

Theory and History of Ontology (www.ontology.co) by Raul Corazzon | e-mail: rc@ontology.co

Complete Bibliography of Fred Sommers

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3. ———. 1955. *An Empiricist Ontology. A Study in the Metaphysics of Alfred North Whitehead*, Columbia University.

Unpublished Ph. D. thesis.

4. ———. 1959. "The Ordinary Language Tree." *Mind* no. 68:160-185.

"An important part of any investigation into the meaning of an expression E consists of finding what may be called its sense location. This is done by noting which expressions may be conjoined with E and which may not. "E is that expression which goes well with A, C, or G in a sentence but E fails to make sense when used with B, D, F or H, etc." When the mutual sense relations of A, B, C, D, E, F, G . . . are known, then we have a map in which each expression has a sense location with respect to the other expressions under consideration. The question we shall consider is whether the natural language provides any rules for the construction of such a map, whether there is, as it were, an invariant structure to "linguistic cartography" in terms of which it would be possible to give the sense location of any of the expressions in the language. To this question we shall eventually offer an affirmative answer.

The theory of meaning adopted here is a current one. It is the theory of meaning-in-use. Employing a convenient distinction of Ryle's between two kinds of knowing, we may say that a knowledge of meaning is a "knowing how" rather than a "knowing that": to know the meaning of an expression is to know how to use it.

Such knowledge includes an ability to formulate a piece of non-absurd discourse containing the expression. Thus to know the meaning of a word is to know how to formulate some sentences containing the word, to know the meaning of a sentence is to know how to formulate some coherent discourse containing the sentence. It is almost true to say that the meaning is this use, i.e. the meaning of E (if "E" is a word or phrase) is the set of sentences containing E and that my knowledge of the meaning of E grows (though not in direct proportion) with my ability to formulate more and more sentences in which E has a proper use. A complete knowledge of E would then be represented by the set of all such sentences. The trouble with this view is that even such a set would not specify uniquely the meaning of any one expression since the set would also specify the meaning of all those expressions which have the same use-at this level of use. For example, the word "short" might be specified by the sentences in which it has a non-absurd occurrence from a purely semantic point of view, but those sentences may also specify the word "tall". We must therefore keep in mind that a map of sense relations giving the locations of a group of expressions does not tell the whole story of "their use in the language", i.e., their meanings. Nevertheless, we shall see that such a map removes ambiguity, ensuring univocity for the expressions located on it. For this reason we shall identify the sense of an expression with its location on a map. This entails a distinction between sense and meaning, a distinction which we shall enforce rather than justify. The sense of an expression will be its location with respect to other expressions, its semantic range. It is what it "makes sense" with as contrasted with what it fails to make sense with. Its meaning is governed only in part by sense rules. "Tall" and "short" may have the same "sense"; it is because of other rules governing their use that they diverge in meaning. Thus, giving the sense of an expression is not yet the same as giving its meaning. One who wishes to know more about the meaning of a given located expression will enquire at that address." pp. 160-161.

5. ———. 1963. "Types and Ontology." *Philosophical Review* no. 72:327-363.

Reprinted, with minor corrections, in: Peter Frederick Strawson (ed.) - *Philosophical logic* - Oxford, Oxford University Press, 1967 pp. 138-169 and in Dale Jacquette (ed.) - *Philosophy of logic. An anthology* - Oxford, Basil Blackwell 2002 pp. 103-119.

"In this paper (*) I shall be examining several notions of types which have important application in natural languages. I shall show that one of Russell's definitions of a type can be combined with one of Ryle's to give us two other and more powerful type conceptions which are free of the criticisms advanced against each of the former. The results cast considerable light on the relation of 'a language' to the sorts of things one can use the language to make statements about; for example, it becomes clear that the number of 'sorts of things' discriminated by any natural language is always finite. But far more important, the new type concepts enable us to exhibit formally the type structure of any natural language. It is this structure which determines the way the language discriminates different sorts of things. Since the question of ontology is 'What sorts of things are there?' the results may be construed as a formal ontology. The old Russell programme for an ontology which is defined by a logically correct (or corrected) language is thereby reinstated, though in a revised form. That programme has foundered on the type problem for natural languages. Black, for example, has brought out grave difficulties in Russell's type theory as it applies to natural languages, and he used those difficulties to promote scepticism about the Russell programme. But if I am right, a simple and adequate theory of types governs natural language and dictates its ontological commitments to different sorts of things."

(*) There are four sections to the paper. Section I isolates the problem of types for natural language and develops four type concepts appropriate to it. Section II reformulates these concepts syntactically and reconsiders Black's general criticism

of a formal theory of types for natural language. In Section III the relation of types to ambiguity, and a problem raised by Black, is examined in detail. Section IV is constructive; the type-structural principle is stated and proved. The ontological meaning of the principle is discussed and the principle is illustratively applied.

6. ———. 1963. "Meaning Relations and the Analytic." *Journal of Philosophy* no. 60:524-534.

"In his critique of the analytic-synthetic distinction Quine distinguishes two classes of analytic statements: (a1) those that are logically true and (a2) those that lean on extralogical meaning relations. In this paper the same critique that Quine applies against a2 statements is used against a1 statements. By showing that both suffer the same fate at Quine's hands, it is shown that Quine's vital contrast is not a contrast at all and that his criticism goes further than he wants it to go. The paper concludes that the "flight from intension" can become a flight away from the grounds presupposed for any application of logical and linguistic rules."

7. ———. 1964. "A Program for Coherence." *Philosophical Review* no. 73:522-527.

"The following are some points made in reply to criticism of the author's *Types and ontology*: (1) if p is a property, define the category of p (cp) as the set of individuals that can "significantly" be said to have p. (2) if any "individual" belongs both to cp and cq, then either cp includes cq or cq includes cp or cp=cq. (3) an ontology is coherent only if it satisfies (2) for all individuals.

Suppose that spirits cannot be characterized as colored or colorless, i.e., they are not in c-colored. Assume also that chairs are not in c-sad. Then neither category includes the other. yet persons are in both. To avoid incoherence we must deny that persons are individuals.

Coherent alternatives to Cartesianism put chairs in c-sad (panpsychism) or spirits in c-colored. The thesis supports Russell's general idea than any coherent ontology is formally isomorphic to linguistic type structure."

8. ———. 1964. "Truth-Functional Counterfactuals." *Analysis* no. 24:120-126.

9. ———. 1965. "Predicability." In *Philosophy in America*, edited by Black, Max, 262-281. Ithaca: Cornell University Press.

10. ———. 1965. "A Reply to Mr. Odegard's "on Closing the Truth-Value Gap"." *Analysis* no. 25:66-68.

11. ———. 1966. "Why Is There Something and Not Nothing?" *Analysis* no. 26:177-181.

"The question is not why it is possible there is something but (granting that something is possible) *why is there something?* Why not nothing?"

This can be answered by way of an ontological proof. For this purpose we define a neglected but important kind of possibility which we call categorial. We say for example that things older than the square root of 2 are not possible things or that unfed theorems are 'categorially' impossible. A thing older than the square root of 2 is not a possible thing because while there is nothing that is older than the square root of 2, neither is there anything that fails to be. Again the statement 'some theorems are fed' is a category mistake. There is nothing that is an unfed theorem and nothing that fails to be one since what failed to be one would be a fed theorem

or an unfed non-theorem, or a fed non-theorem and there are no such things. So understood, categorial impossibility is existentially definable. More generally, if D is a monadic descriptive term and \bar{D} is its logical contrary (2) (applicable to all those D-less things that are 'privative' to the state of being D) then D-things are categorially impossible, if and only if there is nothing that is D and nothing that is \bar{D} .

By this definition things that are red and blue (all over)-though presumably impossible in some other way-are categorially possible since any table is either red (failing to be blue) or blue (failing to be red) or it fails to be red and also fails to be blue. The logical contrary of the term 'red and blue' is truly affirmable of all material objects of whatever colour and also of those that are colourless.

Without having defined possibility in any general way, we are accepting as a premiss of our argument that something is possible. We assume further that whatever is not a categorially possible thing is not a possible thing.

Now suppose there were nothing. It is then true for every predicate term P, that nothing is P. It is also true that there is nothing that fails to be P so that P-things are categorially impossible. If P-things are categorially impossible, they are not possible things. Since this holds for every P, nothing at all is possible. But we have assumed that something is possible and this is incompatible with the nihilist hypothesis. We see then that if something is possible, something is actual.

The same argument can be viewed another way. If something is possible it is categorially possible. For something to be possible there must be some terms predicable of some things. But if there were nothing at all, all terms would be like 'older than the square root of 2'. That some terms are predicable can be argued from the fact that-as matters actually stand-there are many things and many terms truly applicable to those things. But if there were nothing at all, not only would terms like 'old' not be truly applicable, they would be altogether impredicable. Nothing would then be possible. But we recall that our question was not 'why is anything even possible?' And we see again that if anything is possible, something is actual." pp. 177-178.

(1) Heidegger considers this the crucial question for the philosophy of existence. What is given here is the traditional or "essentialist" reply.

(2) The relation of contrariety holding between a pair of terms (or attributes) does not force us to consider either one of the pair to be negative. Just as being \bar{D} is a privation of D, so (equally) is being D (or \bar{D}) a privation of D. Coloured objects, for instance, fail to be colourless.

12. ———. 1966. "On a Fregean Dogma." In *Problems in the Philosophy of Mathematics*, edited by Lakatos, Imre, 47-62. Amsterdam: North-Holland.

Proceedings of the International Colloquium in the Philosophy of Science (Bedford College, 1965).

Discussion: L. Kalmár: *Not Fregean and not a Dogma* 63; M. Dummett: *A Comment on 'On a Fregean Dogma'* 63; C. Lejewski: *The Logical Form of Singular and General Statements* 68; W. V. Quine: *Three Remarks* 70; F. Sommers: *Reply* 71-81.

"In the following passage Russell states an accepted and familiar thesis :

The first serious advance in real logic since the time of the Greeks was made independently by Peano and Frege -- both mathematicians. Traditional logic regarded the two propositions 'Socrates is mortal' and 'All men are mortal' as being of the same form; Peano and Frege showed that they are utterly different in form. The philosophical importance of logic may be illustrated by the fact that this confusion - which is still committed by most writers -- obscured not only the whole study of the forms of judgment and inference, but also the relation of things to their qualities, of concrete existence to abstract concepts, and to the world of Platonic ideas . Peano and Frege, who pointed out the error did so for technical reasons ...

but the philosophical importance of the advance which they made is impossible to exaggerate. (*)

In what follows I wish to be understood as criticising the quantificational "translation" of general categoricals like 'All men are mortal' only insofar as this is represented as exhibiting such statements to have a different logical form from singular predications. I am not criticising quantification theory as an indispensable logical tool, especially for inference involving statements of more than one variable. The standard general categoricals however are not of this type ; it is for example well-known that quantification is not needed for syllogistic inference. What is not known is that we can treat the categoricals as simple subject-predicate statements on an exact par with singular predications. There is therefore no good logical reason for saying that general and singular statements must differ in logical form.

The doctrine that (1) 'Socrates is mortal' and (2) 'Men are mortal' differ in logical form assumes that the following is the correct account of what these statements say: (a) Both say that 'is mortal' is true of some, thing or things; the first says it is true of Socrates; the second that it is true of whatever 'is a man' is true. It follows (b) that the logical form of the second statement differs from that of the first. For while the first is a simple predication, the second is a "quantified" statement." pp. 48-48. (*) [*Our Knowledge of the External World as a Field for Scientific Method in Philosophy*, Lecture II, (1914)]

13. ———. 1966. "What We Can Say About God." *Judaism* no. 15:61-73.

14. ———. 1969. "On Concepts of Truth in Natural Languages." *Review of Metaphysics* no. 23:259-286.

"Remarking on alternatives to his conception of truth Tarski rejects a formulation associated with correspondence theories:

If we should decide to extend the popular usage of the term "designate" by applying it not only to names, but also to sentences, and if we agreed to speak of the designata of sentences as "slates of affairs" we could possibly use for the same purpose the following phrase:

(C) A sentence is true if it designates an existing state of affairs. However [this] formulation can lead to various misunderstandings for [it is not] sufficiently precise and clear It is up to us to look for a more precise expression of our intuitions.

(1)

The purpose Tarski speaks of is "to do justice to our intuitions which adhere to the classical Aristotelian conception of truth." Tarski takes this to be some form of correspondence theory. He has earlier considered and rejected an even less satisfactory formula of this sort: 'a sentence is true if it corresponds to reality'. His own semantic conception of truth is meant to be a more precise variant doing justice to the correspondence standpoint. In this spirit I shall presently suggest a revised version of (C).

(1) A. Tarski, "The Semantic, Conception of Truth," *Philosophy and Phenomenological Research* 4 (1944). Reprinted in H. Feigl and W. Sellars, *Readings in Philosophical Analysis* (New York, 1945), p. 54. (Page reference is to this reprinting.)

15. ———. 1969. "Do We Need Identity?" *Journal of Philosophy* no. 66:499-504.

"Identity is shown to be definable within traditional syllogistic logic. the idea is to treat singular terms as general terms syntactically. this means we allow singular terms in predicate positions and also allow them to be prefixed by 'every', 'some' and 'no' when in subject position.

However universal and particular singular statements are logically equivalent: if K is a singular term then K is p every K is p some K is p. This equivalence is called

the law of wild quantity.

Identity is defined thus: J is identical with K df. some J is K. This definition together with the law of wild quantities gives all the formal properties of the identity relation."

16. ———. 1970. "The Calculus of Terms." *Mind* no. 79:1-39.

Reprinted in: George Englebretsen (ed.) *The new syllogistic* - New York, Peter Lang, 1987

17. ———. 1970. "Confirmation and the Natural Subject." *Philosophical Forum* no. 2:245-250.

18. ———. 1971. "Structural Ontology." *Philosophia. Philosophical quarterly of Israel* no. 1:21-42.

"Whether a certain sort of things exists is commonly disputed in philosophy. I argue that in some important classical instances the dispute is grounded in another more fundamental one: whether certain entities are individuals or composite. Disputes over individuality or compositeness are generated when certain accepted conditions for individuality seem not to be satisfied. In the last part of the paper I examine the formal condition for non-compositeness (it is not yet a criterion for individuality) tracing it to its logical source. The condition is shown to provide the structural constraints for coherent ontologies."

19. ———. 1973. "Existence and Predication." In *Logic and Ontology*, edited by Munitz, Milton K., 159-174. New York: New York University Press.

"To contemporary philosophers the question whether 'exists' is a predicate is a syntactical question. Using an older terminology, it is the question whether 'exists' is an autocategorematic or a syncategorematic expression. In more recent parlance it is the question whether 'exists' belongs among the formative-logical signs or among the descriptive-extralogical signs of a logically adequate language.

Those who give canonical status to the idioms of quantification theory have a ready answer to this question. In the syntax of modern logic 'exists' is a syncategorematic expression. In canonical translations 'exists' is never a predicate. To accept this popular view is to assume that the formative expressions enumerated in the formation rules for predicate logic constitute a definitive list. But this overlooks the fact that the line distinguishing certain signs as formative, logical, or syncategorematic from other signs that are descriptive, extralogical, or autocategorematic has been arbitrarily drawn. How, indeed, do we decide whether a sign is syncategorematic or autocategorematic?

There is, of course, the indirect appeal to the power of a logic with this or that list of formatives. For example, if identity is added to the list of logical signs of the lower functional calculus, there is a significant increase in inference power. This, however, is an argument for adding identity to a system whose logical syntax has already been determined by an arbitrarily enumerated list of formatives. It can, for example, be shown that identity is not needed in a logical language whose syntax differs radically from that of the standard first-order functional calculus.(1) The point is that the question whether a certain sign is formative or descriptive cannot be fruitfully answered by considering how an already-constituted logical language will fare with this sign or without it. This retail approach begs the more fundamental question raised by the distinction between logical and extra-logical signs: What principle governs the distinction; what distinguishes the logical signs from the extralogical signs?

The problem in this general form has been raised by Tarski and since discussed by many other writers, most notably by Pap, Popper and Quine. However, the state of the problem has not been significantly advanced beyond the conclusion tentatively offered by Tarski:

Perhaps it will be possible to find important objective arguments which enable us to justify the traditional boundary between logical and extralogical expressions. But I also consider it quite possible that investigation will bring no positive results in this direction so that we shall be compelled to regard such concepts as 'logical consequence', 'analytic statement' and 'tautology' as relative concepts which must, on each occasion be related to a definite, although in greater or less degree, arbitrary division of terms into logical and extra-logical.(2)

In this larger perspective the syntactic status of existence can only be determined within some general theory of logical syntax that "justifies" and sharpens the boundary between logical and extralogical signs. As Tarski noted, such a theory will have important bearing on such fundamental notions of logical theory as tautology and validity. But it should also, and, as it were, incidentally, answer our own question, namely, whether 'exists' is a syncategorematic or autcategorematic expression." (pp. 159-160).

(1) See my paper "Do We Need Identity?" *The Journal of Philosophy* (August 7, 1969).

(2) Alfred Tarski, *Logic, Semantics, Metamathematics*, (Oxford, 1956), p. 420.

20. ———. 1973. "The Logical and the Extra-Logical." In *Methodological and Historical Essays in the Natural and Social Sciences*, edited by Cohen, Robert and Wartofsky, Marx, 235-252. Dordrecht: Reidel.

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- This paper is chapter on of *The logic of natural language* by Fred Sommers, Oxford, Clarendon Press, 1982.
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33. ———. 1983. "The Grammar of Thought: A Reply to Dauer." *Journal of Social and Biological Structures* no. 6:37-44.
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38. ———. 1993. "Saying What We Think." In *Affirmative Action and the University: A Philosophical Inquiry*, edited by Cahn, Steven M., 291-294. Philadelphia: Temple University Press.

39. ———. 1994. "Naturalism and Realism." *Midwest Studies in Philosophy* no. 19:22-38.
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41. ———. 1997. "Putnam's Born-Again Realism." *Journal of Philosophy* no. 94:453-471.
42. ———. 2000. "Term Functor Grammars." In *Variable-Free Semantics*, edited by Böttner, Michael and Thümmel, Wolf, 68-89. Osnabrück: Secolo Verlag.
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45. ———. 2005. "Intellectual Autobiography." In *The Old New Logic. Essays on the Philosophy of Fred Sommers*, edited by Oderberg, David S., 1-23. Cambridge: The MIT Press.
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"Modern thinkers regard logic as a purely formal discipline like number theory, and not to be confused with any empirical discipline such as cognitive psychology, which may seek to characterize how people actually reason. Opposed to this is the traditional view that even a formal logic can be cognitively veridical -- descriptive of procedures people actually follow in arriving at their deductive judgments (logic as Laws of Thought). In a cognitively veridical logic, any formal proof that a

deductive judgment, intuitively arrived at, is valid should ideally conform to the method the reasoning subject has used to arrive at that judgment. More specifically, it should reveal the actual reckoning process that the reasoning subject more or less consciously carries out when they make a deductive inference. That the common logical words used in everyday reasoning -- words such as 'and', 'if,' 'some', 'is' 'not,' and 'all' -- have fixed positive and negative charges has escaped the notice of modern logic. The present paper shows how, by unconsciously recognizing 'not' and 'all' as 'minus-words', while recognizing 'and', 'some', and 'is' as 'plus words', a child can intuitively reckon, for example, 'not (-) all (-) dogs are (+) friendly' as equivalent to 'some (+) dogs aren't (-) friendly': $-(-D+F) = +D-F$."

51. ———. 2009. "Dissonant Beliefs." *Analysis* no. 69:269-274.
52. ———. 2013. *The Mondial and the Ontological*.

Forthcoming.

"In 2006 I began working on a book that was to consist of two parts: (1) an account of the tree theory, including a historical background and an appraisal of reactions to the theory, and (2) a summary of Sommers' newer ideas regarding metaphysical issues, with an attempt to integrate the older and newer ideas. By 2009 I had nearly completed part (1), but then, as so often happens with the best laid plans, things changed. Assuming, no doubt based on my sketchy account of what I was up to, that my new book would be primarily about the tree theory, Sommers wrote to me that he was hard at work on a new book of his own, a book in which he was laying out, once and for all, in detail his new metaphysical theory ("mondialism"). Needless to say, that theory and its relation to the tree theory was to be the subject of my part (2). He asked me to help him with his book and I was both eager and happy to do so. Anything I had to say could wait - not so for Sommers (then well into his ninth decade). Sommers' book, *The Mondial and the Ontological* is forthcoming. As it turned out, much of the work of tying together the tree theory, the term logic, the truth theory and mondialism still needs to be done. So I returned once again to that task."

From: George Englebretsen, *Robust Reality. An Essay in Formal Ontology*, Frankfurt, Ontos Verlag, 2011, pp. XII-XIII.

53. Sommers, Fred, and Englebretsen, George. 2000. *An Invitation to Formal Reasoning. The Logic of Terms*. Aldershot: Ashgate.

Co-author: George Englebretsen.

The book "introduces the discipline of formal logic by means of a powerful new system formulated by Fred Sommers.

This system, term logic, is different in a number of ways from the standard system employed in modern logic; most striking is, its greater simplicity and naturalness. Based on a radically different theory of logical syntax than the one Frege used when initiating modern mathematical logic in the 19th Century, term logic borrows insights from Aristotle's syllogistic, Scholastic logicians, Leibniz, and the 19th century British algebraists.

Term logic takes its syntax directly from natural language, construing statements as combinations of pairs of terms, where complex terms are taken to have the same syntax as statements. Whereas standard logic requires extensive 'translation' from natural language to symbolic language, term logic requires only 'transcription' into the symbolic language. Its naturalness is the result of its ability to stay close to the forms of sentences usually found in every day discourse. Written by the founders of the term logic approach, *An Invitation to Formal Reasoning* is a unique introduction and exploration of this new system, offering numerous exercises and examples

throughout the text. Summarising the standard system of mathematical logic to set term logic in context, and showing how the two systems compare, this book presents an alternative approach to standard modern logic for those studying formal logic, philosophy of language or computer theory."

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Sixth edition: Belmont, Thomson Wadsworth, 2004.

55. Sommers, Fred, and Jarvis, J. 1961. "Review Of: *An Introduction to Wittgenstein's Tractatus* by G. E. M. Anscombe." *Philosophy* no. 36:374-377.

With J. Jarvis

Studies about his work

For the bibliography of [George Englebretsen](#) see the page about him.

1. Altham, J.E.J. 1971. "Ambiguity and Predication." *Mind* no. 80:253-257.

"Recommends abandoning Sommers' rule about ambiguity, in his *Predictability*. The rule enforces many implausible judgments. Three arguments for it are defective. One involves confusions over negation of a universal conditional, one rests on a seemingly arbitrary definition, the third rests on an unrealistic assumption about universes of discourse."

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"Sommers has proposed a principle as to when cross-categorical predication is univocal. In this note, I offer some counterexamples, both to his principle and to the premises from which he derives it."

3. Cogan, Robert. 1976. "A Criticism of Sommers' Language Tree." *Notre Dame Journal of Formal Logic* no. 17:308-310.

"In *The Ordinary Language Tree* and three later papers, Fred Sommers has made a number of valuable contributions to formal type theory. Anyone familiar with this work of Sommers understands why it is philosophically attractive: the logical ingenuity shown by Sommers is admirable. However, presuming such familiarity I shall argue that Sommers' restriction to ordinary language is a necessary yet counterfactual way of securing mapping applicability for his work, and that it obscures a major obstacle to such application: the fact that genuine doubt about sense-value is systematic in a way rendering it unresolvable by his formal methods. I shall first distinguish between "doubt" in the ordinary sense, and genuine doubt. Next I will show that Sommers' examples of sense arguments are not ones in which genuine doubt is resolved and then define the sense in which genuine doubt is systematic, using his own symbolism. Fourth, I will explain how his restriction to

ordinary language tends to obscure this fact, and fifth, in what way the restriction is both necessary and counter-formal."

4. De Sousa, Ronald Bon. 1966. "The Tree of English Bears Bitter Fruit." *The Journal of Philosophy* no. 63:37-46.

6. "A discussion of Fred Sommers' proposal for a new "test of coherence" for ontologies based on a revised theory of types. The theory leads to intolerably counterintuitive proliferations of senses of terms in natural languages. Its "proof" is shown to rest on the very propositions which the theory is supposed to establish. It presupposes the existence of a well defined set of grammatical but absurd sentence types. This assumption takes two forms. on the first interpretation, it prohibits an individual from turning up in two different categories; on the second interpretation, it amounts to the principle of transitivity of predication. But the first is supposed to be a "consequence" of the theory, ruling out Strawsonian persons; and the second turns up as a "theorem"."

5. Elgood, A.G. 1970. "Sommers's Rules of Sense." *Philosophical Quarterly* no. 20:166-169.

"There has recently been some discussion on Sommers's rules of sense. Dan Passel (1969) has drawn attention to the incompleteness of one of these rules (R (U)) but is prepared to accept it as " correct ", meaning "that no mistakes about terms having a use with one another follow from its use". Mrs. Susan Haack (1967) has produced what she considers counter-examples to another rule, that for enforcing ambiguity, and R. Van Straaten has alleged that these examples are not well-formed and therefore are not counterexamples. He doubts "for strictly logical reasons" whether anyone *can* produce a counter-example. Since he does not give any such reasons, and since I find the foundations for Sommers's own derivations unsatisfactory, I offer apparent counter-examples of my own. One counter-example can be used to invalidate several of Sommers's important sense rules. This is so because they have a common logical structure. This logical structure I shall now display."

6. Englebretsen, George, ed. 1987. *The New Syllogistic*. New York: Peter Lang.

Preface IX; Introduction 1; 1. Fred Sommers: The calculus of terms (reprinted from *Mind*, 89, (1970) 11; 2. Peter Swiggart: De Morgan and Sommers p. 57; 3. B. H. Slater: Back to Leibniz or on from Frege? 87; 4. Peter Frederick Strawson: Review: *The logic of natural language* (reprinted from *The Journal of Philosophy*, 79, (1982) 99; 5. Richard M. Martin: On the semantics of Sommers' 'Some S' (reprinted from *Mind, modality, meaning and method* (1983) 105; 6. John Bacon: Sommers and modern logic 121; 7. Michael Lockwood: Proofs and pronouns: extending the system 161; 8. W. H. Friedman: Algebraic rules for syllogisms and antilogisms 213; 9. Aris Noah: The two term theory of predication 223; 10. George Englebretsen: Natural syntax and Sommers' theory of logical form 245; 11. Richard Purtill: Some practical and theoretical features of Sommers' cancellation method 273; 12. Charles Sayward: Some problems with TFL [Traditional Formal Logic] 283; 13. Fred Sommers: Truth and existence 299; 14. George Englebretsen: Logical polarity 305; Notes on the contributors p. 313; Bibliography p. 315-322

7. Fjeld, Jon. 1974. "Sommers' Ontological Programme." *Philosophical Studies* no. 25:411-416.

8. Greenberg, Robert S. 1972. "Individuals and the Theory of Predication." *The*

Journal of Philosophy no. 69:435-448.

"As is known, Fred Sommers has provided rules of sense (*) which can be used to determine: (a) whether certain terms can occur together in a significant subject-predicate sentence, (b) whether things covered by certain terms belong to the same type of thing, and (c) whether certain terms of a theory must be construed as being ambiguous, if the theory is to be coherent. Problems such as these fall within the area of philosophy sometimes called *theory of predication*, *type theory*, or, more generally, *ontology*, and hence the purpose of a large part of Sommers' program is to provide methods for distinguishing and placing in a coherent structure what are generally called categories."

(*) "Predicability" (1965) and "Types and ontology" (1963).

9. Griffin, Nicholas. 1977. "Do We Need Predication?" *Dialogue Canadian Philosophical Review* no. 16:653-663.

"The paper is concerned with the standard distinction between the 'is' of identity and the 'is' of predication. It deals, in particular with attempts by Fred Sommers ("Journal of Philosophy", 1969) and Michael Lockwood ("Philosophical Review", 1975) to show that the distinction is ill-founded since identity statements are predications of singular terms. This proposal is criticized mainly on the grounds that the notion of a singular term depends upon identity and thus can't be used in a program to eliminate identity. An alternative means of removing the distinction between the 'is' of identity and the 'is' of predication, by eliminating predication in favour of relative identities using Geach's suggestion that "x" is "F" is equivalent to "x" is the same "F" as something, is briefly sketched."

10. Guerry, Herbert. 1967. "Sommers' Ontological Proof." *Analysis* no. 28:60-61.
11. Haack, Susan. 1967. "Equivocality: A Discussion of Sommers' Views." *Analysis* no. 28:159-165.
12. Hacking, Ian. 2001. "Aristotelian Categories and Cognitive Domains." *Synthese* no. 126:473-515.

"This paper puts together an ancient and a recent approach to classificatory language, thought, and ontology. It includes on the one hand an interpretation of Aristotle's ten categories, with remarks on his first category, called (or translated as) substance in the Categories or What a thing is in the Topics. On the other hand is the idea of domain-specific cognitive abilities urged in contemporary developmental psychology. Each family of ideas can be used to understand the other. Neither the metaphysical nor the psychological approach is intrinsically more fundamental; they complement each other. The paper incidentally clarifies distinct uses of the word "category" in different disciplines, and also attempts to make explicit several notions of "domain". It also examines Aristotle's most exotic and least discussed categories, being-in-a-position (e.g., sitting) and having-(on) (e.g., armour). Finally the paper suggests a tentative connection between Fred Sommers' theory of types and Aristotle's first category."

13. Kasher, Asa. 1972. "Sommers' Concept of Natural Syntax." *Philosophical Studies (Ireland)* no. 20:139-143.

"It is shown that syntactic principles are not sufficient for the solution of semantic paradoxes. Light is shed on Sommers' conception of natural syntax in *On concepts*

of truth in natural languages (1969), by showing that his solution is also semantic in nature."

14. Keating, B.F. 1979. "Lockwood and Mill on Connotation and Predication." *Analysis* no. 4:183-188.

15. Kelley, David. 1994. *The Art of Reasoning*. New York: W. W. Norton & Co.

See Chapter 9: Categorical syllogisms pp. 233-280.

16. Lockwood, Michael. 1975. "On Predicating Proper Names." *The Philosophical Review* no. 84:471-498.

"Mill's account of proper names presupposes -- contrary to current logical theory -- that in an identity sentence such as 'Cicero is Tully', 'is' has the same meaning as in sentences which are unquestionably of the 'S is P' form. The purpose of this article is to defend Mill's assumption and explore its implications. It is argued that Mill is inconsistent in holding both that, in the above sentence, 'Tully' is a genuine predicate and that proper names lack connotation. This tension may be removed, however, if we allow that proper names do connote, but that what they connote is merely the having of a certain identity."

17. ———. 1979. "A Question of Connotation: An Answer to Keating." *Analysis* no. 39:189-194.

18. Martin, Robert L. 1969. "Sommers on Denial and Negation." *Noûs* no. 3:219-226.

"Sommers' arguments in *Predicability* (1965) for a distinction between denial and negation (the former applying primarily to predicates, the latter to sentences) are criticized and found not to sustain the distinction. In response to his claim that the distinction permits a simple formal resolution of the predication paradoxes, I present a strengthened version of these paradoxes for which, apparently, the suggested resolution fails."

19. Massie, David. 1967. "Sommers' Tree Theory: A Reply to De Sousa." *The Journal of Philosophy* no. 64:185-193.

"In a recent article in this Journal Ronald Bon de Sousa attempts to criticize Fred Sommers' category theory, the "tree" theory, as described in "Types and Ontology." Sommers' paper is an important and brilliant contribution to formal linguistic analysis, and deserves critical attention. De Sousa, however, seems to have failed to understand it, in general and in detail; thus his remarks, which tend to be abusive in tone, are unilluminating and largely irrelevant. Since de Sousa may give the impression of having been as careful as he ought to have been, he can easily be misleading on some elementary but essential points in Sommers' theory, and for that reason his comments call for an answer."

20. McCulloch, Gregory. 1984. "Frege, Sommers, Singular Reference." In *Frege: Tradition and Influence*, edited by Crispin, Wright, 110-125. Oxford: Blackwell.

"In his provocative recent book [*The logic of natural language*, 1982] Fred Sommers sets out to formulate a traditional term logic (hereafter TFL) that is a genuine and significant alternative to the Fregean type of logic (MPL) currently

accepted as standard. (1) Broadly speaking, his procedure has two components. On the one hand, he tries to develop a logical syntax, based on the TFL model, that is roughly the equal of MPL in terms of expressive and inferential power. On the other, he engages in a sustained effort to show how such a logic would be free of certain logical and semantic commitments, allegedly typical of MPL, that are, according to Sommers, implausible or otherwise unsatisfactory.

In the present paper I do not question the extent of Sommers's success in the first task; nor do I try directly to defend MPL against his strictures. My concern is with one fundamental difference between the two logical frameworks as Sommers sees them. This supposed difference concerns expressions like proper names that appear to make straightforward singular reference to particular objects. Sommers argues at length that many of the significant differences alleged to hold between the two logics can be traced to the way that they handle such expressions. This contention he links to his claim that whereas the basic propositions of MPL are singular, those of TFL are general; and this in turn he links to his view that the two logics are based upon significantly different accounts of the first-order generality expressed by words like 'all' and 'some' (Sommers, Ch. 1-5, 11-12). I try to show that these claims are greatly exaggerated.

Even if one grants that Sommers succeeds in giving a novel, TFL-style account of first-order generality, it is a mistake to think, as Sommers does, that this novelty consists in an interesting avoidance of commitment to the idea of singular reference. This is, furthermore, an entirely distinct issue from that of the semantic treatment of proper names. Sommers's claims gain a spurious plausibility because of his failure to keep these distinct questions apart. And finally, anyway, we see that one's adoption of logical framework - TFL or MPL - does not materially affect one's options when dealing with proper names: both logics can accommodate any of the usual alternatives. If I am right in all this, the appearance of deep differences over singular reference just dissolves.

Sommers's book deserves careful and extended attention. Both in the effort to reinstate TFL as a worthwhile approach, and in the claim to have succeeded, Sommers finds himself in opposition to much received 'Fregean' opinion in logic, semantics, and the philosophy of language. Illumination is to be had from a piecemeal treatment of the many issues raised here. This paper is just one restricted contribution to that enterprise."

(1) 'MPL' and 'TFL' are Sommers's own abbreviations for 'Modern Predicate Logic' and 'Traditional Formal Logic' respectively. He attempts no precise definition of what a logic must be like if it is to count as MPL-type, but seems to have in mind logics that employ quantifier/variable notations in a more or less orthodox manner. Similarly, his use of 'logic' is quite flexible, and is used to apply not merely to a given calculus but to this plus the concepts, notions, and presuppositions that a standard semantic interpretation would employ. I follow him in this, although certain dangers in this are highlighted in §§ II and III.

21. Mendelsohn, Richard L. 1987. "Frege Two Senses of 'Is'." *Notre Dame Journal of Formal Logic* no. 28:139-160.

24. "It is widely believed that there are two senses of 'is', the 'is' of identity and the 'is' of predication, and that this distinction was clearly drawn by Frege in *On Concept and Object*, although it was anticipated by others, perhaps, e.g., by Plato in the *Sophist*. As opposed to this received view, I will argue that Frege had not successfully distinguished two senses of 'is', indeed that his argument leads to precisely the opposite conclusion; on the other hand, the distinction Plato had supposedly drawn in the *Sophist*, which seems to rest on a semantics Frege was explicitly rejecting, is, given that semantic framework, viable.

Frege had introduced this distinction in order to buttress his view that proper names could not serve as genuine predicates: a proper name occupying ostensible predicate

position could not be functioning as a predicate because the 'is' in such a statement would have to be the 'is' of identity, not the 'is' of predication.

I will argue that Frege had been mistaken on this point as well. More generally, I will argue that Frege's theoretical analysis of language is not, as he had thought, incompatible with proper names being allowed to play a genuinely predicative role. My remarks are prompted by Michael Lockwood's stimulating article, *On Predicating Proper Names* (1975), which contains an extensive and detailed criticism of Frege's position."

22. Murphree, Wallace A. 1998. "Numerical Term Logic." *Notre Dame Journal of Formal Logic* no. 39:346-362.

"This paper is an attempt to show that my work to establish numerically flexible quantifiers for the syllogism can be aptly combined with the term logic advanced by Sommers, Englebretsen, and others."

23. Nelson, John D. 1964. "On Sommers' Reinstatement of Russell's Ontological Program." *The Philosophical Review* no. 73:517-521.

"In this discussion-paper I question four theses that I took Sommers to be advancing, among others, in *Types and ontology*: (1) that types are indifferent to predicate denial; (2) that a formal method of type discrimination can establish as correct a specific ontology; (3) that subjects of sentences can be located by certain described formal methods; and (4) that there must be one category that includes all others.

See the reply by Sommers: *A program for coherence* - *Philosophical Review*, 1964, pp. 522-527.

24. ———. 1965. "An Examination of Sommers' Truth-Functional Counterfactuals." *Theoria* no. 31:61-63.

25. Noah, Aris. 1980. "Predicate Functors and the Limits of Decidability in Logic." *Notre Dame Journal of Formal Logic* no. 21:701-707.

26. Odegard, Douglas. 1964. "On Closing the Truth-Value Gap." *Analysis* no. 25:10-12.

27. Oderberg, David S. 2005. *The Old New Logic. Essays on the Philosophy of Fred Sommers*. Cambridge: MIT Press.

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28. Passell, Dan. 1969. "On Sommers' Logic of Sense and Nonsense." *Mind*:132-133.

"Sommers' rule, R(U), for testing sense arguments, taken as an assertion about what makes sense, fails to state a necessary condition of what makes sense. Counterexamples to that assertion occur with terms taken from the same node of his ordinary language tree. For one example, the color terms, alabaster, blue, cream, dun, which obviously do make sense together, cannot be classified as making sense together by the rule. This is because the condition required by the rule for determining that two terms make sense cannot be met for terms at the same node."

29. Peterson, Philip L. 1995. "Contraries and the Cubes and Disks of Opposition." *Metaphilosophy* no. 26:107-137.

"Prior, Sommers, and McIntosh hold that propositional contrariety is derivative, based on term contrariety. I argue that propositional contrariety is basic. In a proper Aristotelian square, one proposition is contrary to another if and only if the one properly entails the denial of the other.

Term contrariness produces a "cube" of opposition. Contrariety can be further elaborated on "bare" cubes and disks. Geach's analyses involving multiple quantifiers give no support for term-contrariness-as-basic, and there is little hope for developing H. W. B. Joseph's vague idea about "furtherest apart" on a quantitative scale."

30. Purdy, William C. 1992. "On the Question: 'Do We Need Identity?'" *Notre Dame Journal of Formal Logic* no. 33:593-603.

31. "This paper formalizes and extends Sommers' position on identity. This formalization is compared with MPL to define precisely the difference in expressive power. The formal language defined for this investigation is similar to the language of MPL (modern predicate logic). The similarity will not only facilitate comparison, but perhaps will also make this formal language more palatable to readers whose experience and/or predisposition favors MPL."

31. Reinhardt, L.R. 1965. "Dualism and Categories." *Proceedings of the Aristotelian Society* no. 66:71-92.

32. Richmond, Samuel A. 1971. "Sommers on Predicability." *The Journal of Philosophy* no. 68:138-142.

"Sommers has introduced a rule for enforcing ambiguity which indicates the conditions under which a term cannot univocally bridge a type difference. I argue that the theory of predication from which the rule follows is either false or ambiguous in one of its crucial concepts. Sommers suggests the theory of predication may better set the bounds of metaphysics than the theory of knowledge. But the theory of predication itself needs to be justified by showing its epistemic utilities."

33. ———. 1975. "A Possible Empirical Violation of Sommers' Rule for Enforcing Ambiguity." *Philosophical Studies* no. 28:363-366.

"In an article entitled "Predicability," Fred Sommers has introduced a rule for enforcing ambiguity which indicates the logical conditions under which a predicate

cannot univocally bridge a type difference. the rule places unacceptable a priori restrictions on future empirical discoveries.

The plausibility of the rule can be explained by the fact that violation of it in constructing empirical universal generalizations results in dualism and detracts from the unity of science.

Dualism exists when there are two sets of predicates such that members of each set enter into universally general statements only with members of the same set."

34. Routley, Richard. 1969. "Categories. Expressions or Things?" *Theoria* no. 35:215-238.

"Rival views on the composition of categories hold that categories are categories of things, that they are categories of expressions, or that they are both simultaneously. In view of the significance paradoxes-analogues of the modal paradoxes - here introduced, all these positions must be rejected, and two different sorts of meaninglessness distinguished. This distinction leads to the formulation of two distinct category theories, one apparently concerned with things, the other with descriptions. A case is made out for inclusive categories and against exclusive categories. Systematic ambiguity is attacked and shown to be tantamount to exclusiveness of categories. To allow for inclusive categories the usual notion of 'in the same category as' must be abandoned and replaced by a relative notion, except for certain sorts of categories - minimal categories. A definition of 'in the same category as' is proposed for minimal categories; and some aspects of Ryle's theory and Sommers's theory are examined in the light of these results."

35. Sayward, Charles. 1976. "A Defense of Sommers." *Philosophical Studies* no. 29:343-347.

"Among the theses of Sommers' type theory are these: every individual belongs to some type; every category is a union of types. A recent criticism of Sommers is directed at these two theses. I argue that the criticism is mistaken."

36. ———. 1978. "Are There Infinitely Many Sorts of Things?" *Philosophia. Philosophical Quarterly of Israel* no. 8:17-30.

37. ———. 1981. "The Tree Theory and Isomorphism." *Analysis* no. 41:6-11.

"A main thesis of Fred Sommers' type theory, is that an isomorphism exists between any natural language and the categories discriminated by that language. Here I give an explanation of what this claim comes to. And then I argue that, so understood, the claim is incompatible with Zermelo-Fraenkel set theory. Finally, I argue against trying to salvage the isomorphism thesis by appealing to some other set theory."

38. Sayward, Charles, and Voss, Stephen H. 1972. "Absurdity and Spanning." *Philosophia. Philosophical Quarterly of Israel* no. 2:227-238.

"On the basis of observations J. J. C. Smart once made concerning the absurdity of sentences like 'the seat of the bed is hard', a plausible case can be made that there is little point to developing a theory of types, particularly one of the sort envisaged by Fred Sommers. The authors defend such theories against this objection by a partial elucidation of the distinctions between the concepts of spanning and predicability and between category mistakenness and absurdity in general. The argument suggests that further clarification of the concepts of spanning and category

mistakenness should be sought in reflection upon the more familiar concepts of a sort of thing and a predicate category."

39. Shearson, W.A. 1977. "Speaking of Philosophy: A Reply to Paul Churchland." *Dialogue. Canadian Philosophical Review* no. 16:502-506.

"In his critique of George Englebretsen's *Speaking of persons* (1975), Paul Churchland has failed, on several accounts, to grasp the intent of Englebretsen's work. Most importantly, he has not seen that the main task there was to defend a particular theory of persons (videlicet attributism). Much of Churchland's confusion is shown to follow from his inability to connect Englebretsen's work with the logico-linguistic studies of F. Sommers on the one hand and the metaphysical studies of P. F. Strawson on the other."

40. Straaten, R.van. 1968. "Sommers' Rule and Equivocity." *Analysis* no. 29:58-61.

41. ———. 1971. "A Modification of Sommers' Rule." *Philosophical Studies* no. 22:16-20.

42. ———. 1971. "Sommers on Strawson's and Descartes' Ontology." *Mind* no. 80:148-149.

43. Suzman, Jonathan. 1972. "The Ordinary Language Lattice." *Mind* no. 81:434-436.

"F. Sommers ("Mind" 1959, "Philosophical Review" 1963) claims the predicates (monadic) of natural languages, if grouped by a relation u , or cosignificance, generate topological trees. if true, this would have wide philosophical significance; Sommers' ontology rests on this claim about trees. but it is false, in that the u -relation can be shown not to generate trees but lattices. if any natural languages do have the tree, rather than the lattice structure this would need empirical demonstration. this is proved with the help of two notions, that of the significance range of a term, and that of a constructible predicate true of all items in a terms significance range. it is also shown that u is in fact a vacuous tie, in that all terms are so related."

44. Swiggart, Peter. 1972. "The Limits of Statement Denial." *Mind* no. 81:437-442.

"This paper discusses Fred Sommers' distinction between statement negation and statement denial, as outlined in 'Predicability' and other papers. First I show that the formal nature of the distinction requires us to regard a given statement as having only a single denial. This point dissipates Sommers' proposed solution to the counterfactual problem, since that solution depends upon the existence of multiple denials of a given statement. Sommers' difficulty is traced to the assumption that an ordinary language sentence like 'S is unclean' can be recognized as a statement denial. But such recognition proves to be inherently ambiguous. Sommers' terminology can be an effective means of introducing the results of type analysis into standard logical notation, but strict and possibly intolerable limits must be placed upon its use in formulating basic type theory or as a help in solving traditional philosophical problems."

45. Szabolcsi, Lorne. 2008. *Numerical Term Logic*. Lewiston: Edwin Mellen Press.

Edited by George Englebretsen.

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"The ability to reason with numerically quantified propositions is of practical as well as theoretical importance. Lorne's Szabolcsi's valuable unpublished writings should be studied and edited for publication. His pioneering contributions to numerical logic deserve to be recognized and well-known. I know of no better method than his for dealing with numerical arguments." (Fred Sommers, p. XII).