

“Recent Themes in the History of Early Analytic Philosophy”
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Abstract:

A survey of the emergence of early analytic philosophy as a subfield of the history of philosophy. The importance of recent literature on Frege, Russell and Wittgenstein is stressed, as is the widening interest in understanding the nineteenth century scientific and Kantian backgrounds. In contrast to recent histories of early analytic philosophy by P.M.S. Hacker and Scott Soames, the importance of historical and philosophical work on the significance of formalization is highlighted, as are the contributions made by those focusing on systematic treatments of individual philosophers, traditions and periods in relation to contemporary issues (rule-following, neo-Fregeanism, contextualism, theory of meaning).

Current Trends in Scholarship: Recent Themes in the History of Early Analytic
Philosophy

1. *Introduction: An Emerging Field of Contemporary Importance*

Since the 1980s writing on the history of early analytic philosophy has grown remarkably in scope and philosophical subtlety, as analytic philosophy has stepped forward to claim its own, distinctive intellectual ancestry and legacy. As I see it, the growing resistance of scholars to historical oversimplification since the late 1980s reflects progress within contemporary philosophy, whether it goes under the name “analytic” or not. The once commonplace idea that analytic philosophers define themselves by denying the relevance of historical understanding to

philosophical insight has been questioned, and philosophers trained in the analytic tradition have begun to develop their own accounts of its contributions to the history of twentieth century philosophy. As this history is written, the account of early analytic philosophy is likely to impact directly on present research programs in all areas of philosophy; this is one of its most interesting and important features.

The main aim of this essay is to discuss some notable trends in the field over the last quarter century, with the non-specialist in mind. Since a survey of work on even one subfield or main figure would vastly exceed the confines of a single essay, I shall not delve deeply, but paint partially and with broad brushstrokes, attempting two things: 1) to sketch a portrait of the emergence and character of the field and 2) to emphasize the signal importance of work on Frege and Wittgenstein within it.

"Early analytic philosophy (including Wittgenstein)" is now acknowledged by the Leiter report as an area of professional specialization in which graduate programs in the English-speaking world can excel, forming one of eight in the history of philosophy overall (www.philosophicalgourmet.com). By stopping with Wittgenstein a rough chronological line is drawn around "early"; singled out by name, Wittgenstein is enshrined, like Kant, as a pivotal figure standing somewhat on his own, while linked to others in a clustered tradition. This is appropriate: while Wittgenstein scholarship forms a subfield in its own right, overlapping with many areas of philosophy, a good deal of the most influential interpretive work on Wittgenstein over the last twenty-five years has gained its force from locating his work against the background of those who immediately influenced him, those whom he immediately influenced, and those contemporaries with whom he may be compared. How and where best so to locate him is, of course, a matter of ongoing discussion; this will be one of my themes in what follows.

Another aim of this essay will be to endorse a broad, optimistic, and inclusive portrait of work on early analytic philosophy, one which emphasizes its evolution and its connections with other areas of research. The literature on each figure and theme is increasingly vast, variegated, and international; the references I collect here in footnotes are intended to form a brief guide or sampler, primarily consisting of works in English, exemplifying my most important overarching themes. The field has by now shifted to a less Anglo-centered sphere, but I am offering here a mere snapshot or simplified historiography focused on its emergence. I take Frege scholarship to have been, overall, of the highest caliber in terms of importance for the emergence of the field in the last two decades, enjoying what Robert Brandom has aptly called “the outset of a golden age”¹; the bridge from work on Frege to contemporary philosophy of logic and language and to scholarship on Wittgenstein has been especially important, and this shall be my main focus. But it is important to stress at the outset that our understanding of both Frege and Wittgenstein has been especially enriched in recent years by attending not only to the interplay of their philosophies with one another, but also to the background engagement of their thought with Kant, Moore, Russell and others, including philosophers in the so-called “Continental” tradition in twentieth century philosophy. So it is worth stressing that excellent and influential writing has also appeared in recent years on Moore, Russell, the logical positivists and others who influenced (and were influenced by) them.

Philosophically incisive efforts to achieve historical overviews have led to a much better understanding of the distinctive forms of progress that philosophers have made over the last fifty years. In my view the broadening pluralism of approach within the field has served to help rather than hinder its ongoing effort to consolidate, refine and prioritize discussion about fundamental problems and questions today. Here philosophical history, whether thematically

sweeping or more narrowly focused on technical or textual detail, serves the important role of touchstone and inspiration for new philosophical ideas, providing both rearrangements of the current conceptual landscape and synthetic, orienting treatments of branches of research that have become too fragmented or ramified in complexity for the lay person or beginning researcher easily to understand.

On the whole it has been large-scale themes to which early analytic scholars of the last twenty-five years contributed in a variety of ways:

- Some contributions have been to traditional forms of history of philosophy, an effort to understand early analytic philosophy as a natural outgrowth of the history of modern philosophy since at least Kant. These works have stressed connections with the rise of modernism,² with fundamental theories of the nature of the proposition and the break with Idealism, with Kantian and Idealist views of perception, mathematics and logic, with nineteenth century naturalism, the rise of psychology and the ideal of a unified scientific worldview.³ A by-product of this result has been renewed interest in an historical approach to twentieth century problems of normativity, naturalism, and the legacy of German idealism.⁴
- Some contributions have been more purely historical, primary editorial and/or contextual contributions. Important biographies and writings of major figures appeared,⁵ as have new editions and/or newly discovered works of Frege,⁶ Russell,⁷ and Wittgenstein,⁸ some in electronic form.⁹ While these have not shed uniformly clear light on the philosophical issues,¹⁰ they have contributed to (and

evinced) the emergence of the field as an ongoing enterprise. In the 1990s the historical background in logic, the foundations of mathematics, and physics was fleshed out, bringing an understanding of the philosophy of analysis and geometry into view, where they had been previously underemphasized.¹¹ Scholars also focused more carefully on the evolution of anti-psychologism¹² and the concepts of analyticity and *a prioricity*.¹³ Investigations of the origins of analytic philosophy in relation to phenomenology and other traditions have intersected with current debates about intentionality and perception.

- Some contributions have been new philosophical or conceptual analyses: interpretive reexamination of forebears' arguments has directly inspired the creation of novel projections of their ideas within contemporary philosophy. New lines of research have been inaugurated in such fields as the history and philosophy of science (e.g., in the historical reassessment of logical positivism), philosophy of mathematics (e.g., Frege-inspired neo-logicism and rationalism¹⁴), philosophy of language and mind (criticisms of conceptual role theories and of functionalism, as well as the formulation of anti-representationalist views of meaning, articulated through, for example, the rule-following considerations, a continuing literature initiated by Fogelin, Wright and Kripke¹⁵), ethics (discussions of realism about ethical properties¹⁶) and epistemology and the philosophy of perception (anti-representationalism¹⁷, contextualism¹⁸, and realism¹⁹), to enumerate only a few.

Although it is accurate to take much of this writing to fall under areas of specialization that are recognizably contemporary rather than historical, the construction of narratives about major figures in the earlier period played a crucial role in the articulation of these new lines of research, which are thus best viewed as forming part of a larger tradition. The important point is that revisiting of founding texts has not only brought nuance and correction to previously somewhat caricatured or too-easily-glossed discussion of well-known themes and figures; it has also helped to spark new areas of discussion, especially within philosophy of language and mind, epistemology, and in philosophy of logic and mathematics--core fields, historically and conceptually, of analytic philosophy as a distinctive tradition.

In the wake of this work, multiple traditions of interpreting figures such as Frege, Russell, and Wittgenstein have emerged: they are now read as comprehensive thinkers, demanding care and subtlety in the extraction of problems and approaches from their work. Attention has been focused on the evolution of their views, singly and in relation to one another and to others, some of whom lie outside the canonical range of "early analytic" thinkers. Frege's *Sinn/Bedeutung* distinction is now appreciated to have appeared only after 1891, for example, and its role within the evolution of his overarching logicist and general philosophical project is more widely debated; Wittgenstein is now often divided into the early (1911-1919), the middle (1929-1934), the later (1934-1948) and latest (1949-51) periods, but there is much discussion of how far the evolution and content of his thought forms a unity. Most of the major figures, including so-called logical positivists, now enjoy a variety of manners of appropriation, some of which differ markedly from their initial receptions and from received ideas about their work that were common coin two generations ago. Some lines of interpretation involve more intensive comparative work on clusterings of figures: Frege-Russell-Wittgenstein emerged, for example,

as a canonical trio for scholarly and pedagogical focus,²⁰ as did Frege and Husserl²¹, Husserl and Wittgenstein²², and Moore and Wittgenstein²³. Interdisciplinarity became a hallmark of the field as well. The history of the philosophy of science emerged as a subject of research in its own right (the International Society for the History of Philosophy of Science (HOPOS) was founded in 1992, and numerous societies for the study of analytic philosophy were founded across the world, especially in Central and Eastern Europe and Latin America). Thus has analytic philosophy been recast as a self-critical, adaptive tradition not subject to simple dismissal by means of caricatures of yore.

Most striking of all is how scholarship of the last twenty-five years has sometimes revealed a greater philosophical distance between the ideas and arguments of canonical figures and the contexts in which they are invoked today, and sometimes a greater proximity, thereby uncovering a surprising relevance of their earlier ways of thinking to the contemporary scene. Their relative “foreignness” and “nearness” to contemporary philosophical concerns, frequently discussed by those writing on the early analytic tradition²⁴, are part of what make this an interesting case study in the history of philosophy. This reflects the contemporary state of the subject as a whole, as it casts about for identity, distinction, and historical self-definition. It also reflects increased clarity about the limitations of the frameworks for thinking about concepts and meaning that were inherited from Frege, Russell, Wittgenstein and Carnap. Discussions of Wittgenstein have long revolved around questions of the foreignness or nearness of his thought to the rest of philosophy (analytic and otherwise); what is interesting and new in the last twenty-five years is that similar comments and debates have come to be made also about Frege's philosophical writings, and partly because their impact upon Wittgenstein has come to be more finely weighed and understood. The field has been able to fashion novel criticisms of

contemporary philosophical presuppositions that have come to seem well-established or unavoidable, as well as to codify points of progress. How purely "historical" an interpretation is--as opposed to how "philosophical"--has thus become a complex matter of degree, taste, and purpose.

These developments are to be welcomed. Most of the canonical figures have their contemporary advocates, so that philosophical arguments about what the words of a classic text mean hash themselves out in the shadow of debates about the strengths and limitations of contemporary positions in the philosophy of mind, language, logic and mathematics.²⁵ Willingness of its practitioners to construct narratives and play the role of informed critic or broker between parties has made the field of early analytic philosophy of wider interest, for these philosophers' individual legacies within contemporary philosophy still shape the concepts we have to hand, and positions stemming from one or another figure continue to profit from mutual confrontation, even where ideas have been adapted, developed, and at points intertwined with one another. Reconstructing and triangulating the respective weights, lines and character of influences among these early canonical figures has become a fruitful philosophical tool for better understanding the weight, character and complexity of their original ideas, especially when it is tethered, as it has been in the best recent work, to careful reflection on argumentative structure and/or the use and application of relevant historical understanding of background contexts in the areas of logic, mathematics, psychology, and general cultural history.

2. *Contrasting Views of the Field*

The foregoing general points are worth making if only because there are accomplished scholars of analytic philosophy with historical interests who have criticized what they regard as

the lack of engagement of recent scholarship on early analytic philosophy with current philosophical problems and practice. Hacker’s *Wittgenstein’s Place in Twentieth Century Philosophy* and Soames’s *Philosophical Analysis in the Twentieth Century*--two recent, widely read works--are instructive in this regard.²⁶ For beginning students or lay readers seeking a quasi-historical introduction to certain issues in the philosophy of language, as well as a vivid example of slide-fitting, premise/conclusion rendering of argumentation, Soames’s text, which emerged directly from his undergraduate lectures at Princeton²⁷, fills a niche: here we see canonical texts reconstructed by an accomplished contemporary philosopher of language. Offering a more wide-ranging, detailed, and thematically integrated treatment, Hacker’s command of the British tradition, of scholarship on Wittgenstein through the early 1980s, and of the details of the views of particular figures is impressive. Neither Hacker nor Soames fails to shy away from bold strokes and opinionated, if controversial, argumentation--least of all with each other.²⁸ It is to be hoped, however, that the attention their disputes has generated will not distract readers from the wider, more substantial areas of consensus in the field that are not discussed by either one of them. In fact neither manages to exploit, appraise, or convey the large-scale excitement and philosophical sophistication of the themes that have preoccupied those who are to my mind the most important scholars of early analytic philosophy over the last twenty-five years. Hence the thrust of my survey here, which is intended to offer a contrasting, more sympathetic and synthetic point of view on the field in its recent evolution.

Hacker and Soames hold less methodologically plural perspectives than my own. Each seems to view the last decade of work on early analytic philosophy as lamentable or irrelevant. Soames despairs of those who merely “investigate highly specialized topics in finer and finer detail” and do not go “beyond the antiquarian study of minor works, unpublished manuscripts

and private correspondence to develop a broad and useable picture of where we are now and how we got here” (Soames, “What is History For?”, 654) He draws the familiar and quite legitimate distinction between those interested in “genuine accomplishments” and those pursuing history merely “for its own sake”, but writes as if he is a lone gunman protecting the borders and caliber of the field from relativists, antiquarians, and neophytes. Such is hardly the case. Hacker, for example, fits none of these labels. Yet Hacker’s narrative of twentieth century analytic philosophy serves, perhaps unwittingly, to reinforce Soames’s dim and truncated view of recent work in early analytic philosophy.²⁹ According to Hacker, contemporary analytic philosophers of language who give thinkers like Tarski, Quine and Davidson credit for insights are reliving the ghostly and erroneous specter of the *Tractatus*, having failed to learn from the history of Wittgenstein’s (and others’) evolution.³⁰ A corrective is best achieved, as Hacker sees it, by attending to the force of Wittgenstein’s later philosophy, which he reads as essentially critical and *a priori* in character, devoted to unmasking conceptual or grammatical confusions that lie behind metaphysical theses. Hacker takes Wittgenstein’s later ideas to debunk the whole idea of compositionality, which Hacker regards as confused in application to questions of meaning insofar as it is regarded as a constitutive principle.

One of the starkest limitations of both these works is that neither Hacker nor Soames relates his narrative to the story of how formal methods and mathematical models distinctively and productively engaged with the evolution of general philosophical problems and themes throughout the last hundred years--a story that is one on which a great deal of the most interesting recent scholarship on early analytic philosophy has focused. This in turn connects with the relative absence from their narratives of a theme I have already mentioned, but whose

consideration is too little explored by either Hacker or Soames: a reexamination of the Kantian legacy in twentieth century philosophy.

I shall return to the issue of Kant’s legacy below. Let us first turn to consider the theme of formal methods in philosophy. It is a pity that Frege is left out altogether from Soames’s book³¹, and the influence of Frege’s ideas and questions on Wittgenstein’s not emphasized more, or at least differently, by Hacker. These exclusions reflect, of course, their respective interpretations of Frege, i.e., their respective negative verdicts on Frege’s philosophy, that is, his philosophy of language as they read it. Hacker clearly takes the emphasis in recent Wittgenstein scholarship on Wittgenstein’s debts to Frege to be exaggerated and misleading; he has gone so far as to argue that Frege is not really a central figure in the history of analytic philosophy.³²

Yet Soames takes himself to be covering the essentials of analytic philosophy, and Hacker too claims that “the twentieth century can be said to have been the age of language and logic” (*Wittgenstein's Place*, ix). From an historical and/or a philosophical point of view the background context within logic and mathematics, and especially Frege’s contributions to this, were a *sine qua non* for the early analytic tradition. They also shape, nearly ineluctably, much contemporary discussion in philosophy of language, for some of the most important progress made in this area over the last two decades has been to recast and sophisticate our understanding of how the syntactic and semantic apparatus inherited from Frege and Russell does and does not play a foundational role (grammatical, cognitive and/or semantic) in analyzing meaning. In failing to explore accounts that foreground the logico-mathematical background to early analytic philosophy, Hacker and Soames preempt themselves from examining how recent literature on these figures has evolved, and also how it has contributed to contemporary epistemology and metaphysics. The price paid relative to scholarship of the last twenty-five years and to larger

questions spanning the history of twentieth century philosophy as a whole is significant, even when (as in Soames) detailed reconstructions of the formal logic lying behind texts like Wittgenstein’s *Tractatus* inform the presentation of essential ideas,³³ and acknowledgement is made of the centrality of the analytic tradition’s contributions to improved philosophical understanding of notions such as *logical truth*, *necessity*, and *logical consequence*. (In his review of Soames’s book Hacker is, quite correctly, critical of Soames for downplaying this leitmotiv; the larger logico-mathematical literature on the subject is, however, not taken into account or sufficiently attended to by Hacker in his own work, partly, I suppose, because his reading of Wittgenstein’s notion of grammar emphasizes its affinity with the tradition of ordinary language conceptual analysis emanating from Oxford since the 1930s.³⁴)

Soames states that “the two most important achievements that have emerged from the analytic tradition” between 1900 and 1975 are

- (i) The recognition that philosophical speculation must be grounded in pre-philosophical thought; and
- (ii) The success achieved in understanding, and separating from one another, the fundamental methodological notions of logical consequence, logical truth, necessary truth, and a priori truth (*The Dawn of Analysis*, xi)

Moore in particular is credited by Soames with having injected into the heart of the analytic tradition (what Soames takes to be) a laudable embrace of a “pre-philosophical thought” and “common sense”, thereby distinguishing analytic philosophy as a tradition. I do not wholly disagree, and both Soames and Hacker are to be commended for making Moore central in each of their respective narratives. But “pre-philosophical thought” or “common sense” are notions whose content and validity are unclear (witness the growing interest of philosophers in empirical

literature on, e.g., bias) and unobvious as a way of understanding Moore's own most influential positions (on, e.g., propositions, truth, and sense data³⁵). (One might add that part of the point of history is, after all, to critically interpret what is taken to be commonsensical in one or another philosopher or time or place.) Moreover, these notions are nearly impossible usefully to apply to notions such as "logical consequence" or "following with logical necessity". Here progress in rigorization on the logico-mathematical side has precisely left us wondering whether and in what sense we do or do not have a "pre-philosophical", intuitive conception of the phenomenon at all. This is a revolutionary point in the history of philosophy directly relevant to recent interest in philosophical logics and the more general topics of conventionalism and rule-following –topics quite important to contemporary philosophy of mind and language, as well as the future of logic within the philosophical curriculum.³⁶ The history of analysis of the notions of logical necessity and logical consequence is, as Soames says, essential to the analytic tradition, but consideration of the background efforts at rigorization—e.g., in work of Carnap and Gödel—is essential, both for an understanding of the philosophical problems themselves, and for recent literature on early analytic philosophy as a whole. Sufficiently detailed consideration is lacking in both Hacker's and Soames's accounts.

As a result, many of their critical remarks (e.g. on Quine) suffer from superficiality. Carnap and the role of the wider issue of formalization is not mentioned by Soames—as Hacker himself points out.³⁷ But even in Hacker virtually none of the very high quality and high profile recent literature on Gödel and Carnap is mentioned or attended to.³⁸ Despite what is suggested by Soames's i) and ii) above, few have or have had clear commonsensical ideas about what form an analysis of the notions of logical necessity and logical consequence should take, although most took the project of their analysis to be of crucial importance to philosophy. Certainly

Wittgenstein’s early work cannot be understood without attending to these issues. The historical evolution must be examined in all its complexity to have any idea of how it is that common sense or intuitive considerations may or may not bear on philosophical analyses of the notion, and why philosophers should care about its analysis in the first place.

Pace Soames and Hacker, it is the interplay *between* the work in logic, foundations of mathematics, and the rise of interest in language and modality that sparked off such excitement at the origins of the analytic tradition and contributed both to its glories and its oversights. To leave this interplay out of account is to leave out a theme of central importance, both to the broader historical narrative of the early analytic tradition and to recent scholarship in the field. Soames writes (*The Dawn of Analysis*, introduction) that “the philosophy done in this period [1900-1975] is...close enough to speak to us in terms we can understand without a great deal of interpretation”. In fact, as I document here, interpretive work of the last two decades is precisely what placed the subject on the map, drawing the study of early analytic philosophy into what is may be thought of as the “lingua franca” of the history of modern philosophy (and nineteenth and twentieth century mathematics) generally.³⁹

Rather than pursuing an interest in rooting philosophy in common sense, plain speech, and absolutely compelling arguments (Soames's story), or in using conceptual analyses to prosecute *a priori* metaphysics and conceptual confusion at the bar of grammar (Hacker's), early analytic philosophers-- Frege, Russell and Wittgenstein in particular--struggled with how far we are to be able to delimit our conception of the rational expression of thought and conceptual structure in language topic-neutrally, within the abstract, mathematicized setting of modern logic, logic which Frege and Russell had regarded as a maximally general (that is, univocally interpretable, universally applicable) branch of science. Each of this founding trio struggled with

the limits of empiricist philosophies of knowledge and logic, and with the difficult problems about how to regard the particular formalizations of logic they developed and preferred. What they were concerned to capture was the significance to philosophy of an enormous step forward in the rigorization of reasoning, especially the axiomatic practice of isolating first principles and of explicitly codifying the idea of a deductive proof. What they faced were the limits of the Newtonian and Kantian ideals of the unity of science under a few, mathematized principles. How much and which aspects of mathematics and other parts of thought could be rigorized, and in precisely which ways, was a project proceeding hand in hand with the philosophical questions themselves, including those concerning the nature of logical analysis itself; appeals to common sense and ‘ordinary’ uses of concept words were never transparent or straightforward in this context.

The attempt to separate at one blow the history and philosophy of logic and mathematics from the history of early analytic philosophy is not new. Intellectual historians have tended to view the uses of formal methods and the development of set- or model-theoretic semantics in philosophy as a sterile, defensive, dead-end, a dry intrusion of scholastic detail into philosophy reflecting primarily the large-scale bureaucratization and/or professionalization of the discipline, including a withdrawal from political engagement.⁴⁰ Symbolic logic has of course become specialized and interdisciplinary, embedding itself in areas outside academic philosophy and growing in mathematical refinement; many philosophers are inclined to defer to the experts and withdraw their interest from overly "technical" fields altogether.⁴¹ Within mathematics as a whole (and even within “pure” mathematics), the study of logical foundations is also regarded as highly specialized, rather than of founding importance for the field as a whole. With a trend toward bringing ethics, political philosophy, philosophy of law and aesthetics more into the fore,

questions are asked that outstrip the philosophical frameworks and questions inherited from mid-century positivism and 1970s philosophy of language. (The question has however been raised whether the history of analytic philosophy itself might better be told as a history of moral philosophy rather than one of epistemology (as in the narratives constructed by Rorty and Coffa).⁴²) Some, including Hacker and Soames, have suggested that the 1960s methodological ideas of ordinary versus ideal language philosophy fully explains the issues here, as if we were dealing with two different domains or philosophical methods. This allows us to forget that some of the most interesting post-Gricean philosophical work in the 1970s stemmed from work in linguistics, but also from the distinctive combinations of approach that became characteristic in philosophy of language of this time.⁴³ It also underestimates the still living and quite important influence of historical work on mathematics, logic and philosophy of science within the field of early analytic philosophy and modern philosophy as a whole.⁴⁴

It is interpretation of the contexts, purposes, and contents of utterances--literal, non-literal, complete, and otherwise—that will make sense of the last hundred years in philosophy, including its more formal elements. One of the virtues of recent literature in early analytic philosophy is its willingness to hew to an ideal of keeping the complex and evolving interplay between philosophy, science, logic and mathematics in mind in adopting a view on the last century. This has implications, not only for our understanding of ideas in the late Victorian era--the eclectic intellectual period from which early analytic philosophy, with its interest in unification, foundations, and axiomatics, emerged--but for our understanding of the present state of philosophy.

First, there is the fundamental and quite contemporary issue of compositionality in semantics and how we are to understand it. Is it an ideal, or a description, and in what sense? Is

subscription to it as a principle necessarily incompatible with a stress on the situation-dependent nature of the meaning of utterances? Here it is crucial to emphasize, with Michael Dummett, that

...the big difference between analytic philosophers and others is probably that all analytic philosophers assume something resembling the kind of semantics that underlies mathematical logic...not just compositionality as a general principle, but compositionality along with some idea of a syntax roughly like that of standard predicate logic. That's very vague and it might be difficult to apply it to some of the ordinary language philosophers. But I think that it is nevertheless their background and that it does distinguish analytic philosophers from others. Many pay very little attention to mathematical logic. Nevertheless, it's been part of the formation of all of them. It just enters into the perspective they have on meaning and content.⁴⁵

Second, it is important to remember that there was a certain conceptual fragmentation stimulating the trend toward unification and abstraction in late nineteenth century mathematics, logic and psychology: foundational programs and philosophical discussions of axiomatics were pressed forward by internal needs and developments of the sciences of the day, and problem spaces that would continue to be explored well into the twentieth century. Several now distinguishable traditions in the development of logic and the foundations of mathematics may be discerned, and this affects the philosophical accounts we give of the significance of philosophers such as Frege.⁴⁶ For it was a complex confluence of forces and difficulties that entrenched what Mark Wilson has called the pure or "classical" picture of concepts so many philosophers of language, mind and mathematics try to refine and/or jettison today.⁴⁷ If it is—as

Hacker and Soames would no doubt agree—the nature of fixity of meaning and how to account for it that was a central problem throughout the century, then the scientific tools with which the majority of philosophers worked in devising theories of concepts, and the shadows Kant (among others) cast over their philosophical concerns need to be included somehow in the picture. The openness in the Vienna and Berlin schools of the 1920s and 1930s to the development and application of new mathematical and formal structures in systematic philosophy is one of their enduring intellectual legacies, one that has survived Quine’s attack on the analytic/synthetic distinction, counter-reactions to his attacks, and the large-scale historicism of followers of Kuhn and Rorty. In this age of the algorithm, the computer, evolutionary game theory and the cognitive and neuroscientific revolutions in psychology, economics, and linguistics, understanding in detail how the limitations of the positivists’ mathematical and formal knowledge skewed (and were skewed by) philosophical ideas in the earliest stages of twentieth century philosophy is an important part of intellectual history, not only for historians and philosophers interested in the rise of rational choice theory and statistics, but also for those in fields like economics, epistemology, logic and linguistics who have inherited updated versions of these structures. It is also central to debates about the limits of empiricism, psychologism, and naturalism that still preoccupy philosophers today. The history of efforts to formalize rationality and meaning needs to be placed front and center in the broad context of twentieth century intellectual history, a story to which I believe historians of analytic philosophy can and have been contributing.

In this regard it is also important to note that this thread through the last hundred years or so was significant for philosophers’ interest in how to talk about normativity generally. That early analytic philosophers were not renowned for offering “practical or inspirational guides to

the art of living” or “recipes for life”—a remark of Soames (*The Dawn of Analysis*, xiv)—is not wholly accurate (just consider Moore’s influence on the Bloomsbury group), and does not in any case distinguish them altogether clearly from their forebears in the history of modern philosophy. Recipes for life are far less important to philosophy than the contribution of vivid and compelling writings, arguments, positions, concepts, and turns of phrase that alter conceptions of what it is to assess such recipes and to live a humane life in one or another time and place. Early analytic philosophers’ thought about the nature of logic—its universal applicability, its necessity and the light it could shed on epistemology—contributed distinctively and decisively, as they intended, to a series of contrasting articulations of the place of philosophy and logic (and hence, of our concepts of a prioricity, rationality, law, language and truth) in human life. Where they did and did not manage to contribute interesting ideas on ethics and politics is itself an important part of the story, and tells us something about the strengths and limitations of their methods, styles of research, and philosophies. It also tells us something about the eras and cultures they lived. (Thus, for example, it tells us something important about Bloomsbury that Moore’s *Principia Ethica* could have so inspired its members in the literary and cultural sphere.) That is yet another reason for revisiting the philosophical thoughts in their original context(s).

Third, it seems to me that the field of early analytic philosophy has largely profited, rather than suffered, from a variety of scholarly methods, aims, and attitudes. Fixing a picture of how history of philosophy ought to be done in general is unlikely to resolve large-scale issues in the field: a plurality of approaches is likely to lead to the best results. This is because it is clear that the most interesting history of philosophy involves some interplay between historical facts (one should not be saying *false* things about who said what and when, and checking the archives and keeping records is part, therefore, of the job) and informed systematic analysis and

reconnecting of philosophical concepts and question-contexts (some systematic attention, that is, not only to fundamental assumptions, but also to interrelations among concepts and ways of approaching questions characteristic of a time, a thinker, or a tradition). The effort to reach new wide-angle views on the early decades of the twentieth century while incorporating sharp yet defensible extractions of ideas from the writings of philosophers in the early analytic tradition has not led to anachronism, but instead has helped to broaden consideration of topics and figures at work in early twentieth century philosophy as a whole. Thus have readers begun to consider as directly relevant to the work of Frege, Russell and/or Wittgenstein European figures who had an impact on them and on others (e.g., Mach, Helmholtz, Boltzmann, Hertz, Herbart, Lotze, Weyl, Poincaré, Hilbert, Brouwer) as well as other traditions and areas of philosophy (Husserl, for example, is now seen as an important figure in relation to Frege, Gödel in relation to Carnap and to Wittgenstein, as well as Heidegger and Cassirer in relation to Carnap and Wittgenstein).⁴⁸ Historical and philosophical work here, as in other fields, has grown more concerted, collaborative, interdisciplinary, and far more international than it was twenty-five years ago, while it has also grown more specialized. Thus has the analytic tradition continued to embrace and further its early aspiration to transnational discussion and cooperation across fields.⁴⁹

A by-product has been an increasing interest in Europe and the United States in challenging what Michael Friedman has called the “parting of the ways” that took place between analytic and so-called continental philosophy (at least phenomenology) in the late 1920s.⁵⁰ Scholarship on the history of logical positivism and the history of the philosophy of science has spread well beyond what were previously understood to be insuperable ideological barriers, blending in with the history of pragmatism, phenomenology, existentialism, modernism, neo-Kantianism and other so-called “Continental” traditions. A number of works have emerged

questioning the usual dividing lines and reinterpreting work of Frege, Wittgenstein, the logical positivists and others in light of broader philosophical traditions, institutional factors, and cultural traditions within German and Austrian philosophy; some trace the analytic tradition back to Bolzano and Brentano.⁵¹ Of course there remains the danger here of confusing intellectual or national-based history with philosophical appraisal; but it can only be stressed, in response, that there are also dangers of ignoring context completely, among them an impoverished understanding of the contemporary scene.⁵² The revisiting of individual thinkers traditionally grouped together as logical positivists has, for example, differentiated among them and made their arguments on behalf of a scientific world-view appear more complex and more traditionally philosophical than had often been thought in the period of the 1960s and 1970s: Carnap⁵³, Neurath⁵⁴, and Schlick⁵⁵ are each being reassessed, a trend that has helped secure a more critical philosophical perspective on the turn toward conceiving philosophy of science and technology as part and parcel of the history and philosophy of culture and value.⁵⁶

In the wake of this work, it has become *au courant* to reject stereotypes about “analytic philosophy” as a whole and to shy away from the attempt to characterize core doctrinal commitments of the tradition apart from articulations of individual arguments and thinkers or carefully delineated themes.⁵⁷ Those with historical interests have reached consensus that under the lamp of historical scrutiny the analytic tradition appears at its best less monolithic and more interesting philosophically and methodologically than it appeared to some during decades when, too often equated with a popularized caricature of logical positivism, it was sometimes seen as an ideologically rigid movement shrinking from metaphysics and ethics (while covertly practicing each), restricting its subject matter to “language” and/or the study of linguistic meaning and

dominating academic philosophy with scientism, naturalism and relativism that trivialized the subject, causing it to withdraw from social engagement.

This caricature has been rejected, filled out with more interesting, detailed, and probing philosophical commentary. The degree to which it ever accurately reflected the best work of philosophers writing in the analytic tradition has been questioned, not only directly, in work done on the history of logical positivism in and outside of Europe, but indirectly, in return to due reconsideration of arguments about the limits of empiricism and the normativity of logic to be found in Frege, Russell, Moore and early Wittgenstein, each one of whom belies the caricature. Some philosophers have questioned the extent to which analytic philosophy ever dominated the academic practice of philosophy, even in the United States: certainly there have been perceived alternatives and voices of dissent from many quarters along the way, some of the most interesting of which have come, and continue to come, from self-described pragmatists, whose interests have always overlapped with those of (at least some) analytic philosophers and whose positions have been marshaled frequently enough from within analytic philosophy to convey a sense of accommodation, or at least significant engagement, with pragmatism.⁵⁸ The reexamination of this history offers the prospect of developing new forms of pragmatism and naturalism.

The basis for scholarship has grown and diversified as well. Primary texts published by the 1970s have been augmented in a variety of ways, by an especially impressive growth in historical work on the foundations of mathematics, logic and physics, book and electronic editions, websites⁵⁹, overview anthologies of secondary literature⁶⁰, and the appearance of newly edited primary materials by collaborators and students.⁶¹ Even if there are legitimate and increasingly frequently voiced concerns about the philosophical limitations of website and purely

editorial work and the growth in the number of papers and books published, philosophers interested in the development of early analytic philosophy and especially those working on Frege and Wittgenstein profited from this growth in research.

Happily, despite the accelerating electronic and print cascade of articles and books and the needed work on scholarly editions and translations, over the last two decades early analytic philosophy has been overwhelmed neither by unchecked philological tendencies nor by naïve or clearly erroneous philosophical ideas, either about history or about method. On the whole the field does not yet divide neatly into antiquarians interested only in studying archival and less well-known primary resources and those interested in constructing large-scale, philosophically ambitious overviews; in fact there are numerous examples illustrating a remarkable wedding of these approaches, as it should be. Continued cooperation and eclecticism should be, ideally, beneficial as philosophers, historians, and historians of science jointly aim to portray the fate and nature of the most important and lasting ideas and activities of philosophers in the last century.

3. *Russell Scholarship and post-Kantian themes*

The emergence of early analytic philosophy as a field of the history of philosophy dates to the early 1990s, when a critical mass of work explicitly adopting an historical program emerged, although the field is deeply indebted to work of the late 1970s and 1980s, as I shall explain below.⁶² But from the early 1990s onward the themes I have argued are underemphasized in Soames’s and Hacker’s books were displayed in literature on all of the most well-known figures, including Russell. Two books appeared at this time that proved groundbreaking as models: Peter Hylton’s *Russell, Idealism and the Emergence of Analytic Philosophy* and Nicholas Griffin’s *Russell’s Idealist Apprenticeship*.⁶³ Each broached themes that would be

pursued in much of the literature that followed in the subsequent two decades—though not without controversy. At the time, there had of course been a prior and continuous tradition of work on Russell (derived from work by Church, Quine, Linsky (Leonard and Bernard) and others) exploring the structure of *Principia Mathematica* and its treatment of the theory of types. This literature has remained lively and rigorous, reflecting and contributing to the historicizing impulse occurring within philosophy of science (including the philosophy of psychology and of mathematics) over the last two decades.⁶⁴ There was also the traditional focus on Russell’s theory of descriptions and general problems of reference and meaning, a focus not unrelated to Russell’s original logical work, but one that rose to the fore in the 1970’s as a result of internal developments within the philosophy of language (in particular, externalist criticisms of Fregean accounts of linguistic meaning in terms of “sense” pursued by Kripke, Putnam and others, and elaboration of Russellian “direct reference” views in the tradition of Kaplan⁶⁵). There had, finally, appeared several essays on the multiple relation theory of judgment that Russell included in the *Principia*: these addressed the intriguing questions of how and why Wittgenstein’s criticisms of that theory so affected Russell in 1913, leading him to surrender his early, non-representationalist metaphysics of propositions.⁶⁶ Hylton’s and Griffin’s books, however, presented a distinctive broadening of the subject: they were trend-setters for the history of early analytic philosophy as a whole insofar as it was to enter into the history of modern philosophy as a special branch. They heralded a much needed and ultimately fateful widening of philosophical perspective, supplementing and enriching the exclusively sharply focused and principled treatments of issues of description and reference characteristic of earlier writings on Russell.⁶⁷ For they set Russell with philosophical sophistication against the backdrop of the pre-twentieth century Cambridge in which he first immersed himself in academic philosophy. The spotlight on

Russell of 1908 and 1913 widened: no longer would it remain of primary interest what Wittgenstein taught Russell, it would become equally interesting what Wittgenstein might have learned from him, and what the surrounding philosophical context had taught both. Russell’s epistemology and his conception(s) of analysis were to be interpreted, then, within a broader setting, in which scholars explored the extent to which other traditions shaped the problem space within which these philosophers worked. A new project emerged, with wide historical scope.

Most historians of philosophy remain wedded to one or another figure or position when they analyze and interpret, and historians of early analytic philosophy are no different. Interestingly, because of the broader readership Wittgenstein commanded it would take a bit longer for the issue of the reciprocal influence of Russell on Wittgenstein to become appropriately emphasized and discussed⁶⁸ and for Russell’s role within the wider canvas of Cambridge to be explored, and thereafter the canvas itself and its wider surroundings. Hylton and Griffin gave attention to systematic features of Russell’s philosophy and to philosophical background and context, and not only revitalized discussion of Russell’s aims and arguments, but also furthered the idea of analytic philosophy as part of the wider history of modern and specifically nineteenth century philosophy, much of it written in German.⁶⁹ This inevitably raised the question of how formative the local British tradition at Cambridge had been as an historical factor.⁷⁰ In the last two decades of English language scholarship far more attention has been given to the German context, thus lending to the field the appeal of a recovery of traditions once familiar, now lost. Since 1990 the history of early analytic philosophy has taken on the task of charting nothing less than the legacy of nineteenth century post-Kantian thought in the twentieth century—a task of contemporary interest given the increasingly active

preoccupation with the legacy of German Idealism in English speaking philosophy of the last two decades.

A remark on Moore is in order before I discuss Hylton’s and Griffin’s contributions in more detail. The story of early analytic philosophy is sometimes encapsulated through its “greats” as the story of four main philosophers, one of whom is assigned (as an anonymous referee of this paper aptly put it) the lamentable role of Ringo in the story: We have Frege, Russell and Wittgenstein, with Moore playing drums. Though I shall not foreground the rhythm section in this essay, I could with right have done so, and I should not like to be understood as denigrating or marginalizing Moore’s significance.⁷¹ It is important to note that Moore’s views, especially on the nature of analysis and acquaintance, were far more complicated, and far less commonsensical, than the nutshell description of him as a realist or common sense philosopher makes it seem; his 1899 conception of judgments, concepts and propositions, and his evolving positions on sense data are both good examples of this, as are his writings on ethics, which are enjoying something of a revival among moral philosophers interested in combating non-cognitivism and naturalistic reductionism.⁷² His stock as a philosopher, though it appeared to dip somewhat during the 1970s and early 1980s (as *Principia Ethica* fell out of fashion⁷³ and Quine’s and Davidson’s naturalistic influence dominated the scene) has gained from the emergence of early analytic philosophy as an area of specialization. Thomas Baldwin’s important book on Moore of 1990⁷⁴ made a serious contribution to the field at precisely the moment I have marked as its emergence: Baldwin evaluated Moore’s positions systematically and thoroughly, including those of his views (e.g. on sense data and perception) that had fallen out of fashion in the 1950s and 1960s. If this work played less of a ground-breaking role for the field than Hylton’s and Griffin’s books, that is partly because continued revisiting of questions

about scepticism, realism, the limits of naturalism and the role of common sense in objectivity had kept ongoing interest in Moore’s arguments and views on particular topics more or less continuously alive within metaphysics, ethics and epistemology.⁷⁵ Moore’s paradox has been treated as a genuine contribution more or less continually since its framing⁷⁶, and recently the whole span of Moore’s philosophy has received systematic reappraisal in light of contemporary problems in epistemology, the philosophy of mind, and ethics: we have here a distinctive tradition of discussion of its own.⁷⁷

Hylton’s focus on the philosophy of logic and the Idealist background to the early Russell lead others to explore the philosophical origins of the analytic tradition and its relation to the legacy of Kant, treating with serious reconstructive interest arguments the early analytic period inherited from Idealism, especially those concerning the reality of relations and the nature of the unity of the judgment (or the proposition).⁷⁸ This coincided with a heightened interest in an historical approach to the post-Kantian (and post-Bolzano) legacy as background to logicism. In 1991 appeared another significant and influential book, Alberto Coffa’s *The Semantic Tradition from Kant to Carnap: To the Vienna Station*—a work that was also to inaugurate several of the themes I shall emphasize below, including the ambition to locate the development of early analytic philosophy (and specifically Viennese positivism) against the backdrop of philosophy of the nineteenth century. Coffa unearthed what he took to be a “semantic” tradition, indebted to Kant, Frege and Russell, but also to Bolzano, Poincaré, Hilbert and others: his focus was epistemological, the notion of *a priori* knowledge.⁷⁹ Hylton insisted, in contrast, on treating Russell as a systematic philosopher of logic and metaphysics, commensurable with the large-scale system-building Idealist philosophers of the nineteenth century. This contrast opened up a new perspective on the origins and aims of Russell’s “On Denoting” (Russell’s most influential

single article, one of the most influential of the twentieth century), which has remained a topic of interest to historians of early analytic philosophy.⁸⁰ And this spoke to the question of the tradition’s objectives, nature, and self-conception as a whole, since one of “On Denoting”’s major contributions was, after all, an idea of what philosophical analysis might achieve.

For better or for worse, Russell’s own rapid changes of perspective provide a kind of model of creative, evolving, scientific pursuit of problems and solutions—and also the dangers of conceiving of the constraints on formal analysis of language or logic as philosophically or mathematically straightforward. While many -beginning with Wittgenstein- criticized Russell for his lack of clarity, depth, and seriousness, it does seem that Russell must be counted as the most influential innovator in philosophy in the twentieth century. Not because he offered correct views, or an exact philosophy satisfactory in all details, or bequeathed several different conceptions of what analytic method could achieve, but because he invented the *idea* of scientific philosophy with which many of us now live: the brief article, the piecemeal approach, the opportunistic use of results of contemporary science, the problem- and solution-oriented thinking, the engagement with social issues, the concern to debunk religion in favor of naturalism (if only by way of a naturalism at times only halfway embraced).

For this reason the biographical and short-term analysis of Russell’s evolution is of more than merely antiquarian interest, and here Griffin’s work, including his work as Director of the Russell Research Center at McMaster and his editorial work on the *Collected Papers of Bertrand Russell* project, the journal *Russell*, and *The Cambridge Companion to Russell*, stand out. In all his philosophical and editorial work Griffin’s willingness to trace biographical themes alongside philosophical arguments has relied on deft use of the trove of archival material arranged at McMaster by Kenneth Blackwell and others, and his 1991 *Russell’s Idealist Apprenticeship*

pioneered detailed work on Russell’s philosophy of mathematics that is oriented toward the nineteenth century background in geometry, and not merely in logic or the foundations of the calculus. Alongside Griffin, others have continued to better our understanding of Russell’s engagement with the mathematics of his time, mining the McMaster archives and shedding fascinating light on the rapid evolution of Russell’s views on the paradoxes between 1903 and 1905, when he developed not one, but several theories of ‘denoting concepts’, theories that became objects of attack by 1906, when “On Denoting” appeared.⁸¹

Hylton and Griffin were revising the received approach in downplaying the role of semantics within Russell’s development.⁸² This downplaying reflected a trend of the time evinced in other areas of scholarship on early analytic philosophy. Some, most influentially van Heijenoort, were to hold that a principled rejection of semantics and model theory, with their study of the re-interpretation of formalisms, had been central to Frege, Russell and Wittgenstein, arguing that the “universalist” tradition within logicism, the philosophies of logic developed by Frege, Russell and Wittgenstein, had no room for either meaning theory in its post-Tarskian, Davidsonian sense, or for any general discussion of language-world relations.⁸³ Hintikka and others were to generalize this into a large-scale historical thesis about philosophy of language in the early twentieth century, arguing that the main distinction governing the study of logic and language lay between those for whom logic was a mere calculus, open to reinterpretation in the manner of algebra, and those for whom logic formed a universal language.⁸⁴ It has recently been argued that these readings have been “unhelpful”, at least with respect to Russell’s philosophy;⁸⁵ others have questioned how well the wider history of logic and its relation to the history of mathematics is accounted for by the distinction between the two traditions.⁸⁶ But the importance of this widening of the philosophical frame of reference in the early 1990s was real,

of interest partly because philosophers were attempting to draw distinctions between different traditions within the history and philosophy of logic, and partly because they were concerned to question whether it is easy to know what the philosophical significance was of what Rorty had called, in his well-known 1967 anthology of that title, “the linguistic turn”.⁸⁷ Some contemporary analytic philosophers are inclined to bemoan the failures of philosophers two generations before them by appealing to Rorty’s pithy phrase, alleging that ontology and metaphysics became clouded and wrongly ignored by too uncritical a reliance on the notion of linguistic meaning. Whether or not this is so, one of the interesting contributions of early analytic philosophy as a field has been to wrest from center stage the notion of linguistic meaning, or, perhaps better, to complicate and refine our understanding of its interplay with the tradition stemming from Frege and Russell, in which categorical distinctions are taken to be ultimately logical in character, rather than first and foremost linguistic, the reality of relations forms a central commitment and/or object of attack, and the normativity and universal applicability of logic forms a central philosophical focus. The history of scientific contexts in which philosophers worked has helped us better understand the role of metaphysics in the emergence of analytic philosophy. This has not excluded, but stimulated research on the ontological commitments and arguments of early analytic philosophers.

4. *Frege’s importance for the emergence of the field*

Although he has few disciples and many critics, Dummett’s influence in shaping the agenda for Frege and Wittgenstein scholarship (and early analytic scholarship generally) over the last twenty-five years is difficult to overestimate. His 1973 commentary on Frege, *Frege Philosophy of Language*⁸⁸ was the first to cover Frege’s philosophy of thought and language in

detail, while at the same time subjecting Frege’s positions on many topics--concepts as functions, analyticity, sentences as proper names of truth-values, the distinction between saturated and unsaturated expressions, reference and ontology, assertion, sense and force, the informativeness of identity statements, and the semantics of indexicals, propositional attitude expressions, and fictional and indirect discourse --to critical assessment in the light of then contemporary philosophy of language. With the appearance of further volumes, Frege emerged in Dummett’s hands as a systematic philosophical thinker with contemporary relevance.⁸⁹ Throughout the later 1980s and 1990s literature on both Frege and Wittgenstein (including Dummett’s own⁹⁰) reacted in large part to Dummett’s interpretations and the initial reactions to them. It is here that the emergence of a distinctive field of “early analytic philosophy” may also be seen. In fact, the emergence of historical interests occurred within Dummett’s own work, largely in reaction to criticisms made by scholars such as Hans Sluga, who resisted the ahistorical approach characteristic of Dummett’s earliest writings.⁹¹ The Kantian legacy behind Frege was explored in greater detail, and its relevance debated, as were Frege’s relations to Herbart, Lotze, and others.⁹² The emergence of the rule-following literature in the early 1980s and the roots of the so-called “New Wittgenstein” work in the 1990s also grew in part out of reactions to Dummett’s accounts of Frege and Wittgenstein, as did the general aspiration to tell a larger story of how the Frege-to-Wittgenstein development contributed to the development of modern analytic philosophy as a whole. My focus in this section will be Frege interpretation; in the next section I turn to Wittgenstein, but my main theme will remain the interplay between the two literatures against the backdrop of themes I have already highlighted.

The classical idea that concepts alone could both fix the totality of their correct applications (including modally, for possible contexts) and also account for an individual’s grasp

of meaning, or understanding, was targeted, not only in interpretations of Wittgenstein on private language that became influential in the late 1970s, but also in much externalist writing in the 1970s inspired by Kripke, Putnam, Burge and others. By the 1980s philosophers of language widely appreciated the importance of these points, and the appeal to “linguistic meaning” conceived as nonfactual or wholly mental lost much of its former allure. The externalist critique contributed importantly to the displacement of philosophy of language in general, and the theory of meaning in particular, from a foundational position within philosophy as a whole.⁹³ This reinforced the importance of Wittgenstein’s criticisms of Fregean ideas about meaning, and also coalesced with the rise of Davidson’s influence, for Davidson emerged from the Quinean tradition, in which the targeted view of concepts was off the table from the start, while at the same time he defended both the idea of a theory of meaning and the importance and prevalence of interpretation to our concepts of meaning and understanding. Many philosophers who rejected Frege and the classical view of concepts by way of externalist considerations held a causally determined, correlational view of concepts and names, as Wittgenstein and Quine had not. Externalism was sometimes used by these more stringent naturalistic philosophers to promote accounts of semantic fixity that were directed against Quinean and/or Wittgensteinian scepticism about the viability of a systematic overarching theory of belief and/or meaning.⁹⁴ But within philosophy of mathematics fictionalism and nominalism kept the discussion alive, stepping off from Benacerraf’s influential rejection of the idea that a causal account could possibly make sense of our knowledge of mathematical objects.⁹⁵

Dummett’s importance is to have framed a form of Fregean resistance to causal and Platonistic accounts of meaning—hence to versions of scientific naturalism and realism—that was also anti-nominalist and/or fictionalist. Inspired by the (Fregean) idea of de-psychologizing

classical intuitionism through a semantic and epistemological interpretation of proof theory, Dummett had rejected the classical laws of logic, and with them what he called “realism”. He incorporated also (what he took to have been) Wittgenstein’s demand that Frege’s philosophy of thought needs supplementation with a theory of meaning that is less Platonistic and more epistemologically responsible than Frege’s idea of an eternal “third realm” of thoughts. Dummett’s incorporation moved well beyond earlier positivists’ verificationism about meaning, and was intended to enable the full rounding of the linguistic turn Frege had (on his view) begun, while retaining a role for philosophy as a critical discipline. The price of Dummett’s move would be, however, so-called “anti-realism”, a form of constructivist criticism of Platonism about meaning not reducible to any form of psychologism or empiricism. Although Kant was not Dummett’s initial focus, his position allowed for a continuation of at least part of the legacy of Kant, although it was left to subsequent Frege scholarship to discuss how important the eighteenth and nineteenth century Kantian and Continental background was for Frege’s philosophy.⁹⁶ And reactions to Dummett’s foundational conception of the theory of meaning continued in philosophy of language of the early 1980s. Writing of Evans and McDowell contributed to keeping the framework of Frege-Russell-Wittgenstein in place in discussions of reference during a period when the philosophy of mind was coming to play an increasingly important role within philosophy of language.⁹⁷

Dummett’s conception of meaning theory as a fruitful philosophical tool for rational criticism in metaphysics and logic via the philosophy of thought involved him in a subtle exploration of holism, of how far Frege’s “context principle” could be understood to have been fundamental within Frege’s philosophy. He rejected unguarded or poorly motivated holistic extensions of the principle to contextualism about language or theory as a whole. And there was

in Dummett's mind an anti-Wittgensteinian aspect to his reading of Frege. For since the 1950s he took Wittgenstein to have embraced in his later philosophy a radical conventionalism, according to which the concepts of logical necessity and truth reflect nothing but individual acts of stipulation on particular occasions of use.⁹⁸ (In Wittgenstein's later philosophy an assertional conditional account of meaning replaced the truth-conditional account of the *Tractatus*, according to Dummett's influential account, which was taken over by, among others, Kripke.) On this view, content was to be directly reduced to context or individual occasion of use; but such a radically conventionalist position would appear to preclude room for any substantial normative or systematic theory of meaning, any account of mathematical ontology informed by the context principle, any rationally based criticisms of logical laws, and any systematic structural analysis of modal or mathematical language. Dummett appealed to Frege for an alternative, seeking to replace what he regarded as Wittgensteinian radical conventionalist ideas.

From the 1980s onward appeared a continuing stream of reactions to Dummett, including a variety of readings of Frege and Wittgenstein in which the theory of meaning and issues of realism and anti-realism were downplayed, reinterpreted, or problematized, as other more traditional topics and issues--especially those concerning the nature of logic, number, reference, intentionality, and truth--rose to the fore. Readers returned to Frege's original texts and scrutinized them carefully, often in light of the eighteenth and nineteenth century philosophical and mathematical background and increasingly attending to the internal development of Frege's views. In light of this, the role of Frege's views on linguistic meaning came to appear less clear as driving forces both within his own philosophy and within the tradition. A consensus formed among Frege scholars that the identification of Frege's conception of *Sinn* with linguistic

meaning is a mistake, both about Frege himself and more generally, as an approach within philosophy of language.⁹⁹

Dummett also helped to form the emerging historical discipline, for he had laid down a gauntlet in the 1970s by placing Frege’s logical work in an ahistorical frame, writing that the logical system Frege presented in his 1879 *Begriffsschrift* “is astonishing because it has no predecessors: it appears to have been born from Frege's brain unfertilized by external influences” (*Frege Philosophy of Language* (1973), xxxv). This reading, criticized by many subsequent scholars who stressed the nineteenth century roots of early analytic philosophy, was very much of its time. It may be compared to the work of Van Heijenoort and Dreben, whose influential history and philosophy of logic had, beginning in the 1960s, also stressed Frege’s historical uniqueness and importance, though differently. They emphasized what would become known as the “universalist”, as opposed to algebraical view of logic—a view characteristic, they argued, of logicism, with roots stretching back to Kant, for whom the logical functions of judgment, and the idea of concepts as functions of judgment, was taken as basic. On this kind of view, we conceive our logical distinctions to emerge immanently, from within our language and thought, and there is no external perspective (afforded by a metatheory, for example) from which the applicability of logic may be called into question. This formed an historical and philosophical explanation, as they saw it, for why the completeness of first-order quantification theory was not sharply formulated for nearly fifty years after the publication of Frege’s *Begriffsschrift*.¹⁰⁰ Van Heijenoort and Dreben’s reading was also tied to an interpretation of issues about showing and saying as they arose in the *Tractatus*, which they took to be a culmination of the universalist tradition’s rejection of any stance outside of logic; this would exert an influence on subsequent interpretations that emphasized a natural development from Frege to Wittgenstein on the nature

of logic, and so Wittgenstein’s debts to Frege.¹⁰¹ (Baker and Hacker, though they made some similar philosophical claims about Frege’s universalist view, used this interpretation, not to recover Frege’s philosophical import, but to mount a rejection of the Fregean legacy in contemporary philosophy of language.¹⁰²) The van Heijenoort/Dreben approach would importantly affect the history and philosophy of logic: in writings of Goldfarb it was used to shed light on Hilbert’s, Poincaré’s and Russell’s work.¹⁰³ It would also be incorporated into an earlier tradition stemming from Hintikka in which Kantian and model-theoretic themes in philosophy of logic and mathematics had been made central, though as a foil for Hintikka’s ideas and criticisms of the Frege legacy.¹⁰⁴ The arguments between Hintikka and those in the Van Heijenoort tradition would play an important role in stimulating research in this area, as the historical account of the philosophical background to the rise of the new logic probed further into its philosophical roots.¹⁰⁵ In the end, these traditions of reading Frege served to maintain interest in his philosophy during a period when his influence within the philosophy of mathematics was being questioned by some with historicist and empiricist leanings.¹⁰⁶

Benacerraf’s interpretation of Frege’s logicism as a response to genuine epistemological concerns of the working mathematician of his (and our) day offered an important alternative view, opening up room for subsequent discussion of how far Frege’s philosophical analyses—in answering, for example, the question “What is the number one?”—were wholly novel and/or of general philosophical, as opposed to primarily mathematical, significance. Wittgenstein held the view that Frege’s contribution was primarily and distinctively philosophical, and not primarily motivated by legitimate epistemological problems internal to the development of mathematics. Benacerraf disagreed, but read the epistemological significance of Frege in terms quite different from either those of Wittgenstein or those of the positivists, arguing for a more precise

understanding of the epistemological problematic that Frege faced in light of the mathematics of his time. Subsequent discussion of Frege on the nature of arithmetic and logic has debated the relative merits of these differing perspectives on his achievements; much of it may be seen to further issues raised in Benacerraf's paper and its interplay with Dummett's and Van Heijenoort's interpretations of the history and philosophy of logic.¹⁰⁷

Analysis of Frege's philosophy of arithmetic, nascent in the 1960s,¹⁰⁸ flowered in the last two decades. This development also served to shift the focus away from the idea that Frege bequeathed to analytic philosophy a viable theory of linguistic meaning, and toward the issue of Frege's non-empiricist basis for our knowledge of arithmetic (Dummett's earliest work had sidelined Frege's philosophy of mathematics, though this was to change by 1991, during the period of the emergence of the field that is our topic¹⁰⁹). Neo-Fregean philosophy of mathematics emerged from revisiting and clarifying Frege's original texts: for the first time Frege's *Grundgesetze der Arithmetik* (1893/1903) was read with regard to its detailed, internal logical structure. The key was the discovery, in Crispin Wright's *Frege's Conception of Numbers as Objects* (1983) and in essays of George Boolos,¹¹⁰ of what has come to be known as "Frege's theorem", the fact that from what Wright called "Hume's principle" and second order logic, all the Peano Axioms of arithmetic could be derived in a consistent system.¹¹¹ The *Grundgesetze* was known, via Russell's paradox, to have issued into inconsistency because of an axiom Frege added to derive the truths of arithmetic, his famous Axiom V, which appears at first glance to state a purely logical truth, but in fact is a (too) powerful, existentially loaded comprehension principle. By removing this axiom, but working with Hume's principle, much of the mathematics can be derived.¹¹² The structure of theorems in *Grundgesetze der Arithmetik* has, as a result of work by Wright, Hale, Boolos, Heck, and others now been gone over in a

marvelously fine-grained way, with focused attention to the role of specific axioms in specific proofs. Theorems have been proved regarding so-called “Frege arithmetic”, and a whole new research program has emerged. Of course, whether neo-Fregeanism is a viable philosophy of arithmetic turns, ultimately, on how much of mathematics can actually be derived from the system, and more widely on one's views on analyticity and ontological commitment, and on the kind of constraints one believes should face an account of the foundations, including the notion of mathematical truth.¹¹³ Moreover, there is the question of how and whether other notions (such as modal ones) might be amenable to something like the technique of definition by abstraction used by neo-Fregean philosophers of mathematics. There remain questions about what it is to account for applications of mathematics in empirical science, and, more generally, the question of naturalism.¹¹⁴ But my general point here is that the increase in precision attending the debates over Frege's legacy has been impressive, changing the landscape of contemporary philosophy of mathematics considerably over the last two decades.¹¹⁵

As the framework of logical empiricism was left behind, and the fine-grained logical analysis of Frege's treatment of arithmetic grew, issues in the philosophy of logic and the philosophy of mathematics were separated and their intertwining renegotiated. The extent to which standard representational semantical views or Platonistic views of meaning could be straightforwardly attributed to early analytic philosophers, including Frege, has continued to be questioned and discussed. But the tradition of a wider context for the discussion has been secured: Frege's overarching views of judgment, logic and truth have moved to the forefront of attention,¹¹⁶ just as argumentation over the role of Kant and other figures in the German language background to Frege are emphasized.¹¹⁷ The institutional and cultural setting in which Frege worked is now better understood.¹¹⁸ At the same time, reflection on the nature and purpose of

logical segmentation and its connection to conceptions of generality, judgment and sense continue to be discussed.¹¹⁹ This has become part and parcel of our understanding, not only of Frege but also of Wittgenstein’s understanding of Frege, a topic which has received a great deal of attention of late.¹²⁰

Some, furthering the van Heijenoort tradition, have continued to argue that meta- or model-theoretic reasoning familiar after Tarski were and remain in tension with Frege’s views of logic, judgment and truth. Logic in the early analytic period, however successfully formalized, was not, as these scholars see it, schematic in our contemporary sense, but at the same time remained “classical” or realist (in Dummett’s sense). These readings have been contested in spirited exchanges, where what is to count as “semantics” is very much in question.¹²¹ Though I do think some remarks of van Heijenoort, Dreben and Hintikka invited too neat a picture of Frege in ascribing to him a principled, self-consciously anti-model theoretic perspective (one that would, for example, have led him to dismiss the completeness theorem or the Skolem-Löwenheim results as irrelevant to his conception of logic, had he lived to study them), the contrast of approach between Frege’s and the later, schematic conception of logic is striking and, it seems to me, undeniable. I expect that future readings of Frege and Wittgenstein will continue to be indebted to this philosophical discussion, partly because of its connection to philosophical questions about the limits of empiricist approaches to the concepts of truth and judgment, and partly because of its connection with the Wittgensteinian idea, still attractive, that whatever we do in logic is part and parcel of what we can do in language, and not descriptive of an a priori known foundation consisting of an ultimate body of truth.

5. *Wittgenstein*

A remark or two are in order about the idea of Wittgenstein as an "outlying" figure. Problems, ideas and turns of thought unearthed in his thought have interfaced with so much philosophy over the last fifty years that it is difficult to imagine the confrontation with his writings ceasing. Yet it is fashionable now in some quarters to declare his influence on contemporary analytic philosophy unimportant, as if he may be classified as a briefly lit star whose significance has waned after proper analysis of his arguments and the fall of so-called "ordinary language philosophy". Both Hacker and Soames agree here: Wittgenstein's philosophy is, on both their views--for Hacker unfortunately, for Soames fortunately--insufficiently attended to (Hacker) or essentially passé (Soames). Soames takes Wittgenstein's main error to be rooted in an erroneous commitment to the "transparency" of meaning and the thesis that all problems of philosophy are problems of meaning or linguistic analysis—a view that for Soames, was "exploded" by Kripke (*The Dawn of Analysis*, xv). Wittgenstein's influence remains, for Soames, but is outmoded insofar as readers have already exhausted the resources available in *Philosophical Investigations*: all that remains of "lasting" importance in that work is, on his view, the idea that language and meaning are in some cases socially rather than individually defined (*The Age of Meaning*, 60-61)—an idea one might have learned from Dewey, or any one of a number of other thinkers.¹²² Hacker takes Wittgenstein's project of overcoming conceptual confusions through analysis of grammar to be a sorely needed philosophical programme usefully applicable to contemporary philosophy and psychology¹²³, but for the most part largely unheeded by philosophers.¹²⁴ For Hacker, the "spirit" of the errors of the *Tractatus* and earlier metaphysics keep being made despite the later Wittgenstein's powerful criticisms. For others sympathetic to Wittgenstein, the current state of scholarship fails to do Wittgenstein

justice: Jaakko Hintikka has gone so far as to write that “the current state of Wittgenstein interpretation is nothing less than a serious intellectual scandal”.¹²⁵

These narratives too easily brush aside the abiding interest of philosophers in Wittgenstein and Austin and the caliber of the philosophical writing they have inspired.¹²⁶ The fact is that half a century after his death Wittgenstein has already entered into a relatively small canon within the history of modern philosophy; and his work orients philosophers across a wide range of fields because his writings stand as central to the analytic tradition, yet deeply critical of some of its most entrenched errors about meaning, content, and objectivity.

The power of philosophical writing sometimes involves appreciating those features of works that achieve them classic quality: their capacity to stimulate, rather than commend themselves to disciples who nod their heads in agreement on specific points. In such cases it is the memorably formulated struggle to answer a question and state a problem, rather than a position or an arrangement of sentences in recognizable, compact, deductive form, that counts most. The impact of Wittgenstein’s writings is diffuse; it is located in his problems, questions, influence, and ways of expressing himself as much as in any worked out arguments and answers he provided: indeed, the very features of his writing that make its assimilation difficult are part of what stimulate some of his most interesting readers to embark on reconstructing recognizable Wittgensteinian lines of argument in a wholly different style. The transition his writings should be seen to have created in the history of philosophy is not unlike those contributed by Kant and Nietzsche, who have each generated a host of different interpretive traditions and reactions over the years by shaping the language, the terms of criticism, the arguments, questions and problem-spaces of philosophy, but without generating large numbers of disciples who follow them in all points of detail or all areas of philosophy systematically.

So long as Frege’s and Russell’s ways of thinking about logical analysis and conceptual content continue to exert a hold on philosophers, Wittgenstein’s questions and suggestions about approaches to language and meaning will remain: these philosophers give life to one another. One reason recent Frege-Wittgenstein literature is important to single out is that it has contributed a better understanding of Wittgenstein as a sophisticated critic, not of objectivity, logic and truth as such, but of the excesses of abstraction and rationalism about concepts and meaning that he confronted from early on in both Frege’s and Russell’s philosophies, excesses that could open up logical norms of objectivity and truth to rejection by sceptics and conventionalists.

Some influential readers (most notably Kripke) have continued the interpretive tradition that attributes to the later Wittgenstein a thesis about the socially- or assertion conditionally-constituted character of linguistic meaning, although not all readers who stress the social character of meaning agree with Kripke, and those who read Wittgenstein as a sceptic, a relativist, or a social constructivist about the concept of truth are a distinct minority.¹²⁷ In general, since the 1970s there has been an effort recover the distinctively philosophical significance of the later Wittgenstein from the perceived co-opting of him by empirically-minded anthropologists, sociologists of knowledge, and historians of science.¹²⁸ The emphasis in scholarship on issues of realism and truth as they occupied Frege and Wittgenstein has played an important role here, allowing for a more nuanced and less mystical portrait of Wittgenstein to emerge. The dangers of *over*interpreting Wittgenstein are also appreciated, and most scholars would not view his later thought as yielding on its own any clear consequences in the form of already recognizable philosophical theories: interpretations that see his philosophy as essentially politically conservative, for example, are in the minority.¹²⁹ Even those (e.g.

Wittgenstein-inspired feminists) who continue to find his discussions illuminating for theories of social critique tend not to read him as a committed radical conventionalist, but instead focus either on his commitment to realism of a non-metaphysical, but critical kind, or on his modernism.¹³⁰

Frege has come to be seen by some as a formidable defender of rationalism, or at least one of the foremost critics of empiricism in the philosophy of logic since Kant: the appeal of his views of normativity and rationality as constituted by the very structure of human judgment quite apart from any particular psychological account of the mind or discussion of our localized interests remains strong in an age of psychological reductionism and postulated unconscious cognitive biases.¹³¹ Yet it is questions about the relevance and importance of what Charles Travis has called the "parochial" to the nature of our norms of truth, meaning and rationality that have kept Wittgenstein's thought and its interplay with Frege's alive in contemporary philosophy.¹³² Frege and Wittgenstein have been much better understood in the last twenty years partly because their relations with one another have been so aptly explored and discussed; each has been made more relevant to contemporary philosophy by following up on early suggestions of Anscombe, Geach, and Wittgenstein himself to look to Frege as much as to Russell in reading Wittgenstein's philosophy.¹³³ This has helped to cast analytic philosophy as a self-critical, articulate philosophical tradition not subject to simple dismissal along the historicist and anti-representationalist lines Kuhn and/or Rorty suggested, not reducible to logical empiricist themes alone, and not to be equated with a naïve or dogmatic treatment of meaning or metaphysics.

What is true (and welcome) about Wittgenstein's current influence, and something for which recent scholarship on early analytic philosophy deserves credit, is that obsessions with the idea of an end-of-philosophy, no-possibility-of-progress point of view (obsessions encouraged

by focusing on individual remarks in Wittgenstein, out of context¹³⁴) and unreflective or dogmatic philosophical appeals to criteria given by so-called “ordinary language” (the presumption of what Soames calls the “transparency” of meaning)-ideas associated with Wittgenstein by many in the 1960s and 70s-have been discussed, refined, and largely abandoned in the best literature of the last two decades, partly by paying more careful attention to the question of Wittgenstein’s own evolution and partly by attending to the philosophical contexts and purposes that animated his remarks. The idea that Wittgenstein’s philosophy enjoys little ongoing influence because of an overarching view of philosophy and/or language runs deeply against the grain of much recent literature on and inspired by his writings, which has made a central topic of the span of different ways of discussing and describing language and meaning to be found in his writings. Recent readers have brought out the exploratory, elucidatory side of Wittgenstein’s investigations, in both his early and in his later writings, making it a hallmark especially of *Philosophical Investigations* that what we call “language” is highly complex, evolving, subject to multiple levels of description and evaluation, and not to be taken for granted as a datum of inquiry. Readers now attend to what has come to be called, more constructively, his “polyphonic” later style¹³⁵, and also to the wider scientific and mathematical backdrop of his intellectual development, taking into account more than simply the role of Frege and Russell and looking at how his ideas might be applied within, e.g., the history and philosophy of psychology¹³⁶ and the philosophy of mathematics and set theory.¹³⁷ Interest in the philosophical significance of Wittgenstein’s remarks on aspect perception has blossomed.¹³⁸

During the 1980s and 1990s Baker and Hacker produced a massive commentary on Wittgenstein’s *Investigations* in which the notion of meaning was central¹³⁹; they also attempted to develop a stark alternative to Frege’s semantics, “criterial” semantics.¹⁴⁰ But Baker and

Hacker later came to see the idea of a criterial semantics as mistaken.¹⁴¹ Their effort to pit Wittgenstein against Frege with a grammatically-based criteria semantics based on given rules of grammar has not won out: many readers of later Wittgenstein now would stress Wittgenstein’s debts to Frege’s conception of the interpenetration of logic and philosophy, and resist their foundational view of grammar determining meaning *via* rules for the uses of words.¹⁴² It has rightly been questioned whether there is any systematically clear use of the notion of a “rule of grammar” to be found in Wittgenstein’s post-*Tractatus* writings.¹⁴³ And even Hacker, though he still takes Frege and Wittgenstein to be “as unmixable as oil and water,” (*Wittgenstein: Connections and Controversies*, 216) now emphasizes more strongly the details of Frege-Wittgenstein interplay as part of a refinement of his own account of Wittgenstein’s aims, even if he doubts that reflection on the impact of Frege on Wittgenstein can bear much fruit.

A major issue in reading both early and later Wittgenstein on meaning and the nature of philosophy has been and will remain his conception of the bounds of sense, the nature of the sayable, and the distinction between showing and saying. This forms part and parcel of understanding his relation to the heritage both of Kant and of Frege, and of other thinkers such as Nietzsche. Hacker has rightly stressed that relating Wittgenstein’s thought (early and late) to the tradition of Western philosophy as a whole is both essential, but also very difficult to do well.¹⁴⁴ The project of locating Wittgenstein in relation to Kant’s criticisms of metaphysics has however continued, stimulated by the tendency among recent readers of Wittgenstein to resist more than Hacker does a non-cognitivist, quietist reading of Wittgenstein’s philosophical aims. The question whether Wittgenstein should be read as a kind of linguified transcendental idealist, a sceptic, or a critic of the transcendental, remains an ongoing discussion both with regard to his later and his earlier work.¹⁴⁵ What is interesting here is that the focus on Wittgenstein’s

criticisms of 'private' language, so prominent from the beginning in connection with *Philosophical Investigations*, has been supplemented with the continued and important discussion of how and why, in spite of those criticisms, Wittgenstein remained throughout his life interested in exploring issues of subjectivity, solipsism, and first-person point of view.¹⁴⁶

In his later work¹⁴⁷, Baker appears to have found himself attracted toward the so-called "new" reading of Wittgenstein, a development that gained attention over the last decade, though not the approval of Hacker (and many others).¹⁴⁸ The phrase alludes to a cluster of post-2000 writings on Wittgenstein, some of which were collected in the influential anthology *The New Wittgenstein*¹⁴⁹, a title which was initially conceived—at least by me, a contributor to the volume—as marking writings with a series of agendas for a new generation of scholars, rather than an effort to erect a new orthodoxy in reading Wittgenstein.

A great deal of the "new" Wittgenstein literature aims to defend Wittgenstein's conception of philosophy—early and later—from charges of quietism, irrationalism, and/or inconsistency by showing how a Wittgensteinian conception of philosophy as an elucidatory activity grows naturally and coherently out of consideration of fundamental philosophical questions about the nature of logic and the nature of meaning inherited from Kant and Frege.¹⁵⁰ In work of Diamond and Conant the topic of ineffability and nonsense was made central to the interpretation of the early Wittgenstein, and Conant in particular stressed the Kantian background;¹⁵¹ there have been criticisms of the approach, and a variety of lessons drawn.¹⁵² "New" readings of Wittgenstein really form a cluster of literature growing in several different dimensions. Stimulated initially by interpretations of Wittgenstein's philosophy offered by Cavell, Diamond, and McDowell, "New" readers have tended to depart from the idea (urged by (the early) Baker and Hacker) that Wittgenstein subscribed to a rule- or grammar-constitutional

view of meaning; they also tend to depart from interpretations (such as Fogelin’s, Wright’s and Kripke’s) that attribute to Wittgenstein, via the rule-following considerations, non-factualism or assertion-conditional views of meaning and/or a strict non-cognitivism about philosophy. Their readings of Wittgenstein have stretched across philosophy and literature, ethics, and philosophy of logic and mathematics. At the center of discussion has remained Wittgenstein’s conception of logic as non-representing—what Schlick called a “turning point” in modern philosophy—but now treated in terms markedly distinct from the perspective of the logical empiricists (or the theory of analyticity conceived in terms of meaning).¹⁵³ The whole idea of Wittgenstein’s distinctive conception of logic has been the focus of a wholly new kind of approach to his work. This has led to a reevaluation of Wittgenstein’s early and later work; and it is remarkable that since the 1980s the *Tractatus* has enjoyed interpretative scrutiny and reevaluation at a level of an intensity not seen since the era of the Vienna Circle.

The seeds of the “new” Wittgenstein were planted in the late 1950s, when Cavell rejected the attribution to the later Wittgenstein of a vision of language everywhere governed by rules or conventions: he stressed Wittgenstein’s anti-empiricism, connecting it with an earlier aesthetic tradition stemming from Kant’s third *Critique*, in which is emphasized the need for judgment, a faculty not reducible to rules or mechanisms and yet intrinsically valuational.¹⁵⁴ (During the 1980s a sub-literature emerged tracing out this theme of the legacy of the third *Critique* within the terms of the later Wittgenstein’s remarks on rule-following.¹⁵⁵) Beginning in 1970’s Diamond’s work on Frege, Wittgenstein, and moral philosophy connected this cluster of issues explicitly with a critique of Dummett’s reading of the later Wittgenstein as a radical conventionalist and anti-realist (in Dummett’s special sense). The publication in 1991 of her collected papers spanning the years 1966 to the early 1990s, *Realism and the Realistic Spirit*,

was an important event in the recent emergence of the field of early analytic philosophy, for this book encompassed a broad range of topics and sought to find unities in Wittgenstein’s thought through attention to his reactions to Frege. While keeping an understanding of Frege’s impact on Wittgenstein close to the forefront of discussion, Diamond continued Cavell’s and Rorty’s efforts (which had also been furthered by Wiggins and McDowell) at keeping Wittgenstein’s philosophy alive, not only in metaphysics and philosophy of mind, but in ethics, epistemology, and philosophy of religion and literature as well. Thus continued the tradition, begun in work of Cavell and Rorty, of using Wittgenstein to urge a bridging of the gaps between analytic and continental philosophy, and philosophy and literature—but now with an historical approach to the evolution of early analytic philosophy.¹⁵⁶

The Fregean background to the *Tractatus* was emphasized in criticisms of realist readings of the book offered by Ishiguro, McGuinness, Goldfarb, and Diamond in the 1960s and 70s in which Frege’s context principle was emphasized.¹⁵⁷ All these authors stressed the ways in which ontological distinctions are to be seen as bound up inextricably with logical ones. Diamond famously criticized those who would “chicken out” in reading *Tractatus* by attributing to it an ineffable realistic metaphysics or unstatable theory of necessity, rather than a rejection of these as nonsensical. By tying an anti-Dummettian form of ‘realism’ she associated with the later Wittgenstein to Frege’s and early Wittgenstein’s conceptions of elucidation in logic, and by applying this conception to issues of contemporary interest in ethics, philosophy of language, and the theory of literature, Diamond was able to tell a wide-ranging story about the evolution of early analytic philosophy that stimulated readers to revisit the original texts with the aim of altering the current state of philosophy.¹⁵⁸

How the hand-off from the *Tractatus* to early positivism occurred, how indebted to or influenced by Frege Wittgenstein was, in what sense the early Wittgenstein intended to further an anti-metaphysical attitude toward representation and necessity—these will remain the subject of continuing debate among scholars of early analytic philosophy. What is important is that the *Tractatus* is no longer read only through the eyes of the Vienna Circle as an empiricist tract, or as a work to be understood primarily through the eyes of the *Investigations* as a collection of negated metaphysical theses, or as a realist work in Dummett's sense. Whole sections of the work previously passed over by many scholars—the Preface, Wittgenstein's distinction between what is *unsinnig* and what is *sinnlos*, the remarks on ethics, physics, arithmetic, solipsism and so on—are being looked at with fresh eyes, and debated anew in light of questions about “New” readings of the book.¹⁵⁹ This has not only connected themes of early analytic philosophy with larger questions within the development of twentieth century philosophy, it has changed our understanding of tensions latent in Frege's own writings, placed as they often are now in relation to readings of the *Tractatus* that take its Fregean, as much as its Russellian themes as central to it.

The so-called “rule-following considerations”, really a variety or cluster of problems, were inaugurated in readings of later Wittgenstein offered in publications by Fogelin, Kripke and Wright in the early 1980s, and made a new contribution to discussions of scepticism and reductionism about meaning and intentionality.¹⁶⁰ This literature has also generated interest in very broad themes within discussion of Wittgenstein's place in twentieth century philosophy, blending work of a more historical or textual flavor on Wittgenstein with recent themes in philosophy of mind and language, as well as philosophy of logic and (as previously mentioned) ethics.¹⁶¹ I agree with Wright that the question of what it is to follow a rule forms, arguably, “one

the great problems of modern philosophy.”¹⁶² Whether Wittgenstein is best read as a quietist, as a sceptic, or as a critic of demands for an account of objectivity and/or fixity of meaning that lead ineluctably from realism to scepticism, is a topic very much still open to discussion and debate.

It is true that over the last two decades that some Wittgenstein scholarship has evolved into a narrower, more historically-oriented and/or specialized field, lacking the grand intent to revise all of philosophy that characterized his philosophy's initial reception in the English speaking world. But this has led to improved understanding of the relation between the invention of modern mathematical logic and philosophical problems about the nature of analysis and representation that arose from the tradition's beginnings.¹⁶³ Some thought the appearance of Wittgenstein's *Nachlass* on CD-Rom in the 1990s would alter the landscape of interpretation considerably, but the consensus now seems to be more guarded, despite the fact that some important correctives to the reading of Wittgenstein have resulted.¹⁶⁴ Evidently certain kinds of questions (e.g., how many remarks are there in Wittgenstein referring to person x) are more easily answered with a few keystrokes, thanks to the transcription; the Bergen Archives has contributed an internationally-networked site where research projects on Wittgenstein are pursued, and with its Discovery project will disseminate access to the *Nachlass* more widely (see http://wab.aksis.uib.no/wab_eu-ari-wab.page). There has resulted from this work a new appreciation of how subtle it is to use an appeal to drafted and early versions of Wittgenstein's remarks in reading passages in more well-known, canonical works. And yet within this appreciation of the complexity of interpretation, it is interesting that what seems to remain central to Wittgenstein's readers is the project of imbibing and applying the revisionary

implications of his most well known, widely-taught, and canonical works (the *Tractatus*, *Philosophical Investigations*, and *On Certainty*).

6. Conclusion

I have been stressing the emergence and widening of the field of early analytic philosophy. In closing I shall venture a few predictions about scholarship in the near term.

As in many contemporary branches of intellectual history, the field of twentieth century history of philosophy is likely to stretch itself to include assessment of less well-known figures who were interested in the logical or conceptual analysis of meaning and to broaden its focus across philosophers, methods, themes, periods, and traditions. Given analytic philosophy’s insistence on piece-meal progress in philosophy and its scepticism about lone genius as the sole fount of philosophical insight, this is only appropriate. In the literature I have featured here, emphasis was placed upon well-known, canonical figures and the secondary literature in English. Yet early analytic philosophy has been imbibed into the curriculum in Europe, and the English-speaking world has begun take stock of the contributions of lesser-known writers who made important contributions. Hacker’s book offers a good example of this trend, and there are others.¹⁶⁵ In terms of the history of modern philosophy generally, pioneering steps in this direction have been taken by those who have studied the history of women in early modern philosophy¹⁶⁶, and it will be interesting to see what emerges from such reflection on the twentieth century.

The archives are not the only or perhaps even the best place to pursue philosophy; but they do contain interesting portions of philosophical history that ought not to be ignored or denied, and that shed light at one level on how philosophy is practiced, transmitted, and used.

Perhaps an anecdote will serve. A summer archival project I pursued while a graduate student was to read every dissertation written on logic at Harvard up through 1932, when Quine was granted his Ph.D. The question was to try to see how much (and which) logic was known and taught at Harvard before Quine arrived there in 1932.¹⁶⁷ I was surprised to find that Frege was mentioned in only two of the dissertations, one of which was the finest thesis I saw in the pre-Quine period¹⁶⁸: Susanne K. Langer’s “A Logical Analysis of Meaning” (Radcliffe College, 1926-women were not allowed to turn dissertations into Harvard at that time).¹⁶⁹ I had known earlier of Langer’s work *Philosophy in New Key* (1957), and that she became something of an inspirational role model for students of my mother’s generation in the early 1950s.¹⁷⁰ But until I went to the archives, I had not seen that because she was fluent in German, Langer was able to access the works of Husserl and Frege, as well as Wittgenstein and Russell; interestingly, she focused on problems surrounding Frege’s distinction between *Sinn* and *Bedeutung* and their bearing on problems of analysis, symbolism and intentionality—thereby correcting an earlier impression of mine, that the focus on Frege’s notion of sense as first and foremost a tool to analyze linguistic meaning was a post-World-War-II construction of philosophers of language. Her work forms a bridge between the American Idealist tradition in which the status of logic, intentionality, and the categories are central (Royce, Peirce, Sheffer, and C.I. Lewis), the British tradition of Russell and Whitehead (Whitehead was her advisor), the German phenomenological tradition of Husserl, and the neo-Kantian tradition of Cassirer that investigates meaning through analysis of symbolic forms. The significance of her work within the context of the 1920s in American philosophy (alongside that of others such as the elder Sellars, A.O. Lovejoy, and M.R. Cohen) is interesting to ponder in a time of growing eclecticism and internationalism in English

speaking philosophy. It also shows that the analytic tradition has a more complicated history than we may presently imagine.

The history of realism and perception are two areas I would expect to see enlarged upon in the near term by historians of twentieth century philosophy, for one of the most puzzling stories is the rise and fall of sense data theory and phenomenalism in the first half of the century. Historians of analytic philosophy are also moving forward in time: it is to be expected that more work will soon be done on post-1951 philosophy. The decade of the 1950s is especially interesting for cultural reasons, given the aftermath of the Second World War and the rise of the United States as a cultural, as well as a military power. Philosophers have become interested in how the Cold War affected the subject in the United States¹⁷¹; also of interest is the rise of American contributions to the arts and humanities to an international stage during this period. This was the decade during which the middle Quine and the later Wittgenstein were initially being put to work in academic philosophy, and the story of their receptions in the mid-1950s to early 1960s, and the fall of empiricism, is a fascinating one. The history of the interpretations of such philosophers is itself part of the wider story, and very much a part of where philosophy is now.

To summarize: I welcome, more than do Hacker and Soames, the growing trend toward widening the scope and variety of methods and styles of contribution in the field of early analytic philosophy. Among other trends in scholarship, I have emphasized here

- successful efforts to bridge perceived philosophical chasms separating the “analytic” and “continental” traditions;

- a widening range of topics, subjects and methods taken to be relevant to an historical understanding of the present-day philosophical scene;
- lasting philosophical contributions to the study of Frege and Wittgenstein by scholars who have attempted to revitalize the study of early analytic philosophy as a field;
- first-rate work on Moore, Russell and the history of logical positivism that deepens our understanding of how the work of Frege and Wittgenstein is to be placed against the background context of nineteenth century developments in mathematics, psychology, and philosophy.

These trends help to show that in its best moments analytic philosophy’s commitment to rationally justifiable self-articulation has, historically speaking, had little to do with the construction of lean, clean, easily surveyable deductive forms of argument to gloss lines of thought, and even less to do with what Soames has described (and Hacker tends to endorse in practice) as a commitment to establishing its conclusions by “the strongest rational means possible” (Soames, *The Dawn of Analysis*, p. xiv). Of this notion there is precious little to be found in philosophy, analytic or otherwise, and when it is even apparently found, it remains to be interpreted, taking much work to unravel. The historical and philosophical fact is that even the most important philosophical arguments have so far fallen short of the kind of absolutely convincing quality of necessity that arguments typically evince in logic and mathematics, and not for want of trying. This lesson is a key one to be learned from studying the history of the

analytic tradition in detail. It reminds us that there is, so far, no Last Word in philosophy, and sometimes precious little that “pre-philosophical common sense” delivers to us—especially on topics like the nature of logical consequence, meaning, grammar, necessity, and a priority.¹⁷²

¹ Robert Brandom, *Tales of the Mighty Dead: Historical Essays in the Metaphysics of Intentionality* (Cambridge, MA: 2002), at 235.

² John Skorupski, “The Legacy of Modernism,” *Proceedings of the Aristotelian Society* 91 (1990-1991): 1-19. Peter Galison, “Constructing Modernism: The Cultural Location of *Aufbau*,” in *Origins of Logical Empiricism*, ed. Ronald N. Giere and Alan Richardson, *Minnesota Studies in the Philosophy of Science* (Minneapolis, MN: University of Minnesota, 1996), 17-44. David E. Cooper, “Reactionary Modernism,” in *German Philosophy since Kant*, ed. Anthony O’Hear (New York: Cambridge University Press, 1999), 291-304. Thomas Baldwin, ed., *The Cambridge History of Philosophy 1870-1945* (New York: Cambridge University Press, 2003). Anat Biletzki and Anat Matar, eds., *The Story of Analytic Philosophy: Plot and Heroes* (New York: Routledge, 1998).

³ Gary Hatfield, *The Natural and the Normative: Theories of Spatial Perception from Kant to Helmholtz* (Cambridge, MA: MIT Press, 1990). Michael Friedman and Alfred Nordmann, eds., *The Kantian Legacy in Nineteenth-Century Science* (Dibner Institute Studies in the History of Science and Technology, 2006). Penelope Maddy, *Second Philosophy: A Naturalistic Method* (Oxford/New York: Oxford University Press, 2007).

⁴ Perhaps the most influential work combining a critical survey of recent philosophy with a reach back to the legacy of Kant is John McDowell, *Mind and World* (Cambridge, MA: Harvard University Press, 1994; reissued 1996).

⁵ Brian McGuinness, *Wittgenstein: A Life: Young Ludwig 1889-1921* (Berkeley, CA: University of California Press, 1988). Brian McGuinness, *Approaches to Wittgenstein: Collected Papers* (New York: Routledge, 2002). Ray Monk, *Ludwig Wittgenstein: The Duty of Genius* (New York: Free Press, 1990). Ray Monk, *Bertrand Russell : The Spirit of Solitude, 1872-1921* (New York: Free Press, 1996). Lothar Kreiser, *Gottlob Frege: Leben--Werk--Zeit* (Hamburg: Felix Meiner, 2001).

⁶ Over 500 letters to Wittgenstein were discovered in Vienna in 1988, including some from Frege. See B. Dreben and J. Floyd, trans., Gottlob Frege, “Letters to Ludwig Wittgenstein,” in *Interactive Wittgenstein: Essays in Memory of Georg Henrik Von Wright*, ed. E. De Pellegrin (New York: Springer Verlag, forthcoming). Juliet Floyd, “The Frege-Wittgenstein Correspondence: Interpretive Themes,” in *Interactive Wittgenstein*, ed. E. De Pellegrin (forthcoming). Unfortunately some works of Frege published before 1980 have gone out of print in English, but a standard anthology has been put together for teaching Frege: Michael Beaney, ed., *The Frege Reader* (Malden, MA: Blackwell Publishers, 1997). Gottlob Frege, *Werk Und Wirkung: Mit Den Unveröffentlichten Vorschlägen Für Ein Wahlgesetz Von Gottlob Frege*, eds. Gottfried Gabriel and Uwe Dathe (Paderborn: Mentis, 2000). Gottlob Frege, *Frege’s Lectures on Logic: Carnap’s Student Notes, 1910-1914*, ed. Gottfried Gabriel, trans. Erich H. Reck and Steve Awodey (Chicago, Il.: Open Court, 2004).

⁷ Bertrand Russell, *The Collected Papers of Bertrand Russell* (New York: Routledge, 1983-). This is a massive undertaking under the auspices of the McMaster University archives, now running to over 30 volumes (see <http://www.humanities.mcmaster.ca/~russell/brworks.htm>).

⁸ Ludwig Wittgenstein, *Logisch-Philosophische Abhandlung = Tractatus Logico-Philosophicus: Kritische Edition* ed. Brian McGuinness and Joachim Schulte (Frankfurt am Main: Suhrkamp,

1989). Ludwig Wittgenstein, *Ludwig Wittgenstein Philosophische Untersuchungen Kritisch-Genetische Edition*, ed. Joachim Schulte, et al. (Frankfurt am Main: Suhrkamp, 2001). Ludwig Wittgenstein and Friedrich Waismann, *The Voices of Wittgenstein, the Vienna Circle: Original German Texts and English Translations /Ludwig Wittgenstein and Friedrich Waismann*, ed. Gordon P. Baker (London: Routledge, 2003). Ludwig Wittgenstein, *Ludwig Wittgenstein: Public and Private Occasions*, ed. James C. Klagge and Alfred Nordmann (Lanham, Md: Rowman & Littlefield Publishers, 2003).

⁹ Ludwig Wittgenstein, "Ludwig Wittgenstein: Briefwechsel" (CD-Rom, Innsbrucker Elektronische Ausgabe), eds. Monika Seekircher, Brian McGuinness, et.al (Intelex Corporation, 2004). Ludwig Wittgenstein, "The Published Works of Ludwig Wittgenstein" (CD-Rom, Intelex Corporation, Oxford University Press, 1999).

¹⁰ On the philosophical significance of biography, see Juliet Floyd, "Review of J. Klagge, Ed., *Wittgenstein: Biography and Philosophy*," *Notre Dame Philosophical Reviews* at <http://ndpr.nd.edu/review.cfm?id=1137> (6.4.2002).

¹¹ William Ewald, ed., *From Kant to Hilbert: A Source Book in the Foundations of Mathematics*, 2 vols. (New York: Oxford University Press, 1996). I. Grattan-Guinness, *The Search for Mathematical Roots 1870-1940: Logics, Set Theories and the Foundations of Mathematics from Cantor through Russell to Gödel* (Princeton, N.J.: Princeton University Press, 2000). Michael Beaney and Erich H. Reck, eds., *Gottlob Frege: Critical Assessments of Leading Philosophers*, 4 vols. (New York: Routledge, 2005), vol. III.

¹² A purely historical work is Martin Kutsch, *Psychologism: A Case Study in the Sociology of Philosophical Knowledge* (London: Routledge, 1995).

¹³ Paul Boghossian and Christopher Peacocke, eds., *New Essays on the a Priori* (New York: Oxford University Press, 2000). Michael Friedman and Richard Creath, eds., *The Cambridge Companion to Carnap* (New York: Cambridge University Press, 2007).

¹⁴ Christopher Peacocke, *The Realm of Reason* (Oxford: The Clarendon Press, 2003). Tyler Burge, *Truth, Thought, Reason: Essays on Frege* (New York: Oxford University Press, 2005).

¹⁵ Robert J Fogelin, *Wittgenstein, The Arguments of the Philosophers* (London; New York: Routledge & K. Paul, 1987). (First edition was 1976.) Saul A. Kripke, *Wittgenstein on Rules and Private Language: an Elementary Exposition* (Cambridge, Mass.: Harvard University Press, 1982), Crispin Wright, *Wittgenstein on the Foundations of Mathematics* (Cambridge, Mass.: Harvard University Press, 1980).

¹⁶ David Wiggins, "Truth, Invention and the Meaning of Life", *Proceedings of the British Academy* 67 (1976): 332-378 (reprinted with postscript in David Wiggins, *Needs, Values, Truth* (Oxford: Blackwell, 1987), pp. 87-109). John McDowell, "Virtue and Reason," *The Monist* 62 (1979): 331-50 and "Non-Cognitivism and Rule-Following" in Steven Holtzman and Christopher Leich, eds., *Wittgenstein: To Follow a Rule* (London: Routledge and Kegan Paul, 1981), pp. 141-162 (the latter two are reprinted in John McDowell, *Mind, Value, and Reality* (Cambridge, MA: Harvard University Press, 1998), pp. 50-76 and 198-220 respectively). Cora Diamond, *The Realistic Spirit: Wittgenstein, Philosophy and the Mind* (Cambridge, MA: MIT Press, 1991). The influence of each of these works is widespread: recent examples of it are Jonathan Lear, "Ethics, Mathematics and Relativism", *Mind* 92 (1983): 38-60, Sabina Lovibond, *Realism and Imagination in Ethics* (Minneapolis: University of Minnesota Press, 1983) and Alice Crary, *Beyond Moral Judgment* (Cambridge, Mass.: Harvard University Press, 2007).

¹⁷ Charles Travis, "The Silence of the Senses," *Mind* 113 (2004): 57-94.

¹⁸ See the special issue of *The Philosophical Quarterly* 55, April 2005.

¹⁹ McDowell, *Mind and World*. Hilary Putnam, *The Threefold Cord: Mind, Body, and World* (New York: Columbia University Press, 1999).

²⁰ Erich H. Reck, *From Frege to Wittgenstein: Perspectives on Early Analytic Philosophy* (New York, NY: Oxford University Press, 2002). W.W. Tait, ed., *Early Analytic Philosophy: Frege, Russell, Wittgenstein* (Peru, IL: Carus Publishing, Open Court, 1997).

²¹ Michael Dummett, *Frege and Other Philosophers* (New York: Oxford, Clarendon Press, 1991). Michael Dummett, *Origins of Analytical Philosophy* (Cambridge, MA: Harvard University Press, 1993). Leila Haaparanta, ed., *Mind, Meaning and Mathematics. Essays on the Philosophy of Husserl and Frege* (Dordrecht/Boston/Lancaster: Kluwer 1994). Barry Smith and David Smith, *The Cambridge Companion to Husserl* (Cambridge; New York: Cambridge University Press, 1995). Claire Hill Ortiz and Guillermo E. Rosado Haddock, *Husserl or Frege? Meaning, Objectivity, and Mathematics* (Chicago, IL: Open Court Publishing, 2000). Dagfinn Føllesdal, "Bolzano, Frege, and Husserl on Reference and Object," in *Future Pasts: The Analytic Tradition in Twentieth Century Philosophy*, eds. Juliet Floyd and Sanford Shieh ["*Future Pasts*"] (New York: Oxford University Press, 2001), 67-80. Charles Parsons, "Husserl and the Linguistic Turn," in *Future Pasts*, 123-44.

²² An important historical work discussing broad questions about the analytic and phenomenological traditions in light of scholarship on Frege and Wittgenstein is Wolfgang Kienzler, *Wittgensteins Wende Zu Seiner Spätphilosophie 1930-1932: Eine Historische und Systematische Darstellung* (Frankfurt am Main: Suhrkamp, 1997).

²³ Avrum Stroll, *Moore and Wittgenstein on Certainty* (New York: Oxford University Press, 1994). Danielle Moyal-Sharrock, ed., *The Third Wittgenstein: The Post-Investigations Works* (Aldershot: Ashgate, 2004).

²⁴ Joan Weiner, "The Philosopher Behind the Last Logician," in *Frege, Tradition and Influence*, ed. Crispin Wright (Oxford: Basil Blackwell, 1984), 57-59. Joan Weiner, *Frege in Perspective* (Ithaca, NY: Cornell University Press, 1990). Thomas Ricketts, "Objectivity and Objecthood: Frege's Metaphysics of Judgment," in *Frege Synthesized*, eds. Leila Haaparanta and Jaakko Hintikka (Dordrecht: D. Reidel, 1986), 65-96. Hans Sluga, "Frege on the Indefinability of Truth," in *From Frege to Wittgenstein*, ed. Erich H. Reck ["*From Frege to Wittgenstein*"] (New York: Oxford University Press, 2002), 75-95. Tyler Burge, *Truth, Thought and Reason*, Preface and especially part II; Warren Goldfarb, "Frege's Conception of Logic," in *Future Pasts*, 25-42. Danielle Macbeth, *Frege's Logic* (Cambridge, MA: Harvard University Press, 2005). Peter Hylton, *Propositions, Functions, and Analysis: Selected Essays on Russell's Philosophy* (New York: Oxford University Press, 2005).

²⁵ See Peter A. French, Theodore E. Jr. Uehling, and Howard K. Wettstein, eds., *The Wittgenstein Legacy*, vol. 17, *Midwest Studies in Philosophy* (Notre Dame, IN: Notre Dame University Press, 1992). Also the special issues of *Mind* on the centennial of Frege's "Über Sinn und Bedeutung" (vol. 101 October 1992) and the centennial of Russell's "On Denoting" (vol. 114 October 2005).

²⁶ P.M.S. Hacker, *Wittgenstein's Place in Twentieth-Century Analytic Philosophy* [*Wittgenstein's Place*] (Cambridge, MA.: Blackwell Publishers, 1996), Scott Soames, *Philosophical Analysis in the Twentieth Century: The Dawn of Analysis*, vol. 1 [*The Dawn of Analysis*] (Princeton, N.J.: Princeton University Press, 2003). Scott Soames, *Philosophical Analysis in the Twentieth*

Century: The Age of Meaning, vol. 2 [*The Age of Meaning*] (Princeton, N.J.: Princeton University Press, 2005).

²⁷ On the prices in accuracy of detail paid for this origin in undergraduate lectures, see Michael Kremer, "Review of *Philosophical Analysis in the Twentieth Century*," *Notre Dame Philosophical Reviews* (9.19.2005) (<http://ndpr.nd.edu/review.cfm?id=4061>).

²⁸ P.M.S. Hacker, "Critical Study of Soames' History of Analytic Philosophy," *Philosophical Quarterly* 56 (2006): 121-31. Scott Soames, "Hacker's Complaint," *Philosophical Quarterly* 56 (2006): 426-35. Hans Sluga, "What Has History to Do with Me? Wittgenstein and Analytic Philosophy, Review of P.M.S. Hacker, *Wittgenstein's Place in Twentieth-Century Analytic Philosophy*," ["What Has History to Do with Me?"] *Inquiry* 41 (1998): 99-121. Mark Wilson, Review of Scott Soames *Philosophical Analysis in the Twentieth Century*, *Philosophical Review* 115, 4 (2006): 517-523. Scott Soames, "What is history for? Reply to critics of *The Dawn of Analysis*" ["What is History For?"] *Philosophical Studies* (2006): 645-65. Bruce Kuklick, "Modern Anglophone Philosophy: Between the Seminar Room and the Cold War," *Modern Intellectual History* 3 (2006): 547-57.

²⁹ Complaining about Soames's book having won a scholarly prize, Hacker explicitly bemoans "the state of philosophical scholarship in America", as if the award reflects a generally dismal situation in the field of early analytic philosophy (Hacker, "Critical Study of Soames' History of Analytic Philosophy," 131)

³⁰ "It was Quine's ideas, together with post-positivist philosophy in the United States, that contributed most to the waning of Wittgenstein's influence and to the decline of analytic philosophy in all but name" (*Wittgenstein's Place*, xi).

³¹ Soames says that he plans a second volume (*The Dawn of Analysis*, Introduction), but it is difficult to see how he will extrapolate and project from his survey. See, however, Scott Soames, “No Class: Russell on Contextual Definition and the Elimination of Sets,” *Philosophical Studies* (forthcoming).

³² Hacker argues explicitly that Frege is not part of the analytic tradition in “Analytic Philosophy: Beyond the Linguistic Turn and Back Again”, in M. Beaney ed. *The Analytic Turn: Analysis in Early Analytic Philosophy and Phenomenology* (Routledge, London, 2007) [[pp?]]. The editor Michael Beaney rejects Hacker’s view in the volume’s introduction (*The Analytic Turn*, 16). Compare P.M.S. Hacker, *Wittgenstein: Connections and Controversies* (Oxford: Oxford University Press, 2004), chapters 7-8.

³³ As Soames documents (*Dawn of Analysis*, 254), he and Geach and Fogelin contributed in the 1980s toward articulating a more precise understanding of part of the kind of formal treatment of generality Wittgenstein’s *Tractatus* implicitly envisioned or would allow. The discussion has continued to develop, as scholars have looked at alternative ways of viewing the first- and second-order contexts for formulating a *Tractarian* system. See Göran Sundholm, “The General Form of the Operation in Wittgenstein’s *Tractatus*,” *Grazer Philosophische Studien* 42 (1992): 57-76. Pasquale Frascolla, *Wittgenstein’s Philosophy of Mathematics* (New York: Routledge, 1994). Mathieu Marion, *Wittgenstein, Finitism and the Foundations of Mathematics* (New York: Oxford, Clarendon Press, 1998). Michael Potter, *Reason’s Nearest Kin: Philosophies of Arithmetic from Kant to Carnap* (New York: Oxford University Press, 2000), chapter 6. Juliet Floyd, “Number and Ascriptions of Number in the *Tractatus*,” in *Future Pasts*, 145-92. Kai Wehmeier, “Wittgensteinian Predicate Logic,” *Notre Dame Journal of Formal Logic* 45 (2004): 1-11.

³⁴ Section III Hacker, "Critical Study of Soames' History of Analytic Philosophy."

³⁵ A very useful treatment of Moore's views on sense data is in Thomas Baldwin, *G.E. Moore* (New York: Routledge, 1990).

³⁶ For an indication of the current lack of consensus on the notion(s) of *logical consequence* and *validity* see Stewart Shapiro, ed., *The Oxford Handbook of the Philosophy of Mathematics and Logic* (New York: Oxford University Press, 2005), chapters 21-26.

³⁷ Hacker, "Critical Study of Soames' History of Analytic Philosophy." The point is also made by John P. Burgess, "Discussion-Soames on Empiricism," *The Philosophical Quarterly* 129 (2006): 619-26. Soames replies that his lack of emphasis on Carnap will be changed in the second edition of his book (Soames, "What Is History For?"). It is to be hoped that he will point his readers toward at least some of this important backdrop of literature treating the analytic tradition, but this is not evident in a recent piece, Scott Soames, "The Quine Carnap Debate on Ontology and Analyticity," in *Metametaphysics: New Essays at the Foundations of Ontology*, eds. David Chalmers, David Manley, and Ryan Wasserman (forthcoming).

³⁸ On Gödel see the excellent historical notes provided in Kurt Gödel, *Kurt Gödel Collected Works*, ed. S. Feferman and et.al., 5 vols. (New York: Oxford University Press, 1986-2003). On Carnap see R. Giere and A. Richardson, eds., *Origins of Logical Empiricism*, vol. XVI (Minneapolis, MN: University of Minnesota Press, 1996). Michael Friedman, *Reconsidering Logical Positivism* (New York: Cambridge University Press, 1999), Alan W. Richardson, *Carnap's Construction of the World: The Aufbau and the Emergence of Logical Empiricism* (New York: Cambridge University Press, 1998). Steve Awodey and A.W. Carus, "The Gabelbarkeitssatz of 1928," *Erkenntnis* 54 (2001): 145-72, Giere and Richardson, eds., *Origins of Logical Empiricism*, Gary L. Hardcastle and Alan W. Richardson, eds., *Logical Empiricism in*

North America, vol. XVIII, *Minnesota Studies in the Philosophy of Science* (Minneapolis, MN: University of Minnesota Press, 2003). Steve Awodey and Carsten Klein, eds., *Carnap Brought Home: The View from Jena, Publications of the Archive of Scientific Philosophy Hillman Library, University of Pittsburgh* (Peru, IL: Carus Publishing Company, Open Court, 2004). Warren Goldfarb, "On Gödel's Way In: The Influence of Rudolf Carnap," *The Bulletin of Symbolic Logic* 11, no. 2 (2005): 185-93. Friedman and Creath, eds., *The Cambridge Companion to Carnap*. Open Court plans an extensive project publishing the Collected Works of Carnap in English.

³⁹ On the idea of the history of philosophy as a lingua franca see Wilfred Sellars, "Autobiographical Reflections: (February, 1973)," in *Action, Knowledge and Reality*, ed. H.N. Castañeda (Indianapolis: Bobbs-Merrill, 1975), 277-93.

⁴⁰ This is held, not wholly without reason, but with (to my mind) insufficient attention to the naturalistic, metaphysical, and Kantian backdrops at issue, in Bruce Kuklick, *A History of Philosophy in America 1720-2000* (New York: Oxford, Clarendon Press, 2001). Compare, for a more philosophically refined discussion of similar issues, Naomi Scheman, "Non-Negotiable Demands: Metaphysics, Politics, and the Discourse of Needs," in *Future Pasts*, 315-38. See also Joel Isaac, "W.V. Quine and the Origins of Analytic Philosophy in the United States," *Modern Intellectual History* 2 (2005): 205-34.

⁴¹ Partly for this reason the Association of Symbolic Logic (ASL) founded the journal *The Bulletin of Symbolic Logic* in 1995, in order to collect papers that would be more accessible to readers, whether logicians or philosophers; many of these have been historical and/or philosophical in nature. The ASL has just founded a new journal to replace *The Journal of Philosophical Logic*, titled *The Review of Symbolic Logic*, whose aim is to include some of the

historical work I mention here under the broad purview of symbolic logic. The intertwining of the historical, the philosophical and the technical thus continues to be supported by the community.

⁴² A useful critique of Rorty's account is Susan Neiman, "Sure Path of a Science: Kant in the Analytic Tradition," in *Future Pasts*, 219-314.

⁴³ This point is made in an excellent survey of the issues, Tyler Burge, "Philosophy of Language and Mind: 1950-1990," *Philosophical Review* 101 (1992): 3-51, at 15.

⁴⁴ Gary Hatfield, "The History of Philosophy as Philosophy," in *Analytic Philosophy and History of Philosophy*, eds. Tom Sorell and J.A.J. Rogers, *Mind Association Occasional Series* (Oxford: Oxford University Press, 2005), 82-128. Gary Hatfield, "Epistemology and Science in the Image of Modern Philosophy: Rorty on Descartes and Locke," in *Future Pasts*, 393-413.

⁴⁵ Fabrice Pataut, "An Anti-Realist Perspective on Language, Thought, Logic and the History of Analytic Philosophy: An Interview with Michael Dummett," *Philosophical Investigations* 19 (1996): 1-33.

⁴⁶ Relevant historical discussions which treat the philosophical reframing of the surroundings via the history of mathematics and logic may be found in Volker Peckhaus, *Hilbertprogramm Und Kritische Philosophie: Das Göttinger Modell Interdisziplinärer Zusammenarbeit Zwischen Mathematik Und Philosophie* (Göttingen: Vandenhoeck + Ruprecht Gm, 1990). Jaakko Hintikka, ed., *From Dedekind to Gödel: Essays on the Development of the Foundations of Mathematics*, vol. 251, *Synthese Library* (Dordrecht: Kluwer Academic, 1995). William W. Tait, *The Provenance of Pure Reason: Essays in the Philosophy of Mathematics and Its History, Logic and Computation in Philosophy*; (Oxford: New York, 2005). David Hilbert, *David Hilbert's Lectures*

on the Foundations of Mathematics and Physics, 1891-1933, ed. William Ewald, et al. (Berlin: New York, 2004-).

⁴⁷ For the term “classical picture” see Mark Wilson, *Wandering Significance: An Essay on Conceptual Behavior* (New York: Oxford University Press, 2006). Wilson associates the “picture” with Russell. Unlike Hacker and Soames, he embeds his discussion within the development of issues in the application of logic and mathematics, making serious philosophical weather of concerns about the differing sorts of grounds behind the postulation of propositional contents’ association with words and sentences. And he takes some of the worries and concerns of Austin and Wittgenstein very seriously. Compare Mark Wilson, “Wittgenstein: Physica Sunt, Non Leguntur,” *Philosophical Topics* 25 (1997): 289-316.

⁴⁸ See *Frege’s Philosophy in Context*, volume I of Beaney and Reck, eds., *Gottlob Frege: Critical Assessments of Leading Philosophers*.

⁴⁹ On the transnational aspiration see Sluga, “What Has History to Do with Me?”, 112-113.

⁵⁰ Michael Friedman, *A Parting of the Ways: Carnap, Cassirer, and Heidegger* (Peru, IL: Carus Publishing, 2000).

⁵¹ An important work in the genre of institutional history is Hans Sluga, *Heidegger's Crisis: Philosophy and Politics in Nazi Germany* (Cambridge, MA: Harvard University Press, 1993). See also David G. Stern and Béla Szabados, eds., *Wittgenstein Reads Weininger* (New York: Cambridge University Press, 2004). Friedrich Stadler and Peter Weibel, eds., *The Cultural Exodus from Austria*, 2nd ed. (Vienna, New York: Springer Verlag, 1995). Friedrich Stadler, *The Vienna Circle: Studies in the Origins, Development, and Influence of Logical Empiricism* (New York: Springer Verlag, 2001). The activities of the Institut Wiener Kreis, of which Stadler is the director, have brought about a great deal of collaborative work on the period across a wide

range of areas intersecting with activities of the Vienna circle, (including the Institut Yearbook) annually since 1993 (see <http://www.univie.ac.at/ivc/>). On Austrian philosophy, see Barry Smith, *Austrian Philosophy : The Legacy of Franz Brentano* (Chicago: Open Court, 1994). Keith Lehrer and Johann Christian Marek, eds., *Austrian Philosophy Past and Present. Essays in Honour of Rudolf Haller, Boston Studies in the Philosophy of Science* (Dordrecht: Kluwer, 1997). Thomas Uebel, “Otto Neurath, the Vienna Circle and the Austrian Tradition,” in *German Philosophy since Kant*, ed. Anthony O’Hear (New York: Cambridge University Press, 1999), 249-70. Compare Alan Richardson and Thomas Uebel, eds., *The Cambridge Companion to Logical Empiricism* (New York: Cambridge University Press, 2007).

⁵² For legitimate worries about some unreflective nationalistic tendencies inherent in certain forms of the history of philosophy, as well as an interesting perspective on current contemporary historical work far more pessimistic than my own, see Kevin Mulligan, Peter Simons, and Barry Smith, “What’s Wrong with Contemporary Philosophy?,” *Topoi* 25 (2006): 63-67. For clearly unnoxious examples of accessible historicizing see Michael Friedman and Dagfinn Føllesdal, “The Rise of American Philosophy,” *Daedalus* (2006): 116-26.

⁵³ See note 38 above.

⁵⁴ Thomas E. Uebel, *Rediscovering the Forgotten Vienna Circle: Austrian Studies on Otto Neurath and the Vienna Circle* (Dordrecht: Kluwer, 1991). Elisabeth Nemeth and Friedrich Stadler, eds., *Encyclopedia and Utopia: The Life and Work of Otto Neurath (1882-1945), Vienna Circle Institute Yearbook* (Dordrecht, Boston: Kluwer, 1996). Elisabeth Nemeth, Stefan W. Schmitz and Thomas E. Uebel, “Otto Neurath’s Economics in Context,” in *Vienna Circle Institute yearbook*, vol. 13 (Dordrecht ; London: Springer/SpringerLink, 2008), . Otto Neurath, Uebel Thomas E., and Cohen Robert S., *Otto Neurath: Economic Writings: Selections, 1904-*

1945, *Vienna Circle Collection* (Dordrecht: London, 2004). Michael Stöltzner and Thomas E. Uebel, *Wiener Kreis: Texte Zur Wissenschaftlichen Weltauffassung Von Rudolf Carnap, Otto Neurath, Moritz Schlick, Philipp Frank, Hans Hahn, Karl Menger, Edgar Zilsel Und Gustav Bergmann, Philosophische Bibliothek* (Hamburg: Meiner, 2006).

⁵⁵ The Institut Wiener Kreis is coordinating the production of Schlick papers publications (several volumes have been published). See <http://www.univie.ac.at/ivc/index.htm>.

⁵⁶ See, e.g., Alan W. Richardson, "Narrating the History of Reason Itself: Friedman, Kuhn, and a Constitutive a Priori for the Twenty-First Century," *Perspectives on Science* 10 (2002): 253–74.

⁵⁷ Hacker and Soames follow this trend, though without acknowledging the prior work of others in establishing it. See Hacker, *Wittgenstein's Place*, at 12. Compare Avrum Stroll, *Twentieth-Century Analytic Philosophy* (New York: Columbia University Press, 2000), 7.

⁵⁸ For questions about the degree of professional dominance of positivism in the United States see Hilary Putnam, "A Half Century of Philosophy, Viewed from Within," and also Alexander Nehamas, "Trends in Recent American Philosophy," both in *Daedalus* 1 (1997). For remarks by C.I. Lewis that even such a "high-level" philosopher as Carl Hempel is a "trivializer of philosophic thinking" and that the relativism and subjectivism of positivism are "an expression of that immoralism and that repudiation of principle which is a major threat to all our civilization" see Murray G. Murphey, *C.I. Lewis: The Last Great Pragmatist* (Albany, NY: State University of New York Press, 2005), 254, 333. For broader pragmatist criticisms of the tradition see Richard Rorty, *Consequences of Pragmatism* (Mineapolis, MN: University of Minnesota Press, 1982). J. Rajchman and C. West, eds., *Post-Analytic Philosophy* (New York, N.Y.: Columbia University Press, 1985). For two volumes on the history of analytic philosophy arguing for the importance of pragmatism see Hilary Putnam, *Pragmatism* (Cambridge, MA:

Blackwells, 1995). Hilary Putnam, *The Collapse of the Fact/Value Dichotomy and Other Essays* (Cambridge, MA: Harvard University Press, 2002).

⁵⁹ There are many of these, but the Foundations of Mathematics (FOM) page run from NYU and *Arché* site for the research center at the University of St. Andrews are good examples.

⁶⁰ On Frege the most important anthologies have been Hans Sluga, ed., *The Philosophy of Frege*, 4 vols. (New York: Garland Press, 1993). Beaney and Reck, eds., *Gottlob Frege: Critical Assessments of Leading Philosophers*. My description of the state of Frege research is heavily indebted to the Beaney-Reck introductory remarks, and many of my citations are reprinted there, although here I am emphasizing the Frege-Wittgenstein connection more heavily than they do.

On Wittgenstein a good compendium is S.G. Shanker, ed. *Ludwig Wittgenstein: Critical Assessments* (New York: Routledge, 1987) issued in a second series 2001. These volumes cover many areas of philosophy. On the plethora of different trends in reading Wittgenstein see Anat Biletzki, *(Over)Interpreting Wittgenstein*, (Dordrecht; Boston: Kluwer Academic Publishers, 2003).

⁶¹ Important for understanding the immediate legacy of Wittgenstein were Rush Rhees, *Wittgenstein's on Certainty: There--Like Our Life*, ed. D. Z. Phillips (Malden, MA: Blackwell Pub., 2003), Rush Rhees, *Wittgenstein and the Possibility of Discourse*, ed. D. Z Phillips (New York, 1998).

⁶² A relevant anthology is David Bell and Neil Cooper, eds., *The Analytic Tradition: Meaning, Thought and Knowledge* (Cambridge, MA: Basil Blackwell, 1990). An important anthology from a decade earlier is Peter A. French, Theodore E. Uehling, and Howard K. Wettstein, eds., *Foundations of Analytic Philosophy*, vol. 6, *Midwest Studies in Philosophy* (Minneapolis: University of Minnesota Press, 1981).

⁶³ Peter Hylton, *Russell, Idealism and the Emergence of Analytic Philosophy* (New York: Oxford University, Clarendon Press, 1990). Nicholas Griffin, *Russell's Idealist Apprenticeship* (Oxford : Clarendon Press: New York, 1991).

⁶⁴ On Russell see, e.g., the volume C. Wade Savage and C. Anthony Anderson, eds., *Rereading Russell, Minnesota Studies in the Philosophy of Science* (Minneapolis, MN: University of Minnesota, 1989). This volume evinces all three of the themes I mention here. See also Alejandro R. Garciadiego, *Bertrand Russell and the Origins of the Set-Theoretic 'Paradoxes'* (Basel: Birkhaeuser Verlag, 1992). A good bibliography and lucid discussion of Russell's logical views may be found in Bernard Linsky, *Russell's Metaphysical Logic, CSLI Lecture Notes, 101* (Stanford, CA: CSLI Publishing, 1999). A later, more technical anthology is Godehard Link, ed., *One Hundred Years of Russell's Paradox: Mathematics, Logic, Philosophy* (Berlin: Walter de Gruyter, 2004). An instructive review

⁶⁵ Burge, "Philosophy of Language and Mind: 1950-1990."

⁶⁶ David Pears, "The Relation between Wittgenstein's Picture Theory of Propositions and Russell's Theories of Judgment," *The Philosophical Review* 86 (1977): 177-196. Stephen Somerville, "Wittgenstein to Russell (July 1913)," in *Language, Logic and Philosophy, Proceedings of the 4th International Wittgenstein Symposium*, eds. Rudolf Haller and W. Grassl (Vienna: Hölder-Pichler-Tempsky, 1980), 182-88. Nicholas Griffin, "Wittgenstein's Criticism of Russell's Theory of Judgment," *Russell* 5 (1985): 132-45. See the Introductory material to the reprint of Russell's manuscript that helped to stimulate interest: Bertrand Russell, Elizabeth Ramsden Eames, and Kenneth Blackwell, *Theory of Knowledge: The 1913 Manuscript* (New York: George Allen & Unwin, 1984). A more recent piece bearing on the theme is Thomas Ricketts, "Pictures, Logic, and the Limits of Sense in Wittgenstein's Tractatus," in *The*

Cambridge Companion to Wittgenstein, eds. Hans Sluga and David Stern (New York: Cambridge University Press, 1996), 59-99.

⁶⁷ A fine work on Russell which, however, quite explicitly eschews the treatment of Russell as a systematic philosopher, i.e., as someone reacting to Idealism, or pursuing resolutions of mathematical and/or metaphysical questions, is Mark Sainsbury, *Russell* (Boston: Routledge & Kegan Paul, 1979).

⁶⁸ Ricketts, "Pictures, Logic, and the Limits of Sense in Wittgenstein's Tractatus." Peter Hylton, "Functions, Operations, and Sense in Wittgenstein's Tractatus," in *Early Analytic Philosophy*, ed. Tait, 91-105 (Reprinted in Hylton, *Propositions, Functions, and Analysis: Selected Essays on Russell's Philosophy*, 138-152). Warren Goldfarb, "Wittgenstein's Understanding of Frege: The Pre-Tractarian Evidence" in *From Frege to Wittgenstein*, 185-200. Cora Diamond, "Truth before Tarski: After Sluga, after Ricketts, after Geach, after Goldfarb, Hylton, Floyd, and Van Heijenoort," in *From Frege to Wittgenstein*, 252-282. Gregory Landini, *Wittgenstein's Apprenticeship with Russell* (New York: Cambridge University Press, 2007). Rosalind Carey, *Russell and Wittgenstein on the Nature of Judgment* (New York: Continuum International Publishing Group, 2007).

⁶⁹ See Paul J. Hager, *Continuity and Change in the Development of Russell's Philosophy*, *Nijhoff International Philosophy Series* (Dordrecht: Kluwer Academic, 1994). Nicholas Griffin, ed., *The Cambridge Companion to Bertrand Russell* (New York: Cambridge University Press, 2003).

⁷⁰ See, e.g., David Bell, "The Revolution of Moore and Russell : A Very British Coup?," in *German Philosophy since Kant*, ed. Anthony O'Hear (New York: Cambridge University Press, 1999), 193-208.

⁷¹ Especially with respect to the interpretation of Wittgenstein. Here see Marie McGinn, *Sense and Certainty: A Dissolution of Skepticism* (New York: Blackwell, 1989). Juliet Floyd, "The Continuing Significance of Moore's Objection to Wittgenstein's Discussions of Mathematics, 1930-33 and Its Bearing on 'on Certainty'," in *The 17th International Wittgenstein Symposium 1994*, ed. Jaakko Hintikka and Klaus Puhl (Kirchberg am Wechsel: Austrian Ludwig Wittgenstein Society, 1994), 163-70.

⁷² Susana Nuccetelli and Gary Seay, eds., *Themes from G.E. Moore: New Essays in Epistemology and Ethics* (New York: Oxford University Press, 2007).

⁷³ In the United States, this was partly due to the revitalization of political philosophy and influential criticisms of intuitionism directed at Moore in John Rawls, *A Theory of Justice* (Cambridge, MA: Harvard University Press, 1971). It also had to do with the rise of strong forms of naturalism: Moore's "naturalistic fallacy" appeared too quaint, simplistic or mystifying to form a viable response to e.g., neurophilosophy and sociobiology, which were becoming increasingly influential at this time.

⁷⁴ Baldwin, *G.E. Moore*.

⁷⁵ Barry Stroud, *The Significance of Philosophical Scepticism for Everyday Life* (New York: Oxford, the Clarendon Press, 1984). Crispin Wright, "Facts and Certainty," *Proceedings of the British Academy* 71 (1985): 429-72. Richard Cartwright, *Philosophical Essays* (Cambridge, MA/London: M.I.T. Press, 1987). Crispin Wright, "(Anti-)Sceptics Simple and Subtle: Moore and McDowell," *Philosophy and Phenomenological Research* 65 (2002): 330-48. James Pryor, "What's Wrong with Moore's Argument?," *Philosophical Issues* 14 (2004): 349-78. Nuccetelli and Seay, eds., *Themes from G.E. Moore: New Essays in Epistemology and Ethics*.

⁷⁶ Even Wittgenstein labelled Moore sentences a genuine logical “discovery” and urged him to publish a paper on the phenomenon: see Wittgenstein to Moore, October 1944, in Ludwig Wittgenstein, *Wittgenstein in Cambridge: Letters and Documents, 1911-1951*, ed. Brian McGuinness, 4th ed. (Malden, MA, Oxford: Blackwell, 2008).

⁷⁷ See Arthur Collins, “Could Our Beliefs Be Representations in Our Brains?,” *Journal of Philosophy* 74 (1979): 225-43. Roy Sorensen, “Epistemic Paradoxes,” in *The Stanford Encyclopedia of Philosophy*, ed. Edward N Zalta (2006) <http://plato.stanford.edu/entries/epistemic-paradoxes/>. Mitchel Green and John N. Williams, eds., *Moore’s Paradox: New Essays on Belief, Rationality, and the First Person* (New York: Oxford, Clarendon Press, 2007).

⁷⁸ A slightly earlier work that approaches similar issues, and from a point of view not unlike with that of Hylton, but covering a wider group of figures (Frege, Wittgenstein, Davidson, etc.) is Anthony Palmer, *Concept and Object: The Unity of the Proposition in Logic and Psychology* (New York: Routledge, 1988).

⁷⁹ Alberto Coffa, *The Semantic Tradition from Kant to Carnap* (New York: Cambridge University Press, 1991). See also Alberto Coffa, “Kant, Bolzano, and the Emergence of Logicism,” *Journal of Philosophy* 79, no. 11 (1982): 679-89.

⁸⁰ See, e.g., Michael Kremer, “The Argument Of ‘On Denoting’,” *Philosophical Review*, 103 (1994): 249-97. Bernard Linsky and Guido Munich Imaguire, eds., *On Denoting: 1905-2005* (Munich: Philosophia Verlag, 2005).

⁸¹ See, in particular, the editor’s introduction to Bertrand Russell, *Foundations of Logic 1903-05. Vol. IV*, ed. Alasdair Urquhart, *The Collected Papers of Bertrand Russell* (New York: Routledge, 1994). See also Bernard Linsky, “Russell’s Notes on Frege’s *Grundgesetze der Arithmetik*,

from §53," *Russell: The Journal of Bertrand Russell Studies* 26 (2006): article 4

(<http://digitalcommons.mcmaster.ca/russelljournal/vol26/iss2/4>).

⁸² For more of this see Hylton, *Propositions, Functions, and Analysis: Selected Essays on Russell's Philosophy*.

⁸³ Jean van Heijenoort, "Logic as Calculus and Logic as Language," *Synthese* 17 (1967): 324-30. Reprinted in a collection with other essays of relevance to my overarching themes, Jean Van Heijenoort, *Selected Essays, History of Logic*, 3 (Napoli; Atlantic Highlands, N.J.: Bibliopolis ; Distributed in the U.S.A. by Humanities Press, 1985).

⁸⁴ Martin Kusch, *Language as Calculus vs. Language as Universal Medium: A Study in Husserl, Heidegger, and Gadamer* (Boston/Dordrecht: Kluwer Academic Publishers, 1989). Jaakko Hintikka, *Lingua Universalis vs. Calculus Ratiocinator: An Ultimate Presupposition of Twentieth-Century Philosophy Dordrecht* (Boston: Kluwer Academic, 1997).

⁸⁵ Saul A. Kripke, "Russell's Notion of Scope," *Mind* 114 (2005): 1005-38. Ian Proops, "Russell and the Universalist Conception of Logic," *Nous* 41, no. 1 (2007): 1-32. (The phrase "unhelpful" is from Proops, 25, not from Kripke.)

⁸⁶ Volker Peckhaus, "Calculus Ratiocinator Versus Characteristica Universalis? The Two Traditions in Logic, Revisited," *History and Philosophy of Logic* 25, February (2004): 3-14. (Reprinted in Beaney and Reck, eds., *Gottlob Frege: Critical Assessments* vol. 1.)

⁸⁷ Richard Rorty, ed., *The Linguistic Turn; Recent Essays in Philosophical Method* (Chicago: University of Chicago Press, 1967). The points are made explicit with respect to logicism in Richard Cartwright, "Propositions of Pure Logic," *Journal of Philosophy* 79, no. 11 (1982): 689-92. Compare Warren Goldfarb, "Semantics in Carnap: A Rejoinder to Alberto Coffa," *Philosophical Topics* 25 (1997): 185-200.

⁸⁸ Michael Dummett, *Frege. Philosophy of Language* (New York: Harper & Row, 1973).

⁸⁹ Michael Dummett, *Frege Philosophy of Language*, 2nd ed. (Cambridge, MA: Harvard University Press, 1981). Michael Dummett, *The Interpretation of Frege's Philosophy* (Cambridge, MA: Harvard University Press, 1981).

⁹⁰ Though he still believes that Frege's deepest significance lies in his relation to those who followed, and not preceded him, Dummett came to emphasize the importance of reading Frege with some regard to ideas of his then contemporaries. See Dummett, *Frege and Other Philosophers*, Preface. Dummett, *Origins of Analytical Philosophy*.

⁹¹ Hans Sluga, *Gottlob Frege* (Boston: Routledge & Kegan Paul, 1980).

⁹² See the papers collected in vol. 1 of *Frege's Philosophy of Thought and Language* of Michael Beaney and Erich H. Reck, eds., *Gottlob Frege: Critical Assessments of Leading Philosophers*.

⁹³ Burge, "Philosophy of Language and Mind: 1950-1990."

⁹⁴ For a collection of relevant articles from 1975-1992 see Sanford Goldberg and Andrew Pessin, eds., *The Twin earth chronicles : twenty years of reflection on Hilary Putnam's "The meaning of 'meaning'"* (Armonk, N.Y. : M. E. Sharpe, 1996).

⁹⁵ For some recent thoughts of Benacerraf on the fate of his writings, as well as a useful historical reflection, see Paul Benacerraf, "What Mathematical Truth Could Not Be-I," in *The Philosophy of Mathematics Today*, ed. Matthias Schirn (New York/Oxford: Oxford University Press, 1998), 33-76.

⁹⁶ Sluga, *Gottlob Frege*. Dummett, *Frege and Other Philosophers*. Wolfgang Carl, "Frege - a Platonist or a Neo-Kantian?," in *Building on Frege: New Essays on Sense, Content and Concept*, ed. A. Newen, U. Nortmann, and R. Stuhlmann-Laeisz (Stanford, CA: CSLI Publications, 2001). (Reprinted in Beaney and Reck, *Gottlob Frege: Critical Assessments*, 409–

24.) John MacFarlane, “Frege, Kant, and the Logic in Logicism,” *Philosophical Review* 111 (2002): 25-65.

⁹⁷ Gareth Evans, *The Varieties of Reference* (Oxford/New York: Clarendon Press, 1982). John McDowell, *Meaning, Knowledge, and Reality [a Collection of Papers]* (Cambridge, MA: Harvard University Press, 1998).

⁹⁸ See Michael Dummett, “Wittgenstein's Philosophy of Mathematics,” *Philosophical Review* 68 (1959): 324-48. An important early criticism was offered in B. Stroud, “Wittgenstein and Logical Necessity,” *Philosophical Review* 74 (1965): 504-18.

⁹⁹ See Burge, “Sinning Against Frege” (1979) and “Frege on Sense and Linguistic Meaning” (1990), both reprinted (with a postscript to the former) in Tyler Burge, *Truth, Thought, Reason: Essays on Frege* (New York: Oxford University Press, 2005). Thomas Ricketts, “Generality, Meaning and Sense in Frege,” *Pacific Philosophical Quarterly* 67 (1986): 172-195. Wolfgang Carl, *Frege's Theory of Sense and Reference: Its Origins and Scope* (New York: Cambridge University Press, 1994). Joan Weiner, “Has Frege a Philosophy of Language?,” in *Early Analytic Philosophy*, 249-73. For a dissenting, Platonistic reading of Frege see Jerrold J. Katz, *The Metaphysics of Meaning, Representation and Mind* (Cambridge, Mass.: MIT Press, 1990).

¹⁰⁰ Burton Dreben and Jean van Heijenoort, “Introductory note to Gödel 1929, 1930 and 1930a”, in Kurt Gödel, *Kurt Gödel Collected Works Volume I: Publications 1929-1936*, ed. Solomon Feferman et. al. (New York: Oxford University Press, 1986), 44-59. Michael Dummett, “Review, *Kurt Gödel Collected Works Volume I: Publications 1929-1936*,” *Mind* New Series (1987): 570-75. I survey the influence of the van Heijenoort reading – though without taking a stand on its correctness about Frege—in Juliet Floyd, “Frege, Semantics and the Double-

Definition Stroke,” in *The Story of Analytic Philosophy: Plot and Heroes*, ed. Anat Biletzki and Anat Matar (New York: Routledge, 1998), 141-66.

¹⁰¹ This issues’ influence on (differing) readings of Wittgenstein is seen in Thomas Ricketts, “Frege, the Tractatus, and the Logocentric Predicament,” *Noûs* 19 (1985): 3-15. Merrill B. Hintikka and Jaakko Hintikka, *Investigating Wittgenstein* (Oxford-New York: Blackwell, 1986), Ricketts, “Objectivity and Objecthood: Frege's Metaphysics of Judgment.”

¹⁰² Gordon P. Baker and P. M. S. Hacker, *Frege: Logical Excavations* (New York; Oxford: Oxford University Press ; Blackwell, 1984). See Dummett’s review, “An Unsuccessful Dig”, reprinted in Dummett, *Frege and Other Philosophers*.

¹⁰³ Warren Goldfarb, “Logic in the Twenties: The Nature of the Quantifier,” *Journal of Symbolic Logic* 44 (1979): 351-88; “Poincaré against the Logicians,” in *History and Philosophy of Modern Mathematics*, ed. William Aspray and Philip Kitcher, *Minnesota Studies in the Philosophy of Science* (Minneapolis, MN: University of Minnesota Press, 1985), 61-81; “Russell's Reasons for Ramification,” in *Rereading Russell, Essays in Bertrand Russell's Metaphysics and Epistemology*, 24-40.

¹⁰⁴ Jaakko Hintikka, *Logic, Language-Games and Information: Kantian Themes in the Philosophy of Logic* (Oxford: Clarendon Press, 1973).

¹⁰⁵ An important volume here is Leila Haaparanta and Jaakko Hintikka, eds., *Frege Synthesized*. For a later piece see Hans Sluga, “Jaakko Hintikka (and Others) on Truth,” in *The Philosophy of Jaakko Hintikka*, ed. R.E. Auxier and Lewis Edwin Hahn (Chicago: Open Court, 2006).

¹⁰⁶ Philip Kitcher, *The Nature of Mathematical Knowledge* (New York: Oxford University Press, 1984).

¹⁰⁷ For a development of the Benacerraf reading see, e.g., Jamie Tappenden, "Extending Knowledge and 'Fruitful Concepts': Fregean Themes in the Foundations of Mathematics," *Noûs* 29 (1995): 427-67.

¹⁰⁸ Charles Parsons, "Frege's Theory of Number," in *Philosophy in America*, ed. Max Black (Ithaca, New York: Cornell University Press, 1965), 180-203. (Reprinted in Parsons, *Mathematics in Philosophy* (Ithaca, New York: Cornell University Press, 1983, 150-175).

¹⁰⁹ See Michael Dummett, *Frege Philosophy of Mathematics* (Cambridge, MA: Harvard University Press, 1991).

¹¹⁰ Crispin Wright, *Frege's Conception of Numbers as Objects* (Aberdeen: Aberdeen University Press, 1983). George Boolos, *Logic, Logic and Logic* (Cambridge, MA: Harvard University Press, 1998).

¹¹¹ Hume's principle states that for any concepts F and G , the number of F 's is equal to the number G s if and only if there exists a one-to-one correspondence between the F 's and the G s. An accessible overview of Frege's theorem and surrounding developments is Edward N. Zalta, "Frege's Logic, Theorem, and Foundations for Arithmetic," in *The Stanford Encyclopedia of Philosophy*, at <http://plato.stanford.edu/entries/frege-logic/> (2008). See also Richard Heck, "Frege's Theorem: An Introduction," *The Harvard Review of Philosophy* 7 (1999): 57-63.

¹¹² The best technical overview of how much can be recovered is in John P. Burgess, *Fixing Frege* (Princeton, NJ: Princeton University Press, 2005). Burgess concisely summarizes the research program that stretches back to observations made in Parsons, "Frege's Theory of Number." And to Peter Geach, "Critical Notice of Michael Dummett, Frege: Philosophy of Language," *Mind* 85 (1976): 436-49. See also William Demopoulos, ed., *Frege's Philosophy of Mathematics* (Cambridge, MA: Harvard University Press, 1995). Bob Hale and Crispin Wright,

The Reason's Proper Study: Essays Towards a Neo-Fregean Philosophy of Mathematics (New York: Oxford University Press, 2001). Bernard Linsky and Edward N Zalta, "What Is Neo-Logicism?", *The Bulletin of Symbolic Logic* 12 (2006): 60-99.

¹¹³ An excellent survey of the issues is H.G. Dales and G. Oliveri, eds., *Truth in Mathematics* (Oxford: Clarendon Press, 1998).

¹¹⁴ A broad-ranging and controversial though interesting work is Mark Steiner, *The Applicability of Mathematics as a Philosophical Problem* (Cambridge, MA: Harvard University Press, 1998). See also Penelope Maddy, *Naturalism in Mathematics* (New York: Oxford University Press, 1997), and *Second Philosophy: A Naturalistic Method*.

¹¹⁵ See all the articles in chapter IV of Matthias Schirn, ed., *The Philosophy of Mathematics Today* (New York: Oxford University Press, 1998).

¹¹⁶ David Bell, *Frege's Theory of Judgement* (Oxford; New York: Clarendon Press ; Oxford University Press, 1979). Thomas Ricketts, "Logic and Truth in Frege," *The Aristotelian Society Supplementary Volume* 70 (1996): 120-40. James Levine, "Logic and Truth in Frege," *Proceedings of the Aristotelian Society, Supplementary Volume* (1996): 141-75. Burge, *Truth, Thought, Reason: Essays on Frege*, Part I. Sanford Shieh, "On Interpreting Frege on Logic and Truth", in *From Frege to Wittgenstein*, 96-124.

¹¹⁷ The intertwining of Kantian and Wittgensteinian themes with the reading of Frege is at issue in an interesting exchange between Bell and Dummett from the late 1980s. David Bell, "Thoughts," *Notre Dame Journal of Formal Logic* 28 (1987): 36-50. Michael Dummett, "More About Thoughts," *Notre Dame Journal of Formal Logic* 30 (1989): 1-19. See also James Conant, "The Search for Logically Alien Thought: Descartes, Kant, Frege, and the Tractatus,"

Philosophical Topics, *The Philosophy of Hilary Putnam* 20 (1991), 115-180, Hilary Putnam and James Conant, *Words and Life* (Cambridge, Mass.: Harvard University Press, 1994).

¹¹⁸ Gottfried Gabriel and Wolfgang Kienzler, eds., *Frege in Jena: Beiträge Zur Spurensicherung* (Würzburg: Königshausen & Neumann GmbH, 1997). Relevant are all the essays reprinted in *Frege's Philosophy in Context*, vol. 1 of Beaney and Reck, eds., *Gottlob Frege: Critical Assessments of Leading Philosophers*.

¹¹⁹ Ricketts, "Generality, Meaning and Sense in Frege." Michael Kremer, "The Multiplicity of General Propositions," *Noûs* 26 (1992), 409-426. Jamie Tappenden, "Geometry and Generality in Frege's Philosophy of Arithmetic," *Synthese* 102 (1995), 319-361. Macbeth, *Frege's Logic*. Norma Goethe, "Review Of "Frege's Logic", by Danielle Macbeth," *Journal of Symbolic Logic* 12, no. 3 (2006): 496-8.

¹²⁰ See Reck, *From Frege to Wittgenstein: Perspectives on Early Analytic Philosophy*.

¹²¹ See, e.g., Jason Stanley, "Truth and Metatheory in Frege," *Pacific Philosophical Quarterly* 77 (1996): 45-50. Richard Heck, "Frege and Semantics," *Grazer Philosophische Studien* 75 (2007): 27-63. Thomas Ricketts, "Frege's 1906 Foray into Metalogic" *Philosophical Topics* 25 (1997): 169-187. Thomas Ricketts, "Truth-Values and Courses-of-Values in Frege's Grundgesetze," in *Early Analytic Philosophy*: ed. W.W. Tait, 187-211. Jamie Tappenden, "Metatheory and Mathematical Practice in Frege," *Philosophical Topics* 25 (1997): 213-64. Aldo Antonelli and Robert May, "Frege's New Science," *Notre Dame Journal of Formal Logic* 41 (2000): 242-70. See also Joan Weiner, "Semantic Descent," *Mind* 114 (2005): 324-54.

¹²² Soames also notes that Wittgenstein's philosophy of logic and mathematics continues "to intrigue and inspire philosophers", but does not explain why that might be (*The Age of Meaning*, 60-61).

¹²³ M. R. Bennett and P.M.S. Hacker, *Philosophical Foundations of Neuroscience* (Cambridge, MA: Blackwell Publishing, 2003).

¹²⁴ Hacker does allude to the legacy of Wittgenstein at Harvard (*Wittgenstein's Place in Twentieth Century Philosophy*, 265, 317 n10). But one is left with the impression that this tradition is largely moribund.

¹²⁵ Hintikka, "Intellectual Autobiography", in Auxier and Hahn, eds., *The Philosophy of Jaakko Hintikka*, 3-85, at 43.

¹²⁶ Interest in using Austin's philosophy has been stimulated by increased attention to contextualism in epistemology and speech act theory. See, e.g., Stanley Cavell, *Philosophical Passages Wittgenstein, Emerson, Austin, Derrida, The Bucknell Lectures in Literary Theory*, 12 (Oxford, UK; Cambridge, USA: Blackwell, 1995). Putnam, *The Threefold Cord: Mind, Body, and World*. Jürgen Habermas, "Hermeneutic and Analytic Philosophy. Two Complementary Versions of the Linguistic Turn?," in *German Philosophy since Kant*, ed. Anthony O'Hear (New York: Cambridge University Press, 1999), 413-442. Sabina Lovibond, *Ethical Formation* (Cambridge, Mass.: Harvard University Press, 2002). Stanley Cavell, "Performative and Passionate Utterance" in Stanley Cavell, *Philosophy the Day after Tomorrow* (Cambridge, Mass.: Belknap Press of Harvard University Press, 2005), 155-191. Travis, "The Silence of the Senses." Charles Travis, "A Sense of Occasion," *Philosophical Quarterly* 55, no. 219 (2005). Adam Leite, "Epistemological Externalism and the Project of Traditional Epistemology," *Philosophy and Phenomenological Research* 70 (2005): 505-533. Alice Crary and Sanford Shieh, eds., *Reading Cavell* (New York: Routledge, 2006). *New Essays on the Philosophy of J.L. Austin*, eds. R. Sørly and M. Gustafsson (New York: Oxford University Press, forthcoming).

¹²⁷ For an emphasis on the social character of meaning see Meredith Williams, *Wittgenstein, Mind and Meaning: Toward a Social Conception of Mind* (London/New York: Routledge, 1999). See also the important exceptions of Bloor and Kusch, who have championed the empirical/sociological approach to Wittgenstein. Martin Kusch, *The Sociology of Philosophical Knowledge* (Boston, Dordrecht: Synthese Library, 2000). Martin Kusch, *A Sceptical Guide to Meaning and Rules: Defending Kripke's Wittgenstein* (Montreal: McGill-Queen's University Press, 2006).

¹²⁸ Michael Friedman has offered an insightful historical argument, based on historical and philosophical reappraisal of Wittgenstein, that criticizes the philosophical agenda of the sociology of scientific knowledge (SSK) program in the history and philosophy of science. For his remarks on the importance of Wittgenstein scholarship to this critical argument, see Michael Friedman, "On the Sociology of Scientific Knowledge and Its Philosophical Agenda," *Studies in the History and Philosophy of Science* 29, no. 2 (1998): 239-271.

¹²⁹ On this see Biletzki, *(over)Interpreting Wittgenstein*. Compare a book where Dummett is still playing the role of foil for interpretation: Rupert J. Read, *Applying Wittgenstein*, ed. Laura Cook, *Continuum Studies in British Philosophy* (London/New York: Continuum, 2007).

¹³⁰ See Naomi Scheman and Peg O'Connor, *Feminist Interpretations of Ludwig Wittgenstein, Re-Reading the Canon* (University Park, Pa.: Pennsylvania State University Press, 2002), Alessandra Tanesini, *Wittgenstein: A Feminist Interpretation* (Malden, MA: Polity Press, 2004), Peg O'Connor, *Morality and Our Complicated Form of Life: Feminist Wittgensteinian Metaethics* (University Park, PA: Pennsylvania State University Press, 2008).

¹³¹ Burge’s “Frege on Knowing the Third Realm” (1992, reprinted as chapter 8 of his *Truth, Thought and Reason*) offers an interesting defense of a Platonist or rationalist view of Frege. For a response, see Joan Weiner, “Realism Bei Frege: Reply to Burge,” *Synthese* (1995): 363-382.

¹³² See Charles Travis, *Thought's Footing* (New York: Oxford University Press, 2006). Travis’s important reading of *Philosophical Investigations* applies what he calls (p. 1) “one central methodological principle: if you want to understand what Wittgenstein is up to at some given point in the *Investigations*, always look to Frege – to how what Wittgenstein says may be a reaction to something Frege said (whether by way of modification, or by way of rejection).” That the approach is alive in contemporary philosophy is illustrated by interesting responses to Travis’s earlier work (also based on this principle) offered by Jerry A. Fodor, *Hume Variations* (New York: Oxford, 2003), pp. 100-11.

¹³³ See G.E.M. Anscombe, *An Introduction to Wittgenstein’s Tractatus* (Philadelphia: University of Pennsylvania Press, 1971), 12, where she remarks that “almost all that has been published about [the *Tractatus*] is wildly irrelevant. If this has had any one cause, that cause has been the neglect of Frege and the new direction that he gave to philosophy.” Compare Geach’s Preface to Gottlob Frege, *Logical Investigations*, ed. P.T. Geach, trans. P.T. Geach and R.H. Stoothoff (New Haven: Yale University Press, 1977).

¹³⁴ Two important pieces arguing this are Stephen Mulhall, “Philosophy’s Hidden Essence,” in *Wittgenstein at Work*, ed. Ammereller and Fischer (London, New York: Routledge, 2004), 63-85. Denis McManus, “Philosophy in Question: Philosophical Investigations 133,” *Philosophical Investigations* 18 (1995): 348-361.

¹³⁵ See David Stern, *Wittgenstein's Philosophical Investigations: An Introduction* (New York/Cambridge U.K.: Cambridge University Press, 2004). Alois Pichler and Simo Säätelä, eds.,

Wittgenstein: The Philosopher and His Works, vol. 2, *Publications of the Austrian Ludwig Wittgenstein Society New Series* (Frankfurt and Paris: Ontos Verlag, 2006).

¹³⁶ See, for example, S.G. Shanker, *Wittgenstein's Remarks on the Foundations of AI* (New York: Routledge, 1998). An important precursor to this book where Wittgenstein is discussed is Judson Chambers Webb, *Mechanism, mentalism, and metamathematics : an essay on finitism* (Boston and Dordrecht: D. Reidel, 1980). As previously mentioned, Wittgenstein's thought is applied directly to philosophical questions about the brain in M. R. Bennett and P.M.S. Hacker, *Philosophical Foundations of Neuroscience*. See also Danièle Moyal-Sharrock, ed., *Perspicuous Presentations: Essays On Wittgenstein's Philosophy Of Psychology* (Basingstoke, New York : Palgrave Macmillan, 2007).

¹³⁷ See A.W. Moore, *The Infinite*, 2nd ed. (London: Routledge, 2005 (1st edition was 1990)), Juliet Floyd, "Wittgenstein, Gödel and the Trisection of the Angle," in *From Dedekind to Gödel: Essays on the Development of the Foundations of Mathematics*, ed. Jaakko Hintikka, *Synthese Library* (Dordrecht: Kluwer Academic, 1995), 373-426. Maddy, *Naturalism in Mathematics*. Marion, *Wittgenstein, Finitism and the Foundations of Mathematics*. Susan G. Sterrett, *Wittgenstein Flies a Kite : A Story of Models of Wings and Models of the World* (New York: Pi Press, 2006). Juliet Floyd, "Wittgenstein on Philosophy of Logic and Mathematics," in *The Oxford Handbook to the Philosophy of Logic and Mathematics*, ed. Stewart Shapiro (New York: Oxford University Press, 2005): 75-128.

¹³⁸ Avner Baz, "What's the Point of Seeing Aspects?," *Philosophical Investigations* 23, no. 2 (2000): 97-121, Juliet Floyd, "On Being Surprised: Wittgenstein on Aspect Perception, Logic and Mathematics," in *Seeing Wittgenstein Anew: New Essays on Aspect Seeing*, ed. V. Krebs and

W. Day (New York: Cambridge University Press, forthcoming), Stephen Mulhall, *On Being in the World : Wittgenstein and Heidegger on Seeing Aspects* (London: New York, 1990).

¹³⁹ Gordon P. Baker and Hacker P. M. S., *An Analytical Commentary on the Philosophical Investigations* (Chicago: University of Chicago Press, 1980-). Gordon P. Baker and Hacker P. M. S., *Wittgenstein, Meaning and Understanding : Essays on the Philosophical Investigations*, University of Chicago Press ed. (Chicago: University of Chicago Press, 1985), Gordon P. Baker and Hacker P. M. S., *Wittgenstein: Rules, Grammar and Necessity, An Analytical Commentary on The "Philosophical Investigations"* (Oxford: Cambridge, Mass., 1985/1992), P. M. S. Hacker, *Wittgenstein, Meaning and Mind* (Oxford, UK: Cambridge, Mass., USA, 1993). Gordon P. Baker and P. M. S. Hacker, *Wittgenstein: Understanding and Meaning*, 2nd, extensively revised by P.M.S. Hacker ed. (Malden, MA: Oxford: Blackwell Publishers, 2005), P. M. S. Hacker, *Wittgenstein, Mind and Will, An Analytical Commentary on the Philosophical Investigations* (Oxford: Cambridge, Mass., USA, 1996).

¹⁴⁰ See Gordon P. Baker, "Criteria: A New Foundation for Semantics," *Ratio* 16 (1974): 156-189.

¹⁴¹ See the Preface to *Insight and Illusion* (revised edition) and chapters 7-8 of Hacker, *Wittgenstein: Connections and Controversies*.

¹⁴² There is of course much continued debate about this notion of a criterion. A very influential and critical response to Baker (both as reading of Wittgenstein and as philosophically worthy conception) is John McDowell, "Criteria, Defeasibility and Knowledge," *Proceedings of the British Academy* 68 (1982): 455-479. Reprinted in John McDowell, *Meaning, Knowledge and Reality* (Cambridge, MA: Harvard University Press, 1998), 369-394. See also, more recently, Steven G. Affeldt, "The Ground of Mutuality: Criteria, Judgment and Intelligibility in Stephen

Mulhall and Stanley Cavell," *European Journal of Philosophy* 6, no. 1 (1998): 1-31 and the response, Stephen Mulhall, "The Givenness of Grammar: A Reply to Steven Affeldt," *European Journal of Philosophy* 6 (1998): 32-44.

¹⁴³ Juliet Floyd, "Wittgenstein on 2,2,2...: On the Opening of *Remarks on the Foundations of Mathematics*," *Synthese* 87, no. 1 (1991): 143-180. Joachim Schulte, "Ways of Reading Wittgenstein: Observations on Certain Uses of the Word 'Metaphysics'," in *Wittgenstein and His Interpreters: Essays in Memory of Gordon Baker*, ed. Oskari Kuusela and Guy Kahane (Malden, MA/Oxford: Blackwell, 2007), 145-173, at 167 n 23.

¹⁴⁴ See the 1986 second edition of his work on the *Tractatus*, where Hacker bemoans the fact that he had early been "in the grip of a neo-Kantian picture of the relation between experience and the objects of experience" and retracts his earlier willingness to go along with a truth-conditional realist reading of the book. P. M. S. Hacker, *Insight and Illusion: Wittgenstein on Philosophy and the Metaphysics of Experience* (Oxford: Clarendon Press, 1972; second edition 1986), ix. Sluga notes with regret that Kant has essentially vanished from Hacker's later work (*What Has History to do With Me?*, 109).

¹⁴⁵ A.W. Moore, "Transcendental Idealism in Wittgenstein and Theories of Meaning," *Philosophical Quarterly* 35 (1985): 134-55. David Pears, *The False Prison, Volume I: A Study of the Development of Wittgenstein's Philosophy* (Oxford; New York: Clarendon Press ; Oxford University Press, 1987). David Pears, *The False Prison, Volume II: A Study of the Development of Wittgenstein's Philosophy* (Oxford: Clarendon Press, 1988). Denis McManus, ed., *Wittgenstein and Scepticism* (New York: Routledge, 2004).

¹⁴⁶ Peter Sullivan, "The 'Truth' in Solipsism, and Wittgenstein's Rejection of the *a priori*," *European Journal of Philosophy* 4 (1996): 195-219. Juliet Floyd, "The Uncaptive Eye:

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¹⁴⁷ Gordon P. Baker, *Wittgenstein's Method: Neglected Aspects* (Malden, MA: Blackwell Publishing, 2004).

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¹⁵¹ Conant, "The Search for Logically Alien Thought: Descartes, Kant, Frege, and the *Tractatus*." Cora Diamond and James Conant, "On Reading the *Tractatus* Resolutely: Reply to Meredith

Williams and Peter Sullivan," in *Wittgenstein's Lasting Significance*, ed. B. Weiss and M. Kölbel (New York: Routledge, 2004), 46-99.

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¹⁵⁹ Eli Friedlander, *Signs of Sense: Reading Wittgenstein's Tractatus* (Cambridge, MA: Harvard University Press 2001). Matthew Ostrow, *Wittgenstein's "Tractatus": A Dialectical Interpretation* (New York: Cambridge University Press, 2002). Barry Stocker, ed., *Post-Analytic Tractatus* (Aldershot: Ashgate Publishing, 2004). David Wiggins, "Wittgenstein on Ethics and the Riddle of Life", *Philosophy* 79 (2004): 363-391. Alfred Nordmann, *Wittgenstein's Tractatus: An Introduction* (New York: Cambridge University Press, 2005). Marie McGinn, *Elucidating the Tractatus* (New York: Oxford University Press, 2006). Denis McManus, *The Enchantment of Words: Wittgenstein's Tractatus Logico-Philosophicus* (New York: Oxford University Press, 2006). Roger White, *Wittgenstein's Tractatus, a Reader's Guide* (London: Continuum, 2006).

¹⁶⁰ Two anthologies are Holtzman and Leich, eds., *Wittgenstein: To Follow a Rule*, Alexander Miller and Crispin Wright, eds., *Rule-Following and Meaning* (Montréal: McGill-Queen's University Press, 2002).

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¹⁶² Crispin Wright, "Rule-Following without Reasons: Wittgenstein's Quietism and the Constitutive Question," *Ratio* 20 (2007): 481-502.

¹⁶³ Peter Sullivan, "Simplicity and Analysis in Early Wittgenstein," *European Journal of Philosophy* 11 (2003): 72-88. Peter Sullivan, "The General Propositional Form Is a Variable' (Tractatus 4.53)," *Mind* 113 (2004): 43-56. Peter Sullivan, "What Is the *Tractatus* About?," in *Wittgenstein's Lasting Significance*, ed. B. Weiss and M. Kölbel, 32-45.

¹⁶⁴ On these and other interpretive issues see Pichler and Säätelä, eds., *Wittgenstein: The Philosopher and His Works*. David Stern, "Digital Wittgenstein Scholarship: Past, Present and Future" in *Proceedings of the 30th International Wittgenstein-Symposium*, ed. Alois Pichler and Herbert Hrachovec (Kirchberg am Wechsel, Austria: Hölder-Pichler-Tempsky, 2008), 231-46. Some archival work has helped us better understand Wittgenstein's remarks on Gödel; on this see, e.g., Juliet Floyd, "Prose Versus Proof: Wittgenstein on Gödel, Tarski and Truth," *Philosophia Mathematica* 3 (2001): 901-28. Victor Rodych, "Wittgenstein on Gödel: The Newly Published Remarks", *Erkenntnis* 56 (2002): 379-97. Mathieu Marion and Paolo Mancosu, "Wittgenstein's Constructivization of Euler's Proof of the Infinity of Primes," in *The Vienna Circle and Logical Empiricism*, ed. Friedrich Stadler (New York/Vienna: Springer, 2003), 171-88.

¹⁶⁵ See, e.g., Michael Beaney, "Susan Stebbing on Cambridge and Vienna Analysis," in *The Vienna Circle and Logical Empiricism, Vienna Circle Institute Yearbook* (Dordrecht: Kluwer, 2003), 339-50. Michael Beaney, "Collingwood's Conception of Presuppositional Analysis',"

Collingwood and British Idealism Studies 11 (2005): 41-114. Stebbing is discussed in Hacker, *Wittgenstein's Place*, 73–74.

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¹⁶⁷ This was background work for the article by Burton Dreben, "Quine," in *Quine in Perspective*, ed. Robert Barrett and Roger Gibson (Cambridge, MA: Basil Blackwell, 1990), 81-95.

¹⁶⁸ The other was V. F. Lenzen's 1916 Ph.D. dissertation "Outlines of a science of phenomenology, with special reference to meaning and truth." Lenzen attended and took notes at Russell's Harvard seminar on Frege in 1914, just after Russell had worked up his reactions to Wittgenstein's "Notes on Logic"; Lenzen's use of Frege on *Sinn* and *Bedeutung* takes account of "On Denoting", but adopts an "explanatory" form of phenomenology in which psychological factors are considered relevant to meaning; of course at that time the Harvard departments of Psychology and Philosophy were one. For remarks on the Harvard seminar, see p. xxxii of the editors' introduction to Russell, Eames, and Blackwell, eds., *Theory of Knowledge: The 1913 Manuscript*.

¹⁶⁹ Susanne Katherina Knauth Langer, "A Logical Analysis of Meaning" (PhD dissertation, Radcliffe College, 1926).

¹⁷⁰ Susanne Katherina Knauth Langer, *Philosophy in a New Key* (Cambridge, MA: Harvard University Press, 1957).

¹⁷¹ George A. Reisch, *How the Cold War Transformed Philosophy of Science: To the Icy Slopes of Logic* (New York: Cambridge University Press, 2005).

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