

Things by Roger Jones

mostly philosophical

Roger Bishop Jones

Abstract. An introduction to and an overview of various work in progress.

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Table of Contents

1	Introduction	4
2	The Themes of The Work	4
	2.1 Set Theory	4
	2.1.1 The Foundations of Abstract Semantics	4
	2.2 Metaphysical Positivism	4
	2.3 X-Logic	5
3	Abstracts	6
	3.1 Epistemic Architecture	6
	3.2 Logical Truth and Proof	6
	3.3 Synthetic Epistemology	6
	3.4 A Story of Enlightenment	6
	3.5 An Architecture for Propositional Knowledge	6
	3.6 Parents and Education	6
	3.7 Progressive Resistance	6
	3.8 Why and How Twitter	6
	3.9 On Gender	7
	3.10 Epistemic Futures	7
	3.11 The Mind Body Problem and Consciousness	7
	3.12 The Systemic Incoherence and Ethical Bankruptcy of Critical Theory	7
	3.13 The Tyranny of the Tribe and the Roots of Reason	7
	3.14 The Paradox of Repressive Tolerance	7
	3.15 Philosophical Foundations for Liberal Democracy	7
	3.16 Philosophy and Evolution	8
	3.17 Notes on Orenstein on Quine	8
	3.18 Some Scientific Scepticism	8
	3.19 Failing Democracies and How to Fix Them	8
	3.20 Prolegomenon to A Progressive Democratic Con- stitution for the United Kingdom	9
	3.21 Should we have a Written Constitution - and what might it say?	9
	3.22 Challenges and Opportunities for Practical Phi- losophy in the 21st Century	9
	3.23 From Synthetic Biology to Synthetic Philosophy	9
	3.24 Open Society - some notes	9
	3.25 Scepticism and Positivism	9
	3.26 A Philosophical Kernel for Formal Deductive Anal- ysis	10
	3.27 Rationality	10
	3.28 The Future of Humanity	10
	3.29 RBJ Blog drafts	10

	The Philosophy of Roger Bishop Jones	3
3.30	Why Foundations Matter	10
3.31	Abstract for SOTFOM II	11
3.32	Tao and Anarchy	11
3.33	What is Philosophy?	11
3.34	Conservative Extension in HOL	11
3.35	Set Theory: Forcing and Semantics	11
3.36		12
3.37	A Foundational Programme	12
3.38	Tools for Logical Analysis	12
3.39	Anarchism and Tao	12
3.40	Abstract Ontology	12
3.41	Language Planning and Design Automation	12
3.42	Non Well-Founded Foundational Ontologies	12
3.43	Designing a Deductive Foundation System	12
3.44	Metaphysical Problems and Methods	12
3.45	A Conversation between Carnap and Grice as it might have been	13
3.46	The Formalisation of Physics	13
3.47	An Interview with Roger Bishop Jones	13
3.48	Notes on the Philosophy of Leibniz	13
3.49	ProofPower	13
3.50	On how many things there might be	13
3.51	Analyticity and Abstraction	13
3.52	Semantic Foundations for Deductive Methods	14
4	INDEX	17

1. Introduction

I am now in writing in XML converted to HTML for web pages and in a series of documents written in LaTeX for delivery as PDF.

The PDF documents are in two series.

Of these, one series is devoted to progressing philosophical problems by formal methods, the other by informal means.

This document introduces directly the informal essays, with some reference to the related content of the formal documents.

The more formal documents, whose overview and introduction is [4], makes use not only of LaTeX but also of *ProofPower*, a system for preparing and processing documents containing formal specifications and proofs.

2. The Themes of The Work

2.1. SET THEORY

There are quite a lot of problems which seem to me interesting and which seem to me to belong to set theory. Since I am not a set theorist, but more like a philosophically minded software engineer, the problems which interest me in set theory are often not apparently of interest to set theorists, and so it seems that if I can't progress them myself they may not move forward at all.

2.1.1. *The Foundations of Abstract Semantics*

It seems to me that for the purposes of deduction, abstract semantics suffices, i.e. there will always be a semantics based entirely on abstract entities which yields the same relation of semantic consequence as the true semantics (referring to concrete entities where necessary).

IF this is conceded it is natural to think of set theory as being the most general framework for defining the abstract semantics of languages.

On the one hand, we may feel inclined to think set theory is universal in respect of abstract semantics.

2.2. METAPHYSICAL POSITIVISM

Knowledge is classified methodologically, by how it may be discovered or how it should be established, the latter generally being the more important characteristic. It is an expectation here that the account will not be anthropological, since we must admit the possibility that something other than a human being might acquire knowledge.

The classification therefore impinges upon the design of artefacts which might assume the relevant roles (of discovering, establishing or applying knowledge).

The first crude distinction is then made along the traditional if controversial analytic/synthetic/evaluative lines.

2.3. X-LOGIC

It is primarily under the *X-Logic* heading that I propose to engage in what I am now calling “constructive philosophy”, though possibly this may go beyond what even I am prepared to offer as philosophy. Constructive philosophy is a method which belongs to metaphysical philosophy without being the only philosophical method which that philosophical system embraces.

3. Abstracts

3.1. EPISTEMIC ARCHITECTURE

A discussion of architectural principles for widely distributed collaborative knowledge representation and exploitation systems. [?]

3.2. LOGICAL TRUTH AND PROOF

An description of how to define logical truth (as analyticity) and how to demonstrate such truths. This is based on the thesis that set theory is both semantically universal and also is the best way to obtain maximal deductive reach. [?]

3.3. SYNTHETIC EPISTEMOLOGY

The outline of a possible book attempting to construct an epistemology for the future, in the light of the evolution of epistemology to the present day and the technological advances in progress which impact on how our knowledge of the world is expanded. [47]

3.4. A STORY OF ENLIGHTENMENT

Speculating about Enlightenment 2.0 on the basis of ideas about its predecessors. [46]

3.5. AN ARCHITECTURE FOR PROPOSITIONAL KNOWLEDGE

An exercise in synthetic epistemology, constituting architectural principles for a hypothesized future Galactic cognitive system. [43]

3.6. PARENTS AND EDUCATION

Who should know about and/or have influence over, what is taught to children. [44]

3.7. PROGRESSIVE RESISTANCE

A positive reconstruction of Critical Theory. [45]

3.8. WHY AND HOW TWITTER

An attempt to put together a coherent position on the shifting language around sex and gender, and possibly a more general discussion of how to counter the divisive "identity marxism". [42]

3.9. ON GENDER

Thoughts about gender. [34]

3.10. EPISTEMIC FUTURES

Philosophy should be concerned, among other things, with the big picture. Of late I have been trying to understand everything, philosophically, through the lense of evolution. This essay spans almost the whole of evolution (from a particular vantage point in space time), from the beginnings of life on earth to its proliferation across the galaxy beyond its likely local demise. [32]

3.11. THE MIND BODY PROBLEM AND CONSCIOUSNESS

A discussion on the nature of consciousness, prefaced by broader considerations about ontology and metaphysics, in which I conclude in favour of the possibility that consciousness is no big deal (though important). [33]

3.12. THE SYSTEMIC INCOHERENCE AND ETHICAL BANCRUPTCY OF CRITICAL THEORY

An attempt to sew together into a coherent epistemological narrative my evolving perspective on the ideological currents of our time. [39]

3.13. THE TYRRANY OF THE TRIBE AND THE ROOTS OF REASON

An attempt to understand rationality and those forces which undermine it in the form of a historical narrative. [40]

3.14. THE PARADOX OF REPRESSIVE TOLERANCE

Notes on the "Paradox of Repressive Tolerance".

Discussion of Popper's "paradox of tolerance" and Marcuse's inversion of it as "Repressive Tolerance". [35]

3.15. PHILOSOPHICAL FOUNDATIONS FOR LIBERAL DEMOCRACY

When society proceeds in a largely rational manner, what the average punter understands of the philosophical principles which underpin the social order may not be crucial. When things go awry, not so good. It

might be a good idea to have a handbook which is as broadly intelligible as possible. Professional philosophers are rarely good at stripping down the complexity which proves their metal and laying bare key structures. This is me having a go at that.

[36]

3.16. PHILOSOPHY AND EVOLUTION

A philosophical perspective on evolution, and an evolutionary approach to philosophy.

[37]

3.17. NOTES ON ORENSTEIN ON QUINE

These are notes written in connection with a reading and discussion of Quine based on Orenstein.

[41]

3.18. SOME SCIENTIFIC SCEPTICISM

I often have doubts about supposed scientific truths. This is a place where I talk about them. [38]

3.19. FAILING DEMOCRACIES AND HOW TO FIX THEM

Maybe intended as an essay, but turned out to be a collection of references and notes on some of them. I left more or less the original intent in this abstract.

We seem at this moment in history to be unusually well endowed with tales of how our democracies are failing. Against these there is "push back". To push back you need to spot what is going on, to describe it clearly, to understand and articulate why it is pathological, but also to propose and promote an effective remedy.

Thinking philosophically about these phenomena may provide more compelling support, for the core values which are threatened, against a range of subversive strategies and tactics. Here we take democracy as the fundamental value and seek to analyse contemporary erosions and consider what kinds of defence might be mounted. An important defence is the light of scrutiny, on the (doubtful) thesis that once we see clearly the threats and the values which they threaten, their strength will be undermined. [30]

3.20. PROLEGOMENON TO A PROGRESSIVE DEMOCRATIC CONSTITUTION FOR THE UNITED KINGDOM

This is an essay at the formulation of that part of a progressive liberal constitution for the United Kingdom which provides an account of the fundamental philosophical principles which underly the constitution. [30]

3.21. SHOULD WE HAVE A WRITTEN CONSTITUTION - AND WHAT MIGHT IT SAY?

The pace of constitutional change has accelerated over recent decades, and the departure of the UK from the European Union not only in itself requires major constitutional changes, but also exposes weaknesses in the constitution which may provoke further change. Because we do not have a written constitution which has a special status relative to other legislation, controversial changes to the constitution may be undertaken on the basis of a simple parliamentary majority with little or no public consultation. This risks changes which are partisan rather than consensual, and that respond to intellectual or ideological trends alien to our historical traditions including our democracy and the free speech on which it depends. This document provides notes for a discussion of these matters. [31]

3.22. CHALLENGES AND OPPORTUNITIES FOR PRACTICAL PHILOSOPHY IN THE 21ST CENTURY

A number of factors, conspicuous as we make our way into the 21st century, seem to make a coherent philosophical underpinning for moral, political and economic affairs especially difficult to formulate. These notes are intended to facilitate discussion of the challenges and opportunities and a range of possible philosophical responses to them. [29]

3.23. FROM SYNTHETIC BIOLOGY TO SYNTHETIC PHILOSOPHY

New conception of philosophy inspired in part by synthetic biology. [28]

3.24. OPEN SOCIETY - SOME NOTES

Notes for a philosophical discussion on The Open Society [27]

3.25. SCEPTICISM AND POSITIVISM

Notes for a philosophical discussion on scepticism and positivism [26]

3.26. A PHILOSOPHICAL KERNEL FOR FORMAL DEDUCTIVE ANALYSIS

Positivism, latterly logical positivism and particularly the philosophy of Rudolf Carnap, was a scientifically oriented philosophy, in which the aim of philosophy was to support science, and philosophy was expected to strive for scientific standards of objectivity and rigour. A particular impetus for logical positivism and the philosophy of Carnap was the advances made in logic by Frege, and the conception of scientific philosophy advanced by Russell, in which philosophy was to be purely logical. However, beyond the advances which permitted deductive reason to be entirely formalised, the philosophies of Russell and Carnap were influenced by empiricist agendas logically distinct from an advocacy of logical rigour, which also inspired a rejection of most of the philosophical tradition and made a broad acceptance, even of the pure logical core, unlikely. In this essay I attempt to isolate a core philosophical framework suitable to underpin the widest adoption of formal methods to ensure logical rigour in all areas where deductive reasoning may have a role to play. In practice, at present, the principal users of formal derivations and of the software to facilitate their application are not logicians, mathematicians, scientists or philosophers, but engineers, who seek clarity in presentation of their designs and assurance that they realise their intended purpose. [24]

3.27. RATIONALITY

Notes for a philosophical discussion on rationality [25]

3.28. THE FUTURE OF HUMANITY

Notes for a philosophical discussion on the future of humanity. [23]

3.29. RBJ BLOG DRAFTS

This is a place for drafting materials to be posted to my Roger Bishop Jones blog, or elsewhere. [20]

3.30. WHY FOUNDATIONS MATTER

Notes for a philosophical discussion on why and how we should choose foundations for mathematics. [22]

3.31. ABSTRACT FOR SOTFOM II

More than one attempt at an abstract for submission to SOTFOM II, an upcoming symposium on the foundations of mathematics. [19]

3.32. TAO AND ANARCHY

The ancient Chinese philosophy of Dao provides ideas which may be seen as fundamental to contemporary ideas in ethics, politics and economics and therefore which together provide a basis for new approaches to practical philosophy. [21]

3.33. WHAT IS PHILOSOPHY?

Some thoughts about the nature of philosophy and the kinds of philosophy. [18]

3.34. CONSERVATIVE EXTENSION IN HOL

This note offers an alternative to a proposal by Rob Arthan for a simpler and more powerful replacement for the mechanisms currently provided in the various HOL implementation for defining new constants. [The document is derived from Rob's paper and is mostly exactly the same since I didn't get very far in making the intended changes. My guess is that it is only in the description at the beginning that there may be some differences. The material which it modifies was I think presented by Rob at one of the HOL conferences (probably 2013) without mention of the ideas here, but at the time I write this codicil to the abstract Rob is in preparing final amendments to a version of his paper for publication in a special edition of the Journal of Automated Reasoning and his intention is, as I understand it, to include mention of this possibility in the paper, the details of which we have recently discussed.]

3.35. SET THEORY: FORCING AND SEMANTICS

Issues properly belonging to the semantics of set theory are now being addressed using results about forcing. This essay considers the relevance of forcing to semantics. [17]

3.36.

3.37. A FOUNDATIONAL PROGRAMME

A description of my efforts in the foundations of mathematics over the past 25+ years. [16]

3.38. TOOLS FOR LOGICAL ANALYSIS

A discussion of the philosophical programme of Rudolf Carnap, its place in the philosophy of the twentieth century and of its significance for the applications of interactive theorem proving software.

3.39. ANARCHISM AND TAO

A discussion of the relationship between these two different systems of ideas. [15]

3.40. ABSTRACT ONTOLOGY

An informal discussion of abstract ontology. [14]

3.41. LANGUAGE PLANNING AND DESIGN AUTOMATION

A development of aspects of the philosophies of Leibniz and Carnap in the direction of design automation. [13]

3.42. NON WELL-FOUNDED FOUNDATIONAL ONTOLOGIES

An informal sketch of the development of my ideas about non well-founded ontologies for the foundations of mathematics. [12]

3.43. DESIGNING A DEDUCTIVE FOUNDATION SYSTEM

A discussion of issues in the design of formal logical foundation systems suitable for use in machine supported formal derivations of analytic models. The outlines of a proposed system with a roadmap for turning the outline into a specification for implementation. [11]

3.44. METAPHYSICAL PROBLEMS AND METHODS

Positivists have often been antipathetic to metaphysics. Here, however, a positive role for metaphysics is sought. Problems about reality which may not be resolved by the methods of the deductive or empirical sciences are considered. In this domain, the identification of meaningful

problems, or of plausible methods is itself an achievement, and is the main purpose of this essay. [7]

3.45. A CONVERSATION BETWEEN CARNAP AND GRICE AS IT MIGHT HAVE BEEN

A speculation about what the fundamental differences between the philosophies of Rudolf Carnap and Paul Grice might have been had they survived into the twenty first century. [6]

3.46. THE FORMALISATION OF PHYSICS

A discussion of methods for the formalisation of Physics. [3]

3.47. AN INTERVIEW WITH ROGER BISHOP JONES

An interview conducted by Tony Dale with Roger Bishop Jones on mechanised proof. [9]

3.48. NOTES ON THE PHILOSOPHY OF LEIBNIZ

Mainly about his *lingua characteristica* and *calculus ratiocinator*. [5]

3.49. PROOFPOWER

A description of the specification and proof tool ProofPower. [10]

3.50. ON HOW MANY THINGS THERE MIGHT BE

An exercise in classical (possibly even pre-historic) skepticism. Of necessity this exercise has the character of tentative ideas rendered as sketchy notes. These notes document a retreat in which ideas on the scope for objective ontological knowledge are progressively narrowed. The last ditch in this process is the question of how many things it is logically possible that there might be. [8]

3.51. ANALYTICITY AND ABSTRACTION

Various set theoretic definitions of the concept of analyticity are presented and their characteristics considered. It is noted that certain techniques for abstraction prevent defining the synthetic as complementary to the analytic, and the consequences of this problem are explored, leading to new ways of defining analyticity. [2]

3.52. SEMANTIC FOUNDATIONS FOR DEDUCTIVE METHODS

The scope of deductive reason is considered. First a connection is discussed between the scope of sound deductive inference and the notion of set theoretic truth via the concepts *demonstrative* and *analytic*. Then the problem of determining the meaning of set theory and the extension of set theoretic truth is addressed. [1]

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4. INDEX

