On The Theory of Meaning of "On Denoting"

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0. Introduction

Russell's theories of denoting, beginning with the early theory of denoting concepts of *The principles of mathematics* and the unpublished intermediate studies, and culminating in the theory of "On denoting," exemplify the characteristic features of a semantic theory. As early as the theory of *Principles* there is a compositional analysis of the logical form of declarative sentences, including sentences involving relational expressions and expressions of multiple generality; this analysis is combined with an implicit theory of how the truth value of a sentence as a whole is determined by the semantic values of its parts.

On the surface, what separates "On denoting" from the account advanced in *Principles* is its inclusion of a new theory of quantification, one which showed how to achieve the goals of the theory of denoting concepts while employing only the primitive notions *always true* (or, as we would say: "*always holds*," and its variants) and *propositional function*. "On denoting" effected the ontological economy of eliminating altogether the need for the denoting concepts associated with 'all,' 'every,' 'a,' 'some,' and 'the.' This was rightly regarded as an advance by Russell since the notion of a propositional function was already present in *Principles*—indeed, it was the common property of all the approaches canvassed by Russell—and although a primitive, *always true* is not obviously a primitive having the same ontological import of the denoting concepts of Russell's earlier theories. There has, for a long time, been some unclarity over the nature of the ontological economy achieved by the theory of descriptions which "On denoting" propounded. And Russell's own presentation of the matter, especially his discussion of Meinong, has tended to obscure rather than elucidate the situation. While it is certainly true that the metaphysics of *Principles* was "overly generous," recent studies have shown that the difficult step in the transition to the mature view of "On denoting" was not the elimi-

nation of the *denotations* of "empty" denoting concepts, but the elimination of denoting concepts themselves.[1]

The issue on which I intend to focus is whether there is anything else, anything more than ontological economy, which, in Russell's mature account of the constituents of propositions, is gained by his rejection of denoting concepts. I will argue that in order to answer this question, it is necessary to appreciate that by the time of "On denoting," Russell was not merely advancing a claim of philosophical logic or a theory of the logical form of the descriptive phrases of English. The essay also rests upon a well worked out if primitive theory of what our knowledge of meaning consists in—something deliberately excluded from the discussion in *Principles* on the ground that such "topics of general philosophy" fall outside the purview of the work (§51).[2] I hope to show how and why it is precisely this component of the theory of "On denoting"—a component that amounts to a theory of propositional understanding—on which we must focus if we wish to achieve a full appreciation of the basis for Russell's rejection of the theory of denoting concepts and his advocacy of the theory of descriptions.

1. Propositions and denoting concepts in *Principles*

Recall that in *Principles*, propositions are explained as follows:

> *Words* all have meaning, in the simple sense that they are symbols which stand for something other than themselves. But a proposition, unless it happens to be linguistic, does not itself contain words: it contains the entities indicated by the words. Thus meaning, in the sense in which words have meaning, is irrelevant to logic. (§51)

But denoting concepts introduce a special sense of non-linguistic meaning:

> ...such concepts as *a man* have meaning in another sense: they are so to speak, symbolic in their own logical nature, because they have the property I call *denoting*. That is to say, when *a man* occurs in a proposition (*e.g.* "I met a man in the street"), the proposition is not about the concept *a man*, but about something quite different, some actual biped denoted by the concept. (§51)

The occurrence of denoting concepts in Russellian propositions is utterly unlike the occurrence of "terms":

> A concept *denotes* when, if it occurs in a proposition, the proposition is not *about* the concept, but about a term connected in a certain peculiar way with the concept. If I say "I met a man," the proposition is not about *a man*: this is a concept which does not walk the streets, but lives in the shadowy limbo of the logic-books. What I met was a thing, not a concept, an actual man with a tailor and a bank-account or a public-house and a drunken wife. (§56)

Although *Principles* does not explicitly address issues pertaining to our knowledge of meaning, it cannot be stressed too strongly that denoting concepts played a decisive epistemological role—what Russell called their "logical purpose"—in the account of that work:

> Indeed it may be said that the logical purpose which is served by the theory of denoting is, to enable propositions of finite complexity to deal with infinite classes of terms: this object is effected by *all*, *any*, and *every*, and if it were not effected, every general proposition about an infinite class would have to be infinitely complex. Now, for my part, I see no possible way of deciding whether propositions of infinite complexity are possible or not; but this at least is clear, that all the propositions known to us (and, it would seem, all propositions that we *can* know) are of finite complexity. It is only by obtaining such propositions about infinite classes that we are enabled to deal with infinity; and it is a remarkable and fortunate fact that this method is successful. (§141)

Denoting concepts thus enable us to make assertions about infinite collections without requiring that we have knowledge of propositions of "infinite complexity"; they allow us to capture the infinite with finite means. The propositions capable of being "known" are of finite complexity by virtue of containing denoting concepts; such concepts secure reference to e.g. infinite collections, and allow us to avoid supposing that an infinite collection is itself a constituent of the proposition known.

A major source of unclarity in this account is *Principles*' pre-Fregean theory of quantification, involving, as it does, non-relational "combinations" of objects.[3] If, however, we set aside this deficiency, Russell's point may be reconstructed as follows: The theory of inference developed in *Principles* covers relational expressions, and hence, non-trivial uses of multiple generality. With these purely logical devices, it is straightforward to formulate sentences satisfiable only if there are infinitely many objects, or as we would say, sentences satisfiable only in infinite domains. For Russell this means that our understanding of the meaning of such sentences—the proposition grasped—is "finitary" in the sense that it consists of finitely many parts, each of which is itself of at most finite complexity. In particular, something finitary in this sense must correspond to the quantificational component of the sentence; but this is precisely the function fulfilled by a denoting concept.

Clearly, Russell wishes to transfer to the proposition understood what holds of the sentence which expresses it, namely that it achieves its point—that of making an assertion about an infinite totality—employing only finite resources. But this means that the domain about which an assertion is made cannot be a constituent of the proposition expressed, since that would be at variance with the notion that the propositions we understand are always of "finite complexity." The role of a denoting concept is thus to mediate between the proposition that is *understood* and what it manages to *be about*: the distinction between what I shall call "the

proposition which the sentence *expresses*," and "the proposition it *asserts*." The propositional constituents we "know" when we understand the sentence belong to the proposition expressed; the constituents of the actual state of affairs, the state of affairs which obtains if the sentence is true, belong to the proposition asserted. As we shall see, the two notions may sometimes coincide in their application—the proposition asserted may be identical with the proposition expressed. A sentence always succeeds in expressing a proposition, but it may fail to assert one; this will happen if (for example) the denoting concept indicated by the definite description of the sentence fails to denote or, in the language of the theory of descriptions, if the existence or uniqueness condition of the description should fail.

The distinction between what I am calling "the proposition expressed" and "the proposition asserted" is not explicitly drawn by Russell in any of the writings I cite. And in fact the terminology I am proposing is at variance with Russell's, who is, in any case, quite casual in his choice of expression. Thus, in "On denoting" Russell uses all of 'affirms,' (43/416)[4] 'asserts,' (44/417) and 'expresses' (45/418) in the way I am proposing we use 'express,' although in the penultimate paragraph of the essay he uses 'affirm' for what I am proposing we use 'assert.' Indeed, all things considered, Russell would prefer to avoid altogether the notion of a proposition asserted and to pass directly from the proposition expressed to whatever circumstance or "fact" its truth would allow us to "affirm." Nevertheless, that the distinction I am urging as an expository device has textual support is indicated by Russell's contrast, among propositions "whose truth or falsehood we can judge of," between "proposition[s] we can *apprehend*... [or] that we can think about" and "propositions which *affirm* things that we know must be true," even though "we are not acquainted with those propositions... because we cannot apprehend the actual entities [with which they are] concerned" (56/427, italics supplied). But to go into these matters in greater depth would require a discussion of facts and their relation to propositions, something that would greatly complicate the main expository purpose of this paper, which is the clarification of Russell's changing theories of the *constituents* of propositions. A discussion of Russell's views on truth would have to address not just this issue, but several other questions as well, e.g., Can everything which occurs as a constituent of a proposition also occur as a constituent of the "corresponding" fact? What does the correspondence between facts and propositions consist in? And are the constituents of propositions "held together" in the same way as the constituents of facts?

As we shall see, the expository device of distinguishing between the proposition expressed and the proposition asserted allows us to defer discussion of these difficult topics without failing to accommodate a feature which is preserved under all variations of Russell's account—including the account of "On denoting"—namely, the distinction which Russell draws between the *constituents* of certain propositions and what those propositions are *about*. What a proposition is about is only sometimes among its constituents; in those cases where the proposition

expressed differs from the proposition asserted, the proposition expressed will contain constituents which it is *not* about. In particular, when, in the language of the theory of denoting concepts, the proposition expressed contains a denoting concept which denotes, the thing the proposition is about is a constituent of the proposition *asserted*. Modulo the commitment to denoting concepts, this holds as well for the theory of "On denoting." For Russell, eliminating denoting concepts never required rejecting the distinction between the proposition we express with denoting phrases and the proposition we assert. What Russell implicitly noticed was that this distinction could be maintained without reliance on the notion of a denoting concept, so that insofar as difficulties with that notion might have compromised the distinction, its elimination showed the distinction to be more secure than might previously have been imagined.

2. Acquaintance and description

The central epistemological idea, which the development leading to "On denoting" introduces, is the distinction between knowledge by acquaintance and knowledge by description, a distinction which is absent from *Principles*, although it is true that the notion of acquaintance occurs there. There is, for example, the well-known passage from the first page of the first edition Preface to *Principles* where, when speaking of our knowledge of the "indefinables" of mathematics, Russell characterizes his task in Part I of the book as one of endeavoring "to see clearly, and to make others see clearly, the entities concerned, in order that the mind may have that kind of acquaintance with them which it has with redness or the taste of a pineapple." But although acquaintance certainly has an important role to play in the implicit epistemology of the work, the importance of it as a source of knowledge, one which is to be contrasted with knowledge by description, is a slightly later development. That distinction makes its first appearance in the 1903 manuscript, "Points about denoting," where it appears as point (1) (there are six points altogether); it is explained as follows:

> Generally speaking we may know, without leaving the region of general propositions, that every term of the class *a* has the relation *R* to one and only one term; as e.g. we know that every human being now living has one and only one father. Thus given any term of class *a*, say *x*, we know that "the term to which *x* has the relation *R*" has a perfectly definite denotation. Nevertheless, it's a wise child, etc. This shows that to be known by description is not the same thing as to be known by acquaintance, for "the father of *x*" is an adequate description in the sense that, as a matter of fact, there is only one person to whom it is applicable. ("Points about denoting," 306)

The discussion in this manuscript also foreshadows what, in *The problems of philosophy*, Russell termed "The fundamental principle in the analysis of propositions containing descriptions," namely: "Every proposition which we can understand must be composed wholly of constituents with which we are

acquainted" (*Problems*, 58; I will refer to this statement as the Fundamental Principle[5]). In "Points about denoting," this principle is given the formulation: "It is necessary, for the understanding of a proposition, to have *acquaintance* with the *meaning* of every constituent of the meaning, and of the whole; it is not necessary to have acquaintance with such constituents of the denotation as are not constituents of the meaning." (307) This earlier formulation must of course be understood within the context of Russell's theory of denoting concepts; nevertheless, the distinction Russell draws between constituents of the meaning and constituents of the denotation makes it clear that he proposed to use the theory of denoting concepts in conjunction with the distinction between knowledge by description and acquaintance to achieve the success which he would later claim for the theory of descriptions, namely, that it accounts for our ability to entertain propositions which, if true, involve assertions about entities falling outside the realm of our acquaintance.[6]

Notice also that while Russell speaks of understanding *propositions*, there is a simple extension to a theory of our understanding of *sentences*, one which is practically implicit in the terminology we have been using: the sentences which we understand *express* propositions with whose constituents we are acquainted. But we require denoting concepts whenever we wish to make a statement whose "assertoric content" involves an object which falls outside the realm of our acquaintance. To take an example of the sort typical of Russell's post-"On denoting" work: When I make a statement about Bismarck, the proposition which I express must contain a denoting concept whose function is to pick out Bismarck—assuming he is not an object of my acquaintance. The proposition I express will contain, not Bismarck, but a denoting concept which denotes him, together with some propositional function, e.g., the one associated with the property of astute diplomacy. But the proposition I assert *does* contain Bismarck as a constituent. In principle, it would seem that *anything* (concrete or abstract) with which I am acquainted can enter as a constituent in any proposition I understand, so that it might perfectly well happen that the constituents of the proposition expressed coincide with the constituents of the proposition asserted. For example, were I acquainted with Bismarck, there would be no need to invoke a denoting concept as a constituent of the proposition I express when I say "Bismarck was an astute diplomat"; in such a case, Bismarck would be a constituent of the proposition expressed as well as a constituent of the proposition asserted.

I must therefore disagree with a central interpretive claim of Richard Cartwright's. In his valuable essay "On the origins of Russell's theory of descriptions," [7] Cartwright claims that, in the 1905 manuscript "On fundamentals," Russell abandoned the idea that a proposition could both be understood and about objects falling outside our acquaintance. According to Cartwright, Russell adopted the following thesis:

(XI) One cannot entertain propositions about an entity with which one lacks acquaintance. (Cartwright, 116)

If I have understood him, Cartwright also holds that (XI) remained a permanent feature of Russell's view. I can find no textual basis for this interpretation of "On fundamentals." Cartwright appears to have been misled by the juxtaposition of Russell's presentation of his views on perception with his theory of denoting into supposing that Russell committed himself to (XI). More importantly, even if Russell did contemplate such a position in this manuscript, he could hardly have adhered to it without completely undermining the epistemological interest he was soon to claim for the theory of descriptions, an interest that is emphasized in the second paragraph of "On denoting" and later recalled in the penultimate paragraph of the essay as one of the theory's central recommendations, namely, its ability to accommodate, to a degree that his earlier theories could not, our ability to understand propositions which are about objects which fall outside our acquaintance.

3. Denoting concepts and the Fundamental Principle

Theories invoking denoting concepts exhibit a peculiarity whose significance has not been properly assessed in the secondary literature. Once the distinction between acquaintance and description has been introduced, the epistemological motivation for all theories of denoting receives the formulation, How is it possible to understand sentences whose assertoric content transcends our acquaintance? Russell regarded it as a major discovery that we need never suppose that our understanding of such a sentence violates the Fundamental Principle: the mediation of denoting concepts allows us to maintain *both* that the proposition expressed (or, as Russell also says, the proposition "understood" or "apprehended") does not incorporate objects with which we are not acquainted *and* that the proposition asserted may contain as constituents objects which do transcend our acquaintance. The intervention of denoting concepts is therefore required when, and it would seem, *only when*, we assert propositions involving objects with which we are not acquainted—whether by reason of some general epistemological principle, as in the case of infinite totalities and the world of material objects, or for ordinary "accidental" reasons for the failure of acquaintance, as in the case of Bismarck and the last Emperor of China.

In the context of the Fundamental Principle, denoting concepts introduce an odd asymmetry: when the theory of meaning is applied reflexively to denoting concepts themselves, we find that even though a denoting concept is an object of acquaintance *par excellence*, it cannot be our acquaintance with the denoting concept which explains our understanding of a proposition which purports to be about the denoting concept itself; rather, for any sentence which purports to make an assertion concerning a denoting concept, the proposition the sentence expresses, and whose constituents we grasp when we predicate something of the denoting concept, must contain something other than the denoting concept— something that denotes the denoting concept. *The odd thing is, this is required even though denoting concepts are objects of acquaintance*. Denoting concepts are therefore an exception to the very theory of meaning which introduces them.

The difficulty is, when a denoting concept enters as a constituent of the proposition we express, the proposition is not about it but about what it denotes, this being the whole "logical purpose" of a denoting concept.

None of this would be at all peculiar were it not for the underlying theory of meaning—Russell's picture of what our knowledge of meaning consists in. For according to that theory, it should be possible for us to understand the proposition which gives the assertoric content of any sentence, so long as its constituents are objects of acquaintance—as, indeed, denoting concepts are. But whenever we express a proposition containing a denoting concept, the theory requires the proposition to be about the denotation. It follows that the theory of our knowledge of meaning is incomplete, since it fails to address our knowledge of meaning in the case of propositions that are about denoting concepts. Moreover, to the extent that the theory of knowledge by acquaintance and description suggests there should be no difficulty with something known by acquaintance entering as a constituent of the proposition understood, this is an incompleteness which seems to have been wholly unanticipated.

Peter Hylton[8] has criticized the contention that considerations based on the distinction between acquaintance and description played a role in Russell's rejection of the theory of denoting concepts. Hylton bases his analysis on the fact that since the Fundamental Principle had already been incorporated into the theory of denoting concepts, it could hardly have played a role in its rejection. The conclusion we have just reached calls Hylton's analysis into question. First, there is the general methodological point that even if the theory of denoting concepts can be combined with the Fundamental Principle, and thus, with the theory of knowledge by description and knowledge by acquaintance, it might still happen that the fit of these theses with the theory of descriptions makes for a better total theory. Secondly, and more specifically, we have just seen that the combination of ideas, theory of denoting concepts and Fundamental Principle, leads to a difficulty, a kind of incompleteness, which must be addressed. But if this difficulty does not arise when these ideas are combined with the theory of descriptions, then, other things being equal, we have the basis for a straightforward argument for preferring the later theory—an argument which derives directly from the Fundamental Principle.

4. The Gray's elegy argument

I want now to consider whether the difficulty I have outlined captures Russell's dissatisfaction with denoting concepts or whether there is a further difficulty with the notion, one which arises more directly from the need for "meanings which denote meanings," to use the terminology of "On denoting." Is the difficulty to which denoting concepts are subject captured by the discovery that a denoting concept is sometimes required for a denoting concept, even though denoting concepts are objects of acquaintance? Or is there something intrinsically problematic

about denoting a denoting concept? I believe the correct answers to these two questions are, respectively, a qualified "Yes" and a qualified "No."

The first point to notice is that a proposition in which a denoting concept occurs as a term or object of predication, rather than for the purpose of denoting the entity of which a predication is made, cannot be the proposition we *express*. Borrowing a useful terminology of Cartwright's,[9] we may say that for all of Russell's early theories the occurrence of a denoting concept in the proposition expressed is always a "denotative" rather than a "term" occurrence. In *Principles*, no theoretical consideration—as opposed to mere notational devices like the use of italics—explicitly marked an occurrence of a denoting concept as a term, rather than a denotative, occurrence. The intermediate studies filled this gap by introducing the distinction between knowledge by acquaintance and knowledge by description, together with the implicit reliance on the distinction between expressed and asserted propositions. But it was tacitly understood as early as *Principles* that, in their ordinary deployment, denoting concepts occur denotatively; otherwise it would be unclear how we could employ denoting concepts, and thus understand the propositions in which they occur, without embarking on some sort of regress, since it would be necessary to denote the denoting concept before it could be employed to denote its denotation. (See e.g. §476.) Clearly, therefore, the occurrence of a denoting concept in the proposition expressed must be denotative. A denoting concept's term occurrence in a proposition which is asserted must be mediated by the denotative occurrence of another denoting concept—it must be known by description—if we are to succeed in asserting a proposition which is about *it* rather than its denotation. Hence the necessity of finding denoting concepts for denoting concepts and the importance, for the theory of denoting concepts, of any difficulty which might attend to doing so.

To put the point slightly differently: Given a *term* occurrence of a denoting concept in any proposition, whether expressed or asserted, the proposition must be about the denoting concept rather than its denotation; but this runs counter to the idea that "denoting concepts are symbolic in their logical nature"—a feature of denoting concepts that would seem to threaten the very possibility of propositions in which they occur as terms or objects of predication. A natural way out of the difficulty is to hold that their occurrence is denotative when they occur in propositions which we *express*, when our knowledge of them comes by acquaintance. But then a denoting concept cannot be the object of a predication if it is "indicated" by a denoting phrase—a term which, as we saw earlier,[10] Russell sometimes uses for a relationship analogous to that which holds between a name and its bearer—since that would make the denoting concept a constituent of the proposition expressed, in which case whatever is predicated would be predicated of its denotation, rather than of it. Thus, although there may be propositions in which the occurrence of a denoting concept is not a denotative occurrence, but a term occurrence, it remains to characterize a suitable denoting concept to denote such a term occurrence of the denoting concept.

The Gray's elegy argument canvasses essentially two ways in which this might be done, both of them involving an adaptation of Frege's use of quotation marks ("inverted commas"). As is well-known, Frege introduced this device in order to distinguish between the use and mention of linguistic expressions. Russell's concern is with denoting concepts—which are nonlinguistic. A term occurrence of a denoting concept is the analogue of Frege's mention of a linguistic expression, while a denotative occurrence corresponds to Frege's use of the expression. This suggests that a term occurrence of a denoting concept might be signaled by placing the corresponding phrase in quotes. This proposal, which is reminiscent of the use of italics in *Principles*, is criticized by Russell on the ground that it can only succeed in indicating that for which we seek a denoting concept; it does not give us a denoting concept for the denoting concept. Indeed, there may be infinitely many denoting concepts with the indicated denoting concept as denotation. This is the "no backward road" observation of the Gray's elegy argument.

However, to say that we can, by the use of quotes, successfully "indicate" that for which we seek a denoting concept is already somewhat problematic, since the use of the denoting phrase by itself *already* indicates the denoting concept in the strict or official sense of the theory, i.e., as a constituent of the proposition expressed. To be effective, the use of quotation marks must not only "indicate" the denoting concept, it must also signal that its occurrence in the proposition expressed is not a denotative occurrence. The Gray's elegy passages fail to explore this emendation and the extension of the theory of denoting concepts it suggests, a point to which I shall return. Instead, Russell considers a use of quotation marks, which combines them (or the use of italics) with the formation of denoting *phrases*, as in

the meaning of 'C,'

to obtain an expression for a denoting concept which denotes the denoting concept. The difficulty he finds with this proposal is altogether different from the one exposed by the no backward road observation: it reverses the order of analysis presupposed by the theory of denoting concepts, and thus renders that theory otiose. Recall the basic picture: a phrase *indicates* (or *expresses*) a denoting concept which *denotes* its denotation. Within the theory, the *linguistic reference* of the phrase is constructed as the relative product of the relations of indication and denotation. On the present proposal this analysis is reversed and *denotation* is analyzed as the product of the converse of the indication relation and the relation of linguistic reference, thus making denotation "merely linguistic, through the phrase."

The following "commutative diagrams" make the point completely transparent. In each case, the analyzed relation is represented by a broken diagonal arrow. $\Delta(p)$ is the denoting concept (indicated by the denoting phrase p), $\delta(p)$ is its denotation. Figure [1] gives the intended direction of analysis, while in Figure [2] the order of analysis is inverted. Since, in the case where we wish to make an
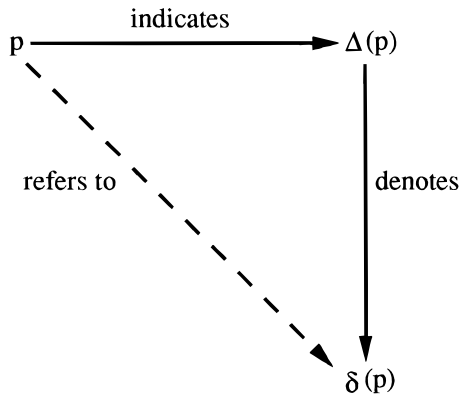
p ——— indicates ———→ $\Delta(p)$

refers to

denotes

$\delta(p)$

Figure 1

$\Delta(p)$ ——— is indicated by ———→ p
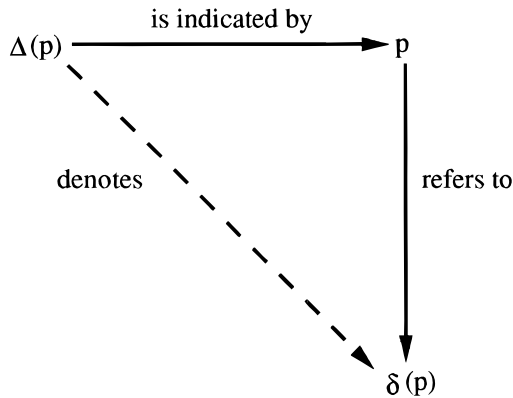
denotes

refers to

$\delta(p)$

Figure 2

assertion about a denoting concept, our knowledge of the denoting concept is knowledge by description, we require a denoting concept with which to denote the denoting concept. Gray's elegy asks, "What is the denoting concept that denotes this denoting concept?" The suggestion being considered at this point in the argument—the point illuminated by Figure [2]—is that it is the denoting concept whose denotation is the referent of some suitably chosen descriptive phrase. But this has the consequence of analyzing the relation of denotation in terms of the linguistic reference of a denoting phrase. As Russell says, this makes denotation "merely linguistic, through the phrase"—in which case it is not denotation that is explaining linguistic reference, but linguistic reference that is explaining denotation. Characterizing the denoting concept in this way is therefore at variance with the theory of denoting concepts' commitment to the explanatory priority of denotation over linguistic reference.

Notice that the argument contains a transition: the search for a *denoting concept* has led to a question about the relative status of the *relations* of denotation and linguistic reference. The figure purports to clarify (really, summarize) the point by displaying denotation as the "constructed" or analyzed relation, contrary to the theory of denoting concepts, according to which, the reference of descriptive phrases is explained in terms of the denotations of the denoting concepts they indicate. It thus happens that the reference of at least one descriptive phrase is presupposed in order to find the denoting concept we seek. To put the whole matter in terms of the example which introduces the discussion ('the meaning of 'C''): The phrase, 'the meaning of 'C'', refers to a denoting concept, namely, the one associated with the descriptive phrase 'C'. As with every denoting phrase, so also with 'the meaning of 'C'', some denoting concept is indicated by it. Although this is the denoting concept we require, its denotation is characterized in terms of the reference of a phrase. So we have succeeded in characterizing the denoting concept we seek, but to do so we have had to give up the principle—central to the theory of denoting concepts—that the linguistic reference of denoting phrases is always to be explained in terms of the denotation of denoting concepts.

In my view, the exposition of these two points very nearly exhausts the intelligible content of the Gray's elegy argument. The proper reconstruction of the central observations of these passages—what I have called the "no backward road" and "merely linguistic through the phrase" observations—shows them not to rely on an ineliminable confusion of use and mention. Rather, the fault of the Gray's elegy argument is that it is incomplete, since the argument establishes only that Russell cannot see how to formulate a theory of denoting concepts which includes a satisfactory means of generating denoting concepts that denote denoting concepts. But Russell has given us no proof that he has canvassed all possible options. Nor has he shown that a successful resolution of the problem, of how we understand propositions whose assertoric content involves the predication of something of a denoting concept, cannot be achieved without denoting concepts for denoting concepts. I will return to this last point at the very end of the paper.

The context in which the Gray's elegy argument is placed, together with Russell's choice of terminology for the characterization of Frege's theory of sense and reference, suggests an obvious historical question which I believe we are in a position to successfully address: Whether or not Russell was correct in the supposition, why did he imagine that the objections raised in the Gray's elegy passages were particularly damaging to Frege's theory? I believe that the answer to this question, originally suggested by Peter Geach,[11] is basically correct: Russell simply identified Frege's senses with his denoting concepts, seeing in Frege's account only a wider application of what was essentially his own theory: for Russell, the chief difference in their views consisted in Frege's contention that *every* referring expression required the mediation of a denoting concept. The fact that Frege laid special stress on the idea that in indirect speech (*oratio obliqua*) an expression refers to its ordinary sense, and thus, in Russell's terminology, that, for Frege, the possibility of denoting denoting concepts formed an essential com-

ponent of the solution to George IV-type puzzles, would have suggested that a theory like Frege's was more—not less—committed to finding appropriate denoting concepts for denoting concepts. Russell would also have understood Frege's idea, that it is by reason of its sense that an expression has the reference it does, as tantamount to the concession that our denotation of a denoting concept cannot be "merely linguistic through the phrase," but must respect the priority of the analysis of linguistic reference in terms of the relation which holds between a denoting concept and its denotation. Finally, operating on the assumption that Frege's "grasp" of the sense of an expression is the exact analogue of our acquaintance with a denoting concept, Russell would have felt himself entirely justified in the belief that the difficulty he had uncovered in his own theory afflicted Frege's as well. I should stress that I am *not* arguing that Russell was correct in his belief that Frege's theory stands or falls with the theory of denoting concepts; indeed, I believe that Frege's theory has a subtlety which the theory of denoting concepts lacks. My goal has been the more limited one of indicating how Russell could plausibly have supposed that difficulties with his own earlier theory might also apply to Frege's.

Let us recall once again what, on our analysis, is the source of the difficulty for Russell's theory of denoting concepts: the problem with denoting concepts is the asymmetry to which we have called attention, the fact that although denoting concepts are objects of acquaintance, it is not possible to explain our understanding of propositions about *them* in terms of their occurrence as constituents of the proposition expressed; by contrast, anything *else* which is an object of acquaintance is readily accommodated by Russell's theory of propositional understanding.

To further clarify the role of the Fundamental Principle in our analysis of the difficulty with the theory of denoting concepts, it will be worthwhile to compare our perspective on the reasons for Russell's rejection of denoting concepts with what may appear to be a closely related analysis developed by Michael Kremer in his essay, "The argument of 'On denoting.'" [12] Kremer holds that the difficulty with denoting concepts, and, in fact, the difficulty exposed by the Gray's elegy argument, is that they are not objects of acquaintance *at all*, so that a theory which employs denoting concepts as constituents of the propositions we understand, actually *contradicts* the Fundamental Principle. Indeed, on Kremer's account, a theory which combines denoting concepts with the Fundamental Principle is not merely less satisfactory than the theory of meaning of "On denoting"—according to Kremer, such a theory is actually incoherent.

Kremer is certainly correct to maintain that the difficulty with the theory of denoting concepts is closely connected with Russell's adoption of the Fundamental Principle and his desire to extend the theory of *Principles* to one which includes an account of propositional understanding. There is, however, an elementary observation on which it is necessary to be clear. On *any* account, the rejection of denoting concepts requires rejecting the idea that we are acquainted with them. The issue that separates Kremer's account from ours is whether Russell's rejection of denoting concepts was based upon considerations showing them not to be

objects of acquaintance. On our analysis, there is no reason to suppose that Russell rejected denoting concepts because he came to doubt our acquaintance with them. Nor, as I hope to show, has Kremer given us any reason to believe that, if this were Russell's difficulty with denoting concepts, it is what he established in the Gray's elegy passages.

To begin with a relatively minor point: Kremer asserts (Kremer, 268) that the Fundamental Principle *follows from* the theory of "On denoting." The sense in which this is true is uninteresting: the Fundamental Principle is a central tenet of the theory of "On denoting"; as such, of course it follows from that theory. Alternatively, if the suggestion is that the Fundamental Principle follows from the theory of descriptions, and that moreover, this is a point of difference between that theory and the theory of denoting concepts, the claim is just false. Nevertheless, I agree with Kremer, as against Hylton, that the Fundamental Principle comports better with the theory of descriptions than with the theory of denoting concepts; and I also agree that this was a decisive factor in Russell's transition to the theory of descriptions. Where Kremer and I differ is in our respective views of the kind of difficulty the Fundamental Principle presented for the theory of denoting concepts.

The heart of Kremer's interpretation of the Gray's elegy argument is the contention that "the theory of denoting [concepts], turned upon itself, undermines the [Fundamental Principle]" (Kremer, 288), since it commits us to having knowledge by acquaintance of denoting concepts for denoting concepts; we are, however, not able "to grasp the inner complexity" of denoting concepts for denoting concepts (Kremer, 288). Moreover, "[i]n spite of the initial plausibility of the idea that we are acquainted with [ordinary denoting concepts, as opposed to denoting concepts for denoting concepts,] we *cannot* be acquainted with [them because] of the 'logic' of the theory of denoting concepts" (Kremer, 289, italics in the original; see also footnote 114 on page 287).

But to establish the incoherence of the idea that denoting concepts are possible objects of acquaintance, Kremer needs to say more about their "inner complexity" and the "logic" of their theory. The Gray's elegy argument suggests that the "inner complexity" of one sort of denoting phrase is insufficient to determine a denoting concept with the requisite "inner complexity" needed to denote a denoting concept, namely the case where we attempt to indicate the denoting concept by indicating its denotation. However, this is just the "no backward road" observation we outlined earlier. The Gray's elegy passages also suggest that another sort of "inner complexity" will not work, namely the case where the denotation is achieved at the expense of making denotation "merely linguistic through the phrase"—an option also canvassed earlier. In neither of these cases has it been shown that denoting concepts possess an "inner complexity" which is beyond our acquaintance; rather what has been shown is the insufficiency of two ways of exploiting the inner complexity of a denoting phrase in order to fashion a satisfactory means of denoting denoting concepts. This yields an incompleteness, not an incoherence, and it is not at all clear why an argument for incompleteness which canvasses such a

limited number of options should be accorded so much weight. As for the "logic" of the theory of denoting concepts, if by this Kremer means the asymmetry to which we have called attention, then this shows only that our acquaintance with denoting concepts is of no use in explaining how we come to understand propositions which are about *them*. But again, while this is certainly an incompleteness, one that is perhaps sufficiently serious to make us also question the utility of denoting concepts for understanding our *ordinary* employment of denoting phrases, it is not the incoherence Kremer claims to have discovered.

Let us remind ourselves of the central features of the peculiar difficulty to which the theory of denoting concepts is subject when it incorporates the Fundamental Principle. From the fact that denoting concepts are objects of acquaintance it follows that they are possible constituents of the propositions we are capable of understanding; therefore, when a proposition is about the denoting concept, nothing should stand in the way of identifying the constituents of the proposition expressed with those of the proposition asserted. But in fact we cannot make this identification; instead we must create an exception to the general theory of meaning of which denoting concepts form an essential part. This is in contrast with the usual case: were I acquainted with Bismarck, there would be no need to distinguish between the constituents of the proposition I apprehend and the constituents of the proposition I assert when I say "Bismarck was an astute diplomat." However, this can fail for a proposition which makes an assertion about a denoting concept, despite the fact that *every* denoting concept is an object of acquaintance. There is, therefore, definitely a tension between the Fundamental Principle (theory of understanding or knowledge of meaning) and the theory of denoting concepts (semantic theory and theory of logical form). But it would be a mistake to represent the tension as having arisen from the discovery that we are not, after all, acquainted with denoting concepts, still less, to maintain that the theory of denoting concepts is inconsistent with Russell's theory of propositional understanding. Reliance on the theory of denoting concepts leads to a theory of meaning which is incomplete—perhaps irremediably so—but not to a theory which is inconsistent or incoherent.

I want to stress that the reservations I expressed earlier about the *scope* of the Gray's elegy argument were not meant to suggest that Russell is without a significant objection to the theory of denoting concepts. Quite the contrary. The point is rather that the really persuasive argument for their rejection is not confined to a single piece of text but rests upon diverse considerations which span the entire essay. We may summarize the relevant considerations as follows:

i) denoting concepts form a peculiar exception to Russell's emerging theory of our understanding of propositions; in particular, there are special difficulties with bringing them within the purview of his theories of understanding and predication;

ii) at the very least, the Gray's elegy passages show that the solution of these difficulties is problematic;

   iii) but, as the theory of descriptions shows, it turns out that denoting concepts are unnecessary and

   iv) there is even a canonical procedure for their systematic elimination from any context in which they occur.

Of these considerations, I claim originality only for the first as a new expository point. But once it is appreciated, the motivation for taking seriously the problem with which the Gray's elegy passages deal falls naturally into place, as does our understanding of exactly what that discussion achieves. We can then see why, with the discovery of iii) and iv), the rejection of the theory of denoting concepts became irresistible.

   Let me close by considering David Kaplan's suggestion[13] that the difficulties with term-occurrences of denoting concepts, to which Russell believed his early theories of denoting were subject, can easily be resolved by distinguishing different "positions" in the proposition expressed: when a denoting concept occupies an "object position" it has a term occurrence and the proposition expressed may coincide with the proposition asserted. If, however, the position it occupies is a "complex position," its occurrence is denotative and the proposition expressed will differ from the one asserted. In the latter case, the proposition asserted will contain the denotation of the denoting concept, rather than the denoting concept itself. Kaplan's suggestion thus allows for the possibility that our understanding of a sentence containing a denoting phrase may continue to rest upon our acquaintance with the denoting concept, whether or not the denoting concept has a term occurrence in the proposition expressed. But it remains the case, even on Kaplan's account, that the theory of propositional understanding must be supplemented if it is to accommodate our understanding of propositions involving predications of denoting concepts. The difference is that instead of extending the theory of denoting concepts to include a suitable notion of a denoting concept for a denoting concept, Kaplan proposes that Russell should have extended that theory's notion of a proposition to include a relevant concept of propositional position. Whichever extension of the theory of denoting concepts is pursued, the need to pursue *some* such extension is mandated by the fact that denoting concepts form an exception to the straightforward application of the Fundamental Principle: what suffices for all other objects of acquaintance, namely that it is enough to distinguish between the proposition expressed and the proposition asserted, does not suffice for them. Either we formulate a denoting concept for the denoting concept or we enrich the notion of the proposition expressed to include a distinction between the types of position denoting concepts can occupy. The advantage of Russell's own solution, namely, the theory of meaning which emerges from "On denoting," is that it preserves the theory of propositional understanding and the distinction between expressed and asserted propositions without introducing *any* new notions *at all*. Indeed, not only does the theory of descriptions show that denoting concepts can be scrapped, it does so by exploiting an analysis of the logical structure of quantification that reduces the ontological commitments of the theory it replaces.

Appendix: Denoting concepts and Fregean senses

Despite its rather ambitious title, this appendix has a quite limited objective: To show that there is an obvious elaboration of Frege's theory of sense and reference which, although over-simplified and of very restricted utility, suffices to bring out the weakness in Simon Blackburn and Alan Code's[14] reconstruction of the Gray's elegy argument. So far as I am aware, even with the wide attention their paper has received, this observation has gone unnoticed in the literature.

To make the point against Blackburn and Code, we require a simple "model" of Frege's theory of sense and reference. Let '$S(x, y, z)$' ('x is the sum of y and z') have, as its reference, a function which assigns to each triple (n, m, p) of numbers the truth value T if n is the sum of m and p and the truth value F, otherwise. In this simple arithmetical framework an obvious proposal for the Fregean sense of the expression '$S(x, y, z)$' is to take it to be an algorithm for computing sums. The sense then has a canonical description within an appropriate theory of algorithms (the "theory of sense" for a language which contains this and other arithmetical expressions), and such a theory constitutes a natural candidate for a theory of meaning for this simple language.

However primitive this suggestion, it has the virtue of providing a collection of objects (algorithms) to serve as senses, objects known independently of the theory of sense on which they are brought to bear. We may restrict our attention to such a simple case since, according to Blackburn and Code, Russell's objection to the theory of sense and reference does not depend on any deficiency in Frege's formulation of his theory. They stress that on their reconstruction of Russell's criticism we can waive any failures of detail, since they claim the objection they take themselves to have discovered will preserve its force however Frege's theory is spelled out.

So suppose we have such a canonical description of the sense of '$S(x, y, z)$.' Then the main point on which Blackburn and Code's reconstruction turns is that our grasp of the sense of '$S(x, y, z)$' depends on our knowledge of the reference of a *theoretical description* of this sense. But our knowledge of the *reference* of this theoretical description requires a prior grasp of the *sense* of the theoretical description, a situation that must be iterated indefinitely. Here is their formulation of the argument, modulo a change of example. Let

$(E_1) = $ '$S(x, y, z)$'
$(E_2) = $ 'the sense of '$S(x, y, z)$''
$(E_3) = $ 'the sense of E_2.'

Suppose that E_2 is a phrase whose reference is the sense of the arithmetical open sentence '$S(x, y, z)$.' Now, Blackburn and Code tell us, if "senses are to be properly introduced, there must be some denoting phrase, such as E_2 which we understand, and whose reference we can therefore grasp" (Blackburn and Code, 74). But to grasp the sense of E_1, we must know the reference of E_2; but then we

must grasp the sense of E_3, something which demands knowledge of the reference of some E_4, ... And who could object to the requirement that if senses are to be properly introduced into a theory of meaning, the theory must contain a way of referring to senses of expressions? Hence, we must grasp an infinity of senses if we are to grasp a single one.

The difficulty with this argument is that the theoretical description (the "denoting phrase") which, in the theory of sense, accomplishes the task of referring to the sense of E_1 need not be one *we*—the speaker/hearers—know. We may not even have a conception of sense which coincides with the theoretical notion. Our knowledge of the reference of E_2 depends on our competent use of an algorithm which determines the reference of E_1. But Blackburn and Code have not shown that in order to grasp the sense of E_1, and thus to know its reference, we must, in the sense relevant to their argument, know the reference of E_2. To understand E_1—to grasp the sense of E_1—we must be capable of computing sums in accordance with a particular algorithm. However, we may perfectly well have this degree of arithmetical competence with pairs of numbers and their sums without being able to sort *algorithms* according to the arithmetical functions they compute: we may not even have the concept of an algorithm. Nevertheless, this is what Blackburn and Code's argument requires; otherwise, on their account, no one could be said to grasp the sense of E_1.

Blackburn and Code vaguely allude to this objection, and they attempt to counter it with the claim that the "only alternative is [to say] that we need no such phrase [as E_2] because, somehow we recognize senses (and their connections) outright without requiring a description or definition.—Obviously this is likely to leave senses in uninviting obscurity" (Blackburn and Code, 74). But this misses the point: everyone will agree that a *theory* of sense is defective if it fails to yield a theoretical definition or characterization of the concept of sense and of the senses it introduces—if not an explicit definition, then at least a coherent set of principled constraints on their application. But such a concession completely fails to support Blackburn and Code's argument. Their argument requires that unless the speaker/hearer, of whom the theory of sense is true, possesses a definition or uniquely referring description, the theoretical application of the notion of sense is fundamentally obscure. Our arithmetical example shows that this is just false: the theory of algorithms might yield a perfectly definite characterization of the sense of '$S(x, y, z)$' and a user of the language might grasp this sense without having the slightest conception of the notion of an algorithm.

It is perhaps difficult to see how we could grasp a sense without at least being capable of at some point coming to reflect upon senses in general and the senses of specific expressions in particular. But it is equally clear that acquisition of the first cognitive capacity does not presuppose our having achieved the second. If the arithmetical case seems less than completely obvious, consider an analogy with the case of logical rules of inference. Acquisition of the principle,

From *P* and *If P*, *then Q*, infer *Q*,

is unlikely unless one is capable of applying the principle at any "level" of language. But what more than my ability to apply modus ponens need the "grasp" of this principle mean? Does my capacity to apply modus ponens at a given level depend upon my ability to formulate it at the next? Conversely, and as the celebrated argument of Lewis Carroll[15] long ago made clear, neither does it follow from the fact that I possess the ability to formulate modus ponens that I possess the deductive competence exhibited by its standard use in deductive reasoning. The situation is the same with Blackburn and Code's account of our knowledge of the sense of an expression.

To sum up this discussion, there is certainly an obvious danger of regress for any theory according to which "grasping" the sense of an expression requires that it be canonically picked out by a denoting phrase. The difficulty with such a reconstruction of Russell's argument is that it yields a criticism whose force demands the questionable premise that grasping the sense of E_1 requires knowing a canonical description of the reference of E_2 (= 'the sense of E_1'), a premise which, as we noted earlier (p. 447, above), Russell himself questioned in *Principles* §476. While for Frege it is necessary that we grasp an appropriate sense in order to know the reference of '$S(x, y, z)$,' this falls far short of knowing an informative theoretical description of the sense we grasp. The theory of sense assumes that something mediates between our expressions and their reference; its interest lies in its ability to give a plausible representation along such lines of what is required in order for us to know the reference of an expression like '$S(x, y, z)$.' Even if an account in terms of algorithms is restricted in its generality to the very special (and perhaps somewhat artificial) case of arithmetical expressions, it suffices to make the point that Blackburn and Code's reconstruction of the Gray's elegy argument fails to show the notion of sense to be inherently mysterious, occult or obscure.

Notes

[1]See chapter 6 of Peter Hylton's book, *Russell, idealism and the emergence of analytic philosophy*, Oxford University Press: 1990, for a recent discussion and for references to the extensive secondary literature. Perhaps the first paper to begin to set things right was David Kaplan's "What is Russell's theory of descriptions?," in *Bertrand Russell: A collection of critical essays*, David Pears (ed.), Anchor: 1972.

[2]*The principles of mathematics*, New York: W.W. Norton, 1938 edition. All references to *Principles* are by section number and all section number references are to *Principles*.

[3]See Peter Geach, *Reference and generality: An examination of some medieval and modern theories, 3rd ed.*, Cornell: 1982, §§38ff.

[4]My page references to "On denoting" (*Mind* **14** (1905) 479–493) are first to its reprinting in R. Marsh (ed.), *Logic and knowledge: Essays 1901–1950*, Routledge: 1994 repr., and secondly, to *The collected papers of Bertrand Russell, Volume 4: Foundations of logic, 1903–05*, Alasdair Urquhart

and Albert C. Lewis (eds), Routledge: 1994. Single page number references to Russell without further qualification are to the Urquhart and Lewis edition.

[5]*The problems of philosophy*, Indianapolis: Hackett Publishing Co., reprint of the 1912 *Home University Library* edition, Oxford University Press. The principle occurs unnamed but with an almost identical formulation in "On denoting": "[I]n every proposition that we can apprehend...all the constituents are really entities with which we have immediate acquaintance" (56/427). In the secondary literature, the Fundamental Principle is often referred to as the Principle of Acquaintance, with the formulation given in "On denoting" the one invariably cited. To the best of my knowledge, this terminology is not Russell's.

[6]This point has been well-emphasized by Hylton, but as we shall see, the conclusion he draws from it is not correct. See *Russell, idealism and the emergence of analytic philosophy*, 246ff.

[7]In his *Philosophical Essays*, MIT: 1987.

[8]*Russell, idealism and the emergence of analytic philosophy*, 246ff.

[9]"On the origins of Russell's theory of descriptions" (103).

[10]See, e.g., our first quote from *Principles* (§51) in section 1, above.

[11]"Russell on meaning and denoting," *Analysis* **19** (1959) 69–72.

[12]*The philosophical review* **103** (1994) 249–297. Although I have a different view of matters, I have benefited enormously from Kremer's paper.

[13]"Demonstratives," in *Themes from Kaplan*, J. Almog et al. (eds), Oxford University Press: 1989, fn. 23.

[14]*Analysis* **38** (1978) 65–77.

[15]"What the Tortoise said to Achilles," *Mind* **4** (1895) 278–280, reprinted in *Mind* **104** (1995) 691–693.