The Review of Modern Logic
Volume 9 Numbers 1 & 2 (November 2001–November 2003) [Issue 29], pp. 203–213.

Gary Ostertag (editor)
Definite Descriptions: A Reader
Cambridge, MA, and London, England: The MIT Press, 1998
xii + 411 pp. ISBN 0262650495 (pb)

ANALYZING DEFINITE DESCRIPTIONS À LA RUSSELL AND OTHERS

STEPHEN H. LEVY

This excellent anthology reproduces classic papers on Russell's Theory of Descriptions and the wealth of philosophizing on language inspired by it. The work grapples with several interrelated questions, including "What is necessary for a name or description to refer to an object? for a name or description to have meaning or sense? Must an object exist if we are to refer to it? Can a description be used referentially, *i.e.*, to refer?" Russell's grappling with Meinong's answers to these questions eventually led to his theory of descriptions. The book neatly balances a disputatious point of view on the issues with a historically focused one. It is suitable for an upper-level undergraduate, or graduate, level course in the philosophy of language or philosophic logic. Besides Russell's, other papers included are from the philosophers P.F. Strawson, Stephen Neale, Keith Donnellan, Karel Lambert, H.P. Grice, Christopher Peacocke, Saul Kripke, Howard Wettstein, Scott Soames, and Stephen Schiffer. Because an anthology of reasonable size must omit something, a few papers one may wish to find here are not included. Frege's "Sense and Reference" comes to mind, in light of the intrinsic value of his work and its historical influence on Russell and later discussions, but the selections from Russell and Carnap discuss Frege (38,126). Ostertag notes and discusses additional papers he would like to have included, and provides a most welcome and extensive bibliography. In his introduction, he provides insightful analyses of several of the leading arguments recurring in the literature on the subject and connecting the essays in this volume.

Russell's Theory and Its Origins. The first three selections are Russell's classic presentations of his theory of descriptions —"On Denoting" (1904), sections from his and Alfred N. Whitehead's *Principia Mathematica* (1911-14), and the chapter, "Descriptions," from his *Introduction to Mathematical Philosophy* (1918). He argues that, to be meaningful, a descriptive phrase need not refer to any existent, or subsistent, object. To use one of Russell's popular examples, the sentence K), "The present king of France is bald," is analyzed as the compound sentence "There is something that is a present king of France; there's at most one present king of France; and any present king of France is bald." In logical notation, this may be written

(1) $(\mathrm{E}x)\,\mathrm{K}x$
(2) $(x)(y)\,((\mathrm{K}x \,\&\, \mathrm{K}y) \rightarrow x = y)$
(3) $(x)\,(\mathrm{K}x \rightarrow \mathrm{B}x)$

Of course, this (or one of its equivalent forms) has become the standard logical analysis in the introductory and mathematical logic textbooks — what F.P. Ramsey labelled "a paradigm of philosophic analysis." Russell argued that it shows the true logical form of the sentence and reveals that "it is plainly false." (39) The virtue of his analysis, he claimed, is that it eliminates the descriptive phrase, "the present king of France," which, containing the definite article 'the', seems to require that there exist some unique object to which it refers, and replaces it with predicates that do not require such a reference to a unique, existent object. The uniqueness is captured, instead, by the conjunction of the first two conditions. Russell concludes that his analysis shows that no reference is required, and none occurs, because so analyzed, the descriptive, apparently referring, or "denoting phrase is essentially *part* of a sentence, and does not, like most single words, have any significance on its own account." (43) Russell intended his analysis to apply to a wide range of sentences harboring descriptions, be they in ordinary language or in mathematics. This collection shows how wide the range of sentences is to which Russell's analysis and others have been applied in ordinary language. It has less to say about their applications and interpretation for descriptions in mathematics.

An intriguing historical question that Ostertag raises concerns the relation between Russell's rejection of his early views on meaning and his development of the Theory of Descriptions. Meinong had argued that phrases like "the golden mountain" that describe imaginary or impossible objects must refer to some object that exists or subsists, if the phrase is to have meaning. For awhile, Russell was convinced of this view. Ostertag maintains that "there is a common misperception" (he quotes Quine and the older Russell himself as culprits here) that Russell did not reject Meinong's view until he developed his own theory of descriptions about July, 1905. Ostertag argues, to the contrary, that Russell had already rejected Meinong's view by December of the previous year, 1904. He cites a letter of Russell to Meinong at that date and a review of MacColl in *Mind* in 1905. In the review, Russell wrote of the phrase "The present King of France" that it "intends to point out an individual, but ... it does not point out an individual at all ... These words have a meaning, but there is no entity, real or imaginary, which they point out ..." (5) This and the letter do reveal a dissatisfaction with Meinong's view and an appreciation of Frege's distinction between sense and reference — the description "the present king of France" as well as fictional names like Apollo have, in Fregean language, a sense, but not a reference. Yet, these passages do not make it clear that Russell has completely rejected Meinong's views at the time he's writing. Frege's distinction between sense and reference *alone* did not get him to change his view because he apparently held Frege's distinction in mind much earlier — as early as *The Principles of Mathematics*, 1902, where, in Russell's words, he held a theory "very nearly the same as Frege's" (48), and at the same time, as Ostertag observes (1), embraced Meinong's view!

So if Frege's distinction alone did not induce Russell to reject Meinong completely, then what else did, and when did it occur? If Russell had rejected Meinong by the time of his MacColl review, he may already have been working hard on the theory of descriptions when he was writing the review. After all, "On Denoting" appeared in the very next issue of *Mind*. So his thinking leading up to the theory of descriptions, if not its completion, may have led to his final break with Meinong's view. Like many changes one undergoes, Russell's change may have been gradual over the year in question 1904-5. He was initially dissatisfied with Meinong's view, and became more so as Frege's influence and other thoughts exerted themselves more effectively. He may not have been able to reject Meinong's view completely, however, until he clearly formulated an alternative view that satisfied him. And this he did not do until sometime in the first few months of 1905, when he completed the account of his theory of descriptions in "On Denoting." The evidence here can be interpreted in different ways, so it remains something of a mystery exactly when Russell wholly rejected Meinong's view, and why.

Strawson's Classic Attack. Strawson was one of the first philosophers to criticize Russell's theory of descriptions on several fronts. In his "On Referring," he distinguishes between two uses of descriptions — "the uniquely referring use" (135) and the attributive use "asserting that there is one and only one individual which has certain characteristics." He argues that Russell "assimilates ... sentences of the first class to sentences of ... the second" (149), and does not adequately address the first at all. Referring, he suggests, is "forestalling the question, 'What are you talking about?' "(150) The context of sentence utterance, he argues, is important for the referential use of descriptions. Context includes "time, the place, situation, the identity of the speaker, the subjects ... of interest, and the personal histories of ..." those present. It is also necessary that the object referred to "should be in a certain relation to the speaker and context ..." (151) Elaboration of these ideas is a recurrent theme throughout the other essays.

Strawson also maintains that the first existence condition in Russell's analysis is better seen as a logical presupposition or implication required if the given statement is to be either true or false, rather than as a logical constituent of the statement itself. So if there is not an individual satisfying the description, then the sentence should be considered not false, as Russell would have it, but as one without a truth value at all — (neither true nor false). Strawson reasonably argues that, if asked, we would naturally say that "the question of whether the [King of France] statement is true or false simply does not arise ..." because the existence condition is false. (145) Russell's reply (not reprinted in this anthology[1]) was that the point was of little moment — we could equally well view the matter either way. That sudden flexibility, however, ran counter to all that Russell had maintained in his three classic works excerpted here. It also raises the question of whether Russell's or Strawson's view is a better analysis of mathematical examples as well as non-mathematical ones like the King of France.

Consider the descriptions "the successor of 8", "the predecessor of 10", "the number between 8 and 10", or "the cube of 5". Like typical mathematical descriptions, each involves one or more functions. In sentences containing these descriptions, the existence condition is true. But suppose we encounter the description "the *prime* number between 8 and 10" when someone says

P) "The prime number between 8 and 10 is a square"

We may be inclined to say, and be able to show (in agreement with Russell's theory of descriptions), not that the sentence is neither true nor false as Strawson would have it, but that there is indeed something

[1]Russell's "Mr. Strawson on Referring" appeared in *Mind* [6], and was reprinted in [7].

wrong or false (as well as true: 9 is a square) with the sentence simply because the existence condition is false — there is no prime number between 8 and 10. Presumably, Russell should not be flexible — his original analysis seems more attractive here than Strawson's.

Now consider an example where the existence condition is satisfied, but the uniqueness condition is not, as in "The square root of 16 is 4". It then seems that neither Russell nor Strawson is quite right. On Russell's analysis, the sentence is false, whereas on Strawson's, it has no truth value at all. Most of us would say, however, that the sentence is basically or largely true, if not quite right because it does not mention the other square root, -4. It is largely true, though not completely so, because on Russell's analysis, it harbors or expresses in effect three conditions — the first of which is true ("There's at least one square root") and the others false ("There's at most one square root" and "Any square root is 4") — and the true one is the existence condition which is prominent.

The King of France example, however, harbors two true conditions, and one false one. Yet, as with the prime number example P), we don't say it's largely true, apparently because the prominent existence condition, "There is at least one present king of France," is the false one. So for these descriptive statements to be deemed true, it seems necessary but not sufficient that the prominent existence condition be true. When the existence condition is false in a mathematical sentence (as in "There's at least one prime number between 8 and 10"), we take them to be false, but when it is false in non-mathematical ones, we take them to be neither true nor false. Hence, the disagreement here between Russell and Strawson seems to turn in part on each of them thinking of different classes of sentences — Russell on mathematical ones (even though his examples here are non-mathematical), Strawson on non-mathematical ones[2].

Referential and Attributive Uses. Keith Donnellan, in "Reference and Definite Descriptions", argues that, despite their differences, Strawson and Russell share common mistaken assumptions. One is that definite descriptions "presuppose or imply that [there is] something that fits the description." (175) He explores the differences between the referential and attributive uses of definite descriptions noted by Strawson. Considering the example

S) "Smith's murderer is insane"

[2]For further analysis by Strawson, see his [8].

he argues that if the speaker doesn't know or suspect who the murderer is, having just come upon the murder scene and reacting to the brutality, she is using the definite description attributively, not referentially. No specific individual is noted, but whoever it is, insanity is ascribed to him/her. If, however, she sees the defendant in court acting strangely, and utters the same sentence, she is using the definite description referentially because the defendant is the specific individual she is talking about. Indeed, even others who believe the defendant innocent (not indeed matching the description "Smith's murderer") would know the very person whom she was talking about. Donnellan observes that Russell and Strawson agree that both uses of the definite description presuppose or imply that something exists satisfying the description. However, Donnellan argues that if this presupposition is false, then in the attributive use, the predicate (here, "insane") has not been attributed to anything at all, whereas in the referential use, the predicate has successfully been attributed to the object referred to (here, the defendant), although the act of referring in this case picks out an object not satisfying the description. Neale labels this last line of thought, developed by others as well, the "Argument from Misdescription." (313)[3]

Now, in the mathematical realm, can we distinguish in a similar way between the attributive and referential uses of descriptions? Yes, to some extent, we can. In the prime number example P) above, part of the description — "between 8 and 10" — serves to refer to a specific number as effectively as, say, nodding toward the defendant when speaking of "Smith's murderer." With the more extended description "the prime number between 8 and 10," the implication that there is a number satisfying that description is false (9 not being prime). Yet, the referential use would still succeed — we know that 9 is meant — as it does in the nonmathematical example of "Smith's murderer." To turn to the attributive use, the object satisfying the description, if there is one, is not yet recognized. Consider a description drawn from a conjecture, such as Goldbach's that every even number greater than 2 is the sum of two primes. Reflecting the current state of affairs, one might remark, "The smallest even number not equal to the sum of two primes, if it exists, is greater than x" (where x is the integer up to which it has been proved that Goldbach's conjecture holds — that every even number less than or equal to it is equal to the sum of two primes). Here, one is describing a specific though unknown number, or no number at all if the conjecture is true. This use is comparable

[3]For further anaylysis of Neale's work including the selections in this anthology, see my piece on his *Descriptions* ([4]) in [2], and my [3].

to speaking of "Smith's murderer" where the murderer is unknown, or no murderer at all if it is, say, a suicide, or even if there is no (human) murderer, as in Edgar A. Poe's *Murders in the Rue Morgue*.

So Donnellan's distinction between attributive and referential uses of descriptions seems to apply in part to mathematics as well. Sometimes, however, where there is no mathematical object satisfying the description, then, unlike "Smith's murderer" and "the prime number between 8 and 10," the description seems not easily, if at all, to have an alternative referential use. This is true of the description "the smallest even number not equal to the sum of two primes" if Goldbach's conjecture is true. The description then accurately describes no object, but it *cannot* be used to refer to another mathematical object not satisfying the description.

What's Said *vs.* What's Meant.

There are other approaches to drawing roughly similar, relevant distinctions here. One is to distinguish, following Grice (236), what a speaker's words mean from what she means. Another to distinguish what one says from what she means. Still another to distinguish, following Kripke (237), between semantic reference and speaker's reference. And yet another to distinguish, following Neale (321), the proposition expressed from the proposition meant. These dichotomies may not be quite equivalent.

To summarize a chief thread of the argument: a major difference between the Russellians (Russell, Carnap, Neale) and the Strawsonians (Strawson, Donnellan, Wettstein) is that the Russellians hold generally that statements (like S: "Smith's murderer is insane") for which there is no individual object in the world satisfying the descriptive phrase are always *false*, whereas the Strawsonians hold that even where there is no such object, if the individual that the speaker refers to by using the descriptive phrase satisfies the predicate (in S, "insane"), then the statement is *true*. ("Argument from Misdescription.") Although the landscape of positions is quite varied, many from both camps seem to agree that there are at least two complex (linguistic or logical) entities that are present — or (perhaps better) lurking — here, which again we may call what is said and what is meant, but they distinguish them differently and insist that different (complex) entities determine the truth value of the (spoken) statement.

Let me suggest an alternative view, one that adopts virtues of each. Instead of speaking of a *dichotomy* of statements (what the speaker means *vs.* what she says), let us speak of the *multiple* propositions expressed by the particular statement at the given time. One or more of these in turn are more explicit than others which we may deem implicit. This need not be a sharp explicit/implicit dichotomy, however, since the distinction is one of degree. Further, some of the propositions are true, some false. For instance, in saying "Smith's murderer is insane" in the context described (the courtroom where the speaker is talking about the defendant, who is not Smith's murderer though he is insane), the speaker may express implicitly the following:

i: "This guy is insane,"
ii-a: "Smith's murderer is identical with this guy" or
ii-b: " 'Smith's murderer' is an *ad hoc* name for (or is for now synonymous with) 'this guy'."

From these statements, we infer, and the speaker typically intends us to infer, the very proposition stated, namely that

iii: "Smith's murderer is insane."

whose Russellian analysis is

iii-a: There's a murderer of Smith.
iii-b: There's at most one murderer of Smith.
iii-c: Any murderer of Smith is insane.

Since ii-a, like iii, is capable of a Russellian analysis:

ii-al: There's a murderer of Smith. = iii-a
ii-a2: There's at most one murderer of Smith. = iii-b
ii-a3: Any murderer of Smith is identical with this guy.

(note that the first two statements in the one analysis are identical with the first two in the other), the last statement ii-a3 provides yet another proposition that may be expressed by the speaker.

Russellians like Neale seem to hold that there is typically a single, sharp line distinguishing what one says from what one means. Proposition iii and its Russellian analysis are on the former side of the line; the other propositions, they hold, are on the other. Strawsonians, like Wettstein on the other hand, although they agree that the line is sharp, they mark it differently, placing i as part of what the speaker says. As a consequence, they hold further that it is clear that, even in the circumstances described, the statement "Smith's murderer is insane" is true. Yet, the mere disagreement with the Russellians on this point should provide strong grounds that it is not clear after all. The Russellians and Strawsonians disagree on the truth-value of the statement not because they differ on the truth-values of the propositions expressed, but because they differ as to which subset of the expressed propositions comprise what the statement "really" means (what the speaker says), and so which subset determines the truth-value of the spoken statement. Both camps, however, are mistaken in thinking that the line (whether explicitly or implicitly expressed) between the two is sharp. It is, rather, shifting and blurred, like the meanings of words themselves. As a result, determinations as to overall truth-value will differ. Indeed, as before, we should perhaps speak of *degrees* of truth-value, turning on the number of the propositions expressed (implicitly or explicitly) that are true and the number that are false. A many-valued logic would be appropriate.[4]

Incomplete Descriptions.

Earlier, we noted that the uniqueness condition recognized in Russell's analysis is often not explicitly satisfied in the statement at issue ("The square root of 16 is ..." , "The murderer is ..."). There is an incompleteness in the description that raises an ambiguity between any of several objects satisfying it. We can often resolve the ambiguity and attain *attributive* uniqueness by completing the description in some way ("The *positive* square root of 16 is ...", "The murderer of *Smith* is ..."). There is a closely related problem, however, with the *referential* use of descriptions that is easily confused with it. Here, again, the descriptions are incomplete but in a somewhat different way — they suggest, but plainly omit, elements that would uniquely identify the object meant or referred to. An example of Strawson discussed by Ostertag (20-24), Neale (341-350), and others is "The table is covered with books." Presumably, there are many tables in the world covered with books, and indeed there may even be more than one table so covered within the purview of the speaker and her listeners. Yet, both usually understand the specific table that is meant or referred to. The question is, "On Russell's account, what is the correct way, if any, to analyze or complete the description, 'the table', so as to preserve its purported and understood unique reference?" The problem is that there are typically several ways to distinguish the table meant from others — "The table in the corner, the table with the blue tablecloth, the one covered with Russell's books," ..., *etc.*, and their combinations. In view of this variety, we might argue that the "correct" solution is the one incorporating the completing phrase that both the speaker and listener have in mind, if there is one.

Wettstein argues, however, that that is the point — there is typically no unique definite completion of the description that is clear to the audience, and often none clear even to the speaker herself (263). Schiffer argues similarly that there is no uniquely referring description.

[4]See, for instance, Nicholas Rescher [5] and Susan Haack [1].

In considering an utterance of “The guy’s drunk,” he suggests several more detailed descriptions that could complete the given description “The guy . . . ” and be understood by both speaker and listener, and concludes, “no one of the numerous shared definite descriptions is sufficiently salient to make it mutually evident to us that you meant a proposition containing it . . . ” (376-7) and not one of the others. Neale calls such lines of thought the “Argument from Incompleteness.” (313)

Alternatively, we might argue that the solution is that anyone of the true analyses is equally “correct,” if we cannot pick one on other grounds. This second solution, however, seems not to be in the spirit of the Russellian, since Russell suggested that there is one correct analysis of sentences involving definite descriptions.

With some mathematical descriptions, we saw, there is a uniqueness problem in their attributive use. We also have one in their referential use — definite descriptions, which typically specify computable functions, are often incomplete, yet we may know from the context, or can otherwise compute, which object is being referred to. Given the description “. . . the square root of 16 . . . ,” we may know, or can compute, the values of the function with the given argument. This may require us to complete the description (“the positive square root . . . ”) If we know the value or come to know it by doing the computation, *then* the completed description refers us to that object, that value. Likewise, given the description “. . . the arcsin(1/2) . . . ” To complete the description, we may have to specify a range, quadrant, or universe from which the value of the angle is selected, if it is not understood. Once we do that, we can know or compute the specific angle referred to. Or given the description “the propositional calculus,” we may specify a set of axioms and rules of inference to determine which formal theory of the calculus is meant or referred to. In all such cases, different algorithms for specifying the arguments as well as the functions may exist. So as with non-mathematical examples, there are various ways to complete the descriptions. Yet, unlike the descriptions completing typical non-mathematical examples, these alternate descriptions (specifications) are often equivalent, as there are different algorithms for calculating the square root or arcsine, and many equivalent axiomatic theories of the predicate calculus — those having the same theorems. Any of the alternate descriptions will serve to refer to the object described, if the speaker and audience know the object or come to know it. A sentence containing any one of these equivalent descriptions will be capable of a Russellian analysis, and its description will have a referential use for those who recognize the object described.

In conclusion, this anthology offers a wealth of stimulating material to anyone intrigued by the semantics of definite descriptions in particular, or the philosophy of language in general. To study these papers is to appreciate Russell's understated words at the end of "On Denoting":

> I will only beg the reader not to make up his mind against the view . . . until he has attempted to construct a theory of his own on the subject . . . This attempt, I believe, will convince him that, whatever the true theory may be, it cannot have such a simplicity as one might have expected beforehand. (48)

References

[1] Susan Haack, *Philosophy of Logics*, Cambridge: Cambridge University Press, 1991.
[2] Stephen H. Levy, Review of [4] in *Modern Logic* **4** no. 3 (1994), pp. 331–340.
[3] Stephen H. Levy, "Mining of Russell," *Modern Logic* **6** no. 4 (1996), pp. 428–436.
[4] Stephen Neale, *Descriptions*, Cambridge, MA: MIT Press, 1990.
[5] Nicholas Rescher, *Many-Valued Logic*, Brookfield, VT: Ashgate, 1993.
[6] Bertrand Russell, "Mr. Strawson on Referring," *Mind* **66** (1957), pp. 385–389. Reprinted in [7].
[7] Bertrand Russell, *My Philosophical Development*, London: Allen and Unwin, 1959.
[8] Peter Strawson, *Introduction to Logical Theory*, London: Methuen, 1952.

Department of Philosophy, The College of Morris, Randolph, NJ 07869
E-mail address: slevy@ccm.edu