is better understood if it is conceived of as deriving from Russell's notion of logical form -- as put forth, for instance, in *Theory of Knowledge* --, rather than from Frege's notion of function. Such a prevailingly historical aim is associated with a second one, theoretical-exegetical in character: trying to understand what exactly the logical form is in the Tractatus, and what its role is in the context of the picture theory of language."

13.   Bradley, Raymond. 1987. "Wittgenstein's Tractarian essentialism." *Australasian Journal of Philosophy* no. 67:43-55.

14.   ———. 1992. *The Nature of all Being: A Study of Wittgenstein's Modal Atomism*. Oxford: Oxford University Press.

15.   Bremer, Manuel. 1999. "Die Welt ist die Gesamtheit der Tatsachen, nicht der Dinge." *Grazer Philosophische Studien* no. 57:111-131.

16.   Brosch, Annette. 1995. *Die Logik des Tractatus: eine logisch-semantische Untersuchung dessen, "was der Fall" sein kann*. New York: Peter Lang.

17.   Candiotto, Maurizio. 2002. "I concetti tra proprietà e funzioni. Modelli per l'incompletezza ontologica: Frege, Husserl, Wittgenstein." *Teoria (Italy)* no. 22:69-94.
       Abstract: "Frege's notion of concept – the reference (vs. the sense) of a predicate – is here compared with cognate notions in Husserl's *Logical Investigations* and in Wittgenstein's *Tractatus*. Their common trait is unsaturatedness or existential dependency: the different treatment of this chief notion of formal ontology is in turn examined comparatively, with regard to the conflicts and the alliances taking tacitly place between the three. In Frege's notion of concept, at any rate, an inner tension arises from its twofold nature of property and of truth-function: saturation and function/argument are too heterogeneous models. Hints for a way out suggested."

18.   Canfield, John V. 1972. "A model *Tractatus* language." *The Philosophical Forum* no. 4:199-217.
       Reprinted in: John V. Canfield (ed.), *The Philosophy of Wittgenstein. A Fifteen Volume Collection,* New York: Garland, 1986, Vol. I: *The Early Philosophy -- Language as Picture*.

19.   ———. 1976. "Tractatus objects." *Philosophia.Philosophical Quarterly of Israel* no. 6:81-99.
       Reprinted in: John V. Canfield (ed.), *The Philosophy of Wittgenstein. A Fifteen Volume Collection*, - New York: Garland 1986 , Vol. II: *Logic and Ontology*.
       "Universals such as red are plausible examples of *Tractatus* objects, despite 6.3751. This view is linked to the *Tractatus*' conception of analysis and to its phenomenalism. Facts are composed of universals bound together. The totality of facts forms the solipsistic universe; the universe as it appears. There is no subject to whom it appears; there are only the constituent atomic facts. Appearances change; what was the case is no longer the case. What does not change are the eternally subsisting universals whose changing combinations constitute reality."

20.   ———, ed. 1986. *The Early Philosophy - Language as Picture*. New York: Garland.
       The Philosophy of Wittgenstein. A Fifteen Volume Collection. Vol. 1.

21.   ———, ed. 1986. *Logic and Ontology*. New York: Garland.
       The Philosophy of Wittgenstein. A Fifteen Volume Collection. Vol. 2.

22. Carruthers, Peter. 1989. *Tractarian Semantics: Finding Sense in Wittgenstein's Tractatus*. Oxford: Basil Blackwell.

23. ———. 1990. *The Metaphysics of the Tractatus*. Cambridge: Cambridge University Press.

24. Cerezo, Maria. 1996. "Does a proposition affirm every proposition that follows from it?" In *Studies on the History of Logic. Proceedings of the Third Symposium on the History of Logic*, edited by Angelelli, Ignacio and Cerezo, Maria, 357-368. Berlin: Walter de Gruyter.
The problem of the relations between the orders of signification, truth and logical consequence is central to logic. The way in which these relationships are established goes some way towards determining the logical theory to which the writer subscribes. This problem has been a major issue in the history of logic. In this essay, I propose to show that the problem of these relations is present in the course of the historical development of logic, and that there is no one solution to it. My aim is thus not to offer an answer to the question posed, but to highlight the contrast between different solutions, approaching this issue from the standpoint defended by Ludwig Wittgenstein (1889-1951) in his *Tractatus Logico-Philosophicus*. Nor do I intend to provide a detailed explanation of Wittgenstein's view, but only to outline it and bring out the contrasts with other possible solutions, solutions which predate it by some considerable time." (Notes omitted)

25. ———. 1998. "Nombrar kripkeano versus nombrar tractariano: un intento de demarcación." *Theoria.Revista de Teoria, Historia y Fundamentos de la Ciencia* no. 13:427-444.
Raymond Bradley, in his book *The Nature of All Being*, has put forward an essentialist interpretation of the ontology of Wittgenstein's *Tractatus Logico-philosophicus* and aims to develop the modal dimensions that, in his opinion, are implicit in that work. The aim of this paper is to reassess Bradley's interpretation of tractarian names as rigid designators, by examining the tractarian notion of *name* and the Kripkean concept of *rigid designator* in *Naming and Necessity*, with a view to answering the question as to whether an interpretation of tractarian names as rigid designators is possible, and to bringing to light some similarities and differences between the two theories of meaning."

26. ———. 2004. "La nociones de *Sachverhalt, Tatsache* y *Sachlage* en el Tractatus de Wittgenstein." *Anuario Filosófico* no. 37:455-479.
In this paper, I develop some reflections on the interpretation of the notion of *Sachverhalt* in the *Tractatus*, with a view to show the complexity of the tractarian view and to point out some tensions. I intend to elucidate this notion in the context of its relation to the notions of *Tatsache* and *Sachlage*, and in its relation to the two main theories of the *Tractatus*, the truth-functions theory and the picture theory. I hope that this elucidation sheds some light on a possible comparison between Wittgenstein's and Husserl's views and I point out some suggestions in this sense in the last part of the paper."

27. ———. 2005. *The Possibility of Language. Internal Tensions in Wittgenstein's Tractatus*. Stanford: CSLI Publications.

28. Cheung, Leo K.C. 2004. "Showing, analysis and the truth-functionality of logical necessity in Wittgenstein's *Tractatus*." *Synthese* no. 139:81-105.
This paper aims to explain how the *Tractatus* attempts to unify logic by deriving the truth-functionality of logical necessity from the thesis that a proposition shows its sense. I first interpret the Tractarian notion of showing as the displaying of what is intrinsic to an expression. Then I argue that, according to the *Tractatus*, the thesis that a proposition shows its sense implies the determinacy of sense, the possibility of the complete elimination of nonprimitive symbols, the analyticity thesis and the strong analyticity thesis. The picture theory emerges as what provides the only acceptable account of an elementary proposition, subject to the constraint that a proposition must show its sense. The picture theory and the analyticity thesis then

entail the contingency thesis and the independence thesis which, together with the strong analyticity thesis, imply that all logical propositions are tautologies."

29.　Chrudzimski, Arkadiusz. 2003. "Contentless syntax, ineffable semantics, and transcendental ontology: reflections on Wittgenstein's *Tractatus*."
Kriterion.Zeitschrift für Philosophie no. 17:1-6.
Wittgenstein's *Tractatus* contains some very striking theses. We read, e.g., that "in a sense" we could not be wrong in logic, and that the whole subject matter of the theory of modalities could be reconstructed on the ground of the insights in the mechanism of the linguistic reference. Yet in the light of the last sentences of *Tractatus* the whole semantics turns out to be principally ineffable. In our paper we will try to clarify these matters. We show how these theses could be made plausible in the context of the *transcendental* method of Wittgenstein's *Tractatus*."

30.　Cocchiarella, Nino. 1974. "Logical Atomism and Modal Logic."
Philosophia.Philosophical Quarterly of Israel no. 4:41-66.
Reprinted as Chapter 6 in *Logical Studies in Early Analytic Philosophy*, pp. 222-243.
"Logical atomism has been construed as both a realist and a nominalist ontology. Despite their different ontological commitments, proponents of both types of atomism have tended to agree that modal operators for necessity and possibility, and thereby strict entailment too, are totally alien to the ontological grammar of logical atomism. The reason for this, apparently, is that any inclusion of modal operators in the ontological grammar of logical atomism, whether that grammar be of the nominalist or realist variants, would represent a commitment to internal properties and relations with material content. And in logical atomism, of course, all internal properties and relations, be they of objects or of situations, are formal and not material in nature. (Cf. Wittgenstein, *Tractatus Logico-Philosophicus*, ([TR]), 4.122).
However, to the contrary, we shall argue that not only are propositional connectives for logical necessity and possibility, and thereby strict entailment too, no more alien to the ontological grammar of logical atomism than are connectives for conjunction and disjunction, but, moreover, that the formal or internal properties and relations of objects and situations in the ontology cannot be adequately represented by the propositional forms of that grammar unless connectives for logical necessity and possibility are included (or definable by others so included) therein.
That is, we shall argue that connectives for logical necessity and possibility, together with their proper "logico-syntactical employment" ([TR], 3.327), represent formal, and not material, internal "properties," and, moreover, that these formal, internal "properties" are part of the ontology of logical atomism and cannot be adequately represented without the inclusion of such connectives in the ontological grammar of any formal system purporting to represent that ontology.(1)
Our position and argument, incidentally, applies only to modal operators for logical necessity and possibility. All other modal operators, we agree, because they purport to represent internal "properties" or "relations" with real material content (e.g., causality, and even temporality via tense logic), are strictly prohibited within the metaphysical framework of logical atomism. "Superstition is nothing but belief in the causal nexus" ([TR], 5.1361). "The only necessity that exists is logical necessity" ([TR], 6.37).
Moreover, our concern here shall be with logical atomism as the metaphysical framework for a type of formal ontology. Our concern will not be with logical atomism as the framework for either a theory of meaning or a theory of knowledge. Accordingly, neither the Carnapian theory of *Protokolsätze* nor the Tractarian picture theory of meaning are essential to our present purely ontological considerations. We should note, however, that the Tractarian theory of elementary propositions as pictures contains both a theory of predication and a theory of meaning. It is the theory of predication that is an essential part of the ontology of logical atomism.

In the present chapter we shall limit our formal developments to the level of analysis dealing solely with propositional connectives. Our next chapter will deal with nominalist logical atomism where only individual variables are bindable but where atomism's theory of predication enters the ontological grammar in a fundamental way. That chapter will also contain a description of several variants of realist logical atomism, one in which material properties and relations of objects are themselves objects, and another where material properties and relations of objects, though indicated by bound predicate variables (as in the first variant of realism), are not themselves objects (values of individual variables) but are nexuses or modes of configurations of objects (as they are in nominalism where they are not indicated by bound predicate variables)." (pp. 222-223 of the reprint)

31.   ———. 1975. "Logical Atomism, Nominalism, and Modal Logic." *Synthese* no. 31:23-62.
Reprinted as Chapter 7 in *Logical Studies in Early Analytic Philosophy*, pp. 244-275.
"Logical atomism, through its theory of logical form, provides one of the most coherent formal ontologies in the history of philosophy. It is a coherence which, whether we agree with the ontology or not, renders the framework important and useful as a paradigm by which to compare and better evaluate the coherence of alternative systems based upon alternative theories of logical form and especially alternative theories of predication.

As the basis of a formal ontology, logical atomism, aside from the differences between its realist and nominalist variants, specifies not only a 'deep structure' ontological grammar within which all analysis must ultimately be resolved, but determines as well a logistic for that grammar. Both together constitute the formal ontology and serve to indicate how logical atomism views the fundamental structure of reality. Thus, for example, the grammar serves to indicate the formal as well as the material categories of being acknowledged by the ontology, while the logistic, by regulating the proper 'logico-syntactical employment' ([TR], 3.327) of the expressions of that grammar serves to indicate not only the logical 'scaffolding of the world' ([TR], 6.124) but supplements the grammar in its presentation of the ontological structure of reality.

The distinction between logical scaffolding and ontological structure is fundamental to atomism and pertains to a distinction between material and formal content that grammar alone is insufficient to represent. It is a distinction that any proposed formalization of logical atomism must account for (through the Doctrine of Showing) in order to be an adequate formal representative of that ontology. It is a distinction, however, or so it will be argued here, that cannot be made without the introduction of modal operators for logical necessity and possibility.

The argument for this last claim was already given in chapter 6, but it was there restricted to the level of logical analysis dealing solely with propositional connectives."
(...)
"In what follows we shall be concerned with the problematic extension of these results to the level of analysis involving quantifiers for objects as concrete particulars along with some means for expressing their self-identity and mutual difference. On this level, logical atomism's theory of predication enters our considerations in a fundamental way. For according to that theory, only elementary predications represent or 'picture' a structure with material content, and that content is in all cases external to the constituents of the structure. Such a structure is an atomic situation (*Sachlage*) and the externality of its content to its constituents consists in both it and its complement being logically possible. The difficulty here is that since objects are quantified over, they are part of the world and therefore contribute to the ontological content of the world (cf. [TR] 5.5561); and in that regard their self-identity and mutual difference or nonidentity, and thereby their total number, would prima facie seem to involve material content. Yet, in atomism, an object's self-identity or nonidentity with any other object is not an external

condition of that object, (3) and, as a consequence of the dependence of logical space on reality, it is logically impossible for the totality of objects, no less the number of that totality, to differ from world to world. In other words, in logical atomism, if not in other ontologies, identity and difference, as well as objectual quantification, are formal and not material aspects of reality. Here already we begin to see the paradigmatic role of logical atomism, for in most other systems identity and difference, as well as objectual quantification, are also said to be formal in content, though propositions regarding that content are not also said to be either logically necessary or logically impossible.

Because our considerations will be restricted to quantifying over objects as concrete particulars and not, for example, over material properties and relations as well, the variant of logical atomism we shall discuss here is nominalistic. Several realist alternatives are sketched in order to highlight the significant theses and/or difficulties of nominalism, though it should be noted that not all forms of nominalism need agree with the special ontological theses of nominalist logical atomism.

Finally, it should also be noted that our concern in this chapter is with an adequate formal representation of the ontology of logical atomism and not with its theory of thought, meaning, or philosophy of language. We wish to leave open how these might or must be developed with respect to the system constructed here, especially with regard to how they might or must pertain to the question of its logistic completeness." (pp. 244-247 of the reprint)

(1) The convention adopted here is to use scare-quotes when speaking of what connectives represent as 'properties' or 'relations'. This is done to mark a special philosophical use which is convenient in our informal discussion but which strictly speaking is ontologically misleading. A similar convention applies throughout when we refer to existence (being-the-case) and nonexistence (being-not-the-case) as material 'properties' of atomic situations.

(3) That is, an object's self-identity or nonidentity with any other object is invariant through all the possible worlds of a logical space containing that object. We must distinguish this ontological invariance from the varying semantical relation of denotation (*Bedeutung*) between an object and a (non-Tractarian) name or definite description of that object. The former must be accounted for within the formal ontology, the latter only within its applications.

References

[TR] Wittgenstein, L., *Tractatus Logico-Philosophicus*, D. F. Pears & B. F. McGuinness, trans., 2d. ed. (London: Routledge & Kegan Paul, 1971. first ed. 1921).

32. Copi, Irving M. 1958. "Objects, properties and relations in the *Tractatus*." *Mind* no. 67:145-165.
Reprinted in: Irving M. Copi and Robert W. Beard (eds.), *Essays on Wittgenstein's Tractatus*, pp. 167-186.

33. ———. 1976. "Frege and Wittgenstein's *Tractatus*." *Philosophy and History* no. 6:447-461.
Reprinted in: Stuart Shanker (ed.), *Ludwig Wittgenstein. Critical Assessments*, London, Croom Helm 1986, Vol. I.

34. Copi, Irving M., and Beard, Robert W., eds. 1966. *Essays on Wittgenstein's Tractatus*. London: Routledge & Kegan Paul.

35. Czermak, Johannes. 1978. "The reducibility of a logical space with many-values dimensions." In *Wittgenstein and His Impact on Contemporary Thought. Proceedings of the Second International Wittgenstein Symposium, 29th August to 4th September 1977, Kirchberg/Wechsel (Austria)*, edited by Leinfellner, Elisabeth, 171-173. Wien: Hölder-Pichler-Tempsky.

36. ———. 1979. "Ein Mengentheoretisches Modell der *Tractatus* Ontologie." In *Wittgenstein, the Vienna Circle, and Critical Rationalism. Proceedings of the Third*

International Wittgenstein Symposium, 13th to 19th August 1978, Kirchberg am Wechsel (Austria), edited by Berghel, Hal, Hübner, Adolf and Eckehart, Köhler, 162-164. Wien: Hölder-Pichler-Tempsky.

37.   Daniels, Charles B., and Davison, John. 1973. "Ontology and method in Wittgenstein's *Tractatus*." *Noûs* no. 7:233-247.
Wittgenstein's method is that of showing the categories of being through a perspicuous language that mirrors the world. For Wittgenstein there are two categories of being, the category of objects and the category of facts. These categories are radically disjoint: no object is a fact, no fact an object. n a perspicuous language facts cannot be named and objects cannot be asserted. A perspicuous language has one and only one name for each object and one and only one proposition for each possible (and in addition one not-so-possible) fact. Material properties and generality are shown to be analyzable; formal properties are seen as not expressible. The unity of reality shows in the general form of a proposition that is given in a manner far clearer and much less ambiguous than Wittgenstein's own version. The Tractarian view of logic and mathematics is developed, and questions are raised concerning it that can be seen to occupy Wittgenstein in his later writings."

38.   Dayton, Eric. 1976. "*Tractatus* 5.54 - 5.5422." *Canadian Journal of Philosophy* no. 6:275-285.

39.   Dejnožka, Jan. 1996. *The Ontology of the Analytic Tradition and Its Origins. Realism and identity in Frege, Russell, Wittgenstein, and Quine*. Lanham: Littlefield Adams Books.
Paperback edition reprinted with corrections, 2002; reprinted with further corrections, 2003.
"While many books discuss the individual achievements of Frege, Russell, Wittgenstein, and Quine, few books consider how the thought of all four thinkers bears on the fundamental questions of twentieth century philosophy. This book is about existence-identity connections in Frege, Russell, Wittgenstein, and Quine. The thesis of the book is that there is a general form of ontology, modified realism, which these great analysts share not only with each other, but with most great philosophers in the Western tradition. Modified realism is the view that in some sense there are both real identities and conceptual (or linguistic) identities. In more familiar language, it is the view that there are both real distinctions and distinctions in reason (or in language). Thus in modified realism, there are *some* real beings which can serve as a basis for accommodating possibly huge amounts of conceptual or linguistic relativity, or objectual identities' 'shifting' as sortal concepts or sortal terms 'shift.' Therefore, on the fundamental level of ontology, the linguistic turn was not a radical break from traditional substance theory. Dejnožka also holds that the conflict in all four analysts between private language arguments (which imply various kinds of realism) and conceptual "shifting" (which suggests conceptual relativism) is best resolved by, and is in fact implicitly resolved by, their respective kinds of modified realism. Frege and Russell, not Wittgenstein and Quine, emerge as the true analytic progenitors of 'no entity without identity,' offering between them at least twenty-nine private language arguments and fifty-eight 'no entity without identity' theories."

40.   Elgin, Catherine. 1978. "The impossibility of saying what is shown." *Southern Journal of Philosophy* no. 16:617-627.

41.   Favrholdt, David. 1964. *An Interpretation and Critique of Wittgenstein's Tractatus*. Copenhagen: Munksgaard.

42.   Finch, Henry Le Roy. 1971. *Wittgenstein. The Early Philosophy. An Exposition of the Tractatus*. New York: Humanities Press.

43.   Fogelin, Robert J. 1976. *Wittgenstein*. London: Routledge & Kegan Paul.
Second revised edition 1987.

44. Frascolla, Pasquale. 2004. "On the nature of *Tractatus* objects." *Dialectica* no. 58:369-382.
A conjecture on the metaphysical nature of Tractatus objects is put forward and its interpretative adequacy is tested. The clarification of the true import of the metaphor of logical space and the recognition of the theoretical role played by Wittgenstein's explicit claim that the emptiness of logical space is conceivable enable us to account for the thesis that objects are the substance of the world. Once objects are identified with those universal abstract entities which are qualia, and complexes or states of affairs with their concrete instances, some statements of the Tractatus become liable to a consistent reading: that objects are colourless (TLP 2.0232); that space, time and colour are forms of objects (TLP 2.0251); that Leibniz's Principle of the Identity of Indiscernibles, though still holding for complexes, does not apply to objects (TLP 2.0233). Lastly, it is shown how the interpretation of objects as qualia sheds a vivid light on the theme of the relation between objects and time."
Italian version: *Sulla natura degli oggetti nel Tractatus*, Rivista di estetica, 44, 2004, pp. 61-73.

45. Friedlander, Eli. 2001. *Signs of sense: reading Wittgenstein's Tractatus*. Cambridge: Harvard University Press.

46. Gale, Richard M. 1976. "Could logical space be empty?" In *Essays on Wittgenstein in Honour of G. H. von Wright*, edited by Hintikka, Jaakko, 85-104. Amsterdam: North-Holland.

47. García Suárez, Alfonso. 1996. "Are the objects of the *Tractatus* phenomenological objects?" In *Studies on the History of Logic. Proceedings of the Third Symposium on the History of Logic*, edited by Angelelli, Ignacio and Cerezo, Maria, 343-355. Berlin: Walter de Gruyter.

48. Geach, Peter Thomas. 1976. "Saying and showing in Frege and Wittgenstein." In *Essays on Wittgenstein in Honour of G. H. von Wright*, edited by Hintikka, Jaakko, 54-70. Amsterdam: North-Holland.

49. ———. 1981. "Wittgenstein's operator *N*." *Analysis* no. 41:168-171.

50. Glock, Hans-Johann. 1996. *A Wittgenstein Dictionary*. London: Blackwell.

51. ———. 2006. "Truth in the *Tractatus*." *Synthese* no. 148:345-368.

52. Goddard, Leonard, and Judge, Brenda. 1982. *The Metaphysics of Wittgenstein's Tractatus*. Bundoora (Victoria): Australasian Association of Philosophy.
The ontology of the *Tractatus*, in terms of which objects are characterized as property-less simples, is coherent provided Wittgenstein is not mistakenly taken to be a constructive atomist building complexes from simples. A geometrical model is given to illustrate this. It is also shown that an ontology like that of the *Tractatus* removes much of the conceptual puzzlement of modern particle physics and has implications for current debates about realism, possible worlds and rigid designators."

53. Granger, Gilles-Gaston. 1968. "Le problème de l'espace logique dans le Tractatus de Wittgenstein." *L'Age de la Science*:181-195.

54. Griffin, James Patrick. 1964. *Wittgenstein's Logical Atomism*. Oxford: Clarendon Press.

55. Grossmann, Reinhardt. 1998. "Wittgenstein and the problem of non-existent states of affairs." *Acta Analytica*:139-146.
The history of philosophy is full of amazing quirks. One of them is the fact that just two basic ontologies have ruled the roost for the last two thousand years, namely, the Platonic system and the Aristotelian system. But it is even more peculiar that neither system contains the category of state of affairs. The main reason for this neglect seems to be a consideration which has plagued philosophy to this day. There can be no such things as states of affairs, because there simply are no states of

affairs for false sentences. Russell, influenced by Wittgenstein's criticism, tried to escape from this conclusion with his so-called multiple relation theory of judgment. But he does not succeed. Wittgenstein claimed to have avoided Russell's mistake and to have presented a correct view about the nature of judgment in the Tractatus. But a study of the few references in the Tractatus to the ontological status of states of affairs represented by false sentences does not show this."

56.   Hadot, Pierre. 2004. "Réflexions sur les limites du langage. A propos du Tractatus Logico-Philosophicus." *Europe* no. 905:12-30.

57.   ———. 2004. *Wittgenstein et les limites du langage*. Paris: Vrin.

58.   Haller, Rudolf. 1981. "Wittgenstein and Austrian Philosophy." In *Austrian Philosophy. Studies and Texts*, edited by Nyiri, J.C., 91-112. München: Philosophia Verlag.

59.   Hamilton, Kelly Ann. 2002. "Darstellungen in the *Principles of Mechanics* and the *Tractatus*: the representation of objects in relation in Hertz and Wittgenstein." *Perspectives on Science: Historical, Philosophical, Social* no. 10:28-68.
Ludwig Wittgenstein's conception of the role of objects in our philosophical understanding of the logic of our language is critical for his early philosophy in the Tractatus Logico-Philosophicus. While the important connections between Heinrich Hertz's Principles of Mechanics and Wittgenstein's Tractatus have long been recognized, recent work by Jed Buchwald has deepened our knowledge of the importance of the object-orientation of Hertz's scientific work in a manner that should also deepen our understanding of the nature of objects in the Tractatus. I will argue that there are important ontological links, involving "a certain physical scheme, one that had powerful implications for thinking as well as doing," between Hertz's work and Wittgenstein's early philosophy."

60.   Hieke, Alexander, and Maier, Maria. 1990. "A formal approach to the ontology and the picture-theory of the *Tractatus*." 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 and Brandl, Johannes. Wien: Hölder-Pichler-Tempsky.

61.   Hintikka, Jaakko. 1969. "Quantification and the picture theory of language." *The Monist* no. 53:204-230.
Reprinted in: Jaakko Hintikka, *Logic, Language-Games and Information. Kantian Themes in the Philosophy of Logic*, Oxford: Clarendon Press 1973.

62.   Hintikka, Merrill B., and Hintikka, Jaakko. 1986. *Investigating Wittgenstein*. Oxford: Blackwell.

63.   Hochberg, Herbert. 1969. "Negation and generality." *Noûs* no. 3:325-343.
Reprinted in: Elmer D. Klemke (ed.), *Essays on Wittgenstein*, Urbana: University of Illinois Press 1971.

64.   ———. 1971. "Facts, possibilities and essences in the *Tractatus*." In *Essays on Wittgenstein*, edited by Klemke, Elmer D., 485-533. Urbana: University of Illinois Press.

65.   ———. 1978. *Thought, Fact and Reference: The Origins and Ontology of Logical Atomism*. Minneapolis: University of Minnesota Press.

66.   ———. 2001. *Russell, Moore, and Wittgenstein: The Revival of Realism*. Egelsbach: Hänsel-Hohenhausen.

67.   Horn, Patrick Rogers. 2005. *Gadamer and Wittgenstein on the Unity of Language. Reality and Discourse Without Metaphysics*. Aldershot: Ashgate.

68.   Hyder, David Jalal. 2002. *The Mechanics of Meaning. Propositional Content and the Logical Space of Wittgenstein's Tractatus*. Berlin: Walter de Gruyter.

69.   Ishiguro, Hide. 2001. "The so-called Picture Theory: language and the world in Tractatus Logico-Philosophicus." In *Wittgenstein: A Critical Reader*, edited by Glock, Hans-Johann, 26-46. Malden: Blackwell.

70.   Jacquette, Dale. 2001. "Analysis of Quantifiers in Wittgenstein's *Tractatus*: A Critical Survey." *Logic Analysis and History of Philosophy* no. 4:191-202.
In the*Tractatus logico-philosophicus*, Wittgenstein distinguishes between what can and cannot be said in any language by the general form of propositions. I explain Wittgenstein's method and discuss Robert J. Fogelin's criticism of what he takes to be the incompleteness of Wittgenstein's general form of propositions in his exposition of the '*Naive Constructivism of the Tractatus*.' [Chapter 6 of: Robert J. Fogelin, *Wittgenstein* pp. 78-85]. I argue that Fogelin's objection is mistaken, and that, contrary to Fogelin's claim, Wittgenstein's method when properly applied produces all of the well-formed formulas with mixed multiple quantification that Fogelin maintains it cannot provide. I conclude by offering a critical comparison of similar solutions proposed, among others, by P.T. Geach, Scott Soames, and Matthias Varga von Kibéd."

71.   ———. 2004. "Wittgenstein's Tractatus and the logic of fiction." In *Wittgenstein and Philosophy of Literature*, edited by Gibson, John and Huemer, Wolfgang, 305-317. London: Routledge.
Wittgenstein's *Tractatus Logico-Philosophicus* articulates a logic and semantics for all possible languages in which states of affairs (*Sachverhalten, Tatsachen)* as truth-makers are pictured in sentences under analysis. Wittgenstein considers both existent and nonexistent states of affairs as pictured, respectively, by true and false sentences. This raises the question as to whether the *Tractatus* constitutes or provides the formal basis for a logic of fiction. I identify four criteria for a logic of fiction, and argue that the *Tractatus* satisfies only the first three. The remaining criterion has to do with logical analysis of a fictional character's psychology internal narration. These are excluded by Wittgenstein's application of Occam's razor in defense of the general form of proposition in the case of fiction just as they are in nonfictional discourse."

72.   Kannisto, Heikki. 1986. *Thoughts and Their Subject. A Study of Wittgenstein's Tractatus*. Helsinki: Societas Philosophica Fennica.

73.   Kaplan, David. 1964. *Foundations of Intensional Logic*.
Unpublished Ph. D. thesis; available at UMI Dissertation Express, reference number: 6408563.

74.   Kenny, Anthony John Patrick. 1973. *Wittgenstein*. London: Allen Lane.
Second revised edition: Oxford: Blackwell Publishers 2006.

75.   Klement, Kevin C. 2004. "Putting form before function: logical grammar in Frege, Russell, and Wittgenstein." *Philosopher's Imprint* no. 4:1-47.
The positions of Frege, Russell and Wittgenstein on the priority of complexes over (propositional) functions are sketched, challenging those who take the "judgment centered" aspects of the *Tractatus* to be inherited from Frege not Russell. Frege's views on the priority of judgments are problematic, and unlike Wittgenstein's. Russell's views on these matters, and their development, are discussed in detail, and shown to be more sophisticated than usually supposed.
Certain misreadings of Russell, including those regarding the relationship between propositional functions and universals, are exposed. Wittgenstein's and Russell's views on logical grammar are shown to be very similar. Russell's type theory does not countenance types of genuine entities nor metaphysical truths that cannot be put into words, contrary to conventional wisdom. I relate this to the debate over "inexpressible truths" in the *Tractatus*. I lastly comment on the changes to Russell's views brought about by Wittgenstein's influence."

76.   Klemke, Elmer D., ed. 1971. *Essays on Wittgenstein*. Urbana: University Of Illinois Press.

77.   ———. 1971. "The ontology of Wittgenstein's *Tractatus*." In *Essays on Wittgenstein*, edited by Klemke, Elmer D., 104-119. Urbana: University of Illinois Press.

78.   Kluge, Eike Henner. 1973. "Objects as universals: a re-appraisal of the *Tractatus*." *Dialogue* no. 12:64-77.

79.   Küng, Guido. 1967. *Ontology and the Logistic Analysis of Language. An Enquiry Into the Contemporary Views on Universals*. Dordrecht: Reidel.
           Translated from German by E. C. M. Mays, and revised by the author.

80.   ———. 1983. "The difficulty with the well-formedness of ontological statements." *Topoi* no. 2:111-119.

81.   Landini, Gregory. 2009. *Wittgenstein's Apprenticeship with Russell*. Cambridge: Cambridge University Press.

82.   Latraverse, François. 2002. "Signe, proposition, situation: éléments pour une lecture du *Tractatus Logico-Philosophicus*." *Revue Internationale de Philosophie* no. 56:125-140.

83.   Levvis, Gary. 1998. "The so-called (and actual!) Realism of the *Tractatus*." *Grazer Philosophische Studien* no. 54:45-70.
           David Pears's contention that the *Tractatus* [in: *The false prison* - vol. 1 - Chapter 6: *The basic Realism of the Tractatus*] is to be understood as advancing a form of metaphysical realism is defended against McGuinness's view that *Tractatus* 1-2.063 is to be treated just as introducing a metaphysical myth that may be employed to bring into prominence salient features of propositions. Starting with a discussion of the involved difficulties, e.g., determining (1) whether Wittgenstein does, in fact, provide an argument for the existence of simple objects, (2) what this object is, and (3) what role the existence of simple objects plays within the Picture Theory of the Proposition, Wittgenstein's argument for the existence of simple objects is reconstructed, augmenting Pears's existing account by providing further details of why Wittgenstein held that determinacy of sense requires the existence of simple objects."

84.   Lokhorst, Gert-Jan C. 1988. "Ontology, semantics, and philosophy of mind in Wittgenstein's *Tractatus*. A formal reconstruction." *Erkenntnis* no. 29:35-75.
           The paper presents a formal explication of the early Wittgenstein's views on ontology, the syntax and semantics of an ideal logical language, and the propositional attitudes. It will be shown that Wittgenstein gave a 'language of thought' analysis of propositional attitude ascriptions, and that his ontological views imply that such ascriptions are truth-functions of (and supervenient upon) elementary sentences. Finally, an axiomatization of a quantified doxastic modal logic corresponding to Tractarian semantics will be given."

85.   Lombardi, Olimpia Iris. 1999. "¿Qué son los objetos del Tractatus?" *Revista de Filosofia (Spain)* no. 12:55-76.
           In this paper we provide an interpretation of the concept "object", in the context of Wittgenstein's *Tractatus*. We argue that (1) "objects" are logical entities, the nodes of the logical net which is common to all possible worlds; (2) general words are not "names" and, therefore, "objects" are particulars."

86.   Ludwig, Jan. 1976. "'Substance' and 'simple objects' in Tractatus 2.02ff." *Philosophical Studies* no. 29:307-318.
           Reprinted in: John V. Canfield (ed.), *The Philosophy of Wittgenstein. A Fifteen Volume Collection*, New York: Garland 1986, Vol. II: Logic and Ontology.

87.   Marion, Mathieu. 2004. *Ludwig Wittgenstein. Introduction au Tractatus logico-philosophicus*. Paris: Presses Universitaires de France.

88.   Maslow, Alexander. 1961. *A study in Wittgenstein's Tractatus*. Berkeley: University of California Press.

From the Preface: "This study in Wittgenstein *Tractatus* is substantially as it was written in 1933".
Reprinted by Thoemmes Press in 1997.

89. Maury, André. 1977. *The Concepts of "Sinn" and "Gegenstand" in Wittgenstein's Tractatus*. Amsterdam: North-Holland.
It is argued that the *Tractatus* notion of propositional sense contains an irreducible modal element. An interpretation of Wittgenstein's early notion of "bipolarity" is given. It is further argued that explicit recognition of the modal element helps us to understand the particular form of the *Tractatus* ontology. Wittgenstein's early views on sense and modality are contrasted with Frege's and Russell's views. Part II is a defense of the view that the *Tractatus* objects include predicates. The argument is backed up by reference to later unpublished writings by Wittgenstein. The development of his views on names and predicates are examined."

90. McDonough, Richard. 1986. *The Argument of the Tractatus. Its Relevance to Contemporary Theories of Logic, Language, Mind, and Philosophical Truth*. Albany: State University of New York Press.

91. McGinn, Marie. 2006. *Elucidating the Tractatus: Wittgenstein's Early Philosophy of Logic and Language*. Oxford: Oxford University Press.

92. McGuinness, Brian. 1972. "Russell and Ludwig Wittgenstein' "Notes on logic"." *Revue Internationale de Philosophie* no. 26:440-460.

93. ———. 1981. "The so-called realism of Wittgenstein's *Tractatus*." In *Perspectives on the Philosophy of Wittgenstein*, edited by Block, I., 60-73. Oxford: Blackwell.
Reprinted in: B. F. McGuinness, *Approaches to Wittgenstein. Collected Papers*, pp. 82-94.

94. ———. 2002. *Approaches to Wittgenstein. Collected Papers*. London: Routledge.

95. McManus, Denis. 2006. *The Enchantment of Words. Wittgenstein's Tractatus logico-philosophicus*. Oxford: Oxford University Press.

96. Milkov, Nikolay. 2001. "Tractarian scaffoldings." *Prima Philosophia* no. 14:399-414.
Wittgenstein's Tractarian ontology has its historical roots in Russell's programme for constructionalism. There is an essential difference between the constructionalism of Russell and that of Wittgenstein though. Whereas Tractarian ontology is approximately Aristotelian, Russell's logical atomism accepts a Platonic penetration of the autonomous world of logical forms into the autonomous world of facts. Russell's logical constructionalism, more precisely, uses the metaphor of a 'logical skeleton' on which the data of experience are fleshed out. In opposition, in the Tractatus Wittgenstein doesn't speak of a skeleton but introduces the concept of 'logical scaffolding' and also of the 'scaffolding of the world' instead. This terminology reflects a new type of ontology, as well as a new type of logic, radically different from that of Russell. Its most important concepts are that of 'object' and 'state of affairs', both of them used in new, idiosyncratic sense."

97. Miller III, Hugh. 1995. "Tractarian Semantics for Predicate Logic." *History and Philosophy of Logic* no. 16:197-215.
It is a little understood fact that the system of formal logic presented in Wittgenstein's' Tractano provides the basis for an alternative general semantics for a predicate calculus that is consistent and coherent. essentially independent of the metaphysics of logical atomism. and philosophieall illuminating in its own right. The purpose of this paper is threefold: to describe the general characteristics of a Tractarian-style semantics, to defend the 'Fulcrums system against the charge of expressive incompleteness as levelled by Robert Fogelin, and to give a semantics for a formal language that is the Tractarian equivalent of a first-order predicate calculus. Of note in regard to the latter is the fact that a Trachuus-style truth-definition makes no appeal to the technical trick of defining truth in terms of the

satisfaction of predicates by infinite sequences of objects, yet is materially equivalent to the usual Tarski-style truth-definitions."

98.   Morrison, James C. 1968. *Meaning and Truth in Wittgenstein's Tractatus*. The Hague: Mouton.

99.   Mounce, Howard O. 1981. *Wittgenstein's Tractatus. An Introduction*. London: Basil Blackwell.

100.   ———. 2001. "The logical system of the *Tractatus*." In *Wittgenstein: A Critical Reader*, edited by Glock, Hans-Johann, 59-93. Malden: Blackwell.

101.   Mudersbach, Klaus. 1978. "A tentative axiomatization of the ontology of the *Tractatus*." In *Wittgenstein and His Impact on Contemporary Thought. Proceedings of the Second International Wittgenstein Symposium, 29th August to 4th September 1977, Kirchberg/Wechsel (Austria)*, edited by Leinfellner, Elisabeth, 159-161. Wien: Hölder-Pichler-Tempsky.

102.   Müller, Anselm Winfried. 1967. *Ontologie in Wittgenstein's Tractatus*. Bonn: Bouvier.

103.   Newen, Albert. 1991. "Interpretation und Rekonstruktion der Ontologie in Wittgensteins *Tractatus*." *Grazer Philososphiche Studien* no. 41:33-65.

104.   Noonan, H.W. 1975. "*Tractatus* 2.0211 - 2.0212." *Analysis* no. 36:147-149.
       The existence of objects as substances. *Tractatus's* relationship to the theory of the proposition in Frege."

105.   Nordmann, Alfred. 2005. *Wittgenstein's Tractatus. An Introduction*. Cambridge: Cambridge University Press.

106.   Oaklander, Nathan L., and Miracchi, Silvano. 1980. "Russell, negative facts, and ontology." *Philosophy of Science* no. 47:434-455.
       Russell's introduction of negative facts to account for the truth of "negative" sentences or beliefs rests on his collaboration with Wittgenstein in such efforts as the characterization of formal necessity, the theory of logical atomism, and the use of the ideal language. In examining their views we arrive at two conclusions. First, that the issue of negative facts is distinct from questions of meaning or intentionality; what a sentence or belief means or is about rather than what makes it true or false. Second, that the ontological use of the ideal language is incompatible with the requirements of its employment in the logical study of inferences. On this basis we conclude that despite elaborations by recent proponents, the doctrine of negative facts lacks adequate support, and perhaps more importantly, it is proper ontological method to free the ideal language from the exigencies of a symbolism constructed for logical investigation."

107.   Omyla, Mieczyslaw. 1986. *Zarys logiki niefregowskiej (An outline of non-Fregean logic)*. Warszawa: Panstwowe Wydawnictwo Naukowe.
       Book written in Polish.

108.   Ostrow, Matthew B. 2002. *Wittgenstein's Tractatus. A Dialectical Interpretation*. Cambridge: Cambridge University Press.

109.   Page, James. 1997. "Unconfigured Tractarian objects." *Philosophical Investigations* no. 20:39-50.
       According to Wittgenstein's *Tractatus*, the world consists of atomic objects arranged in various configurations and the ways the world might be are determined by the ways these objects can be configured. I question whether these very objects can be unconfigured as well. Black and Fogelin are nearly alone in their attention to this issue but reach opposite conclusions. Black asserts, essentially without argument, that atomic objects can be configured, while Fogelin is committed to the view that they cannot. I think Black is right and my aim is to show why."

110.   Pears, David Francis. 1970. *Wittgenstein*. New York: Viking Press.

111.   ———. 1972. "The ontology of the *Tractatus*." *Teorema*:49-58.
The article is concerned with the status of the ontology of the *Tractatus*. In it I argue
1) that, although the ontology of the *Tractatus* is a metaphysic of language like
Kant's metaphysic of experience, it is supposed to set the standard of objectivity,
and to yield the firmest conclusions about reality; 2) that Wittgenstein abandoned
this ontology when he abandoned the theory of language from which it had been
deduced, because it expressed too narrow a view of the possible forms that
language may take. The article is an attempt to establish in what way Wittgenstein's
later philosophy is more anthropocentric than his early philosophy."

112.   ———. 1977. "The relation between Wittgenstein's picture theory of propositions
and Russell's theories of judgement." *The Philosophical Review* no. 86:177-196.
Reprinted in: S. G. Shanker (ed.), *Ludwig Wittgenstein. Critical Assessments, Vol.
1: From the Notebooks to Philosophical Grammar: The Construction and
Dismantling of the Tractatus* (1986), pp. 92-107.

113.   ———. 1987. *The False Prison. A Study of the Development of Wittgenstein's
Philosophy*. Oxford: Clarendon Press.
Two volumes.
Contents of the first volume: Abreviations XI; Part I: Introduction 1; 1. Wide-angle
view 3; 2. Close-up: the early system 20; 3. Close-up: the late system 34; Part II:
Inside the early system 61; 4. Logical Atomism 63; 5. The basic realism of the
Tractatus 88; 6. Sentences as pictures 115; 7. Solipsism 153; 8. Review and
prospect 192; Bibliography 197; Index 201.

114.   Perszyk, Kenneth. 1988. "The ontology of the *Tractatus*."
Philosophia.Philosophical Quarterly of Israel no. 18:39-59.
Reading Wittgenstein's *Tractatus* as an extended answer to the question "what must
the world be like for the symbolic logic developed by Frege, Russell, and
Whitehead to apply to it?" helps elucidate the connection between its theory of
language and its ontology. My main argument is to show that the ontology is
derived from the logic of *Principia mathematica* taken to its completion. throughout
the *Tractatus*. Wittgenstein takes a stance on a number of traditional problems in the
history of philosophy, and my aim in discussing some of these is to place the
Tractatus in broader historical perspective."

115.   Perzanowski, Jerzy. 1984. "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, 224-230. Wien: Holder-Pichler-Tempsky.
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.

116.   ———. 1985. "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 M., 544-550. Wien: Holder-Pichler-Tempsky.

[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].

117. ———. 1990. "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, Rudolf and Brandl, Johannes, 185-199. Dordrecht: Kluwer.

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 argumented 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.

118. ———. 1992. "Ce qu'il y a de non Fregéen 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, 163-177. Paris: Klincksieck.

Translated in English as: *What is non-Fregean in the semantics of Wittgenstein's Tractatus and why?*, Axiomathes, 1993, 4, pp. 357-372.

119. ———. 1993. "What is non-Fregean in the semantics of Wittgenstein's Tractatus and why?" *Axiomathes* no. 4:357-372.

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)

120. Piana, Giovanni. 1973. *Interpretazione del Tractatus di Wittgenstein*. Milano: Il Saggiatore.

121. Pippin, Robert B. 1979. "Negation and not-being in Wittgenstein's *Tractatus* and Plato's *Sophist*." *Kant Studien* no. 70:179-196.

122. Plochmann, George Kimball, and Lawson, Jack B. 1962. *Terms in Their Propositional Contexts in Wittgenstein's Tractatus. An Index*. Carbondale: Southern Illinois University Press.

123. Plourde, Jimmy. 2000. "Ontologie der Modalitäten im Tractatus." *Metaphysica* no. 1:19-39.

124. ———. 2005. "Wittgenstein et les théories du jugement de Russell et de Meinong." *Dialogue.Canadian Philosophical Association* no. 44:249-283.
Un des principaux enjeux de la théorie du jugement de Russell consistait à élaborer une théorie qui n'engage pas à admettre des entités complexes vraies, fausses ou inexistantes tels que les objectifs meinongiens. Dans l'étude du débat entre Russell et Wittgenstein sur cette théorie, on n'a jamais sérieusement envisagé que Wittgenstein n'ait pas suivi Russell sur cette question et qu'il ait plutôt adopté une position plus proche de celle de Meinong. Dans cet article, j'aborde cette question et soutiens que Wittgenstein a trouvé la solution aux problèmes posés par la théorie du jugement de Russell dans la théorie de l'image et qu'il a longuement hésité dans les Carnets entre des versions de la théorie de l'image en accord avec la position de Russell et des versions en accord avec celle de Meinong. Enfin, je soutiens qu'il a finalement tranché la question dans le Tractatus en optant pour une théorie du type de celle privilégiée par Meinong."

125. Poulain, Jacques. 1973. "La possibilité des propositions ontologiques dans le *Tractatus logico-philosophicus*." *Les Études Philosophiques*:529-552.

126. Proops, Ian. 2000. *Logic and Language in Wittgenstein's Tractatus*. New York: Garland.
This work is a minimally revised version of my Harvard doctoral thesis, which was written during the years 1994-1998. My understanding of Wittgenstein's early philosophy has, of course, continued to evolve since completing the thesis, but because the attempt to incorporate these new ideas seemed likely to result in a wholly new work, I have decided to present the dissertation in its original form, with the exception of a few minor and mostly stylistic changes."

127. ———. 2004. "Wittgenstein on the substance of the world." *European Journal of Philosophy* no. 12:106-126.
A reading is offered of Wittgenstein's argument for substance in his *Tractatus Logico-Philosophicus*. Wittgenstein's talk of "substance" is an allusion to Kant's conception of substance in the "First Analogy" of the *Critique of Pure Reason*, namely, the concept of some stuff that exists at all times and such that all existence changes are alterations of it. Tractarian substance is the modal analogue of Kantian substance. It is that which "endures," not literally through time, but figuratively through a "space" of possible worlds. To argue for substance is therefore to argue for necessary existents. From this starting point, a detailed reconstruction of the argument for substance is developed and its coherence (if not soundness) defended."

128. Ramsey, Frank Plumpton. 1923. "Critical notice of the *Tractatus*." *Mind* no. 32:465-478.
Reprinted in: F. P. Ramsey, *The Foundations of Mathematics and Other Logical Essays*, edited by R. B. Braithwaite, with a preface by G. E. Moore, New York: The Humanities Press, 1931 (Reprinted Patterson, Littlefield, Adams, 1965).

129.   Reck, Erich H., ed. 2002. *From Frege to Wittgenstein. Perspective in Early Analytic Philosophy*. New York: Oxford University Press.

130.   Rhees, Rush. 1969. ""Ontology" and "Identity" in the *Tractatus*. A propos of Black's Companion." In *Studies in the Philosophy of Wittgenstein*, edited by Winch, Peter, 51-65. London: Routledge & Kegan Paul.

131.   ———. 1969. "Ontology and Identity in the *Tractatus*." In *Studies in the Philosophy of Wittgenstein*, edited by Winch, Peter, 51-65. London: Routledge & Kegan Paul.
        Reprinted in: John V. Canfield (ed.), *The Philosophy of Wittgenstein. A Fifteen Volume Collection,* New York: Garland, 1986, Vol. II: *Logic and Ontology*.

132.   Richter, Duncan. 2004. *Historical Dictionary of Wittgenstein's Philosophy*. Lanham: Scarecrow Press.

133.   Russell, Bertrand. 1919. "The Philosophy of Logical Atomism." *The Monist*.
        Reprinted in: B. Russell, *Logic and Knowledge. Essays 1901-1950*, edited by Robert Charles Marsh, London: Allen & Unwin, 1956, pp. 175-282.

134.   Shanker, Stuart, ed. 1986. *Ludwig Wittgenstein. Critical Assessments*. London: Croom Helm.
        Vol. 1: From the *Notebooks* to *Philosophical Grammar.* The construction and dismantling of the *Tractatus*; Vol. 2: From *Philosophical investigations* to *On certainty*: Wittgenstein's Later Philosophy; Vol. 3: From the *Tractatus* to *Remarks on the Foundations of Mathematics*: Wittgenstein on the Philosophy of Mathematics; Vol. 4: *From theology to Sociology*: Wittgenstein's Impact on Contemporary Thought.

135.   Simons, Peter M. 1981. "Logical and ontological independence in the *Tractatus*." In *Ethics: Foundations, Problems, and Applications. Proceedings of the Fifth International Wittgenstein Symposium, 25th to 31st August 1980, Kirchberg am Wechsel (Austria)*, edited by Morscher, Edgar and Stranzinger, Rudolf, 464-467. Wien: Hölder-Pichler-Tempsky.

136.   ———. 1985. "The old problem of complex and fact." *Teoria (Italy)* no. 5:205-225.
        Reprinted in: P. Simons, *Philosophy and Logic in Central Europe from Bolzano to Tarski. Selected Essays*, Dordrecht: Kluwer, 1992, pp. 319-338.

137.   ———. 1986. "Tractatus mereologico-philosophicus? A Brentanian look at Wittgenstein, and a moral." *Grazer Philosophische Studien* no. 28:165-186.

138.   Skyrms, Brian. 1981. "Tractarian Nominalism (for Wilfrid Sellars)." *Philosophical Studies* no. 40:199-206.

139.   Soames, Scott. 1983. "Generality, truth functions, and expressive capacity in the *Tractatus*." *The Philosophical Review* no. 92:573-589.
        Reprinted in: John V. Canfield (ed.), *The Philosophy of Wittgenstein. A Fifteen Volume Collection,* New York: Garland, 1986, Vol. II: *Logic and Ontology*.

140.   Specht, Ernst Konrad. 1967. *The Foundations of Wittgenstein's Later Philosophy*. Manchester: Manchster University Press.
        Original edition: *Die sprachphilosophischen und ontologischen Grundlagen im Spätwerk Ludwig Wittgensteins*, Cologne: Kölner Universitäts-Verlag 1963.
        The first two chapters are about the *Tractatus*.

141.   Stegmüller, Wolfgang. 1966. "Eine modelltheoretische Präzisierung der Wittgensteinschen Bildtheorie." *Notre Dame Journal of Formal Logic* no. 7:181-195.

142.   Stenius, Erik. 1960. *Wittgenstein's Tractatus. A Critical Exposition of Its Main Lines of Thought*. Oxford: Blackwell.

143.   ———. 1976. "The sentence as a function of its constituents in Frege and in the *Tractatus*." In *Essays on Wittgenstein in Honour of G. H. von Wright*, edited by

Hintikka, Jaakko, 71-84. Amsterdam: North-Holland.

144. Stevens, Graham. 2007. "From Russell's Paradox to the theory of judgement: Wittgenstein and Russell on the unity of the proposition." *Theoria.A Swedish Journal of Philosophy* no. 70:28-61.
It is fairly well known that Wittgenstein's criticisms of Russell's multiple-relation theory of judgment has a devastating effect on the latter's philosophical enterprise. The exact nature of those criticisms, however, and the explanation for the severity of their consequences, has been a source of confusion and disagreement amongst both Russell and Wittgenstein scholars. In this paper, I offer an interpretation of those criticisms which shows them to be consonant with Wittgenstein's general critique of Russell's conception of logic and which serves to elucidate some of the notoriously enigmatic passages of the *Tractatus*. In particular, I seek to show the continuity of Wittgenstein's criticisms of the theory of judgment with his remarks on Russell's paradox and the theory of types."

145. Stocker, Barry, ed. 2004. *Post-Analytic Tractatus*. Aldershot: Ashgate.

146. Stokhof, Martin J.B. 2002. *World and Life as One. Ethics and Ontology in Wittgenstein's Early Thought*. Stanford: Stanford University Press.
The book's main thesis is twofold. It argues that the ontological theory of the Tractatus is fundamentally dependent on its logical and linguistic doctrines: the tractarian world is the world as it appears in language and thought. It also maintains that this interpretation of the ontology of the Tractatus can be argued for not only on systematic grounds, but also via the contents of the ethical theory that it offers. Wittgenstein's views on ethics presuppose that language and thought are but one way in which we interact with reality."

147. Sullivan, Peter M. 2000. "The totality of facts." *Proceedings of the Aristotelian Society* no. 100:175-192.
Wittgenstein, in the *Tractatus*, conceives the world as "the totality of facts." Type-stratification threatens that conception: the totality of facts is an obvious example of an illegitimate totality. Wittgenstein's notion of truth-operation evidently has some role to play in avoiding that threat, allowing propositions, and so facts, to constitute a single type. The paper seeks to explain that role in a way that integrates the "philosophical" and "technical" pressures on the notion of an operation."

148. Suszko, Roman. 1968. "Ontologia w "Traktacie' L. Wittgenstein" (Ontology in the *Tractatus* by L. Wittgenstein)." *Studia Filozoficzne*:97-120.
Paper witten in Polish.

149. ————. 1968. "Ontology in the *Tractatus* of L. Wittgenstein." *Notre Dame Journal of Formal Logic* no. 9:7-33.
The *Tractatus Logico-Philosophicus* of Ludwig Wittgenstein is a very unclear and ambiguous metaphysical work. Previously, like many formal logicians, I was not interested in the metaphysics of the *Tractatus*. However, I read in 1966 the text of a monograph by Dr. B. Wolniewicz of the University of Warsaw and I changed my mind. I see now that the conceptual scheme of *Tractatus* and the metaphysical theory contained in it may be reconstructed by formal means. The aim of this paper (*) is to sketch a formal system or formalized theory which may be considered as a clear, although not complete, reconstruction of the ontology contained in Wittgenstein's *Tractatus*.
It is not easy to say how much I am indebted to Dr. Wolniewicz. I do not know whether he will agree with all theorems and definitions of the formal system presented here. Nevertheless, I must declare that I could not write the present paper without being acquainted with the work of Dr. Wolniewicz. I learned very much from his monograph and from conversations with him. However, when presenting in this paper the formal system of Wittgenstein's ontology I will not refer mostly either to the monograph of Dr. Wolniewicz or to the *Tractatus*. Also, I will not discuss here the problem of adequacy between my formal construction and *Tractatus*. I think that the Wittgenstein was somewhat confused and wrong in

certain points. For example, he did not see the clear-cut distinction between language (theory) and metalanguage (metatheory): a confusion between use and mention of expressions."
* Presented in Polish at the Conference on History of Logic, April 28-29, 1967, Cracow, Poland.

150.   ———. 1975. "Abolition of the Fregean Axiom." In *Logic Colloquium. Symposium on logic held at Boston, 1972-73*, edited by Parikh, Rohit, 169-239. Berlin: Springer.
This paper was also published as a separate booklet by the Institute of Philosophy and Sociology of the Polish Academy of Sciences, Warsaw 1972, in a series of preprints.

151.   Suszko, Roman, and Omyla, Mieczyslaw. 1972. "Description in theories of kind W." *Bulletin of the Section of Logic* no. 1:8-13.

152.   ———. 1972. "Definitions in theories of kind W." *Bulletin of the Section of Logic* no. 1:14-19.

153.   Tejedor, Chon. 2003. "Sense and simplicity: Wittgenstein's argument for simple objects." *Ratio.An International Journal of Analytic Philosophy* no. 16:272-289.
This paper puts forward an alternative interpretation of the argument for simple objects advanced in the 2.0s of the *Tractatus*. In my view, Wittgenstein derives the simplicity of objects directly from his account of possible states, complex objects and senseful propositions. The key to Wittgenstein's argument is the idea that, if there were no simple objects, possible states would not be necessarily possible. If this were the case, however, there would be no senseful language, in Wittgenstein's view. One of the subsidiary aims of this paper is to question the idea that Wittgenstein posits simples because, without them, language would be infinitely analyzable."

154.   Voltolini, Alberto. 2003. "Possibilia, qualia e sensibilia." *Rivista di Estetica* no. 43:127-137.
In this paper I will try to show the following two things. First, Wittgenstein's *Tractatus logico-philosophicus* semantically exiges that Tractarian objects be conceived of as possibilia in the sense of Russell (1903), namely as objects that may exist as well not exist. Second, the *Tractatus's* general ontological framework suggests to integrate this onto-semantical conception with a view of such objects not as *qualia* but rather as *sensibilia* in the sense of Russell (1914), namely as *possible* sense-data."

155.   Weissman, David. 1967. "Ontology in the *Tractatus*." *Philosophy and Phenomenological Research* no. 27:475-501.

156.   White, Roger M. 2006. *Wittgenstein's Tractatus Logico-Philosophicus. Readers' Guide*. New York: Continuum.

157.   Wolniewicz, Bogusław. 1968. *Rzczy i fakty. Wstep do pierwszei filozofii Wittgensteina (Things and Facts. An introduction to the first philosophy of Wittgenstein)*. Warsaw: Panstwowe Wydawnicztwo Naukowe.
Book witten in Polish.

158.   ———. 1968. "A difference between Russell's and Wittgenstein's logical atomism." In *Akten des XIV. Internationalen Kongresses für Philosophie. Wien, 2. - 9. September 1968, Vol. II*, 263-267. Wien: Herder.
Reprinted in: *Logic and Metaphysics* (1999), pp.193-197.

159.   ———. 1969. "O formalnych wlasnosciach pojecia faktu (On formal properties of the notion of fact)." *Rozprawy Filozoficzne*:413-423.
Paper written in Polish.

160.   ———. 1969. "A parallelism between Wittgensteinian and Aristotelian ontologies." In *Boston Studies in the Philosophy of Science. Vol. IV*, edited by Cohen, Robert S. and Wartofsky, Marx W., 208-217. Dordrecht: Reidel.

Proceedings of the Boston Colloquium for the philosophy of science 1966/1968.
Reprinted in: *Logic and Metaphysics* (1999), pp.198-207.

161.   ———. 1969. "A note on Black's 'Companion'." *Mind* no. 78:141.
Reprinted in: *Logic and Metaphysics* (1999), p. 229.
"It is a mistake to suppose that in Wittgenstein's "Tractatus" the meaning of *Urbild* has any connexion with that of *picture*. "

162.   ———. 1971. "Wittgensteinian foundations of non-Fregean logic." In *Contemporary East European Philosophy. Vol. 3*, edited by D'Angelo, Edward, DeGrood, David and Riepe, Dale, 231-243. Bridgeport: Spartacus Books.

163.   ———. 1973. "Zur Semantik des Satzkalküls: Frege und Wittgenstein." In *Der Mensch - Subjekt und Objekt (Festschrift für Adam Schaff)*, edited by Borbé, Tasso. Wien: Europaverl.

164.   ———. 1978. "Wittgenstein und der Positivismus." In *Wittgenstein, the Vienna circle and critical rationalism. Proceedings of the third International Wittgenstein Symposium, 13th to 19th August 1978, Kirchberg am Wechsel (Austria)*, edited by Bergehel, Hal, Hübner, Adolf and Eckehart, Köhler, 75-77. Wien: Hölder-Pichler-Tempsky.

165.   ———. 1979. "A Wittgensteinian semantics for propositions." In *Intention and Intentionality. Essay in Honour of G. E. M. Anscombe*, edited by Diamond, Cora and Teichman, Jenny, 165-178. Ithaca: Cornell University Press.
More than once Professor Anscombe has expressed doubt concerning the semantic efficacy of the idea of an 'elementary proposition' as conceived in the *Tractatus*. Wittgenstein himself eventually discarded it, together with the whole philosophy of language of which it had been an essential part. None the less the idea is still with us, and it seems to cover theoretical potentialities yet to be explored. This paper is a tentative move in that direction.
According to Professor Anscombe, (*) Wittgenstein's 'elementary propositions' may be characterized by the following five theses:
(1) They are a class of mutually independent propositions.
(2) They are essentially positive.
(2) They are such that for each of them there are no two ways of being true or false, but only one.
(4) They are such that there is in them no distinction between an internal and an external negation.
(5) They are concatenations of names, which are absolutely simple signs.
We shall not investigate whether this is an adequate axiomatic for the notion under consideration. We suppose it is. In any case it is possible to modify it in one way or another, and for the resulting notion still to preserve a family resemblance with the original idea. One such modification is sketched out below."

166.   ———. 1982. "A Formal Ontology of Situations." *Studia Logica* no. 41:381-413.
A generalized Wittgensteinian semantics for propositional languages is presented, based on a lattice of elementary situations. Of these, maximal ones are possible worlds, constituting a logical space; minimal ones are logical atoms, partitioned into its dimensions. A verifier of a proposition is an elementary situation such that if real it makes true. The reference (or objective) of a proposition is a situation, which is the set of all its minimal verifiers. (Maximal ones constitute its locus.) Situations are shown to form a Boolean algebra, and the Boolean set algebra of loci is its representation. Wittgenstein's is a special case, admitting binary dimensions only."
Contents:
0. Preliminaries;
1. Elementary Situations
1.1.The Axioms; 1.2.Some Consequences; 1.3. W-Independence; 1.4.States of Affairs;
2. Sets of Elementary Situations

2.1.The Semigroup of SE"-Sets; 2.2.The Lattice of Minimal SE"-Sets; 2.3.Q-Spaces and V-Sets; 2.4.V-Equivalence and Q-Equivalence; 2.4.V-Classes and V-Sets;
3. Objectives of Propositions
3.1. Verifiers of Propositions; 3.2. Verifying and Forcing; 3.3. Situations and Logical Loci; 3.4. Loci and Objectives of Compound Propositions 3.5. The Boolean Algebra of Situations;
4. References

167.   ———. 1983. "Logical Space and Metaphysical Systems." *Studia Logica* no. 42:269-284.
The paper applies the theory presented in "A formal ontology of situations" (Studia Logica, vol. 41 (1982), no. 4) to obtain a typology of metaphysical systems by interpreting them as different ontologies of situations.
Four are treated in some detail: Hume's diachronic atomism, Laplacean determinism, Hume's synchronic atomism, and Wittgenstein's logical atomism. Moreover, the relation of that theory to the "situation semantics" of Perry and Barwise is discussed."

168.   ———. 1985. *Ontologia Sytuacji (Ontology of Situations)*. Warszawa: Panstwowe Wydawnictwo Naukowe.
Book written in Polish.

169.   ———. 1990. "The essence of Logical Atomism: Hume and Wittgenstein." In *Wittgenstein. Eine Neubewertung. Akten 14. Internationale Wittgenstein-Symposium. Vol. 1*, 106-111. Wien: Hölder-Pichler-Tempsky.

170.   ———. 1991. "On the discontinuity of Wittgenstein's philosophy." In *Peter Geach: Philosophical Encounters*, edited by Lewis, Harry A., 77-81. Dordrecht: Kluwer.
Reprinted in: *Logic and Metaphysics* (1999), pp. 13-17.
"How is Wittgenstein's later philosophy related to his earlier one?
Despite much discussion there is little clarity on that. So let us give it again some consideration.
(...)
Philosophy of language oscillates between the two poles of metaphysics and psychologism; (...). The main representative of the former trend is Frege, and the *Tractatus* follows closely in his wake. The *Philosophical Investigations,* on the other hand, are the expression of a dramatic departure from Frege and towards psychologism. Language is now viewed by Wittgenstein not in its logical capacity as the medium of thought and the bearer of truth-value, but instrumentally as a means of communication. Its relation to reality fades out, and its connexion with feeling, thinking, and doing comes massively to the fore.
Psychologism and positivism go hand in hand. Metaphysics, though not condemned as a vice as in pure positivism, is viewed as a malaise to be cured. Thus Wittgenstein's later philosophy turns into a kind of psychotherapy, exerting itself to bring metaphysics to a stop. What for? This is never made clear, as if it were a matter of course. But it is not." (pp. 80-81)

171.   ———. 1999. *Logic and Metaphysics. Studies in Wittgenstein's Ontology of Facts*. Warsaw: Polskie Towarzystwo Semiotyczne.
Contents: Preface 11; Discontinuity of Wittgenstein's philosophy 13; 1. Elementary situations as a lattice of finite length 19; Elementary situations as a semilattice 73; 3. Independence 127; 4. Elementary situations generalized 137; 5. Auxiliary studies 193; 5.1 The Logical Atomisms of Russell and Wittgenstein 193; 5.2 A parallelism between Wittgenstein and Aristotle 198; 5.3 Frege's semantics 207; 5.4. The notion of fact as a modal operator 218; 5.5 "Tractatus" 5.541 - 5.542 224; 5.6 History of the concept of a Situation 229; 6. Offshoots 243 6.1 Languages and codes 243; 6.2 Logic and hermeneutics 254; 6.3 Kotarbinski's Reism 265; 6.4 On Bayle's critique of theodicy 271; 6.5 Elzenberg's axiology 286; 6.6 Needs and values 293; 6.7 Suszko: a reminiscence 302; Supplements 307; Indices: Index of subjects 317; Index of names 326; Index of *Tractatus* references 329.

172.   ———. 2001. "Tractatus 5.541 - 5.542." In *Satz und Sachverhalt*, edited by Neumaier, Otto, 185-190. Sankt Augustin: Academia Verlag.

In Wittgenstein's "Tractatus", thesis 5 is the Principle of Extensionality: all propositions are truth-functions of their clauses. This, however, has been often thrown into doubt. There are - it is said - compound propositions whose truth-value does not depend on that of their clauses. The usual example given are the so-called intensional contexts, like "John thinks that p", or "John says that p". And indeed, the truth-value of "p" is patently immaterial here to that of the whole proposition which it is part of.

Wittgenstein's retort are the following much discussed theses, adduced here in a translation of our own:

5.54 In the general propositional form, propositions occur in one another only as bases of truth-operations.

5.541 At first sight it seems that a proposition might occur in another also in a different way.

Particularly in certain propositional forms of psychology, like "A believes that p is the case", "A thinks p", etc.

For taken superficially, proposition p seems here to stand to the object A in some sort of relation.

(And in modem epistemology - Russell, Moore, etc. - these have actually been construed that way.)

5.542 However, "A believes that p", "A thinks p", "A says p" are clearly of the form " 'p' says p "; and this is not correlating a fact with an object, but a correlation of facts by correlating their objects.

The objection is met here in two steps. Firstly, it is pointed out that a proposition of the form "John says that p" is actually of the form "'p' says that p". The idea is this: the proposition "John says that Jill has a cat" means: John produces the sentence "Jill has a cat", the latter saying by itself *that* Jill has a cat. In such a way propositions get independent of the persons producing them, and communicate some objective content. It is surely not by John's looks that we come to know about Jill's cat, but merely by his words. Whom they stem from, is irrelevant.

In his second step Wittgenstein follows Frege's interpretation of indirect speech, but with modifications. He points out that the formula " 'p' says that p " is equivalent to some compound proposition in which neither the proposition *"p" as a* syntactic unit, nor anything equivalent to it, does occur although there occur all the logically relevant constituents of *"p"* separately.

(...)

The distinction between abstract and concrete states of affairs is not drawn explicitly in the "Tractatus". But it fits well thesis 5.156, if we expand that thesis by a few words of comment, added here in brackets:

5.156(d) A proposition may well be en incomplete image of a particular (concrete) situation, but it is always *the* complete image (of an abstract one).

The circumstance that in 5.156 not "states of affairs", but "situations" are mentioned, is of no consequence in our context. We assume that states of affairs are just atomic situations, and so the distinction between "concrete" and "abstract" applies to both."

173.   Wright, Georg Henrik von. 1971. "Historical introduction. The origin of Wittgenstein's *Tractatus*." In *Prototractatus. An Early Version of Tractatus logico-philosophicus*, edited by McGuinness, Brian. London: Routledge.

Revised and expanded in G. H. von Wright, *Wittgenstein*, Oxford: Blackwell, 1982.

174.   ———. 1972. "Some observations on modal logic and philosophical systems." In *Contemporary Philosophy in Scandinavia*, edited by Olson, Raymond E. and Paul, Anthony M., 17-26. Baltimore: The John Hopkins Press.

175.   ———. 1982. "Modal logic and the *Tractatus*." In *Wittgenstein*, 185-200. Oxford: Blackwell.

176. Zemach, Eddy M. 1976. "*Sachverhalte*, *Tatsachen* and properties." *Ratio.An International Journal of Analytic Philosophy* no. 17:49-51.

177. Zheng, Yiwei. 1999. "Les configurations et les propriétés des objets dans le *Tractacus* de Wittgenstein." *Philosophical Investigations* no. 22:136-165.
In this paper I approach some central problems concerning the Tractarian objects, e.g., the picture theory, the internal and external properties of objects, and the debate whether properties and relations should be included as the Tractarian objects, from a study of configurations of objects. I argue that a detailed study of configurations of objects offers us new insights and helps us reach solutions to some of the important disputes concerning the characteristics of objects, e.g., the dispute whether the Tractarian objects include properties and relations."