FROM MATHEMATICS TO METAETHICS: *THE CAMBRIDGE COMPANION*

Graham Stevens
Philosophy / U. of Manchester
Oxford Road, Manchester, UK, M13 9PL
graham.p.stevens@man.ac.uk

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According to the notes on the back cover of this latest addition to the *Cambridge Companions* series, one aim of the series is to dispel the intimidation felt by new readers of the major philosophers covered. Few philosophers are likely to induce as much intimidation in students of their work as Russell. Aside from the challenge posed to his readers by the sheer quantity of work Russell produced, he also worked in some of the most rarefied air of philosophical inquiry, from philosophical and mathematical logic to the metaphysical and epistemological consequences of theoretical physics, consistently producing theories of great originality and ingenuity that have often left perplexed even those well acclimatized to these regions of thought. Furthermore, as if the prospect of scaling the edifice of Russell's philosophy wasn't made formidable enough already, one also has to cope with Russell's many changes of heart over often fundamental features of his philosophy. This tendency of Russell's, summed up famously by C. D. Broad's remark that Russell produced "a new system of philosophy every few years",[1] is one that often leads Russell's readers to mistakenly assume that there is no unity to be found in his work. Nicholas Griffin disposes of that mistake early in his introduction to the *Companion*: "What [Broad's remark] ignores is the extent to which the various phases of Russell's philosophy develop out of each other as different attempts to carry forward a single philosophical project" (p. 18). One of the many merits of this collection of fifteen essays is that it stands as a convincing testament to Griffin's claim.

[1] Broad, "Critical and Speculative Philosophy", in J. H. Muirhead, ed., *Contemporary British Philosophy*, 2nd series (New York: Macmillan, 1924), p. 79.

While it is true that Russell's philosophy is difficult, it is also true that a thorough understanding of it is indispensable to any student of analytical philosophy, as Griffin makes perfectly clear in the opening paragraph of his introduction:

> It is difficult to over-estimate the extent to which Russell's thought dominated twentieth-century analytic philosophy: virtually every strand in its development either originated with him or was transformed by being transmitted through him. Analytic philosophy itself owes its existence more to Russell than to any other philosopher. (P. 1)

Griffin's introduction is as good a starting-point in the study of Russell as any student will find. After giving an account of Russell's life, Griffin proceeds to present a chronological survey of his philosophical work that highlights all of the central areas of Russell's work. Griffin points out the importance, for example, of Russell's principle of acquaintance (the demand that, to understand a proposition, one must stand in a relation of immediate acquaintance with all of its constituents), his constant realism regarding universals, and Russell's conception of the relation between philosophy and science. The essay also draws attention to some neglected, yet fascinating, parts of Russell's philosophy, such as his pre-emption in *An Inquiry into Meaning and Truth* of Michael Dummett's renowned extension of the debate between platonists and constructivists in mathematics over the status of the law of excluded middle to the wider realism debate in philosophy (pp. 36–7). The text is helpfully supplemented by detailed references to works by Russell, works on Russell, and to later essays in the volume, all of which serve to make this introduction to the book an excellent introduction to Russell's philosophy itself.

The first essay, Ivor Grattan-Guinness's "Mathematics in and behind Russell's Logicism", as is to be expected, is one of several papers in the volume that concentrates on Russell's logico-mathematical concerns. The paper avoids technical discussion and provides a rather brisk summary of Russell's influences and advances. As a consequence the paper is likely to be of most interest to those who are unfamiliar with the mathematical context in which Russell worked, and its main merit will be to direct the interested reader to the work of Cantor, Weierstrass, Dedekind, Peano, etc. Those who are already familiar with this material, however, may be surprised by much of Grattan-Guinness's interpretation. Frege, for example, plays only a cameo role among Russell's influences according to Grattan-Guinness, as well as occupying a fairly inconspicuous position in his "flow chart of the story" (p. 51) of logicism (see p. 52). This is no doubt a symptom of Grattan-Guinness's disapproval of the fact that "some commentators grossly exaggerate the extent of Frege's influence on Russell, both then [1902] and later" (p. 61). There is, admittedly, some truth in Grattan-Guinness's complaint; as he points out, Russell's chief influence in

logic during the time of writing *The Principles of Mathematics* was certainly Peano. Only after completing the book did Russell carry out a study of Frege, the results of which appeared in Appendix A of the *Principles*. Nonetheless, that appendix shows that Russell had duly appreciated the ways in which Frege went beyond Peano once he did study him. Frege's revolutionary approach to quantification was quickly assimilated by Russell once he recognized its superiority over Peano's method.[2] For this reason alone, Frege would surely count as a central influence on Russell's philosophical development—particularly when one considers the importance of the adoption of Frege's quantification theory for Russell's move from the 1903 theory of denoting to his acclaimed 1905 theory of descriptions. Furthermore, by the time of *Principia Mathematica*'s publication, Russell (and Whitehead) acknowledged that "in all questions of logical analysis, our chief debt is to Frege" (*PM*, 1: viii). Contrary to Grattan-Guinness's view, such generous acknowledgement was not, I think, undeserved. Aside from the obvious influence of Frege over the basic propositional and predicate logic of *Principia*, his influence is apparent over other important sections of the book. The crucial section on the ancestral relation (*PM*, 1: ∗90), for example, is, in its authors' words, "based on the work of Frege, who first defined the ancestral relation" (*PM*, 1: 548). Grattan-Guinness may be right to resist the temptation to overstate Frege's influence on Russell, but such considerations make it evident that the temptation to downplay it should be resisted, too.[3]

Other elements of Grattan-Guinness's paper are also somewhat contentious. For example, he states that: "Russell's slightly younger colleague G. E. Moore … revolted against the neo-Hegelian tradition in 1899 and put forward a strongly realist alternative, which Russell soon adopted" (p. 56). However, Russell's own unpublished work, "An Analysis of Mathematical Reasoning" of 1898 (*Papers* 2, Paper 18), presented the realist alternative in far greater detail than anything produced by Moore.[4] More puzzling are Grattan-Guinness's comments on the development of Russell's post-1903 mathematical logic. For example, he suggests that part of Russell's reasons for abandoning his "substitutional theory of classes and relations" was due to difficulty in finding "enough equipment on board to furnish *all* the mathematics desired by logicism" (p. 65). I do not know what passage in Russell's writing Grattan-Guinness might have in mind to support this claim (and none is provided in this article); it is certainly hard to reconcile

[2] See *PoM*, p. 519.

[3] For recent discussion of Frege's influence over Russell, particularly during the period 1902–05, see Kevin Klement's "Russell's 1903–1905 Anticipation of the Lambda Calculus", *History and Philosophy of Logic*, 24 (2003): 15–37.

[4] See the editors' introduction to *Papers* 2 for further discussion of this point.

with Gregory Landini's reconstruction of the substitutional theory later in the volume,[5] and surely impossible to reconcile with the fact that Russell's 1908 "Mathematical Logic as Based on the Theory of Types" contains a version of the substitutional theory.[6] This perhaps explains Grattan-Guinness's mistaken description of "Mathematical Logic" as "summarising the system" of *Principia* (p. 65; the two systems in fact differ dramatically for just this reason), despite his own later admission that "the versions in the 1908 paper and in *PM* do not quite coincide" (p. 69).

The next two papers, by Griffin and Richard Cartwright, concentrate on Russell's early philosophical work, and Russell and Moore's break from the idealist philosophy dominant in Britain at the end of the nineteenth century. Griffin's paper, "Russell's Philosophical Background", is essentially a summary of the main themes in his excellent book on Russell's neo-Hegelian inheritance.[7] Half a century after his break from idealism, Russell referred to it as the "one major division" in his philosophical work, a division amounting (in Russell's memory) to "so great a revolution as to make my previous work, except such as was purely mathematical, irrelevant to everything that I did later" (*MPD*, p. 11). As Griffin shows, however, the evidence suggests that Russell's memory is somewhat unfair to him here. Russell's analysis of the philosophical issues underlying his mathematical studies contributed to the foundation for his later metaphysics, if only by convincing him that the monistic metaphysics inherited from the Hegelians was doomed to failure. Admittedly, as Cartwright demonstrates in his paper, "Russell and Moore", the realist theory of propositions as mind- and language-independent complexes and the consequent de-psychologizing of truth and logic with which Russell and Moore replaced the idealist tradition, involves a wholesale rejection of the metaphysics of Hegelian idealism. But Griffin's survey of Russell's idealist phase makes it plain that Russell's views at this time, particularly on the nature of relations, were far more sophisticated and able to inform his later achievements than is commonly recognized. For example, Griffin points out that Russell's later evaluation of his work of this period was again unfair when he spoke of his rejection of neo-Hegelianism as a "Revolt into Pluralism" (*MPD*, p. 54). As Griffin notes, "this is puzzling since Russell was a pluralist for most of his neo-Hegelian phase" (p. 100).

Cartwright's paper introduces a topic that, unsurprisingly, recurs in many of the papers that follow: Russell's acclaimed theory of descriptions. Cartwright

[5] Landini provides proofs of the Peano postulates for arithmetic in the substitutional theory in his *Russell's Hidden Substitutional Theory* (Oxford: Oxford University Press, 1998).

[6] See *LK*, p. 77.

[7] N. Griffin, *Russell's Idealist Apprenticeship* (Oxford: Clarendon P., 1991).

focuses mostly on the benefits of the 1905 theory over the earlier analysis of the semantics of denoting phrases proffered in the *Principles*. Cartwright takes this to bring the "new philosophy" of Russell and Moore to an end of sorts, as it contradicts what he believes is a basic component in that philosophy, namely the view that grammar is a reliable guide in philosophical analysis. In the wake of "On Denoting", however, Cartwright recognizes that "henceforth, there was to be no expectation that 'logical form' should reflect 'grammatical form'" (p. 125). Certainly Cartwright is correct about the post-1905 view, but it is less clear that Russell felt any particularly strong obligation to follow the dictates of grammar in the *Principles*. Russell himself said that it was not until 1918 that the question of meaning and "the relation of language to fact" first caught his interest: "Until then I had regarded language as 'transparent' and had never examined what makes its relation to the non-linguistic world" (*MPD*, p. 145). As Cartwright notes (pp. 113–14, 125), Russell does state in the *Principles* that "On the whole, grammar seems to me to bring us much nearer to a correct logic than the current opinions of philosophers; and in what follows, grammar, though not our master, will yet be taken as our guide" (*PoM*, p. 42). However, one needs to take care with this remark. Russell warns just before this passage that "a grammatical distinction cannot be uncritically assumed to correspond to a genuine philosophical difference" (*ibid.*) and, in a footnote attached to this paragraph, explains that: "The excellence of grammar as a guide is proportional to the paucity of inflexions, *i.e.* to the degree of analysis effected by the language considered." Certainly, in his treatment of mathematical concepts such as number and continuity, Russell had no hesitation in departing from the guidelines laid down by the grammar of ordinary language. He commends Weierstrass, for example, for embodying his opinions in mathematics "where familiarity with truth eliminates the vulgar prejudices of common sense" (*PoM*, p. 348).

It is unsurprising that Cartwright should place such emphasis on the theory of descriptions as a point of departure from Russell's early realism. The great utility of the theory of descriptions to dispose of commitments to unwanted entities certainly tempered Russell's ontological generosity. Just how generous that ontology was, however, is a contentious issue. Certainly, a literal interpretation of Russell's remark that "every word occurring in a sentence must have some meaning" (*PoM*, p. 42) will suggest that Russell's ontology was bloated to the stature fitting the most naïve of realists, and urgently in need of the 1905 theory of descriptions to trim it to more manageable proportions. However, as important work on Russell's early theory of denoting has recently shown,[8] this

[8] See especially N. Griffin, "Denoting Concepts in *The Principles of Mathematics*", and H. Noonan, "The 'Gray's Elegy' Argument—and Others", both in R. Monk and A. Palmer, eds., *Bertrand Russell and the Origins of Analytical Philosophy* (Bristol: Thoemmes P., 1996).

interpretation rests on an extremely unsympathetic interpretation of Russell's position in the *Principles*. Cartwright is sensitive to these issues, cautiously stating that "the impression of a bloated ontology remains" only after the caveat that "as for the present king of France, no such case is explicitly discussed in *PoM*.... No doubt every term has being, but *PoM* thus leaves it uncertain what terms there are" (p. 118). Unfortunately, the same degree of care is not taken over this crucial point in the next two papers in the volume, Michael Beaney's "Russell and Frege" and Martin Godwyn and Andrew Irvine's "Bertrand Russell's Logicism".[9]

Beaney falls prey to the temptation to underestimate Russell's 1903 theory of denoting when he asserts that Russell's thinking around the time of "On Denoting" was driven by the question "how can propositions about nonexistent objects be meaningful when those objects cannot be constituents of the propositions?" (p. 162). This is, I think, misleading. It was, in fact, just this question that drove Russell's thinking at the time of the *Principles*, hence there would be little or no reason for him to be reconsidering it when he discovered the theory of descriptions. Beaney's account is misleading as it disguises the real motivation behind the 1905 theory. That motivation is summed up best in Russell's own words:

> What was of importance in the theory was the discovery that, in analysing a significant sentence, one must not assume that each separate word or phrase has significance on its own account. "The golden mountain" can be part of a significant sentence, but is not significant in isolation. It soon appeared that class-symbols could be treated like descriptions, i.e., as non-significant parts of significant sentences. This made it possible to see, in a general way, how a solution of the contradictions might be possible. (Schilpp, pp. 13–14; *Papers* 11: 13)

Russell's adoption of the 1905 theory of descriptions cannot have been to dispose of objects to which he had already realized he was not committed on the earlier theory of denoting;[10] rather it was, like virtually all of his work on logic during this period, intended to counteract the paradoxes plaguing logicism. Just how it would help him in that quest is an issue we will return to shortly.

Beaney's paper is a summary of the similarities and differences between its two protagonists. It contains a clear account of Frege's definition of number and the ancestral relation that formed the basis for the logicist project, though it does not go into much detail on the ways in which Russell's approach differed from Frege's. There is an interesting discussion of the problem of the unity of

[9] See Beaney (p. 162) and Godwyn and Irvine (pp. 186–7). More care is taken on this point by Grattan-Guinness (p. 59), Griffin (p. 24), and Hylton (pp. 216–18).

[10] As Peter Hylton clearly explains (pp. 214–18) in his contribution discussed below.

the proposition and how it was responded to by Frege and Russell. Frustratingly, no mention is made of Russell's arguments against Frege's attempt to secure propositional unity via the incompleteness of concepts and their modes of presentation.[11]

Godwyn and Irvine begin their account of "Bertrand Russell's Logicism" by sketching a version of logicism which, while familiar to readers of later philosophers like Carnap, bears little resemblance to Russellian (or even Fregean) versions. For example, they take it that a primary motivation behind the logicist thesis is "that logical truths are often claimed to be topic-neutral, and so … involve no ontology", which, they suggest, may "help us to avoid commitment to potentially mysterious, non-physical mathematical entities" (p. 172). Whether the authors believe that classes, functions, or Russellian propositions are either less mysterious or more physical than "mathematical" entities is not made clear. Certainly neither Frege nor Russell would have had patience for those who objected to abstract objects simply on the grounds of their being abstract and they certainly didn't take logicism to contradict platonism (at least in its beginnings).

Unfortunately, the description of logicism does not come much closer to Russell's logicism when Godwyn and Irvine turn to the theory of types, which they term "the new logicism" (p. 180). The sketch of type-theory is rudimentary and, again, bears little resemblance to what readers will find in Russell's writings. Insufficient distinction is maintained between the "doctrine of logical types" set out in Appendix B of the *Principles*, the 1908 ramified type-theory of "Mathematical Logic as Based on the Theory of Types", and the final version settled on in *Principia*. So, for example, Godwyn and Irvine tell us that, in 1905, Russell "temporarily set aside the theory [of types] in order to consider three potential alternatives: the zigzag theory … the theory of limitation of size … and the no-classes theory.… Nevertheless, by 1908 Russell abandoned all three of these suggestions in order to return to his theory of types, which he develops in detail in his article 'Mathematical Logic as Based on the Theory of Types'" (p. 183). The authors presumably have in mind here Russell's paper, "On Some Difficulties in the Theory of Transfinite Numbers and Order Types", presented to the London Mathematical Society in 1905 and published in 1906.[12] But the "no-classes" theory offered in that paper is simply Russell's aforementioned substitutional theory, which he subsequently developed in detail in two following papers and in his manuscripts of the time[13] and which lies at the heart of

[11] See Appendix A of *PoM*. For discussion and defence of Russell on this point, see my "The Truth and Nothing But the Truth, Yet Never the Whole Truth: Frege, Russell and the Analysis of Unities", *History and Philosophy of Logic*, 24 (2003): 221–40.

[12] Reprinted in *Essays in Analysis*, ed. Douglas P. Lackey (London: Allen and Unwin, 1973).

[13] The two papers being "On the Substitutional Theory of Classes and Relations" and "On

the system of "Mathematical Logic". In short, Godwyn and Irvine's claim that the no-classes theory is abandoned in favour of a return to the theory of types in 1908 straightforwardly contradicts what Russell himself says in "Mathematical Logic".

Peter Hylton's paper, "The Theory of Descriptions", is one of the highlights of this volume. The paper is a sophisticated study of the theory that places it in the context of Russell's early commitment to "direct realism", a term used by Hylton to embrace "both Russell's insistence on a direct and unmediated relation between the mind and the known object and the idea that propositions paradigmatically contain the entities they are about" (p. 209). Hylton demonstrates skilfully the way in which this view, and the opposing view associated with Frege (whereby our access to objects is mediated by our grasp of the senses of their names, that is, the modes of presentation of those objects), has served to demarcate the territory of subsequent analytical philosophy. As mentioned above, Hylton is careful to treat Russell's 1903 theory of denoting respectfully and points out the dangers of the "Meinongian" interpretation of that theory as a naïve form of direct realism with no facilities for accommodating non-referring terms. This leaves us with the question of just what was the benefit of the 1905 theory of descriptions, if it was not the expulsion of unwanted entities from Russell's ontology. Hylton does not directly consider the applications to which the theory of descriptions is put to in *Principia* (or the work leading up to it) but concentrates rather on the reasons why Russell would have preferred the later theory in spite of the earlier theory's ability to secure similar results. There are, of course, various advantages possessed by the 1905 theory which are noticeably absent from the 1903 account, but Hylton, interestingly, argues that a primary motivation for Russell's preference was the compatibility of the 1905 theory with his direct realism. The theory of denoting concepts, Hylton argues, was not the consequence of a blind commitment to direct realism; once the Meinongian interpretation has been dismissed, after all, it is evident that the theory departs from Russell's direct realism. Hylton's suggestion is that this is just what led Russell to abandon the theory. Of course, the theory of descriptions is also a significant retreat from Meinongianism, but Hylton's point is that the retreat is one that remains consistent with direct realism, whereas the earlier theory had made its retreat on wholly *ad hoc* grounds, stipulating a class of exceptions to direct realism "with no explanation of how exceptions are possible" (p. 220). Hylton's interpretation will come as a surprise to those who interpret the *Principles* on Meinongian lines, but, to those who reject that inter-

'Insolubilia' and their Solution by Symbolic Logic" (originally published in French as "Les Paradoxes de la Logique"), both also published in *Essays in Analysis*.

pretation, it makes convincing sense of Russell's obvious pleasure, in "On Denoting", in the preservation of his principle of acquaintance: "Thus in every proposition that we can apprehend … all the constituents are really entities with which we have immediate acquaintance" (*LK*, p. 56; *Papers* 4: 427).

This still leaves unaddressed, of course, the question of the role of the theory of descriptions in *Principia* and why Russell (in the passage quoted earlier) held the theory to show the way to a solution of the paradoxes. The question is answered in great detail by Gregory Landini in the next paper, "Russell's Substitutional Theory". This paper, which is largely a summary of Landini's book on the same topic, provides a fascinating account of how Russell extended the insights of the theory of descriptions to the elimination of classes and functions in the substitutional theory. The substitutional theory eschews classes in favour of "matrices" of the form "p/a" where both "p" and "a" are entities. Propositions of the form "$p/a\,{}^{\cdot}x!q$" state that q results from p by the substitution of x for a in all those places, if any, where a occurs in p. In those cases where p is a proposition, q will also be a proposition. This allows Russell to treat the matrix as a "class" (or, as Landini calls it, a *proxy* of a class). The condition placed on x's membership of p/a is then that there is a true proposition resulting from the substitution of x for a in p:

$$x \in p/a =_{\mathrm{df}} (\exists q)(p/a\,{}^{\cdot}x!q \,.\, \&\, .\, q). \qquad \text{(P. 266)}$$

The immediate advantage of this analysis is that the symbols for classes become, in a very clear sense, incomplete symbols. The symbol "p/a" does not stand for a complete entity of any kind; the meaning of this symbol is something like "the result of replacing a in p by …". Herein lies Russell's long-neglected solution to the paradox of class-membership that bears his name, for the matrix we might be tempted to form in an attempt to proxy the class of all classes which are not members of themselves is nothing more than ungrammatical nonsense. That pseudo-matrix would have to take a form such as "$p/a\,{}^{\cdot}p/a$", which amounts to something like "the result of replacing a in p by the result of replacing a in p by …". Far from being paradoxical, the Russell class is simply banished by the rules of logical grammar in substitution. The kinds of type distinctions forced in seemingly *ad hoc* fashion on to class or predicate calculi to avoid paradoxes such as Russell's, simply result from the logical grammar of the substitutional theory; yet the formal language of substitution remains entirely type-free, thus remaining consistent with the doctrine of the unrestricted variable that was central to the *Principles*. In short: "types become part of logical grammar" (pp. 262–6); the *real* theory of types is just the substitutional theory.

Unfortunately, as Landini explains (pp. 271–3), Russell quickly ran into a new paradox unique to substitution. This paradox, unearthed from the Russell

Archives by Landini,[14] led Russell to modify the substitutional theory in various ways. Ultimately, Russell was led to full-scale ramification of the substitutional calculus in "Mathematical Logic". Landini takes this as evidence that it was the (logical) paradoxes of substitution, not the semantic paradoxes, which led to Russell's adoption of ramified type-theory.[15] However, "Mathematical Logic" was not Russell's final word on logicism. *Principia* does not share its formal system with "Mathematical Logic". Propositions are expelled from Russell's ontology in the later work and, without propositions, substitution cannot survive. Nonetheless, as Landini convincingly argues, the substitutional theory plays a far greater role in the development of the theory of types than has usually been noticed. Indeed Landini thinks it leaves its mark firmly on *Principia* itself. Although substitution is absent from that work, Landini holds that it is abandoned in order to *preserve* the doctrine of the unrestricted variable (p. 282). The need to ramify the substitutional theory in 1908 had defeated the doctrine of the unrestricted variable but, Landini argues, *Principia* sought to preserve that doctrine by appealing to the multiple-relation theory of judgment and building type-distinctions into a nominalistic semantics, thus avoiding the imposition of those distinctions on Russell's ontology (p. 283). As Landini admits, however, the bottom line is that *Principia* failed to establish the logicist thesis. Non-logical axioms such as those of reducibility and infinity must be appealed to. However, Landini finishes his paper on an optimistic note, arguing that a return to substitution may yet uncover a solution to the substitutional paradox that defeated Russell. Substitution, being free of the drawbacks of *Principia*, may yet "recover logicism just as Russell had originally hoped", Landini concludes (p. 284).

The next paper in the volume is also devoted to Russell's mathematical logic. Alasdair Urquhart's "The Theory of Types", in rather stark contrast to Landini's paper, steers clear of the finer details of Russell's development of the theory and opts instead for a presentation of type-theory drawn from Church, Myhill, and Schütte (p. 295). Urquhart's justification for this move is that "the formal presentation of the theory of types by Russell and Whitehead leaves a great deal to be desired from the present day point of view" (p. 293). This may well be the case, but Urquhart's approach here is, I think, a dangerous one. As Landini's careful excavations into Russell's logical theory in the last essay show, there is a considerable amount to be learnt from Russell's own presentation,

[14] See G. Landini, "New Evidence concerning Russell's Substitutional Theory of Classes", *Russell*, n.s. 9 (1989): 26–42. See also B. Linsky, "The Substitutional Paradox in Russell's 1907 Letter to Hawtrey", *Russell*, n.s. 22 (2002): 150–9.

[15] See my "Substitution and the Theory of Types [review of Landini, *Russell's Hidden Substitutional Theory*]", *Russell*, n.s. 23 (2003): 161–90, for a dissenting view on this point.

poor as it is in places, and the temptation to assimilate Russell's views to more modern ones has been a cause of many misinterpretations of Russell's logic.

Urquhart disagrees with Landini over what motivated the ramification of type-theory in 1908, holding that Russell was always convinced that the logical and semantic paradoxes ought to be tackled together. Russell's position, as interpreted here, is, of course, contrary to the view that has become standard since Ramsey's separation of the logical and semantic paradoxes. However, as Urquhart notes, there is something to be said for Russell's view: "The paradoxes have a clear common structure; in particular, they all involve a diagonal construction. Thus there is no absurdity in looking for a common solution" (p. 291).[16]

Paul Hager's paper, "Russell's Method of Analysis", is concerned to establish a clear picture of Russell's distinctive philosophical method. Echoing Griffin's emphasis, in the introduction, on the continuities to be found in Russell's philosophical development, Hager strives to demonstrate that the same philosophical method is to be found in Russell's often neglected later works from the 1940s and early '50s. Hager goes on to defend Russell's philosophical method against recent criticisms from Ray Monk,[17] arguing that Monk has repeated errors made by earlier critics of Russell in mistaking Russellian philosophical analysis for scientific method. Monk oversimplifies matters, Hager thinks, by portraying Russell as analysing complex objects in the world into their simple parts, rather than analysing propositions *about* those objects. Hager's argument here certainly has some degree of justification, particularly as regards Russell's later analysis of the propositions of physics. However, a slight problem perhaps arises in that many of the examples he gives of paradigmatic cases of Russellian analysis originate from a period when propositions played a somewhat different ontological role in Russell's philosophy: "the definition of number, definite descriptions, the analysis of classes, the analysis of cardinal numbers" (p. 330) were all dealt with by Russell, at least in the first instance, when propositions were themselves considered to be worldly items. Hence the analysis of propositions and of the objects that are constituents of them is not so easily separated at certain points in Russell's career. Hager objects to Monk's suggestion that "it is this notion of a complex—and the concomitant notion that to understand a complex is to analyse it, to break it down into the simples that compose it—that

[16] It is interesting that Russell's approach here (as it is interpreted by Urquhart) has striking similarities with that taken more recently by Jon Barwise and John Etchemendy in their analysis of the Liar paradox. See Barwise and Etchemendy, *The Liar: an Essay on Truth and Circularity* (Oxford: Oxford U. P., 1987).

[17] See Monk, "What Is Analytical Philosophy?", in *Bertrand Russell and the Origins of Analytical Philosophy*.

lies at the heart of analytical philosophy",[18] on the grounds that it "has Russell committed to a non-linguistic interpretation of analysis in which it is applied to complex objects" (p. 329). At the time that Russell discovered his analysis of propositions about the items listed above, however, propositions themselves were held to be non-linguistic complex objects. Hence it would seem that Monk's criticisms of Russell, whether valid or not, are not as easily deflected as Hager suggests.

R. E. Tully's contribution, "Russell's Neutral Monism", provides an overview of Russell's changing attitudes towards neutral monism, from his rejection of the theory in 1913's unfinished *Theory of Knowledge* manuscript, through his explicit adherence to the theory in the 1920s, to the later periods in which Tully thinks "the metaphysical imprint of Neutral Monism remained evident in Russell's major philosophical writings … though he no longer marshalled his views explicitly under its banner" (p. 332). Tully's paper will be of value to those in search of more information on this aspect of Russell's development, though there are some potentially misleading passages. For example, Tully's description of Russell's account of "how our language about objects works" is not only hard to square with Russell's position but also puzzling in its own right: "While definite descriptions refer to objects but may fail to be true, a logically proper name cannot fail to be meaningful, since the particular to which it refers on a given occasion is literally its meaning" (p. 345). There is, it seems to me, a serious conflation of separate semantic notions (truth, meaning, reference) at work in this passage.

Tully suggests that Wittgenstein's criticisms of the multiple-relation theory of judgment had some role to play in propelling Russell in the direction of neutral monism, though the influence was indirect: it went via Russell's changing views on acquaintance in 1919's "On Propositions: What They Are and How They Mean".[19] Frustratingly, however, the connection between Wittgenstein's criticisms and Russell's subsequent changes in direction are not explored in much detail (see pp. 349–50). Indeed, one of the very few omissions in the *Companion* is a detailed discussion of the period of interaction between Russell and Wittgenstein and of how their philosophies relate to one another (an omission made more noticeable by the presence of the detailed essays already discussed on the relationship of Russell's philosophy to the philosophies of Frege and Moore). This gap is partly filled, however, by Bernard Linsky's paper on "The Metaphysics of Logical Atomism".

Linsky provides an outline of the metaphysical developments that under-

[18] Monk, "What Is Analytical Philosophy?", p. 12; cited by Hager, p. 329.

[19] Reprinted in *LK* and *Papers* 8.

write Russell's philosophical logic, focusing particularly on the period 1910–25. Unlike the philosophy of Russell's celebrated fellow logical atomist, Wittgenstein, Russell's logic is seen by Linsky as being driven by his metaphysics rather than the reverse: "The right way to analyze certain expressions into a logical language would seem to follow from a correct metaphysical analysis of facts rather than leading to it" (p. 371). The theme of the relation between language and metaphysics in Russell's logic provides the background of Linsky's study, leading to a discussion of the ontological standpoint of Russell's mathematical logic in *Principia*. Linsky considers the possibility of interpreting propositional functions in the language of *Principia* nominalistically (pp. 377–80), but concludes that "the evidence for a nominalist treatment of functions is not strong" (p. 378). Linsky's argument here is, I think, uncharitable towards those who have defended a nominalist reading of elements of *Principia*. Linsky's approach is to consider the possibility of identifying universals with propositional functions and then taking these to be themselves identified with predicates of the language, governed by a substitutional quantifier. However, as Linsky realizes (p. 377), there is just too much evidence showing Russell was a firm realist regarding universals for this interpretation to work. Were this the only option available for a nominalist treatment of propositional functions, we would have little choice but to agree with Linsky that "the theory of logical types may be a theory of symbols, but it is more importantly a theory of the meanings of those symbols seen as entities which come in different logical types" (p. 380). But a nominalist reading of this sort is no more than a straw man. The interpretations available are far more sophisticated. For example, Landini's interpretation (see p. 283) has it that universals are fully fledged members of Russell's ontology and are within the range of the (unrestricted) individual variables, quantified over by an objectual quantifier, while propositional functions are quantified over substitutionally.

Linsky proceeds to give an account of Russell's metaphysical position during his 1918 lectures on logical atomism and the changes in his thought by the time of the 1925 second edition of *Principia*. Interesting discussions of some of the more exotic elements of Russell's metaphysics (e.g. negative facts, see p. 382) and his adoption of the principle of extensionality (pp. 375–7) are included. There is some comparison of Russell and Wittgenstein to be found throughout, but, again, the topic of Wittgenstein's attack on Russell's 1913 theory of judgment is left almost untouched other than by a brief reference to Griffin's work on the subject.[20]

The remaining essays in the volume turn away from direct consideration of

[20] "Russell's Multiple Relation Theory of Judgment", *Philosophical Studies*, 47 (1985): 213–48.

Russell's logic, and all but the final essay address issues in his epistemology, including the change in his views in later periods of his career. William Demopoulos's paper, "Russell's Structuralism and the Absolute Description of the World", charts the role in Russell's theory of knowledge played by his "structuralism"—the view that "our theoretical knowledge consists in assertions regarding the structure of relations over a given domain" (p. 395). Demopoulos locates the origin of Russell's structuralism in *The Problems of Philosophy* of 1912, though he holds that, despite some further anticipation of the thesis in *Introduction to Mathematical Philosophy* (1919), the doctrine does not reach maturity until 1921's *Analysis of Mind*. Obviously Russell's programme of replacing elements of his ontology with logical constructions is highly relevant here, and, like several other authors in the volume, Demopoulos traces this programme back to the Frege–Russell definition of cardinal numbers as classes of similar classes (p. 395). Demopoulos devotes a fair amount of space to discussing the role of the theory of descriptions in Russell's epistemology and draws interesting parallels with Ramsey's attempt to capture the content of a theory in its "Ramsey sentence" (pp. 394–5). The paper concentrates on Russell's treatment of colour and colour vocabulary, arguing that Russell's commitment to a "subjectivist" account of colour led to serious difficulties that would have been better dealt with by a "relativist" theory.

Thomas Baldwin's "From Knowledge by Acquaintance to Knowledge by Causation" continues the epistemological theme, charting Russell's fascinating movement from a foundationalist theory of knowledge to a causal theory which, according to Baldwin, was so far ahead of its time as to have been unfairly neglected:

> It is only now that our own philosophy of mind has caught up with the "naturalisation" of the mind that Russell was teaching from 1921 onwards that we can recognise in his later writings the central themes of our current debates—concerning the significance of the causation of belief, the tension between "externalist" and "internalist" perspectives concerning knowledge, and the limits of empiricism. (P. 420)

Baldwin draws parallels between elements of Russell's later philosophy and Quine's "naturalized epistemology" (p. 439), as well as the non-reductive physicalism advanced in the philosophy of mind by Fodor (p. 440). Baldwin also thinks that Russell and Wittgenstein converged to some degree at the end of their philosophical careers despite the pronounced divergence that occurred after Wittgenstein returned to philosophy in 1929. Baldwin thinks that Russell's "canons of direct inference" (*HK*, pp. 514–15) have a comparable status to the "Moorean propositions" discussed by Wittgenstein in *On Certainty*, although, of course, as Baldwin also notes, Wittgenstein would not have shared Russell's

enthusiasm for scientific explanations in philosophy (p. 448 n. 10).[21]

The same point is, interestingly, picked up in Anthony Grayling's paper "Russell, Experience, and the Roots of Science". Grayling describes the similarity between Russell's views in *Human Knowledge* and those of his former student as lying in: "the thought that (to put the matter neutrally as between them) a given area of discourse requires that we accept certain things in order to be able to get along with it" (p. 474). As both Grayling and Baldwin show, Russell's account of what it means to "get along with an area of discourse" is often far more sophisticated than the account offered by Wittgenstein and, furthermore, one which has much more in common with the current climate in analytical philosophy than Wittgenstein's. One can only hope that more work on these areas of Russell's philosophy will help to redress the balance of attention towards Russell's side of the story in the future.

The final essay in the *Companion* addresses a neglected area of Russell's philosophical work. As Charles Pigden says in his "Bertrand Russell: Moral Philosopher or Unphilosophical Moralist?", the general attitude of most philosophers towards Russell's writing on ethics has been, at best, dismissive: "Either they do not think very well of what he said or they do not think of it at all" (p. 475). In the face of this "consensus of error" (p. 475), as he terms it, Pigden offers a contrary view of Russell as an original and pioneering thinker in ethics who has been unfairly ignored: "Russell, in other words, was not the ethical non-entity he is widely believed to be, but an ethical theorist to be reckoned with" (p. 476). Pigden holds that Russell's colossal achievements in other areas of philosophy, particularly logic and mathematics, have overshadowed his work in ethics. Had it been produced by a philosopher solely devoted to ethics, it would have been accepted more warmly and taken more seriously. Russell, Pigden contends, produced work which stands as an impressive precedent to more celebrated recent work in metaethics on, for example, emotivism and error-theory. Interested readers will want to pursue the issues further in Pigden's recently edited volume of Russell's papers on ethics.[22]

Finally, the volume contains an extensive "selective bibliography" which provides an important resource to students of Russell's work. Overall, the volume is an impressive collection of papers covering a wide range of Russell's philosophical repertoire. Although I have drawn attention to places in some of those papers that Russell scholars will object to, this in itself demonstrates the fertile ground for philosophical discussion encompassed by the book which will almost certainly draw responses from others working on Russell. The main

[21] See L. Wittgenstein, *On Certainty* (Oxford: Blackwell, 1969), pp. 447–8.

[22] C. Pigden, ed., *Russell on Ethics* (London: Routledge, 1999).

purpose of the book, however, will be to provide students with a solid understanding of Russell's philosophy. In this respect, the *Companion* is unequalled by any other collection of essays on Russell.

RUSSELL AND THE ELIOTS

Kenneth Blackwell

Carole Seymour-Jones. *Painted Shadow: a Life of Vivienne Eliot*. London: Constable, 2001; New York: Doubleday, 2002. Pp. xxii + 682. £20.00, US$35.00 (hb); £9.99, US$9.95 (pb).

Carole Seymour-Jones makes the case for Vivien(ne) Eliot's silencing by the "collusion" of her husband and Bertrand Russell. Whether there is any truth to this, she displays an astonishing grasp of daily events during the periods that the Eliots lived with Russell, with hardly a meeting or epistolary concern overlooked. Chapters 5–10 are fascinating. Russell met Vivien a day after Lawrence's rejection of him. He made Vivien personal gifts and even signed a lease with her. The two Eliots must have been a major thread, if not purpose, of Russell's life in 1915–18. This is her main contribution to Russell studies.

She also claims that Russell had a "Satanic aspect", which is stressed in "Mr. Apollinax" (p. 280; also 62, 192, 296), accepting Monk's analysis of "Satan in the Suburbs" as autobiographical (pp. 105–7). But she wrongly dates the poem as composed after the Eliots moved in with Russell (pp. 101, 121) in September 1915, whereas Eliot scholars place it at about the time that Eliot, and not merely the Channing-Cheetahs, called him "unbalanced" (*Letters*, 1: 92). She also misidentifies Russell as the First Tempter ("atheism"; p. 441) in *Murder in the Cathedral*. Eliot's notes show he thought of Russell as the Second (power).

Although Seymour-Jones creates an overwhelming sense of pity for Vivien, it is not only for her worsening illness or ill-treatment but for the insight we gain into her literary side. Vivien assisted with such enterprises as *The Criterion*.

Her papers are in the Bodleian, Oxford. They include what Seymour-Jones calls a sketch of Russell in Notebook 3 for a work called "Parties". As for her letters to him, Seymour-Jones states it as factual that Russell "destroyed them deliberately in an attempt to distance himself from her" (pp. 653, 104) and "laid a false trail in his autobiography" (p. 144). Aside from the fact that Vivien's side in the Russell Archives *is* incomplete, and probably very much so, there is no documentary evidence that Russell destroyed anybody's letters for that purpose.