

## Existence and description in formal logic

D Scott - 1967 - philpapers.org

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## On free description theory

BCV Fraassen, K Lambert - Mathematical Logic Quarterly, 1967 - Wiley Online Library

The aim of this paper is to extend the semantics of free logic to two distinct and diverging theories of descriptions due to LAMBERT. Part I is devoted to the description of the syntax and semantics of a first-order language with names and definite descriptions, and ...

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## Logics without existence assumptions

R Schock - 1968 - philpapers.org

This entry has no external links. Add one. ... Sign in / register and configure your affiliation(s) to use this tool. ... Carl J. Posy (1982). A Free IPC is a Natural Logic: Strong Completeness for Some Intuitionistic Free Logics. Topoi 1 (1-2):30-43. ... WV Quine (1997). Free Logic, ...

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## Universally free logic and standard quantification theory

RK Meyer, K Lambert - The Journal of Symbolic Logic, 1968 - Cambridge Univ Press

Interest has steadily increased among logicians and philosophers in versions of quantification theory which meet the following criteria:(1) no existence assumptions are made with respect to individual constants, and (2) theorems are valid in every domain ...

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## A definition of truth for theories with intensional definite description operators

RE Grandy - Journal of Philosophical Logic, 1972 - Springer

There is no dearth of theories about non-denoting singular terms and the creation of yet another requires some justification. The extant theories divide rather neatly into two types--those of Frege (1966) and Russell (1905) analyze non-denoting singular terms by ...

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## The logic of existence

HS Leonard - Philosophical studies, 1956 - Springer

It is commonly believed that questions of existence are properly topics of enquiry belonging to the empirical sciences or to some branch of philosophy--like metaphysics--other than logic. In this paper, I hope to show that logic has never completely avoided some ...

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## Notes on E! III: A theory of descriptions

K Lambert - Philosophical Studies, 1962 - Springer

52 PHILOSOPHICAL STUDIES to refer to an individual, whether it actually succeeds in referring or not, can replace the argument variables x, y, z... in the logical formulas of the system. The easiest way to secure what I have called elsewhere a free logic 2 is to replace ...

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## Truth and singular terms

T Burge - Noûs, 1974 - JSTOR

Non-denoting singular terms have been a prime stimulus, or irritant, to students of the use and formal representation of language. Only one other subject (modal logic) has provoked so many differences among logicians over which sentences should be counted valid. It ...

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## Philosophical applications of free logic

K Lambert - 1991 - [philpapers.org](http://philpapers.org)

Abstract Free logic, an alternative to traditional logic, has been seen as a useful avenue of approach to a number of philosophical issues of contemporary interest. In this collection, Karel Lambert, one of the pioneers in, and the most prominent exponent of, free logic, ...

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## Existential import revisited.

K Lambert - *Notre Dame Journal of Formal Logic*, 1963 - [projecteuclid.org](http://projecteuclid.org)

The traditional logic supposed statements of the form  $\exists (x) Fx$  to have existential import, and so licensed the inference from  $\exists (x) Fx$  to  $\exists (x) Fx \wedge Gx$ . But let  $\Psi$  be 'a brakeless car' (or 'is a unicorn'), and 'G' be 'is dangerous' (or 'is a unicorn'). Then the false ...

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## Towards a theory of definite descriptions

KJJ Hintikka - *Analysis*, 1959 - [analysis.oxfordjournals.org](http://analysis.oxfordjournals.org)

By KJJ HINTIKKA  $\neg$ HE inference (A) Schopenhauer is a philosopher who had a high opinion of Schopenhauer's work; therefore there is at least one philosopher of whose work Schopenhauer had a high opinion seems impeccable. (A more idiomatic form is obtained ...

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## The completeness of free logic

BC Van Fraassen - *Mathematical Logic Quarterly*, 1966 - [Wiley Online Library](http://Wiley Online Library)

The term "free logic" was introduced by LAMBERT to refer to the species of logical system studied by LEONARD, LEBLANC and HAILPERIN, HINTIKKA, and LAMBERT (see bibliography). This logic is designed to handle non-designating singular terms without ...

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## The logic MPL $\omega$

CPJ Koymans, GRR de Lavalette - *Algebraic Methods: Theory, tools and ...*, 1989 - Springer

Abstract MPL  $\omega$  is many-sorted partial logic with countably infinite conjunctions and disjunctions. We show in this paper that MPL  $\omega$  satisfies the interpolation property and allows the explicit definition of inductively defined predicates and functions. By these ...

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## Sense without denotation

T Smiley - *Analysis*, 1960 - [analysis.oxfordjournals.org](http://analysis.oxfordjournals.org)

THERE are four quite common situations in which problems of logic arise from the attempt to attribute truth or falsehood to a sentence of simple relational or subject-predicate form: I When, in the sentence, a property or relation is ascribed to objects for which it has not ...

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## On the rules of proof in the pure functional calculus of the first order

A Mostowski - *The journal of symbolic logic*, 1951 - [Cambridge Univ Press](http://Cambridge Univ Press)

Church, *l.e.*, p. 79, gives the definition of the validity of a formula in a given set/of individuals and shows that a formula is provable in Fp if and only if it is valid in every non-empty set/. The definition of validity is preceded by the definition of a value of a formula; the notion of ...

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## Supervaluations: Identity, existence, and individual concepts

B Skyrms - *The Journal of Philosophy*, 1968 - JSTOR

Gauthier might require that  $\neg Aa (Fa)$  and  $\neg \neg Aa (\neg Aa (Fa))$  be included in the set of necessary causal conditions for D2. But then we could, I suggest, find a Ga that stands to these new conditions as Fa stands to  $\neg Aa (I')$  and  $\neg Aa (\neg A (I'))$ . To be sure, there will come a point when ...

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## Existential presuppositions and existential commitments

J Hintikka - *The journal of philosophy*, 1959 - JSTOR

ON LAW AND MORALS 125 about anything at all. The theory of value nihilism thus does not put any restriction on the number of things we can know anything about; it simply says that certain sentences (statements) cannot express any knowledge about anything-and that is ...

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## Quantification theory and empty individual-domains

T Hailperin - *The journal of symbolic logic*, 1953 - Cambridge Univ Press

In a recent paper by Mostowski [1] we find an investigation of those formulas of quantification theory which are valid in all domains of individuals, including the empty domain. Mostowski gives a complete set of axioms for such a first order functional calculus (the system is ...

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## Free logics

E Bencivenga - *Handbook of philosophical logic*, 1986 - Springer

Abstract Some theorems of CQC=, such as those of the form (1.1)  $(\exists x (x = \tau))$  and (1.2)  $(\phi \rightarrow \tau/x \rightarrow \exists x \phi)$ , are often accused of introducing into that theory—and thus into the very core of 'our logic'—undesired 'existential commitments'. However, the ...

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## Notes on "E!" IV: A reduction in free quantification theory with identity and descriptions

K Lambert - *Philosophical studies*, 1964 - Springer

Replace 'x' by '(Lx)(y→x)' and '4'; by '(hx)(x→y)' in (2)  $x \rightarrow y \supset \sim \exists x D \sim bx$  and (1) follows with the help of A2. 2 Is it possible to reduce the present version of free description theory without risk of the untoward results mentioned in the previous note? I believe that it is. I shall show that ...

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## Logic and truth value gaps

PW Woodruff - *Philosophical problems in logic*, 1970 - Springer

Abstract A salient feature of contemporary philosophical logic is the great interest in so-called 'free logics', logics admitting non-denoting terms without paraphrase. Proponents of such logics have generally followed one of two approaches, each of which was ...

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## A logic of possible and actual objects

N Cocchiarella - *Journal of Symbolic Logic*, 1966

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## Free logic and the concept of existence.

K Lambert - *Notre Dame Journal of Formal Logic*, 1967 - projecteuclid.org

Suppose a nonreferential general term,—say, the term 'unicorn'—is put in the place of at least such and such in the present square. Suppose further that 'all' and 'there is' statements are analyzed after the fashion of standard predicate logic. Then we run into trouble of a ...

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## Modal logic and metaphysics

R Thomason - *The logical way of doing things*, 1969 - Yale University Press New Haven

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## Completeness theorems for some presupposition-free logics

H Leblanc, RH Thomason - *Fundamenta Mathematicae*, 1968 - yadda.icm.edu.pl

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## Identity and existence in intuitionistic logic

D Scott - *Applications of sheaves*, 1979 - Springer

Standard formulations of intuitionistic logic, whether by logicians or by category theorists, generally do not take into account partially defined elements. (For a recent reference see Makkai and Reyes [18], esp. pp. 144-163.) Perhaps there is a simple psychological ...

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## Nondesignating singular terms

T Hailperin, H LeBlanc - *Philosophical Review*, 1959

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## Nondesignating singular terms

H Leblanc, T Hailperin - *The philosophical review*, 1959 - JSTOR

i. Exception has frequently been taken to the treatment of singular terms or individual constants in modern logic. Consider indeed the standard introduction rule for "A": HI: A'F ('AW) A, where A' is like A except for containing free occurrences of an individual constant ...

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## On supervaluations in free logic

PW Woodruff - *The Journal of symbolic logic*, 1984 - Cambridge Univ Press

While the valuelessness of (1) was found intuitively acceptable, that of (2) was not. Indeed, (2) and all other tautologies are theorems of free logic. Van Fraassen found a way to accommodate both intuitions. He interprets the unproblematic atomic sentences as usual, ...

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## Strict Fregean free logic

S Lehmann - *Journal of Philosophical Logic*, 1994 - Springer

In the course of arguing that the referent of a sentence is its truthvalue, Frege remarks that "anyone who seriously took the sentence ['Odysseus was set ashore at Ithaca while sound asleep'] to be true or false would ascribe to the name 'Odysseus' a reference...; for it is of the ...

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## Short definitions of the ordinals

KR Brown, H Wang - *Journal of Symbolic Logic*, 1966 - JSTOR

In this paper, a simple inductive characterization of the ordinal numbers is stated and developed. The characterization forms the basis for a set of axioms for ordinal theory and also for several short explicit definitions of the ordinals. The axioms are shown to be ...

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## Contributions to syntax, semantics, and the philosophy of science

R Schock - 1964 - [philpapers.org](#)

Abstract In the recent literature of the philosophy of science, much space has been given to the problem of analyzing theories of the deductive and natural sciences in a way which makes explicit some of the syntactic and semantic features which seem to be implicitly ...

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## Nonstandard theories of quantification and identity

A Trew - *The journal of symbolic logic*, 1970 - Cambridge Univ Press

Introduction. In this paper a number of nonstandard systems of predicate logic with or without identity, are translated with subsystems of applied standard system of predicate logic with identity. There are nonstandard theories of quantification which, following [16], are ...

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## Derivation and Counterexample

K Lambert - 1972 - [philpapers.org](#)

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## Definitions in nonstrict positive free logic

RD Gumb, K Lambert - *Modern logic*, 1997 - [projecteuclid.org](#)

Abstract Every "practical" programming language supplies the programmer with at least one nonstrict construct, such as the ALGOL60 arithmetic 'if-then-else' and the LISP 'cond'. Many programming languages also enable the user to define nonstrict functions. In some ...

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## A theory of definite descriptions

K Lambert - 1991 - [philpapers.org](#)

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## Finite set theory, number theory and axioms of limitation

KR Brown, H Wang - *Mathematische Annalen*, 1966 - Springer

A natural axiom system F for finite sets will be presented and shown to be "equivalent to" the usual system Z of number theory (Peano axioms plus recursive definitions for addition and multiplication). It will also be proved that all the usual axioms of set theory with the ...

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## Logic bivalence and denotation

E Bencivenga, K Lambert, BC Van Fraassen - 1986 - Ridgeview Publ.

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## Ontological commitment and free logic

J Bacon - *The Monist*, 1969 - JSTOR

From Parmenides to the present, philosophers have been attracted by characterizations of being as being uttered or utterable, formulated or formulable. But what for Parmenides was presumably a valid co-entailment between antecedently understood concepts reappears ...

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## Definite descriptions and self-identity: II

K Lambert - *Philosophical Studies*, 1966 - Springer

36 PHILOSOPHICAL STUDIES prefer a system of elementary logic which is free of existence assumptions (or presuppositions) with respect to its argument constants (singular terms). 1 There are versions of elementary "free" logic now available which satisfy the purely formal ...

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## Characterizations of ordinal numbers in set theory

SA Cook, H Wang - *Mathematische Annalen*, 1966 - Springer

Our main purpose is to consider in a general manner different possible ways of introducing ordinal numbers into the usual framework of axiomatic set theory, commonly referred to as ZF. There are four interrelated primitive concepts of ordinals: On (the class of ordinals),  $<$  ...

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## Truth-value semantics

H Leblanc - 1976 - philpapers.org

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## Notes on free description theory: Some philosophical issues and consequences

K Lambert - *Journal of Philosophical Logic*, 1972 - Springer

During the past two decades philosophical logicians, many of them sympathetic with Russell's ontological motives, but for whom his treatment of expressions of the form 'the so and so' as syncategorematic parts of the statements that contain them is "more attractive on ...

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## A free IPC is a natural logic: Strong completeness for some intuitionistic free logics

CJ Posy - *Topoi*, 1982 - Springer

Abstract IPC, the intuitionistic predicate calculus, has the property (i)  $\forall c (\Gamma \vdash A \supset c/x) \Rightarrow \Gamma \vdash \exists xA$ . Furthermore, for certain important  $\Gamma$ , IPC has the converse property (ii)  $\Gamma \vdash \exists xA \Rightarrow \forall c (\Gamma \vdash A \supset c/x)$ . (i) may be given up in various ways, corresponding to different philosophic intuitions ...

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## VIII.—EXISTENCE AND PURPORTED REFERENCE

R Bosley - *Mind*, 1968 - Mind Assoc

THE purpose of this paper is to discuss the relation between reference and existence. In its first part a symbolism is introduced and explained which is to prove useful in the following argument; in the second part conditions of reference are laid down and discussed; in the ...

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## A single axiom for set theory

D Bennett - *Notre Dame Journal of Formal Logic*, 2000 - projecteuclid.org

Abstract Axioms in set theory typically have the form  $\forall x \exists y \text{ for all } z (x \in y \rightarrow \text{left} \rightarrow F(x,z))$ , where  $F$  is a relation which links  $x$  with  $z$  in some way. In this paper we introduce a particular linkage relation  $L$  and a single axiom based on  $L$  ...

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## What is Russell's theory of descriptions?

D Kaplan - *Physics, Logic, and History*, 1970 - Springer

Abstract Russell expounded his theory of descriptions in a number of places, but perhaps the best known source is his 1905 article, "On Denoting" [1]. I think it may still be fruitful to discuss the doctrine of that article since some readers may disagree as to its main point.

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## Attribution and existence

R Scales - 1969 - philpapers.org

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## Quantification and the empty domain

WV Quine - *The journal of symbolic logic*, 1954 - Cambridge Univ Press

Quantification theory, or the first-order predicate calculus, is ordinarily so formulated as to provide as theorems all and only those formulas which come out true under all interpretations in all non-empty domains. There are two strong reasons for thus leaving ...

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## Formal specification and design

LMG Feijs, HBM Jonkers - 1992 - Cambridge University Press ...

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## Variable binding term operators

J Corcoran, W Hatcher, J Herring - *Mathematical Logic ...*, 1972 - Wiley Online Library

The study of variable binding term operators (vbtos) in logic dates from 'the beginning of the modern period. Perhaps because the RUSSELL device of contextual definition was used to establish eliminability-in-principle of the common vbtos, full deductive and semantic ...

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## Free semantics

E Bencivenga - *Italian Studies in the Philosophy of Science*, 1981 - Springer

Abstract The valuation of sentences containing non-denoting singular terms is obviously the fundamental question to be solved in the construction of a semantics for free logic. 2 Besides being fundamental, this question is very difficult, for the notion of truth commonly applied ...

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## Some Data for ATP

H Wang - *Computation, Logic, Philosophy*, 1990 - Springer

Abstract In what follows, the (restricted) predicate calculus with equality is assumed throughout. Let  $(U! u) Hu$  be short for  $(w)(u)((Hw \wedge Hu) \supset w = u), (E! y) Hy$  be short for  $(Ey) Hy \wedge (U! y) Hy$ ,  $\text{Func } H$  be short for  $(v)(U! u) Huv$ . The convention is to think of  $Huv$  as  $u = f ( \dots$

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## On the logic of existence and denotation

N Rescher - *The Philosophical Review*, 1959 - JSTOR

JN RECENT philosophical discussion regarding the nature of the concept of existence and the logical theory of cognate concepts, the tendency has been to view these problems in their Kantian setting, by focussing upon the question "Is 'exists' a predicate?" and the ...

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## A theory of restricted variables without existence assumptions.

MM Prullage - *Notre Dame Journal of Formal Logic*, 1976 - projecteuclid.org

1 Introduction The individual variables of ordinary first-order logic are generally thought of as ranging over all the objects in a certain set, the universe or domain of discourse, with no discrimination made among the variables. In everyday mathematics, however, this is often ...

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## Free Logics Their Foundations, Character and Some Applications Thereof

K Lambert - 1997 - philpapers.org

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## Bertrand Russell: Philosopher of the century

R Schoenman - 1967 - philpapers.org

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## On the philosophical foundations of free description theory

K Lambert - History and Philosophy of Logic, 1987 - Taylor & Francis

This essay lays out the leading principles of the theories of definite descriptions advocated by Frege, Russell, and Hilbert and Bernays, and discusses various difficulties, philosophical and otherwise, with each treatment, fixing especially on the treatment of singular existence ...

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## On the usability of logics which handle partial functions

JH Cheng, CB Jones - 1990 - University of Manchester, ...

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## Descriptions in mathematical logic

GR Renardel - Studia Logica, 1984 - Springer

Abstract After a discussion of the different treatments in the literature of vacuous descriptions, the notion of descriptor is slightly generalized to function descriptor, so as to form partial functions which satisfy  $\forall x \left( (x \neq \emptyset \rightarrow \dots \right)$  ...

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## The logical way of doing things

K Lambert - 1969 - [philpapers.org](#)

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## Definite descriptions and self-identity

J Hintikka - *Philosophical Studies*, 1964 - Springer

IN A recent note in this journal 1 Karel Lambert has pointed out that the suggestions made in my paper "Towards a Theory of Definite Descriptions" 2 stand in need of revision. I wish to submit that mine is a case of a misplaced reservatio mentalis rather than of a downright ...

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## Some logical problems concerning existence

JL Shaw - 1970 - ... <http://hdl.handle.net/1911/14661>

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## An extended joint consistency theorem for free logic with equality.

RD Gumb - *Notre Dame Journal of Formal Logic*, 1979 - [projecteuclid.org](#)

1 Introduction In this paper, proof is given of an extended joint consistency theorem for free logic with equality using techniques sketched by Hintikka in a proof of a similar theorem for standard first order logic. 1 The Robinson consistency theorem and the Craig and Lyndon ...

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## A calculus of individuals based on connection

BL Clarke - *Notre Dame Journal of Formal Logic* Notre-Dame, Ind., 1981 - [cat.inist.fr](#)

Résumé/Abstract Calcul des individus, dans la ligne de la méréologie de Lesniewski et de ses développements philosophiques chez Whitehead et Goodman. Le calcul comprend trois parties: une partie méréologique (systématisation des prédicats méréologiques), partie ...

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## On a paradox of Hilbert and Bernays

G Priest - *Journal of philosophical logic*, 1997 - Springer

Abstract The paper is a discussion of a result of Hilbert and Bernays in their Grundlagen der Mathematik. Their interpretation of the result is similar to the standard interpretation of Tarski's Theorem. This and other interpretations are discussed and shown to be ...

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## Sets in RSL

D Bjørner - *Software Engineering 1: Abstraction and Modelling*, 2006 - Springer

The idea to be illustrated in this section is that of the use of the discrete mathematics concept of sets in abstracting domain, requirements and software phenomena and concepts. Sets offer themselves as an abstraction when a component, s, can best be characterised as a" ...

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## Sets

D Bjørner - *Software Engineering 1: Abstraction and Modelling*, 2006 - Springer

3.1 Background Set theory is a major branch of mathematics. One can start by explaining mathematics from a basis of set theory, or from a basis of mathematical logic. We refer to seminal texts in set theory for a discussion of sets as a foundation for mathematics [ ...

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## LPF and $MPL\omega$ —a logical comparison of VDM SL and COLD-K

CA Middelburg, GRR de Lavalette - VDM'91 Formal Software ..., 1991 - Springer

Abstract This paper compares the finitary three-valued logic LPF and the infinitary two-valued logic  $MPL\omega$ , the logics underlying VDM SL and COLD-K. These logics reflect different approaches to reasoning about partial functions and bringing recursive function ...

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## A translation theorem for two systems of free logic

K Lambert, T Scharle - 1967 - philpapers.org

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## Free semantics for definite descriptions

E Bencivenga - Logique et Analyse Louvain, 1980 - cat.inist.fr

Résumé/Abstract Exposé d'une nouvelle sémantique pour la logique libre (free logic), qui distingue entre valeur de vérité factuelle et formelle, suivant que les termes singuliers dans une phrase soient tous dénotatifs ou non. Cette sémantique est appliquée dans le présent ...

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## A Model-Theoretical Approach to Variable Binding Term Operators ( )

NCA da Costa - Studies in Logic and the Foundations of Mathematics, 1980 - Elsevier

ABSTRACT. By a variable binding term operator (vbto) we understand an operator which binds variables of formulas to form terms. Examples of vbto's: the description operator  $r$ , Hilbert's symbols  $T$  and  $E$ , the classifier  $\{I\}$ , and Russell's operator  $-$ . Usual vbto's are ...

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## Logic and existence

C Lejewski - Leśniewski's Systems, 1984 - Springer

Abstract I have given my essay this title because it roughly indicates the boundaries of the topic to be discussed and at the same time hints at the method that will be adopted in my analysis. The problem of existence will interest me only to the extent to which it enters the ...

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## A completeness theorem for "theories of kind W"

SL Bloom - Studia Logica, 1971 - Springer

A theory of kind  $W$  is a triple  $(L, Cn, do)$  where  $L$  is a language of kind  $W$ ,  $do$  is a set of sentences of  $L$ , and  $Cn$  is the consequence operation specified below. We first describe  $L$ .  $L$  contains two types of variables, sentential variables, and nominal variables. The letters  $p$  and  $q$  will be ...

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## Some things do not exist.

R Routley - Notre Dame Journal of Formal Logic, 1966 - projecteuclid.org

The main objects of this paper are to suggest a definition of 'exists', to propose solutions to difficulties raised within restricted predicate logic with identity by failures of existential presuppositions of purportedly referring expressions such as individual constants and ...

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## Descriptions and reference

B Mates - Foundations of Language, 1973 - JSTOR

The philosophic literature on Russell's theory of descriptions is so voluminous that anyone proposing to add to it must somehow excuse himself. My excuses are two: (1) like Russell, I find it tantalizing that "some philosophers whom I respect" still think that the theory has ...

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### [A three-valued logic for software specification and validation](#)

[B Konikowska, A Tarlecki, A Blikle - 1988 - Springer](#)

Abstract Different calculi of partial or three-valued predicates have been used and studied by several authors in the context of software specification, development and validation. This paper offers a critical survey on the development of three-valued logics based on such ...

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### [Programming logics: an introduction to verification and semantics](#)

[RD Gumb - 1989 - dl.acm.org](#)

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### [On the philosophical foundations of free logic\\*](#)

[K Lambert - Inquiry, 1981 - Taylor & Francis](#)

The essay outlines the character of free logic, and motivation for its construction and development. It details some technical achievements of high philosophical interest, but urges that the role of existence assumptions in logic is still not fully understood, that ...

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### [On theoretical constructs and Ramsey constants](#)

[RM Martin - Philosophy of Science, 1966 - JSTOR](#)

The method of Ramsey sentences has been proposed for handling theoretical constructs within a scientific system. Essentially it consists of constructing a certain "monolithic" sentence for an entire theory. In this present paper several improvements are suggested ...

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## An introduction to COLD-K

HBM Jonkers - *Algebraic methods: theory, tools and applications*, 1989 - Springer

Abstract An introduction to the formal design kernel language COLD-K is given. After discussing the notion of class underlying the language, various styles of describing classes are presented ranging from algebraic to state-based techniques on the one hand, and ...

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## A logic for partial functions.

J Zheng - 1986 - ethos.bl.uk

Partial function logic Mathematics Signal processing Information theory.

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## Studies in the Logic of Existence and Necessity: I. Existence

J Hintikka - *The Monist*, 1966 - JSTOR

1. Introductory. The notions of existence and necessity have held the interest of philosophers longer than many other problems in the philosophy of logic. The nature of necessity has been debated since the ancient Greeks; and many philosophers have pronounced their ...

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## A logic covering undefinedness in program proofs

H Barringer, JH Cheng, CB Jones - *Acta Informatica*, 1984 - Springer

Summary Recursive definition often results in partial functions; iteration gives rise to programs which may fail to terminate for some inputs. Proofs about such functions or programs should be conducted in logical systems which reflect the possibility of " ...

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## The permutation principle in quantificational logic

K Fine - *Journal of Philosophical Logic*, 1983 - Springer

Suppose the variables, in alphabetic order, are  $x_1, x_2, \dots$ . Then Quine takes the universal closure of a formula  $I\#J$  to be the result of prefixing the quantifiers  $\forall a$ , for  $(I$  free in  $J$ , to that formula in their reverse of anti-alphabetic order. The presence of the Permutation Principle (5) ...

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## On sentences which are true of direct unions of algebras

A Horn - *The Journal of Symbolic Logic*, 1951 - Cambridge Univ Press

It is well known that certain sentences corresponding to similar algebras are invariant under direct union; that is, are true of the direct union when true of each factor algebra. An axiomatizable class of similar algebras, such as the class of groups, is closed under direct ...

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## On the status of arithmetic

W Balzer - *Erkenntnis*, 1979 - Springer

Many philosophers who have thought about mathematics will agree that mathematics has empirical roots, that its historical development was largely influenced by practical problems and that certain mathematical theories can be understood as to be "extracted" from ...

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## Nominalistic set theory

D Lewis - *Noûs*, 1970 - JSTOR

By means that meet the standards of nominalism set by Nelson Goodman (in [1], section II, 3; and in [2]) we can define relations that behave in many ways like the membership relation of set theory. Though the agreement is imperfect, these pseudo-membership relations seem ...

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## Report on some investigations concerning the consistency of the axiom of reducibility

J Myhill - *The Journal of Symbolic Logic*, 1951 - Cambridge Univ Press

JOHN MYHILL 1. Introduction. The purpose of this paper is to construct a non-finitary system of logic iS, based on the theory of types, in which classical quantification theory holds without restriction and the axiom of reducibility holds with such slight restriction as is ...

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## La modelage comme moyen de prevision dans la protection des plantes

A SĂVESCU - *Bul. Acad. De Științe Agricole și Silvice*, 1972

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## Abstraction and modality

JE Nolt - *Philosophical Studies*, 1980 - Springer

Platonism is the view that abstract objects exist. By 'abstract object' I mean roughly any sort of object which is conceived as having instances, exemplifications, or members, or as being the meaning of a linguistic expression. Typical examples are sets, properties, relations, ...

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## On ordinals

WV Quine, H Wang - *Bulletin of the American Mathematical Society*, 1964 - ams.org

A trick of inversion (see [1]) obviated the need of infinite values of  $y$  in the definition of natural numbers: give the role of  $y$  to its complement  $y$  (without assuming existence of  $y$ ) and then reduce. I.e., put bars over the occurrences of  $y$  after the quantifier and reduce. The same ...

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## Choice Functions in Semantics

K Heusinger, R Kempson - *Research on Language & Computation*, 2004 - Springer

Interest in the use of choice functions is increasing in formal semantics, demonstrated by recent discussions of the adequacy of analyses with choice functions. Their syntactic counterpart, the epsilon operator, was introduced into meta-mathematics in the epsilon ...

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## Jaśkowski's Universally Free Logic

E Bencivenga - *Studia Logica*, 2014 - Springer

Abstract A universally free logic is a system of quantification theory, with or without identity, whose theses remain logically true if (a) the domain of quantification is empty and (b) some of the singular terms present in the language do not denote existing objects. In the West, ( ...

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## Infinitesimals and Integration

AH Lightstone - *Mathematics Magazine*, 1973 - JSTOR

1. Number systems. As Leibniz and his successors knew, the concepts of calculus are easily explained, and easily grasped, if only the right number system is assumed. The right number system is one that involves both infinitely large numbers and infinitely small numbers. ...

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## Mathematical Nominalism

RM Martin - *Pragmatics, Truth, and Language*, 1979 - Springer

Abstract Nominalism in one form or another is an age-old metaphysical view. Periodically it flourishes, is properly buried by its critics, and lo! is resurrected only to gain greater force and cogency. Like most of the perennial metaphysical views, it dies hard, and with ...

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## Leonard Nelsons Rechtfertigung metaphysischer Grundsätze der theoretischen Realwissenschaft

D Jakowljewitsch - 1988 - [secure.peterlang.com](http://secure.peterlang.com)

Dass Wissenschaft mit metaphysischen Behauptungen operiert, ist eine in der gegenwärtigen Wissenschaftstheorie weithin akzeptierte Auffassung. Diese Einsicht wirft eine Reihe von epistemologischen Fragen auf, von denen man früher meinte, sie ...

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## On the logic of variable binders

R Schock - [Archive for Mathematical Logic](#), 1964 - Springer

\* Eingegangen am 10. 1. 1962 i We take the numbers of 1-ary sentential connectives, 2-ary sentential connectives, and auxiliary symbols to be denumerably infinite for the sake of uniformity. Notice that there is a good sense in which 3-ary sentential connectives also ...

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## On definitions

R Schock - [Archive for Mathematical Logic](#), 1965 - Springer

We use 'n' as a metalinguistic variable ranging over positive integers. The letters 'T' and 'U' will be used as metalinguistic variables ranging over deductive systems whose proof rules are the ones of logic; that is, T and U are deductive systems such that  $T(2) = U(2) = L(2)$ . We ...

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## A free logic with simple and complex predicates.

K Lambert, E Bencivenga - [Notre Dame journal of formal logic](#), 1986 - [projecteuclid.org](http://projecteuclid.org)

(2) Vulcan is self-identical. Some free logicians regard all such simple statements as asserting of the objects to which the constituent singular terms purport to refer that they are things which. (Here and elsewhere the blanks are to be filled in by appropriate verbs or ...

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