

MIND CELEBRATES OD'S CENTENARY

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Marking the publication of Russell’s seminal paper “On Denoting” is this very appropriate 100th anniversary issue of the journal in which the paper was first published. The issue consists of a convenient photographic reprint of the original article, along with articles by a distinguished group of contributors. One question behind any such centenary is the significance of the original paper after the passage of 100 years. A convenient history of reception/interpretation is provided by Zoltán Gendler Szabó in his article “The Loss of Uniqueness”. He locates Russell’s own concerns as focused on issues in logic and epistemology, but “posterity abandoned Russell’s focus on logic and epistemology and gradually came to see ‘On Denoting’ as a milestone in ontology” (p. 1,199). This approach is exemplified by post-wwII textbook treatments which advised students that it saved them from believing in non-existent present kings of France and round squares. Szabó correctly reports that today the interest in the theory is almost exclusively focused on its application to the semantics of natural language.¹ The truth of this contention is exemplified by the articles in this issue of *Mind*, which almost all focus on questions about the adequacy of treating the semantics of definite description phrases as being semantically equivalent to sentences involving quantification and identity, à la Russell’s rewriting of “the present King of France is bald”. Those who think that something like this is a correct account of the semantics of these English phrases are the Russellians, those who advocate abandoning this approach are mainly referentialists who

¹ He actually says this is “where Russell’s theory made a real and lasting difference”, but I take this to be simply temporal chauvinism about the significance of current scholarship.

contend that definite descriptions can be treated semantically somewhat in the manner of Mill's contentless proper names.

The editor for this issue, Stephen Neale, provides an introductory piece with two main parts to his comments. One (§§1–2) is principally historical and contains a collection of observations on the (surprisingly) still unsettled arguments concerning the purpose of Russell's theory. In these comments Neale is sound in noting that one main point of Russell's theory is that definite description concepts *don't* denote. He quips, "The title of Russell's article could be the product of a typographer's error, a transposition involving the first two letters" (p. 819 n. 41). He also makes very helpful observations on the vexed question of the relation of Russell's theory to questions of ontic commitment. Especially useful in this regard is a long footnote (p. 823 n. 59) in which he observes that while the *PM* contextual definition of class expressions is modelled on the strategy of eliminating definite descriptions, it serves to eliminate ontic commitment to a category of entities (classes) while the contextual definition of definite description expressions does not eliminate an entire ontic category (objects).

In Neale's description of the present state of the theory of descriptions, he accurately reports that interest in the theory "centres on the theory construed as (a) a contribution to natural language semantics ... and (b) a handy philosophical tool that can be used to reveal the logical forms of sentences ..." (p. 827). He notes that its usefulness for (b) depends on its success at (a). This in turn currently hangs on "... a raft of difficult, unresolved, and often horribly intertwined debates about context, object-dependence, possession, uniqueness, plurality, existence, quantification, scope, logical form and anaphora" (p. 828). Neale has something to say about all of these topics, largely in response to various contributions to this issue.

A number of the articles in this collection focus on what has come to be known as the problem of "incomplete" descriptions. In natural language it is common for definite descriptions to occur which don't contain enough descriptive material to uniquely determine a referent, such as "the crazy guy". This contrasts with Russell's own focus which was on examples such as "the sum of 8 and 5". The origin of the "problem" in the literature seems to date from Strawson, where he considers a use of the sentence, "The table is covered with books".² Strawson argues that since there are many tables in the world the uniqueness of the table referred to in a use of such a sentence is not part of the semantic content of the sentence as a Russellian semantics would suggest, but is rather determined by the speaker's use of the sentence in context. Russellians have long recognized that one challenge is to accommodate such "incomplete"

² P. F. Strawson, "On Referring", *Mind* 59 (1950): 320–44.

descriptions.

Stephen Schiffer is well known for defending the existence of genuinely referential uses of definite descriptions using hypothetical scenarios that make a *prima facie* case for the equivalence of an admittedly referential expression to a definite description. In his article “Russell’s Theory of Definite Descriptions” the contrast is between saying “He’s deranged” of an erratic man in a pink bathrobe in Washington Square Park³ and saying “The guy’s deranged”. Schiffer contends that “He” in this context only makes sense as a referential Millian nonce name and that there is no reason to attribute a difference in semantic content to “the guy” in this context, i.e. both have zero semantic content.

Schiffer naturally presents a much richer discussion of the scenario and its nuances than my brief abstract. I will focus on his response to Russellian analyses of these sorts of scenarios. He characterizes one type of response as combining an incomplete description approach and a Gricean distinction between what a speaker “says” in an utterance and what the speaker “means” in a context of use.⁴ Thus, someone who says “Can you pass the salt?” expresses a certain question, but in the typical context what’s said means the distinct request “Please pass the salt”.

Schiffer considers a Russellian response that would invoke the say/mean distinction to argue that, in the Washington Square context, a speaker of “The guy’s deranged” says something different from a speaker of “He’s deranged”. But they both mean the same proposition. For this to work the “semantic content” of “The guy’s deranged” must be richer than $\exists!x(x \text{ is a male human} \ \& \ x \text{ is deranged})$ for there to be a unique referent determined by the description. The classic Russellian response is that there is an implicit filling out of such incomplete descriptions in any given context of use. Thus in Schiffer’s scenario the Russellian proposition expressed by the definite description sentence might be $\exists!x(x \text{ is a male human} \ \& \ x \text{ is salient in our joint field of vision while waving his arms wildly, wearing a pink bathrobe and bunny slippers} \ \& \ x \text{ is deranged})$.

The classic response to this classic response is that the Russellian can’t generate a semantic theory that tells us which specific proposition is expressed by a given utterance of “The guy’s deranged” because it is “indeterminate” what identifying properties are being drawn from the context. For instance, why not $\exists!x(x \text{ is a male human} \ \& \ x \text{ is standing between us and the fountain} \ \& \ x \text{ is deranged})$? There is no theoretical basis for fastening on any one possible list of identifying properties to “complete” the description.

Schiffer goes through a number of challenges to his interpretation of the scenario that use the Gricean machinery and the notion that the semantic con-

³ Schiffer teaches at NYU.

⁴ This is a variant of Strawson’s distinction between what a speaker “asserts” and what she “implies” in a use of a sentence.

tent of a description may be indeterminate. I will not attempt to summarize the details here. He finishes, however, by separately considering a distinct Russellian response by Stephen Neale. Neale proposes that in the case of apparently referential uses of an incomplete description such as “The guy”, the determining additional material called for by the Russellian theory should be an identity formula. Thus the proposition expressed by “The guy is deranged” would be $\exists x(x \text{ is a male human} \ \& \ x = a \ \& \ x \text{ is deranged})$, where a is a Millian name for the fellow of interest in Washington Square Park. Although I take no sides in the reference wars, I cannot resist the personal comment that this smacks of desperation as a “Russellian” response to Schiffer. Only in a technical sense is “ $x = a$ ” a predicate comparable to “ x is a male human”. To invoke an identity involving a Millian name seems to abandon the Russellian intuition of the need for descriptive content to determine reference. Schiffer himself presents a number of detailed responses to Neale’s suggestion, invoking features of Neale’s own preferred semantics for natural language.

The same problem of the incompleteness of many ordinary definite descriptions is the focus of the article by Ray Buchanan and Gary Ostertag, “Has the Problem of Incompleteness Rested on a Mistake?”. They naturally think that it has and identify the mistake as the belief that successful communication between a speaker and an audience *requires* that a speaker’s utterance in a context leads the audience to identify a single proposition as that intended by the speaker’s utterance.

Buchanan and Ostertag accept that the standard Russellian response that speaker and hearer implicitly supply the needed content in context can’t be developed into a definite semantic theory. As an alternative, they suggest that all this effort to identify a unique proposition expressed by a sentence in use is misguided. Instead, they endorse a concept of “sloppy meaning”. The linguistic meaning of the sentence is such that the speaker can use it to mean “either p_1 or p_2 or p_3 or ...” where this is a perhaps indefinite list of propositions. As long as the audience identifies the intended proposition as one of those on the list, the communication is successful.

The sloppy-meaning approach advocated in this article seems well adapted to attributive uses of definite descriptions. That is, most clearly, in cases where speaker and hearer don’t have a direct epistemic connection with the object that is described, e.g. Julius Caesar. The authors also consider situations in which it seems the definite description has an (unRussellian) referential use. In these cases they suggest that the collection of sloppily meant propositions serve to point the audience (via a process of Gricean linguistic reasoning) to the object-dependent⁵ proposition distinct from the disjunction of descriptive propositions which is the

⁵ An “object-dependent” proposition is meaningful only if the relevant object exists.

speaker's actual meaning.

A couple of other articles in the collection look at somewhat different versions of the "incompleteness" problem. The article by Szabó that has already been mentioned is along these lines. He defends the radical thesis that the uniqueness condition included by Russell in the contextual analysis of definite descriptions is unnecessary for a "Russellian" treatment of the semantics of description. Szabó takes Russell to have been mistaken in insisting that a definite description sentence *entails* the uniqueness of the described object. Many would object that such a treatment makes the difference between "the table" and "a table" indistinguishable. Szabó's response is that the distinction between the two phrases doesn't arise out of their semantics, it arises out of their grammatical role in sentences. Linguistics teaches us, he says, that in many discourse situations the indefinite article is for introducing a new subject, while the definite article references back to the introduced material. So in the sentences, "A jolly king walked into the room. The king was fat", the story could well make sense even if there were already many other kings in the room and the jolly king was only joining his fellow royals for a party. Using this sort of argument, and others, Szabó contends that a Russellian should give up the *OD* requirement that definite description sentences entail uniqueness if she is to be faithful to English "the" phrases.

But is this a "Russellian" treatment of definite descriptions? Szabó defends it by pointing out that uniqueness is not needed for solving *OD*'s three puzzles but it's only necessary that the definite description analysis produce an ambiguity as to the scope of the description in the whole sentence. A treatment that does this (and which makes narrow scope reading not entail the wide scope reading, as in *OD*) he calls "minimally Russellian". His own treatment of descriptions does this and fits more satisfyingly into the vagaries of English language "the". Szabó is mostly clear that eliminating uniqueness is not at all suitable for what Russell himself was up to with the theory of descriptions,⁶ but his point is suited to present-day Russellians interested in a theory of natural language.

A nice compendium of the problems associated with attempts to find a uniform treatment of definite descriptions as terms in natural language is provided by Ólafur Páll Jónsson in the short article "The Bike Puzzle". The puzzle comes from an Astrid Lindgren story about Lotta who wanted a bike for her fifth birthday but failed to receive one. Lindgren tells us that Lotta got other presents and earlier in the day "Lotta was in a good mood, and did not think about the bike", but later in the day "Lotta was reminded of the bike and got angry". The puzzle is how to account for the semantics of "the bike" in these sentences. Jónsson runs through various current theories of definite descriptions and in-

⁶ The article by Oliver and Smiley makes this quite clear.

icates how they all fail to make sense of this seemingly quite ordinary use of a definite description. It indicates the rather daunting task that philosophical semantics has set itself, inspired by *OD*.

The article by Alex Oliver and Timothy Smiley, “Plural descriptions and Many-valued Functions”, is about mathematical and not “natural” language. But as with the prior articles it explores the limits of the application of Russell’s theory in this realm. The main function of the theory of descriptions in *PM* is in constructing single-valued functions such as “the x that is father of y ”. Readers who turn to *37 of *PM* find a device of “Plural Descriptive Functions” which applied to a class β denotes the class of things which have the R relation to a member of β . This notation *could* sort of represent the objects that are in the *child of* relation to a parent y . Since the plural descriptive function applies to classes, Children of Mary denotes the class of Mary’s children. In a fashion this *PM* device might be used to express the content of “Mary’s children gave her a Caribbean cruise on her retirement.” For someone constructing a computer model of human relations the fact that the *PM* treatment means that the *class* of her children gave Mary the cruise might be close enough as an analog of the actual relation.

Authors concerned with natural language semantics will not, however, be at all happy with this *PM*-style treatment of “Mary’s children”. Traditionally authors say that an expression like “Mary’s children” in “Mary’s children gave her a Caribbean cruise on her retirement” designates Mary’s children “collectively”. Even if Jane is one of Mary’s children we can’t infer that Jane individually gave Mary a Caribbean cruise. On the other hand, in the sentence “Mary’s children love her” we assume that “Mary’s children” is being used “distributively” and we can infer “Jane loves Mary”, “George loves Mary”, etc. if these are her individual children. Unfortunately, at least in English, the collective/distributive distinction is not marked. One job for the logic of such plural terms is to allow for a distinction of such collective and distributive uses.

The authors (presumably both collectively and distributively) find that the *PM* treatment of plural descriptions as designating classes is inadequate for a natural language semantics of plural terms. In particular, they highlight the use in ordinary mathematical writing of plural function expressions, e.g. “the roots of the polynomial $f(x)$ ”. They provide a précis of what a logic incorporating plural descriptive terms looks like and briefly indicate how it might obviate the puzzles Russell found in the distinction between “the class as One and the class as Many” in *The Principles of Mathematics* and elsewhere.

What does this have to do with Whitehead and Russell? Not much in a direct way. The connection seems to be that Russell’s use of definite descriptions (following Frege and Peano) to construct single-valued mathematical functions out of the “logical” material of general relations is one influential example of the tradition in mathematical logic of limiting the concept of function to single-

valued functions. As is pointed out in this article and in an earlier one by Smiley,⁷ there are many cases where mathematicians happily use partial functions (undefined for some arguments) or functions with multiple values (e.g. positive and negative) for some arguments. A formal treatment of function expressions guided by mathematical practice leads to the need for a logic of plural terms.

One article that does focus on Russell's own argumentation in *OD* is that by Nathan Salmon. He presents an interpretation of the notoriously difficult Gray's *Elegy* Argument (GEA) in *OD*. Russell never repeated this argument in subsequent expositions of his theory of descriptions, but it seems to represent the thinking which caused him to abandon his previous theory of denoting concepts and led him to seek an alternative approach.

The argument that Salmon finds in the GEA text is that once we distinguish between the content (meaning) and reference (denotation) of a definite description phrase, any proposition about the content of the phrase must itself contain a descriptive phrase which references the content of the first description. The alternative is to form a non-descriptive name for the content of the definite description, as Russell suggests doing using quotation of the descriptive phrase, as in "The first line of Gray's *Elegy*". But then, on Russellian assumptions, the proposition that was to be about the content of the definite description is instead about the reference; in the example it references the sentence, "The curfew tolls the knell of parting day". The significance Salmon, and he believes Russell, finds in this fact is that any knowledge we have of the content of a definite description will only be "by description" and not "by acquaintance". Salmon thinks that "... this, according to Russell, renders our cognitive grip on [the content of] definite descriptions mysterious and inexplicable" (p. 1,071).

Salmon's interpretation is based on a "translation" of the GEA text into a more perspicuous terminology and notation. This addresses many of the long-noted textual problems in the GEA. Given his translation, Salmon finds that at a number of critical junctures Russell doesn't draw the correct conclusion from his assumptions about the existence of a content/reference distinction for descriptive propositional components, or else the conclusions he draws aren't really paradoxical in the way Russell takes them to be. Nevertheless, Salmon assigns to the GEA a central argumentative role in defending Russell's *OD* theory of descriptions. On Russell's theory of descriptions he famously concluded that definite description phrases are "incomplete symbols". He might have better expressed his intent by saying they are "failed symbols", i.e. there is no distinct propositional component that they express. Rather a sentence containing a definite description phrase expresses the much more complex proposition dic-

⁷ T. J. Smiley, "The Theory of Descriptions", in *Studies in the Philosophy of Logic and Knowledge*, ed. T. R. Baldwin and Smiley (Oxford: Oxford U. P., 2005), pp. 131–61.

tated by the theory of descriptions. Many authors have found this “a somewhat incredible interpretation” (*OD*, p. 482; *Papers* 4: 417) of the semantics of definite descriptions in English. The objection is roughly that English speakers have nothing like the Russellian analysis in mind when they use definite descriptions in sentences. Instead, English speakers treat definite descriptions as a form of singular term with a reference and a content.

Salmon poses this challenge for Russell in terms of what Kripke has labelled a Weak Russell Language (wRL). In a wRL definite descriptions have a reference determined by their content, but the truth-conditions for sentences containing definite descriptions are *stipulated* to match those generated by Russell’s theory of (eliminating) descriptions. Salmon believes “Russell would point to the very phenomenon he cites in the ‘Gray’s *Elegy*’ argument to show that English cannot be [a] wRL” (p. 1,081). Specifically, the GEA is supposed to show that the “content” of a definite description that is assumed for a wRL isn’t available to English speakers. Unfortunately, the details are essential in an argument like Salmon’s and they are impossible to summarize here.

The concept of “propositional function” looms large in *PM* after Russell eliminates denoting concepts and classes in favour of it. In “Remarks on Propositional Functions” Richard Cartwright notes that Russell doesn’t have a coherent treatment of “propositional functions”, sometimes treating them as sentence forms and sometimes as actual functions from objects to propositions. Cartwright, nevertheless, offers an account of propositional functions “that accommodates a good deal of what Russell says about them and that can provide some of what he expected of them” (p. 915). Cartwright notes a number of the peculiar requirements that Russell places on propositional functions thought of as extensional functions from objects to propositions. One of the most important is that the object a propositional function is applied to must be a constituent of the proposition that is its value for that argument.⁸ Cartwright nicely sketches some of the problems this produces for identifying propositional functions and their corresponding propositional values. The value of ϕ (Socrates) might be the proposition *Socrates is wise*. But is there a proposition *The teacher of Plato is wise*? It seems ϕ (the teacher of Plato) should be the propositional function applied to the object Socrates and thus the resulting proposition is *Socrates is wise*. But then, does someone who understands the English sentence “The teacher of Plato is wise”, meaning that she is aware of the proposition it expresses, necessarily know that it is Socrates who is wise? These sorts of problems of integrating the notion of propositional functions with the use of definite descriptions to identify propositional components clearly made Russell more willing to accept the “somewhat incredible interpretation” (*OD*, p. 482)

⁸ This an aspect of the confusion with name substitution into sentence forms.

that he offers for the proposition expressed by a sentence like “The teacher of Plato is wise”.

The second half of Cartwright’s article is devoted to the rather distinct issue of Russell’s epistemic concerns about the nature of “acquaintance” and how from about 1911 in “Knowledge by Acquaintance and Knowledge by Description” these push him into the disguised description theory of ordinary proper names like “Bertie”. Cartwright gives a good account of why there is no compelling reason to ascribe the theory to Russell prior to this point, e.g. in *OD*, except perhaps for fictional names like “Apollo”. The article itself doesn’t have an overarching thesis but provides a guide to some of the often overlooked difficulties Russell faced in determining the proposition expressed by a given English sentence.

David Kaplan discusses a variety of ideas that are connected with Russell’s theory of descriptions in “Reading ‘On Denoting’ on Its Centenary”. The overall paper divides into two parts. The first part has itself two parts. The first of these presents a theory/speculation on Russell’s purpose in writing *OD*. The latter half discusses some of the problems Frege had in attempting to correlate an object, the “course-of-values”, with every one of his functions. The second part of the article discusses Russell’s comments in *OD* on the distinction of knowledge by acquaintance and knowledge by description and its relation to the theory of descriptions.

In the first half of the first half Kaplan lays out his understanding of the theory of denoting that Russell presents in the *Principles*. Kaplan notes, “Russell’s treatment of definite descriptions in *PoM* already gave meaning, even a *meaning in isolation*, to all definite descriptions, proper as well as improper” (p. 949). This seems to leave Russell without any clear motivation for eliminating definite descriptions. Kaplan finds a solution in Alasdair Urquhart’s introduction to Volume 4 of the *Collected Papers*. Urquhart points to the papers collected there, written while Russell was trying to develop a coherent symbolism to use in the derivations of *PM*, as providing a context in which the problems involved in a symbolism for definite descriptions came to the fore. The specifics that Kaplan describes, and which are highlighted by Urquhart, focus on his strategy of deriving “denoting functions” (single-valued, total functions of mathematics) from propositional functions via a definite description operator. This derives a basic mathematical concept “function” from arguably logical concepts, propositional function and a description operator.

Kaplan’s account is consistent with recent scholarship. Yet, that still leaves the question of why Russell felt it was important to eliminate the use of the definite description operator in this “reduction”. Kaplan considers one popular account of the importance for Russell of the *OD* theory of descriptions. This is that it showed Russell how to use contextual definitions to “eliminate” troublesome symbols, i.e. ones he thought were involved in generating contradictions. The

importance of this is often supported by pointing to Russell's "elimination" of class symbols in *PM*. Kaplan makes some acute observations about how the "elimination" of class symbols in *PM* functions differently from the elimination of definite description operators in *OD*. Kaplan concludes, "I do not think the *PM* treatment of extensions of propositional functions [classes] is important from a logical point of view, so I continue to look for more interesting ways in which the theory of descriptions might have been seen as relevant to the Contradiction" (p. 953).

Kaplan's "might have been" is important in the above statement. He goes on to present a frankly speculative, but very illuminating, account of how systemic choices about the reference of singular expressions in Frege's *Grundgesetze* system lead to contradiction. This centres on Axiom v and his insistence that for every function, $f(\epsilon)$, there be a corresponding object, $\epsilon f(\epsilon)$, which is its course-of-values. This leads to contradiction. The course-of-values notation is a sort of definite description. The corresponding notation for Russell in *PM* was a class abstract notation $\hat{y}(\phi y)$ for each propositional function ϕy . But the Russellian treatment of the class abstract notation on analogy with the theory of definite descriptions meant that a class abstract could be non-referential. Kaplan points out how this is analogous for Frege to keeping functions, but abandoning courses-of-values as distinct objects for each function. According to Kaplan, "Once courses-of-values are eliminated, *Grundgesetze* transforms into type theory" (p. 968).

This is all illuminating clarification of how the notion of "incomplete symbols" which Russell developed in his theory of descriptions facilitated his struggles to avoid the Contradiction. But we never quite get to the story about the motivation for Russell's treatment of definite descriptions which in turn inspired his thinking about "incomplete symbols".

The last half of Kaplan's article focuses on the Russellian distinction of knowledge by acquaintance and knowledge by description, which many philosophers have taken to be central to the significance of *OD*. Russell placed a premium on knowledge of things by acquaintance. This led him to try to show how knowledge by description is based on knowledge by acquaintance. In the context of Russell's theory of descriptions this means that the actual proposition apprehended contains propositional functions, e.g. *x is a man*, with which we are (intellectually) acquainted, while not containing the individual thing which the proposition is about. Many people nevertheless find it peculiar to say that someone who knows that the Albanian spy is in this crowd knows something about Orcutt, if he is the Albanian spy and they are unacquainted with him. Russell felt this concern, but Kaplan's own concerns along these lines lead him (after a convoluted set of considerations) to reject any epistemic primacy for acquaintance. Instead he favours linguistic direct reference. In our language we have descriptions and names that "denote" (i.e. reference) entities. This denoting

power in the language is a social concoction. I've never met any Albanians, but other English speakers have and that enables *me* to talk about Albanians. According to Kaplan, "The key to our *use* of language is comprehension of the linguistic *representations*, not acquaintance with that which is *represented*. When we comprehend the representation, we can use it to reach what is represented, *its* content" (p. 999). Kaplan wants to reverse Russell's scheme. For Russell it was our contact with the entities, whether individuals or universals, which gave our language meaning. For Kaplan, it is our, socially provided, language which gives us contact with many things.

Saul Kripke in his article "Russell's Notion of Scope" has two rather separate sets of considerations connected with Russell's treatment of the scope of descriptions. In *OD*, Russell explains some puzzling cases involving descriptions as arising from differing scopes of the description in the utterance.⁹ Notably, he explains that "The King of France is not bald" can mean either $\exists!x(Kx \ \& \ \sim Bx)$ or $\sim \exists!x(Kx \ \& \ Bx)$. Lacking a present King of France, the first of these is false and the second is true, i.e. they are not the same proposition. Russell uses these scope ambiguities in *OD* as evidence that definite descriptions don't function in the manner of grammatically simple names. In the case of "Socrates is not bald", it doesn't matter to the truth-value whether we read this as "It is not the case that Socrates is bald" or "Socrates is non-bald". This is because we are treating "Socrates" as a proper name which automatically has a reference. We would have the standard problems if we did this with "Santa Claus".

At the end of *PM* *14, Whitehead and Russell prove that for any definite description and any truth-functional compound sentence, under the assumption that the description is uniquely referring, the description functions like "Socrates", whether its scope is within the operator scope (Russell's "primary occurrence") or the operator scope is within that of the description (Russell's "secondary occurrence"). This result of *14 only holds if the propositional contexts are all extensional, as is the case in *PM*. If we have an intensional context, such as George IV's asking about Scott's authorship, then giving wider or narrower scope to even a uniquely referring description like "the author of *Waverley*" can yield propositions with differing truth-values.

Kripke considers the extent to which this "scope indifference" can be generalized in terms of the usual treatments of description elimination in first-order languages. He is thinking especially about cases where descriptions are parts of other descriptions or there are multiple descriptions in a sentence. He reports the interesting result that if the ultimate propositions use only the primitive \sim and \forall of *PM*, then the more demanding general scope indifference theorem can

⁹ In *OD* Russell writes of primary and secondary occurrences of a description. In *PM* *14 the "scope" terminology is used along with explicit notation for the scope of a description.

be proven. But if the primitive connective is taken to be the Sheffer stroke, as Russell suggested in the second edition of *PM*, then in sufficiently complex contexts the elimination can never be fully carried out because new instances of descriptions keep appearing which need further elimination, so that the general theorem can't be proven.

Beyond this specific result, Kripke's comments concern the lack of explicit reference to Russell's treatment of definite description scope in late twentieth-century philosophy and linguistics in which scope variants in underlying forms have been frequently used to explain natural language sentence ambiguities. This is commonly invoked for variant quantifier scopes as in "You can fool some of the people all of the time." Similarly, natural language use of intensional language about propositional attitudes or modality is standardly construed by invoking scope shifts in the underlying representations. Kripke is unconvinced that such invocation of scope shift ambiguities in late twentieth-century philosophical linguistics was not inspired by Russell's theory of descriptions. He is, nevertheless, unable to find explicit acknowledgement by later workers. Without solving it, he does raise a historical question about the influence of Russell's notion of scope.

The variegated nature of the articles collected in this issue of *Mind*, all of which have some claim to addressing the ideas in *OD*, calls up the root meaning of the cliché description of it as a "seminal" article. These descendants of *OD* may seem as distant as our descendants will be 100 years from now, but without *OD* they would not be what they are. Our own posterity is problematic, but looking back we can say that the posterity of *OD* have made a fundamental difference in how analytic philosophers view their work.
