

Things by Roger Jones

mostly philosophical

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

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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. NOTES ON ORENSTEIN ON QUINE

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

[?]

3.2. SANDEL ON DEMOCRATIC DEBATE

This is a teardown of a TED talk by Sandel entitled "The lost art of democratic debate".

[?]

3.3. FAILING DEMOCRACIES AND HOW TO FIX THEM

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, and to understand and articulate why it is pathological. There are many recent examples of this, some of which are mentioned in this essay.

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

3.4. 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.

[?]

3.5. 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. [?]

3.6. 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. [?]

3.7. FROM SYNTHETIC BIOLOGY TO SYNTHETIC PHILOSOPHY

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

3.8. OPEN SOCIETY - SOME NOTES

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

3.9. SCEPTICISM AND POSITIVISM

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

3.10.

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. [?]

3.11. RATIONALITY

Notes for a philosophical discussion on rationality [?]

3.12. THE FUTURE OF HUMANITY

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

3.13. RBJ BLOG DRAFTS

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

3.14. WHY FOUNDATIONS MATTER

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

3.15. ABSTRACT FOR SOTFOM II

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

3.16. 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. [?]

3.17. WHAT IS PHILOSOPHY?

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

3.18. 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.]

3.19. 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. [?]

3.20.

3.21. A FOUNDATIONAL PROGRAMME

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

3.22. 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.

3.23. ANARCHISM AND TAO

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

3.24. ABSTRACT ONTOLOGY

An informal discussion of abstract ontology. [14]

3.25. LANGUAGE PLANNING AND DESIGN AUTOMATION

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

3.26. 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]

3.27. 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]

3.28. 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]

3.29. 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]

3.30. THE FORMALISATION OF PHYSICS

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

3.31. AN INTERVIEW WITH ROGER BISHOP JONES

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

3.32. NOTES ON THE PHILOSOPHY OF LEIBNIZ

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

3.33. PROOFPOWER

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

3.34. 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]

3.35. 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]

3.36. 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]

References

1. Jones, R., ‘Semantic Foundations for Deductive Methods’.
<http://www.rbjones.com/rbjpub/www/papers/p001.pdf>.
2. Jones, R., ‘Analyticity and Abstraction’.
<http://www.rbjones.com/rbjpub/www/papers/p002.pdf>.
3. Jones, R., ‘An Assurance Calculus for X-Logic’.
<http://www.rbjones.com/rbjpub/www/papers/p007.pdf>.
4. Jones, R., ‘Introduction to Work in Progress’.
<http://www.rbjones.com/rbjpub/pp/doc/t000.pdf>.
5. Jones, R., ‘Metaphysical and Logical Positivism Compared’.
<http://www.rbjones.com/rbjpub/www/papers/p005.pdf>.
6. Jones, R., ‘Metaphysical Positivism’.
<http://www.rbjones.com/rbjpub/www/papers/p008.pdf>.
7. Jones, R., ‘Metaphysical Problems’.
<http://www.rbjones.com/rbjpub/www/papers/p009.pdf>.
8. Jones, R., ‘On *how many* things there *might* be’.
<http://www.rbjones.com/rbjpub/www/papers/p003.pdf>.
9. Jones, R., ‘Philosophical Themes’.
<http://www.rbjones.com/rbjpub/www/papers/p006.pdf>.
10. Jones, R., ‘ProofPower’.
<http://www.rbjones.com/rbjpub/www/papers/p004.pdf>.
11. Jones, R., ‘Designing a Deductive Foundation System’.
<http://www.rbjones.com/rbjpub/www/papers/p010.pdf>.
12. Jones, R., ‘PolySets’.
<http://www.rbjones.com/rbjpub/www/papers/p011.pdf>.
13. Jones, R., ‘X-Logic - realising the dream of Leibniz’.
<http://www.rbjones.com/rbjpub/www/papers/p012.pdf>.
14. Jones, R., ‘Abstract Ontology’.
<http://www.rbjones.com/rbjpub/www/papers/p013.pdf>.
15. Jones, R., ‘Anarchy and Tao’.
<http://www.rbjones.com/rbjpub/www/papers/p014.pdf>.

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