

## Abstracts

### SSHAP Annual Conference 2016

16-18 June, Metropolitan State University Denver

Aude Bandini, Université de Montréal

#### **Losing sight of the given: N. Goodman against C. I. Lewis**

Abstract: Nelson Goodman's inclinations towards epistemological pragmatism is to a large extent rooted in the philosophy of his Harvard PhD advisor, C. I. Lewis. Yet, according to Sellars, Lewis' theory of knowledge remains crippled by an obsolete foundationalism and has to be overcome: hence his unqualified rejection of any indubitable given element in the analysis of knowledge. In this paper, I will suggest that such an objection is unwarranted and rests on a common but still deeply misleading mistake with respect to Lewis' conceptual pragmatism.

Robert Greenleaf Brice, Loyola University

#### **Defending Common Sense: Moore and Wittgenstein**

Abstract: Both Moore and Wittgenstein advocate common sense in order to combat skepticism. By "common sense," Moore refers to those "things which we...are sure that we know to be true." Because a common sense proposition is basic, we cannot offer any further support; we simply know it to be true. Wittgenstein, however, thought it might be possible to "defend common sense against the attacks of the philosophers," but insisted that this could only be done by first "curing them of the temptation to attack common sense; not by restating the views of common sense." In order for this sickness to be treated, Wittgenstein recommends a kind of therapeutic philosophy, which will help "cure [the] many diseases of the understanding," and bring us back to "the notions of common sense."

Matthew Carlson, Wabash University

#### **Understanding Quine's Epistemological Project**

Abstract: What is Quine's major contribution to epistemology? To many contemporary philosophers, the answer seems obvious: Quine initiated and inspired the program of "naturalized epistemology", according to which epistemology is "contained in natural science". And what is the distinctive task of epistemology, so characterized? According to the standard story, the task of naturalized epistemology is simply to explain how we form the beliefs that we do; it is the task of explaining the relationship between the "meager input" of observation and the "torrential output" of scientific theory. But this is not the sole task of Quine's epistemological project, or so I argue. In particular, I argue that the central task of naturalized epistemology is to *understand* science from within.

One way in which this task manifests is in the task of explaining the link between stimulus and science. But another way, perhaps more important, is the task of *understanding* our current best scientific theories. But what does it mean to *understand* something, for Quine? I develop an answer to this question that helps to explain why the "conceptual side of epistemology" really is epistemology, and why the pursuit of understanding is the distinctive task of naturalized epistemology.

Matt Chick, Washington University and Matt LaVine, SUNY Buffalo  
**Public Philosophy, Public Reason, and the Publicly-Verifiable**

Abstract: One of the most exciting recent trends within philosophy has been the construction of an autonomous sub-discipline of *public philosophy*. Our Chick & LaVine (2014) argues that, despite this representing an important step in recognizing the connection between philosophy and the public, that there is such a connection has at least implicitly been at the heart of philosophy since its inception. Contrary to the pronouncements of a number of prominent philosophers, this is even true of the early analytic tradition (1900-1970). Here, we show how misunderstandings of early analytic philosophy writ large has led to misunderstandings of middle analytic (1970-1995) political philosophy.

Matthew Childers, University of Iowa  
**Kant and Wittgenstein on Substance**

Abstract: Ian Proops argues that the ontological category of "substance" (*Substanz*) that Wittgenstein employs in the *Tractatus Logico-Philosophicus* is rightly understood as the "modal analogue" of Kant's temporalized definition of substance. In this paper, I critique the metaphorical-analogical argument that Tractarian substance is in some sense theoretically analogous to Kant's conception of substance and contend that the purported analogy fails on account of the numerous conceptual differences and implications of substance as construed by Wittgenstein and Kant. Interesting theoretical threads of similarity notwithstanding, understanding the early Wittgenstein as a *Kantian* on "substance" is significantly problematic.

James Connelly, Trent University  
**On some Expository Errors regarding Wittgenstein's Operator N**

Abstract: Concerns about the expressive completeness of Wittgenstein's operator N have led some scholars to suspect that Wittgenstein may have been guilty of an elementary logical blunder. Other scholars have noted the low probability that, if Wittgenstein had committed an elementary blunder, exceptionally competent reviewers of the day, such as Russell and Ramsey, would have let it pass. In this paper, I will show that there was no blunder and thus that there was nothing to let pass. The idea that

Wittgenstein's operator N is expressively incomplete, instead rests on several interrelated expository errors.

Richard Creath, Arizona State University

### **Carnap, Quine, and Convention**

Abstract: Quine's "Truth by Convention" is sometimes said to provide a conclusive refutation of Carnap's view that logic is in a sense conventional. Here I briefly examine the role of convention in Carnap's mature philosophy and go on to analyze Quine's paper to see if it provides a decisive argument against Carnap. I argue that it is highly unlikely that this paper was ever intended as an attack on much less as a refutation of Carnap. Moreover, some parts of Quine's paper make little if any contact with Carnap; some parts are clearly defenses of Carnap; and some parts, including the famous you-need-logic-to-get-logic argument, simply misfire when construed as directed at Carnap.

Gary Ebbs, Indiana University

### **Carnap on Ontology**

Abstract: My central goals here are to show (first) that, contrary to the standard reading of Rudolf Carnap's classic essay "Empiricism, Semantics, and Ontology" (ESO), all of the general existence statements Carnap aims to clarify and defend in ESO—not only those about abstract objects, such as "There are numbers," but also those about concrete objects, such as, "There are physical objects"—are, when viewed in the way Carnap recommends in ESO, analytic (i.e. settled solely by the rules of the languages in which they are expressed) and trivially so (i.e. derivable from them in a few simple steps); and (second) that this surprising claim is key to understanding how Carnap proposes in ESO to identify and eschew ontological questions.

Landon Elkind, University of Iowa

### **A Theorem of Infinity for *Principia Mathematica***

Abstract: I prove a theorem of infinity for Principia Mathematica. Proving this theorem requires altering the formulation rules of Principia, but the adjustment is minor and is supported by Principia informal conventions concerning relative types. The key idea is to allow for infinitely descending (relative) types just as there are infinitely ascending (relative) types. The proof critically depends on the proposition that at every type at least one individual exists. This proposition, however, is a theorem in Principia and in standard quantification theory. Given the existence of one individual, the existence of infinitely many follows. Thus, a core objection to Logicism dissipates.

Paul Franco, University of Washington

**'Like offering a text-book...to someone who says (with a sigh)...that he wished he understood...the human heart': 'Ordinary Language' Criticisms of Logical Positivism**

Abstract: As evidenced by the debates in 1967's *The Linguistic Turn*, philosophers of science and philosophers in more mainstream sub-disciplines like philosophy of language engaged one another more often than they do now. Yet 'ordinary language' criticisms of logical positivism have not received a great amount attention in the history of recent analytic philosophy (especially when compared to the literature devoted to Quine's and Kuhn's respective criticisms). This paper looks at aspects of the ordinary language critique to fill out recent historical work challenging the standard narrative about the demise of logical positivism as a dominant research program in analytic philosophy.

David Godden, Michigan State University

### **Revisiting Frege's Epistemology: Frege on the nature of proof and justification**

Abstract: Kitcher's (1979) 'Frege's Epistemology' attributes to Frege a psychologistic account of knowledge based on a traditional conception of proof whereby "the nature of the process which produces belief is crucial to the epistemic status of the belief." I argue that such a reading misrepresents Frege's views both on the nature of logical proof – which does not represent psychological processes – and on the nature of justification – which pertains not to psychological states, but their contents.

Warren Goldfarb, Harvard University

### **"Showing"**

Abstract: A close examination of the passages of the *Tractatus* in which Wittgenstein explicitly talks about what sentences may show, rather than say, reveals that his notion of showing licenses far less than many commentators have imputed to it (e.g., Anscombe, Hacker, Pears). Its explicit purview lies squarely in the philosophy of logic, not in metaphysics. Thus showing cannot be used as support for irresolute (non-austere) readings of the book. Also there is little textual or logical relation between "zeigen" and "sich zeigen", between "showing" and "making manifest", to use the Pears and McGuinness translation. Conflating these has confused readers, although the different purposes to which Wittgenstein puts the latter notion remain puzzling.

Daniel W. Harris Hunter College and Elmar Unnsteinsson, University College Dublin

### **Wittgenstein, Austin, and the Origins of Speech-Act Theory: A Preliminary Report**

Abstract: We compile and assess the currently available evidence for Wittgenstein's influence on Austin's philosophy of language, with special emphasis on the theory of speech acts. It is sometimes claimed, particularly by those who knew Austin, that Austin was not influenced by Wittgenstein. We argue that these claims are unfounded, and use textual and circumstantial evidence to show that Austin's work demonstrates substantial engagement with Wittgenstein beginning in his 1940 essay, 'The Meaning of a Word'.

Yousef Hasan, University of Western Ontario  
**Quine's Flight from Analyticity: Reassessing his Empirical Challenge to Carnap**

Abstract: I will explore Quine's empirical challenge to Carnap's analytic/synthetic distinction. Quine's demand for Carnap in the *Two Dogmas* is to show the intelligibility of analyticity by expressing the notion in empirical terms. I argue that Quine actually weakens his 1951 position by surprisingly proposing empirical conceptions of analyticity in 1960, 1973, and 1992. According to Quine, his notions are behaviouristically respectable and therefore intelligible, but they are not good enough to play the heavy-duty role needed in Carnap's program. I show that once we understand Quine's empirical demands in a reasonable way, Carnap is no longer required to present a robust empirical notion of analyticity. He is instead free to provide rational reconstructions of analyticity without any empirical worry.

Kazutaka Inamura, Hirosaki University  
**Carnapian Explication in the Context of Definition Theory**

Abstract: My paper will examine the significance of Carnap's explication for formulating philosophical concepts in the context of definition theory. In particular, I will argue that unlike a traditional intuitionistic approach, Carnap effectively incorporates the element of an empirical approach into his method of philosophical explication, though in a different way from the recent experimental philosophy arguments, and that his explication method can play a leading role in clarifying philosophical concepts without committing to the problem of arbitrariness or subjectivity.

Sam N. Johnson  
**Ryle the Functionalist**

Abstract: Gilbert Ryle's argument against "the dogma of the ghost in the machine" in *The Concept of Mind* raises the question whether his rejection of Cartesian dualism points toward a commitment to materialism. I argue that Ryle is a functionalist who should be seen as a non-reductive materialist. Ryle's issues with Cartesian dualism show he does not want to eliminate internal mental states, proving he is neither an eliminative materialist nor a behaviorist. I examine why Ryle fits the profile of a functionalist versus a logical behaviorist through his commitment to explanatory functionalism and the multiple realizability thesis.

Tim Juvshik, McGill University  
**Against a Neo-Quinean Meta-ontology**

Abstract: Quine's doctrine of ontological commitment has become an influential meta-ontological doctrine, recently defended by Peter van Inwagen. The doctrine suggests that by putting the existentially quantified sentences of ordinary language into the

quantifier-variable idiom of first-order logic the ontological commitments of those sentences become clear. If the ontological commitments are undesirable, then paraphrases must be given that don't quantify over those entities. From this, debates over paraphrase have arisen that don't appear to make any progress. I criticize the doctrine prior to use of the paraphrase strategy by arguing that from the truth of the existentially quantified sentences we accept, no ontological commitments can be evinced because multiple rival ontologies are compatible with the truth of those sentences, regardless of one's account of truth. As a result, the doctrine of ontological commitment cannot help clarify ontological disputes in a non-question-begging way, and thus has nothing to recommend it as a meta-ontological position.

Juliette Kennedy, University of Helsinki

### **Tarski and the "mathematical"**

Abstract: From the beginning, much of Tarski's work in logic was motivated by a preference for "mathematical", or "very mathematical" definitions of logical concepts, over metamathematical ones. Fraisse's characterization of elementary equivalence by means of a "purely mathematical" definition, as Tarski called it, is one example. Vaught suggests in his account of Tarski's work in model theory [1], that Tarski's guiding principle, as we will call it, resting as it does on the distinction between the "purely mathematical" and the metamathematical, may not have a precise content, "as a precise distinction between "mathematical" and "metamathematical" might well be considered to be impossible because of Tarski's definition of truth."

In this talk I will suggest that Vaught's remark has interesting foundational implications, both for any consideration of Tarski's own view and in terms of the wider foundational ramifications.

Alex Klein, California State University

### **Anarchism and Morbid Melancholy: Was Russell Right about James on God?**

Abstract: Bertrand Russell once wrote: "The advantage of the pragmatic method is that it decides the question of the truth of the existence of God by purely mundane arguments, namely by the effects of belief in His existence upon our life in this world. But unfortunately this gives a merely mundane conclusion namely that belief in God is true, i.e. useful, whereas what religion desires is the conclusion that God exists, which pragmatism never even approaches." This essay evaluates one of Russell's central objections to pragmatism by looking specifically at what William James had to say about belief in God. I distinguish two different projects James pursued, in this vein. The first is *therapeutic*. In an age of rampant suicide and crippling poverty, James explored the life-or-death implications (as he saw it) of choosing to believe in either of two competing conceptions of God. The second project was *theoretic*. It asked which religious belief is ultimately *true*. In one sense, Russell was right—James thought "the effects of belief in [God's] existence upon our life" was a therapeutic question worthy of serious philosophical reflection; and Russell was right that James saw the therapeutic

question as having some theoretic relevance. But in reducing James's reflections on the therapeutic implications of religious belief to the single word "useful," Russell's construal of these issues as "mundane" was predicated on a caricature. And what is more, James carefully circumscribed the theoretic relevance of this sort of therapeutic analysis about God, and in doing so offered a pragmatic conception of religion that is far more attractive than Russell seems to have grasped.

Kevin Klement, University of Massachusetts

### **Russell's Logicism Reevaluated**

Abstract: Russell's form of logicism, as advanced in *The Principles of Mathematics* (1903) and *Principia Mathematica* (1910-13), is widely viewed as a failure, even by Russell himself later in his life. Some of the most common reasons cited against it--such as Goedel's results--clearly miss the heart of the issue. Others, such as Putnam's charge of "if-thenism", and the difficulty of his failing to establish the existence of infinitely many mathematical "objects", are more problematic. In this paper, I attempt to place the aspects of Russell's work that give fuel to these objections in the context of his larger views in logic and metaphysics in order to show that they may not be as damaging to his logicism as they may seem. Additionally, I argue that if we are open to at least mild forms of revisionism in our philosophy of mathematics, Russell's form of logicism still has a strong claim to have been a success.

Sandra Lapointe, McMaster University

### **Methodological Perspectives on the History of Logic**

Abstract: TBA

Andrei Marasoiu, University of Virginia

### **What is it to understand?**

Abstract: Understanding plays a major role in our everyday life. Recent views about the nature of understanding face significant problems, surveyed in section 1. Such views focus on: experience (Bourget 2015), enhancing coherence (Kvanvig 2003), inferences (Grimm 2006), explanations (Strevens 2013), or skilled problem-solving (Zagzebski 2001). A new, unified, approach to understanding is needed. In section 2, I analyze Wittgenstein's (1953/1958) remarks. They suggest that what confounds theorizing is that linguistic ascriptions of understanding may be divorced from the psychological reality of what it is to understand, which might consequently fail to explain when ascriptions are appropriate.

Kevin Morris, Tulane University

### **Revisiting Moore's Critique of Organic Unity**

Abstract: In several of his early works, most notably in "The Refutation of Idealism" and *Principia Ethica*, G.E. Moore claimed that a prominent, broadly monistic notion of "organic unity" could be shown to be self-contradictory. I argue, first, that Moore's most plausible critical point is that the monistic notion of organic unity both requires and precludes the unqualified truth of attributions of parthood. I then explain why Moore's case nonetheless might not have much force against at least some of its targets. Finally, I explain how Moore's critique of organic unity might bear on Jonathan Schaffer's recent defense of monistic metaphysics.

Sean Morris, Metropolitan State University of Denver  
**Russell, Idealism, and the Emergence of Scientific Philosophy**

Abstract: In recent years valuable contributions to our understanding of Russell's early philosophy have been made by looking carefully at his rejection of idealism in his turn to logicism. Much less has been said about any positive lasting influence the idealists may have had on him as his philosophy continued to develop. This paper will look at continuities between this early period and his later advocacy of scientific method in philosophy. In particular, it will attempt to locate Russell in the broader tradition of scientific philosophy by way of some of these early idealist influences. I focus specifically on Sigwart, who the early Russell once described as his "favorite among modern German philosophers". In particular, we see Sigwart's logic, which, as was standard in the nineteenth century, included methodology, yielding many of the key themes that Russell would later put forth in his appeals to scientific method in philosophy.

Andrew Parisi, University of Connecticut  
**Carnap's Tractatus Logico-Philosophicus**

Abstract: This paper locates the point at which Carnap's Logical Syntax of Language diverges from Wittgenstein's Tractatus Logico-Philosophicus. The thesis is that the only place that Carnap and Wittgenstein disagree, from Carnap's perspective, is on how many languages there can be. The methodology of this paper uses Carnap's translations of some propositions of the Tractatus into the formal mode of speech. It proposes a translation of other propositions on that basis. The upshot of the longer translation is that it makes clear what Carnap regards the claims of the Tractatus Logic-Philosophicus to be and exactly where Carnap differs from Wittgenstein.

James Pearson, Bridgewater State University  
**Caring for Quine's "Don't-cares"**

Abstract: In *Word and Object*, Quine refers to an explication's novel features as "don't-cares," crediting the expression to "computer-machine scientists." This paper traces the

origin of this phrase to an algorithm that Quine developed in the 1950s, which became important in early computer engineering. Computer scientists came to realize that it was in their communal best interests to abandon the "don't-care" attitude. Do naturalists similarly have reason to adopt a more careful approach? Explication, I argue, is an instructive case for thinking about how naturalists should balance the sometimes-competing demands of individual and collective inquiry.

Consuelo Preti, The College of New Jersey,  
**"Fraternally Yours": The Curious Bond Between Moore and Russell**

Abstract: TBA

Phillip Ricks, University of Iowa  
**"How Was the *Tractatus* Meant to be Read?" Sub "Walking the Paths of the *Tractatus*."**

Abstract: I argue that while Bazzocchi's hypertext edition of the *Tractatus* and construal of the book as a logical tree (<http://www.bazzocchi.com/wittgenstein/>) sheds considerable light on its structure and how it should be read, it cannot settle longstanding substantive interpretive debates. While I agree with Bazzocchi that 'consecutive' readings are inadequate, I propose that readers need to adopt varying reading strategies. I then argue in favor of a 'paths' approach, which (1) provides a one-glance 'map' of the structure of the *Tractatus* and (2) allows us to more perspicuously represent the various arguments in the text than a tree representation.

Marcus Rossberg, University of Connecticut (joint work with Andrew Parisi)  
**Sellers's Debt to Carnap: Abstract Entities**

Abstract: TBA

Vladimir Seliverstov, National Research University Higher School of Economics  
**The meaning and significance of dispute on objectless presentations**

Abstract: This paper considers the evolution of understanding and the status of objectless presentations in the works of the three main authors of this tradition: "The Theory of Science" by B. Bolzano, "On Content and Object of Presentations" by K. Twardowski and "Intentional Objects" by E. Husserl. A critical analysis of these positions on objectless presentations is very interesting, because here in one point, in one discussion, we have several very important philosophical theories that have had an impact on the philosophical debates in the twentieth century.

Stewart Shapiro, Ohio State University  
**Potential Infinity: a modal account**

Abstract: Beginning with Aristotle, almost every major philosopher and mathematician before the nineteenth century rejected the notion of the actual infinite. They all argued that the only sensible notion is that of potential infinity. The list includes some of the greatest mathematical minds ever. Due to Georg Cantor's influence, the situation is almost the opposite nowadays (with some intuitionists as notable exceptions). The received view is that the notion of a merely potential infinity is dubious: it can only be understood if there is an actual infinity that underlies it. After a sketch of some of the history, our aim is to analyze the notion of potential infinity, in modal terms, and to assess its scientific merits. This leads to a number of more specific questions. Perhaps the most pressing of these is whether the conception of potential infinity can be explicated in a way that is both interesting and substantially different from the now-dominant conception of actual infinity. One might suspect that, when metaphors and loose talk give way to precise definitions, the apparent differences will evaporate.

As we will explain, however, a number of differences still remain. Some of the most interesting and surprising differences concern consequences that one's conception of infinity has for higher-order logic. Another important question concerns the relation between potential infinity and mathematical intuitionism. We show that potential infinity is not inextricably tied to intuitionistic logic. There are interesting explications of potential infinity that underwrite classical logic, while still differing in important ways from actual infinity. However, we also find that on some more stringent explications, potential infinity does indeed lead to intuitionistic logic.

Andrew Smith, Indiana University

### **Frege's Conversion**

Abstract: In *Grundgesetze der Arithmetik*, Frege says that the possibility of converting from a value-range equality to the generality of an equality and *vice versa* is a basic law of logic. In *Reading Frege's Grundgesetze*, Richard Heck claims that the basic law of logic Frege mentions does not justify making an inference, but instead is a principle of epistemology that serves mainly to justify a stipulation Frege makes when introducing his concept-script. I challenge Heck's claim in this paper.

Peter Sullivan, University of Stirling

### **On the Origins of The Identity Theory of Truth**

Abstract: One key step in the origin of analytical philosophy was taken with Moore's and Russell's rejection, in 1898, of what Russell called the 'existential theory of judgement', and its replacement by what was later called an 'identity theory' of truth. The importance of the step is well known, but there is much about how and why it was taken that remains, to me at any rate, mysterious: the most often cited reasons for it, e.g. those to do with the irreducibility of relations or the aim to accommodate truths about objects that 'have being' but don't 'exist', seem either to miss the point altogether or to be patently ineffective; and in any case, to have a reason for rejecting

the ‘existential’ view of judgement is not to have an understanding of how it is even *possible* to reject it, i.e. an understanding of what is wrong with those considerations that can seem to make such a view inevitable. My talk will outline some of the outstanding questions about this episode, hoping that colleagues can help answer them.

William Taschek, Ohio State University

### **Frege on Sense and the Normativity of Logic**

Abstract: I will argue that appreciating the fundamentally normative status of logic for Frege, while keeping in sharp focus his insistence that nothing is relevant to *sense* except what is of concern to logic, can provide significant insight into how Frege understood the individuation of thoughts—and, so, of senses more generally. After outlining the general contours of this proposal, I explore how it helps to shed light on some of Frege’s enigmatic 1906 remarks about “equipollent” sentences and (time permitting) on his understanding of the self-evidence of the basic laws of logic.

Clinton Tolley, University of California

### **Helmholtz's Psychology and the Distinction Between Sensation and Perception**

Abstract: TBA

Yi Tong, University of Minnesota

### **Two Views of Conceptual Analysis**

Abstract: In recent years, the method of conceptual analysis has been criticized in several areas of philosophy. An influential line of criticism follows W.V.O. Quine’s “Two Dogmas of Empiricism,” and takes the demise of analyticity to be a fatal rejection of conceptual analysis. In this paper, I argue that the critics’ conception of conceptual analysis is distinctively a Logical Positivist one. There was, however, a different conception of conceptual analysis to which the contemporary critics are oblivious, a conception that can survive criticisms based on Quine’s critique. Articulating and defending an alternative understanding of conceptual analysis is therefore an urgent task.

Joan Weiner, Indiana University

### **The Epistemological Project of the *Grundgesetze***

Abstract: Frege tells us that his *Grundgesetze* proofs are designed to show us the epistemological nature of the truths of arithmetic – that these truths are analytic. And he tells us that in order to establish this we need gapless proofs of the basic truths of arithmetic from logical laws. But *are* the basic Begriffsschrift laws – the laws from which he attempts to prove truth of arithmetic – laws of logic? Frege himself expressed doubt about Basic Law V, even in the preface to volume i of *Grundgesetze*. Why, then, did Frege think it *was* a logical law and what did he think he needed to do to convince his

readers of this? Richard Heck thinks the answer is obvious: Frege thought that he had a semantic proof of Basic Law V and he expected this proof to convince his readers that it was a logical law. In his recent book, *Reading Frege's Grundgesetze*, Heck argues for this view and attempts to explain the semantic proof. I shall argue that Heck is mistaken. Frege does not give a semantic proof of Basic Law V. Indeed, Heck's assumption – that a semantic proof can show us that a basic law belongs to logic – is incompatible with Frege's explicit statements. Moreover, there is no mystery about why it is that Frege took Basic Law V to be a logical law.

Richard Zach, University of Calgary

### **Steinhardt on Variables**

Abstract: In 1940, Leigh Steinhardt submitted a dissertation to Radcliffe College entitled "The Variable in its Relation to Semantic Problems." It was the first dissertation supervised by Quine, but was never published. Steinhardt investigated variables in logic: their function, the relation between bound and free variables, the operation of substitution for variables, and whether variables could be eliminated from logic. These were questions that were very much current at the time, and occupied not just Quine but also Carnap and Curry, who are discussed extensively by Steinhardt. Indeed, Steinhardt's dissertation sheds light on this crucial period of the development of philosophy of logic and the role of the variable.