WHAT RUSSELL CAN DENOTE: ABOUTNESS AND DENOTATION BETWEEN *PRINCIPLES* AND 'ON DENOTING'

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Abstract. How ought we to analyse propositions that are about nonexistent entities? Russell (1903) details the concept of *denoting* in *Principles of Mathematics*, and this theory appears to answer the question posed. However, in the paper "On Denoting" (Russell 1905), we see that his theory of denoting has changed greatly. Hylton (1990) argues that the move from the former theory to the latter was unnecessary. The purpose of this paper is to show that, contra Hylton, the move to the theory found in "On Denoting" was indeed necessary.

I argue that Hylton is correct to the extent that an answer to our first question relies on a different question concerning the ontology of nonexistent entities. However, this fails to take into account is a more interesting question regarding the truth values of propositions containing such puzzling entities. This question relies on Russell's notion of aboutness, and in this sense is more sensitive to his theory as a complete picture of denotation. If we take the aboutness relation seriously, then we see that the move from the former theory to the latter was necessary after all.

Keywords **— Bertrand Russell; Aboutness Principles of Mathematics; On Denoting; Theory of Denoting Concepts; Theory of Descriptions; Empty Denoting Concepts**

1. Introduction

Hylton (1989, 1990) claims that Russell's *theory of denoting concepts*, as it is introduced in the *Principles of Mathematics*[1] already gives him the technical machinery with which to explain puzzling entities as "the present King of France". As such, the move to the *theory of descriptions*, given in "On Denoting",[2] was not necessary.[3] Consider the following quandary: Under the theory of denoting concepts, propositions generally contain the entities that they are about. Certain types of expressions—ones containing denoting phrases—express propositions that are not *about* the denoting concept appearing in the proposition in question; rather, they

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[1]Henceforth, "PoM". See Russell (1903).
[2]Henceforth, "OD". See Russell (1905).
[3]Following the convention in Hylton (1990), I will use *denotation* (and its cognates) to refer primarily to Russell's technical use in PoM—i.e., as *denoting* is expounded in the *theory of denoting concepts*. I will refer to the later theory of "denoting" from OD as the *theory of descriptions*.

are about the object which the denoting concept denotes.[4] Makin (2000) refers to this as "aboutness-shifting" and highlights that it is one of the most important features of the theory from PoM (18). However, some denoting concepts appear to lack a denotation. In this case we must ask: *How should we analyse propositions that are about nonexistent entities?* Let us refer to this as 'the analysis puzzle'. The purpose of this paper is to examine the theory of denoting concepts and the theory of descriptions to determine the extent to which each theory can solve the analysis puzzle while fulfilling certain criteria. My main claim is that the theory of denoting concepts cannot provide such a solution, and so the move to the theory of descriptions was indeed necessary—contra Hylton.[5]

The analysis puzzle concerns propositions which contain denoting concepts that do not denote anything. I will refer to this special kind of denoting concept as an *empty denoting concept*.[6] In fact, we can distinguish three distinct puzzles that fall under the purview of giving an adequate analysis of such propositions. These three puzzles concern *meaningfulness*, *ontology*, and *truth*. Let us take each of these in turn.

The meaningfulness of sentences that contain empty denoting phrases purports to solve the analysis puzzle by answering the question of whether or not such sentences are capable of *meaningfully* expressing their correspondent propositions. That is, to be meaningful, "The present King of France does not exist" apparently requires that there be a present King of France. However, Hylton (1989, 88) points out that Russell's theory of denoting concepts is not concerned with meaning insofar as the theory is supposed to provide an analysis of *propositions* rather than sentences, and propositions do not have *meaning* in the way that linguistic entities do. Further, if what one means by 'meaningful' is just that the theory gives an analysis of the *sentence*, then both the theory of denoting concepts and the theory of descriptions do this. Hence, I agree with Hylton that this puzzle does not capture the importance of the theory of descriptions. The real puzzle, according to Hylton, is not meaningfulness but a distinct puzzle about ontology.

The ontological puzzle is indicated by the following questions: *What corresponds to the present King of France in a proposition? Is there such an entity? If so, what is its ontological status?* An account of the ontological status of such entities as *the Present King of France* provides a solution to the analysis puzzle insofar as it gives an account of the entities themselves. This is solved adequately by the theory

[4]These considerations are also inherent in the theory of descriptions, but the technical machinery by which this happens is changed.

[5]In addition to claiming that the theory of denoting concepts was sufficient for the analysis puzzle, thus making the move to the theory of descriptions unnecessary, Hylton (1990) further claims that "there is no sign that [Russell] realizes this fact" (241). My own claim regarding the analysis puzzle is solely a philosophical claim about the relation between these two theories and the extent to which they are capable of dealing with certain phenomena. Throughout the paper I will remain intentionally silent on whether or not Russell himself may have noted these philosophical points or whether such a recognition might have caused him to change his views. There are several other works that seek to address the move from the 1903 theory to the 1905 theory; see, for example, Wahl (1993); Makin (1995, 2000, 2009); Costreie (2005); Brogaard (2006); Perkins Jr. (2007); Rebera (2009); Stevens (2009). See also Hursthouse (1980).

[6]I use "empty" here with the intent of naming a particular kind of concept using words that are not philosophically loaded. For example, "denotationless denoting concept" seems to carry with it some ontological baggage in addition to an assumption about what the concept denotes—namely, nothing. I stipulate, then, that "empty" should be read neutrally as far as ontology is concerned.

of descriptions in OD precisely because there is no entity named by *the present King of France*. Hylton's point is that the theory of denoting concepts also solved this puzzle, but Russell did not realise that it did—hence the need for revision (Hylton, 1989, 88). Note that the ontological puzzle is slightly more general than the meaningfulness puzzle: a solution to the former implies a solution to the latter, but the converse is not necessarily true. If the theory of denoting concepts does solve the ontological puzzle, then it also solves the analysis puzzle, and so the move from PoM to OD was unnecessary. As I will show, I agree with Hylton on this point: *If* all we require is a solution to the ontological puzzle, then the theory of denoting concepts can provide that.

However, this provision runs afoul of certain desiderata concerning propositions that make existence claims. Further, there is another, more interesting, puzzle that Hylton does not address at all. The puzzle concerns the truth values of propositions that contain empty denoting concepts: *Are such propositions true or false? By dint of what?* This is more fine-grained than the meaningfulness or ontological puzzles. However, this point is not to be taken for granted: Perkins Jr. (2007) suggests that one potential answer to the ontological puzzle—positing subsistent but non-existent denotata—could account for *both* the meaningfulness *and* the truth value of propositions about non-existent individuals. Nonetheless, consider the three *types* of sentences

(P1) "The present King of France is bald",
(P2) "The present King of France is a King", and
(P3) "The present King of France does not exist".

A solution to the meaningfulness puzzle, we said, is an analysis of the meaningfulness of sentences containing empty denoting phrases. In this case, then, the same solution will apply to all of (P1), (P2), and (P3). Similarly, the ontological puzzle, with which Hylton is concerned, will give the same solution for all three of these sentences insofar as a solution to what empty denoting concepts denote will apply equally to all of these. However, the truth puzzle requires us to take account of each of these separately. A theory that purports to solve the truth puzzle is one that (*i*) gives an account of what makes propositions containing empty denoting concepts true or false *in general*, and (*ii*) for a *particular* proposition containing an empty denoting concept, says what its truth value might be.[7] To this extent, a solution to the truth puzzle needs to take this distinction seriously.

One might argue that this is beside the point, since the question of whether, e.g., (P2) is *true* depends upon intuition, common-sense, or pre-theoretic commitments, whereas Russell himself is known as a philosopher of *ideal* languages—someone who was willing to forego certain pre-theoretical commitments in favour of clarity and rigour. Thus, we might question whether or not Russell himself has to answer to such pre-theoretical commitments regarding the truth-values of propositions containing empty denoting concepts.[8] However, to see why the truth puzzle is important, one

[7]Note that the truth or falsity need not be determined; our theory might have truth-value gaps. Nonetheless, if there are truth-value gaps, our theory ought to say so.

[8]Thanks to an anonymous reviewer for highlighting this point. Russell does discuss intuition in several places. For example, Russell (1917): "The opposition of instinct and reason is mainly illusory. Instinct, intuition, or insight is what first leads to the beliefs which subsequent reason confirms or confutes; but the confirmation, where it is possible, consists, in the last analysis, of agreement with other beliefs no less instinctive" (13). See also Russell's discussion of intuitive knowledge (Russell, 1912). See also the discussion in Rodríguez-Consuegra (1991).

must note that Russell himself places a significant explanatory burden on, what we might call, *aboutness*—i.e., a relation between propositions and terms (or complexes of terms). In order for our theory to be adequate, regardless of intuitions concerning (P1) or (P2), it *must* make (P3) true. See Appendix A.

Given that *aboutness* is pivotal to denotation (the latter is defined in terms of the former), and given that *aboutness* is best understood as a *truth-maker*—a point which Hylton (1990) concedes—I will argue that it is indeed the *truth value* of the propositions expressed by (P1-3) that is at stake here.[9] Russell explicitly mentions truth value considerations like these in both PoM and OD. Further, it should be apparent that the same ontological considerations with which Hylton is concerned arise under this interpretation. Indeed, this problem is more general still: a solution to the *truth* problem implies a solution to the ontological problem, but, again, the converse is not necessarily true.

Fundamentally, it is not the *meaningfulness* of sentences as (P1-3), nor the underlying ontological commitments of the propositions expressed by (P1-3), that cause serious issues for Russell, but rather the *truth values* of propositions as those expressed by (P1-3), along with their own underlying ontological commitments. The purpose of this paper is to show that when we understand the analysis puzzle in this way, the move from PoM to OD was indeed necessary. Further, the theory of descriptions gives a solution to the truth puzzle, and thus solves the ontological and meaningfulness puzzles as well. We will examine *the present King of France* as a paradigm, but these considerations will apply equally to *the golden mountain*, *even primes other than two*, *the chimera*, and other such empty denoting concepts.

2. The Problem

In order to deal adequately with the analysis puzzle, our theory is going to have to answer the following types of questions: *How can a proposition be meaningful when the subject of the proposition does not exist? What is the ontological status of nonexistent propositional subjects? What is the truth value of propositions containing nonexistent subjects? How is this determined, and by dint of what?* Thus, the analysis puzzle (as was suggested in Section 1 decomposes into three separate puzzles which concern *meaningfulness*, *ontology*, and *truth*. Let us say, then, that the desiderata for a theory of denotation are *meaningfulness*, *existence*, and *truth*.

[9]The notion of a *truth-maker* we are concerned with here is that each truth has a truth-maker—e.g., *something* that makes it true. One way to put this is that for each proposition that is true, there must be some entity by which that proposition is *made true*. For example, "Atlas is a Boston Terrier" is a true statement which *depends* upon the way that the world is: There is an entity, named by "Atlas", and, as a matter of fact, she satisfies some property—being a Boston Terrier. Thus, the claim that *aboutness*, as a relation between propositions and terms, is a truth-maker is just the claim that the *reason* "Atlas is a Boston Terrier" expresses a true proposition is because the proposition it expresses is *about* a thing in the world, **Atlas**, who happens to be a Boston Terrier. For a book-length treatment of truth-makers, see Merricks (2007). His conclusion is that some claims do not depend upon being in a substantive way; however, the issues he brings up are well beyond the scope of this essay. In particular, I will take for granted the fact that aboutness *is* best understood as a truth-maker, since Hylton (1990) concedes this fact—In this sense, I am addressing Hylton's argument in his own terms. Even so, Merricks (2007) recognises the truth-making characterisation of *aboutness*: "to deny that we can make sense of the relevant *aboutness* relation is to deny that we can make sense of [the] Truthmaker [thesis]. This is because. . . [the] Truthmaker [thesis] requires a truth to be appropriately about its truthmaker" (34).

If the theory of denoting concepts cannot adequately deliver on these desiderata, then, if the theory of descriptions can, it would appear that the move from the theory of denoting concepts to the theory of descriptions was indeed necessary.[10]

In fact, the theory of descriptions does deal adequately with all three of these desiderata. Part of the reason for this has to do with the emphasis in the theory of descriptions on quantifier scope and negation. (See Appendix B.) Recall that we might parse "the present King of France is bald" in the following way:

$$\exists x(\phi x \wedge \forall y(\phi y \rightarrow x = y) \wedge \psi x) \tag{1}$$

which translates to "for some x, x uniquely has the property ϕ and x has the property ψ", where ϕ is the property of being a present King of France, and ψ is the property of baldness. Similarly, "the present King of France does not exist" can be understood as saying

$$\neg\exists x(\phi x \wedge \forall y(\phi y \rightarrow x = y)), \tag{2}$$

where, again, ϕ is the property of being a present King of France.[11] Thus, there exists, under the theory of descriptions, an analysis of sentences containing empty denoting phrases, and so the *meaningfulness* desideratum is fulfilled.

Further, the truth of such propositions does not cause issues for the ontological considerations surrounding empty denoting phrases. This is precisely because the theory of descriptions does not posit an entity in the proposition that corresponds to the denoting phrase in the sentence. In such manner, the *existence* desideratum is fulfilled. Finally, the main connective in (1) is a quantifier; so, to claim that it is false that, e.g., the present King of France is bald is not to claim that the King of France is not bald (or that he wears a wig), on this analysis, but rather to claim that no such entity exists (i.e., that is *both* a present King of France and bald). The falsity of (1) is therefore perfectly consistent with the truth of (2). Consequently, our *truth* desideratum is also satisfied on the theory of descriptions. However, is this so on the theory of denoting concepts in the earlier PoM? If it is not, then the theory of descriptions satisfies some explanatory function over and above the theory of denoting concepts.

We will begin, in Section 2.1, by outlining the theory of denoting concepts (Russell, 1903), in order to show how it satisfies the meaningfulness puzzle by offering a theory of *how* sentences meaningfully express their propositions. This is primarily groundwork for the theory, since the meaningfulness puzzle is not really the main point of interest here—Hylton is concerned primarily with the question of whether the ontological puzzle is adequately solved by the theory of denoting concepts. In

[10]At least for the purpose of analysing language. One might argue that this was not Russell's main point; rather the purpose of the theory of denoting concepts and the theory of descriptions was to explain other philosophically interesting subjects. For example, at the outset of OD, Russell (1905) says "The subject of denoting is of very great importance, not only in logic and mathematics, but also in theory of knowledge" (479)—but he does not claim it is of great importance to understanding (natural) language. In this case it appears that the desire for a theory of denoting is to explain concerns in, e.g., epistemology or mathematics: the theory does this by distilling ambiguous natural language to its core logical form. Indeed, Perkins Jr. (2007) suggests that "It would be too simplistic to say that Russell was concerned to obtain an adequate theory of denoting solely to solve the problem about denotationless descriptions and related puzzles" (n. 8) since the theory might also point the way for how to solve, e.g., contradictions concerning the class of classes which are not members of themselves—see also, Klement (2003, 2004).

[11]Note that this can be true in two different ways: either there is no entity that is ϕ, or there is no *unique* entity that is ϕ.

Section 2.2, we will see how this is supposed to go. To reiterate what I said in Section 1, I think Hylton is correct on this account: If all we require is a solution to the ontological puzzle, then the theory of denoting concepts in Russell (1903) can provide that. However, I want to argue further that it is not the ontological puzzle that is of primary interest in the analysis of denoting but the notion of *about* that gives rise to the *truth puzzle*. This is the concern of Section 2.3

2.1. **Meaningfulness and the Meaningfulness Puzzle.** The meaningfulness puzzle asks how sentences containing empty denoting phrases are capable of meaningfully expressing what they express. At the forefront of Russell's theory of denoting concepts is the *proposition*.[12] Importantly, propositions do not contain *words*, except when the proposition itself is linguistic—i.e., when it is a proposition about words. Rather, a proposition contains the entities which are *indicated* by words (Russell, 1903, 47). *Sentences*, on the other hand, are linguistic entities which contain words and *express* propositions. To be clear about the distinction between a sentence and a proposition, and to disambiguate typographically between these two entities, throughout this paper I will indicate sentences with quotation marks and propositions with guillemets. For example, the sentence

"Bismarck was an astute diplomat"

expresses (gives verbal expression to) the proposition

«Bismarck was an astute diplomat».

The former of these contains the words "Bismarck", "was", "an", etc., whereas the latter of these contains the *terms* which these words indicate.

A *term*, for Russell, is a thing or object in the widest possible sense. In PoM, he defines a term as "[w]hatever may be an object of thought, or may occur in any true or false proposition, or can be counted as *one*" (Russell, 1903, 43). Specifically, Russell (1903) notes that anything that can be mentioned is a term, and "to deny that such and such a thing is a term must always be false" (43).[13]

Russell distinguishes two types of terms, which, it seems, are taken to be mutually exclusive and exhaustive: *things* and *concepts*. Things are those terms which are indicated by proper names, whereas concepts are terms which are indicated by all words other than proper names (Russell, 1903, 44). When necessary, I will use italics to indicate *concepts*, and boldface text to indicate *things*.[14] For example, the term expressed by "Socrates" is the thing, **Socrates**, and the term expressed by "red" is the concept, *red(ness)*.[15]

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[12]Russell explains in the preface to PoM that the proposition is non-existential and independent of any knowing mind (Russell, 1903, xviii). So, propositions are mind-independent, objective entities.

[13]Furthermore, terms are "immutable and indestructible", and every term is numerically identical with itself and numerically diverse from every other term (Russell, 1903, 44).

[14]I will also use italics for emphasis and the initial specification of technical words when it seems prudent to do so; however, context should disambiguate these various uses.

[15]Note that Russell (1903, 45-6) says that he does not distinguish between *concepts used as terms* and *concepts as such*—e.g., between *being* and *is*. However, he does appear to distinguish between *terms* simpliciter and the *terms of a proposition*. Namely, the term of a proposition is the term which the propositions is *about*. So, in spite of the fact that the subject-predicate proposition «Socrates is human» contains a *thing*, **Socrates**, and a *predicate* (i.e., a concept, and so a term), *is human*, Russell says explicitly that this proposition contains only one term—namely, the term expressed by "Socrates". He appears to do this because of his stipulation that the term of a proposition "may be replaced by any other *entity* without ceasing to have a proposition" (Russell, 1903, 45). However, the same is not true of the predicate: We cannot replace "is human" with

Among concepts, Russell (1903, 44) further distinguishes two (not necessarily exhaustive) types: *verbs* and *adjectives*. He identifies adjectives with *predicates* or *class-concepts* and verbs with *relations*.[16] Specifically, *predicates* are the concepts other than verbs occurring in propositions having only one (objective) term—i.e., the subject of the proposition. So, *adjective* is a wider concept than *predicate*. However, we will concern ourselves here with the most simple propositions—those of the subject-predicate form—and so the distinction between adjectives and predicates will not cause us any issues.

In his *calculus of classes*, a class-concept, or predicate, *gives rise to* a class. Or, a class is *defined by* a class-concept. The distinction here is subtle; however, a class can be understood as an *object* that is not a concept, whereas a class-concept is a *concept*. For example, **men** is a class, and *man* is a class-concept—By way of illustration, note that membership, $\in$, is a relation which holds between **Socrates** and **men** but not between **Socrates** and *man* (Russell, 1903, 19). Explicitly, Russell (1903) says that the "class-concept differs little, if at all, from the predicate, while the class, as opposed to the class-concept, is the sum or conjunction of all the terms having the given predicate" (54-55). Specifically, a class-concept is a concept which *determines* a class.

Denoting is introduced by Russell in PoM as a relation between a non-linguistic entity—which he calls a *denoting concept*—and the (usually non-linguistic) object—called the *denotation*—which the denoting concept denotes. Denoting is supposed to account for generality and occurrences of variables in mathematical propositions (Hylton, 1990, 211). As such, the importance of denoting for Russell's philosophical programme cannot be understated, insomuch as an explanation of the variable has implications for the very nature of generality which he holds to be *essential* to logic and mathematics (Hylton, 1989, 93).

Russell (1905) points out that "[t]he relation of meaning and denotation is not merely linguistic through the phrase: there must be a logical relation involved, which we express by saying that the meaning denotes the denotation" (486); since the denoting concept denotes the denotation, it means that the denotation is *logically* determined.[17] Bear in mind that the theory of denoting concepts is applicable to natural language considerations as well. Indeed, by "On Denoting", Russell began to see language as a subject of philosophical interest in its own right (Hylton, 1989, 103); see also, Stevens (2011). Nonetheless, in PoM Russell is not particularly concerned with linguistic entities as words and sentences but rather propositions and their constituents:

> 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 words. Thus meaning

any other term. For example, replacing "is human" with the term expressed by "Plato" «Socrates Plato», which is not a proposition. While this highlights that some care is required here, this apparent distinction between terms simpliciter and terms of a proposition should not be an issue for our purposes.

[16]Actually, this is not *quite* an identity relation: What Russell says here is that adjectives "will often be called" predicates or class-concepts, whereas verbs "are always or almost always" relations.

[17]See the discussion in Makin (2000, Ch. 1).

> in the sense in which words have meaning is irrelevant to logic. (Russell, 1903, 47)

There is certainly some relation between a name and the thing which the name names, but Russell thinks that this has nothing to do with meaning. That is, a proper name like "Socrates" means (names, expresses, stands for) the term **Socrates**, but the relation between the term **Socrates** and the actual man is not one of meaning—it is *identity*. However, denoting concepts, for Russell, do have a meaning, in a technical sense—namely, the thing that they denote. Russell (1903) says that on this (non-psychological) understanding of meaning, "even among concepts, it is only those that denote that have meaning" (47). This is because denoting concepts, in some sense, *stand for* something other than themselves. Nonetheless, this is a technical notion of meaning which does not hold between linguistic items and non-linguistic items.

Because of this peculiar quality of denoting concepts, the theory of denoting concepts allows for a proposition to be *about* an object that is not contained in the proposition. For example, though **Wittgenstein** is not a constituent of the proposition «the author of *Tractatus Logico-Philosophicus* is a genius», this proposition, whether true or false, is *about* Wittgenstein. How does this get to be the case? On Russell's view, this is explained by the fact that the proposition contains a denoting concept—namely, the denoting concept expressed by the denoting phrase "the author of *Tractatus Logico-Philosophicus*"—which *denotes* Wittgenstein (i.e., the actual man).

(Russell, 1903, 53) points out that the phrase "I met a man" is ostensibly not about the concept *a man*, but rather about some particular individual—i.e., the individual whom the speaker has met. In general, phrases formed with a predicate, or class-concept, and "any", "a", "some", "all", "every", and "the" are denoting phrases for Russell—e.g., "any man", "a man", "some men", "all men", "every man", and "the man" are all denoting phrases (Russell, 1903, 55-6).

Denoting phrases, then, are phrases—i.e., linguistic entities—occurring in a *sentence* that indicate the existence of a *denoting concept* in the corresponding proposition which the sentence expresses. Russell is perhaps most clear about denoting in PoM when he says that "[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 particular way with the concept" (Russell, 1903, 56). See Figure 1.[18]

To summarise: the theory of denoting concepts suggests an analysis of the way in which sentences express propositions. Propositions contain terms, which can be

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[18]One thing to note about this picture is that Russell believed that the *grammatical* form of a sentence was indeed a good indicator of the *logical* form of the proposition which it expresses:

> Although a grammatical distinction cannot be uncritically assumed to correspond to a genuine philosophical difference, yet the one is *primâ facie* evidence of the other, and may often be most usefully employed as a source of discovery. . . . The correctness of our philosophical analysis of a proposition may therefore be usefully checked by the exercise of assigning the meaning of each word in the sentence expressing the proposition. (Russell, 1905, 42)

Specifically, the denoting phrase "the present King of France", in the sentence "the present King of France is bald" corresponds to the constituent denoting concept *the present King of France* in the proposition «the present King of France is bald», and the predicate phrase "is bald" corresponds to the constituent *is bald* in the proposition.

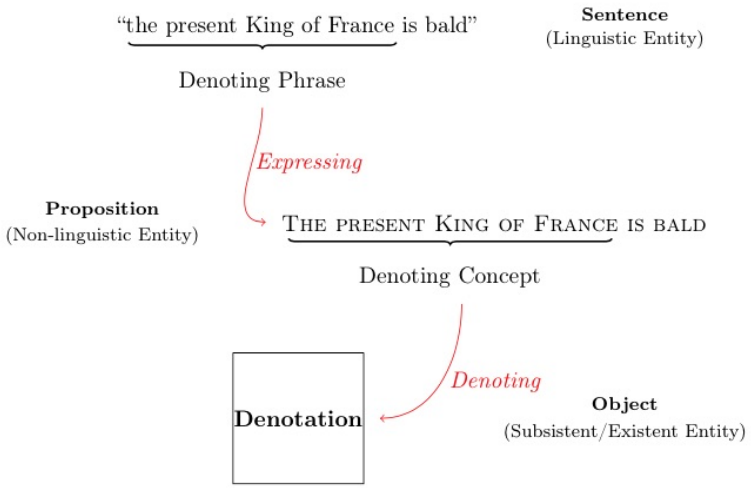

FIGURE 1. A Picture of Denotation (1903)

things or concepts (verbs and adjectives). Important to concepts are class-concepts, which give rise to a class (which is an object). Denoting is a relation between a denoting concept and a denotation. Thus, we have a coherent (if technically complex) way of saying why a sentence containing "the present King of France" is meaningful: because it contains a denoting phrase, which expresses a denoting concept, which denotes a denotation.

However, the denotation is supposed to be an object. Thus, when we solve the meaningfulness puzzle using the technical machinery of the theory of denoting concepts, the question immediately arises: *What is the object which an empty denoting concept denotes?* This is the ontological puzzle.

2.2. **Existence and the Ontological Puzzle.** In this section, we will examine three possible solutions to the ontological puzzle. The first (Section 2.2.1) concerns Russell's distinction between being and existence, which is explicit in PoM. The second (Section 2.2.2) concerns the null class, which is an amended solution in PoM that arises in the Appendix on Frege. The third is Hylton's solution (Section 2.2.3).

As a preview of what we will see in these sections: (2.2.1) Russell originally solves the ontological puzzle by allowing for a distinction between *being* and *existence*. Thus, a denoting concept x for nonexistent $\mathbf{x}$ *denotes* the nonexistent object $\mathbf{x}$, which has *being*. However, we will see that this solution gives rise to contradiction when it is considered as a *part* of the complete theory—in particular, when we consider the null class.

(2.2.2) This bloated ontology can be avoided by entering the null class into our theory. This is a cosmetic solution, and Russell himself makes this move. Thus, in admitting the null-class we may simply say that an empty denoting concept does not actually denote nothing; rather, it denotes the null-class. However, this solution, though it provides an answer to the question of ontology, gives rise to its own set of problems when we consider aboutness—i.e., *the relation upon which denoting is defined*.

(2.2.3) Finally, Hylton's solution takes advantage of the fact that the theory of denoting concepts allows exceptions to the rule that propositions must contain the entities which they are about. However, I will show that conceding this point forces us to take seriously the truth puzzle. Given the emphasis of the theory of denoting concepts on aboutness, Hylton's solution gives rise to insurmountable problems when we consider the truth of propositions containing empty denoting phrases.

2.2.1. *Being and Existence and the Null-Class.* The first solution to the ontological puzzle is to distinguish between *being* and *existence*. This view is inherited from Moore (1899). This distinction can be used to cash out the consistency of, e.g., propositions of the form «the present King of France does not exist». In PoM, Russell notes that

> *Being* is that which belongs to every conceivable term, to every possible object of thought—in short to everything that can possibly occur in any proposition, true or false. . . . 'A is not' must always be either false or meaningless. For if A were nothing, it could not be said not to be; 'A is not' implies that there is a term A whose being is denied, and hence that A is. Thus, unless 'A is not' be an empty sound, it must be false. (Russell, 1903, 449)

Further, he goes on to differentiate a notion of existence from that of being: "To exist is to have a specific relation to existence. . . . [H]ence we need the concept of being, as that which belongs even to the non-existent" (Russell, 1903, 449-50). In particular, Russell uses this distinction to deny the *existential theory of judgement* that every proposition is (or must be) concerned with something that exists. Therefore, it is perfectly possible, given these ontological considerations, to meaningfully express propositions as «the present King of France does not exist». This is taken to be meaningful insofar as the object **the Present King of France** *is*—i.e., has being—though it does not exist. Russell says that "[e]xistence is the prerogative of some only amongst beings. . . . For what does not exist must be something, or it would be meaningless to deny its existence" (Russell, 1903, 449-50).

However, existence, as it is related to class-concepts, is analysed thus: If A exists, then the class of A has at least one member. This is complicated by the fact that Russell, in his discussion of the null-class, says the following:

> the general notion of *class* is first laid down, is found to involve what is called existence, is then symbolically, not philosophically, replaced by the notion of a class of equal class-concepts, and is found, in this new form, to be applicable to what corresponds to null class-concepts, since what corresponds is now a class which is not null. Between classes *simpliciter* and classes of equal class-concepts, there is a one-one correlation, which breaks down in the sole case of the class of null-concepts, to which no null-class corresponds. (Russell, 1903, 76)

Consider, now, the contrapositive of the statement, "If the class A has no members, then A does not exist". In this case, the class of A would be the null-class, which itself does not exist according to Russell by this point.

The argument, then, runs roughly as follows:

(1) The objects (existent or nonexistent) in question are denoted by denoting concepts.
(2) Denoting concepts are derived from class-concepts.
(3) But, there is no null-class. [*ex hypothesi*]
(4) So, the denoting concept, *The present King of France*, denotes *something*; namely, **the present King of France**.
(5) So, there is a class which contains *the present King of France*.
(6) So, the class-concept of the class containing *the present King of France* is not a null class-concept.

However, this contradicts what was previously said—namely, the propositional function expressed by "x is a present King of France" is false for all x, so *present King of France* is a null class-concept. This argument can be generalised to any denoting concept which does not denote, insofar as such a concept cannot denote the null-class (which does not exist), and so must denote something.

Therefore, whatever work Russell may have thought the being/existence distinction was doing for him in PoM, the implied commitments of several of the other moving parts of his technical machinery preclude this possibility. The being/existence distinction is not going to be sufficient to deal adequately with problems surrounding the ontological considerations of empty denoting concepts.

One should note, of course, that (under threat of denying the antecedent) this is not sufficient to say that the thing denoted by "the present King of France" actually does exist (as opposed to merely *has being*). Nonetheless, this theoretical framework is also not sufficient to say that such a thing does *not* exist. As such, Russell's implied ontological commitments cannot adequately resolve this issue.

2.2.2. *Admitting the Null-Class.* We have now seen how the being/existence distinction does not adequately solve the ontological puzzle, insofar as it gives rise to a contradiction when considered as a mere piece of a complicated theoretical machine. An obvious solution to avoid the contradiction above is simply to deny proposition (3). Indeed, Russell himself denies proposition (3) in Appendix A of PoM on The Logical and Arithmetical Doctrines of Frege and admits that there must be a null-class. Admitting the null class into our theory allows us to solve the ontological puzzle by simply *stipulating* that empty denoting concepts denote the null class. However, while this solution may avoid the contradiction noted above, it causes more problems for our desiderata, as we will see.[19]

Suppose for the sake of argument that the null-class exists. In this case, the contradiction from the above argument no longer follows, since it depended on Russell's original assumption that the null-class did not exist. Now, consider our paradigm sentence, "the present King of France is bald". What does the theory of denoting concepts have to say about this sentence when it is supplemented with the null-class assumption? First, the sentence is clearly meaningful, for the same

[19]Russell was initially resistant to admitting the null-class because it cannot be interpreted as a class as many. A class as many can only be *many* when it consists of more than one term, so the class as many is intrinsically plural. However, the null-class lacks this plurality. So, his concerns about the null-class are motivated for similar reasons as his concerns about the singleton. That is, if the fundamental notion of a class is the class as one, then the null-class causes no problems for Russell; however, if the fundamental notion of a class is the class as many—which it appears to be, since a class is defined as the numerical conjunction of terms which comprise the class—then the null-class is problematic.

reasons as before: the theory of denoting concepts provides a coherent analysis of this sentence. However, we can simply ask again what the empty denoting concept *the present King of France* denotes. If we stipulate that it denotes the null-class, then the proposition «the present King of France is bald» will be true just in case the null-class is bald. Understood this way, the proposition is clearly false. On the face of it, this seems unproblematic because the theory of descriptions *also* posits that this proposition is false.

However, this is where the heavy-lifting of the aboutness relation starts to becomes apparent. What is underlying the falsity of this proposition, on the theory of denoting concepts, is that the proposition «the present King of France is bald» is false by dint of the fact that it is a proposition *about* the null-class, and the null-class is not bald. This is different from the reason why the proposition was false in the theory of descriptions. It is false under that theory because there is no entity which is both bald and a present King of France (since there is no entity which is a present King of France). See Appendix B for further discussion.

Further, the theory of denoting concepts, on this interpretation, will make true propositions of the form «the present King of France is null», again given the fact that the proposition is *about* the null-class. However, the theory of descriptions makes these sentences false because (again) there is no entity which is both a present King of France and null. Similarly, «the present King of France is a unicorn» is made *true* under the revised theory, by dint of the underlying ontological considerations—this is an identity statement containing two empty denoting concepts, both of which denote the null-class. So, the main work done by the aboutness relation is *making true* (e.g., by dint of what). However, it does not make propositions true haphazardly; rather, it makes propositions true dependent upon the metaphysical matters of fact concerning the subject of the proposition. Thus, regardless of whether the actual truth values of these statements accord with intuitions, our theory tells us that they are true (or false), and why they are true (or false). However, under this revised theory, it follows that «the present King of France does not exist» is *false*, since the null-class exists. Again, there is an underlying reason *why* this proposition is false, but this does not accord with the essential desideratum for our theory—that «the present King of France does not exist» should be true.

One might argue that the existence of terms is a different *kind* of existence as the existence of classes. Indeed, Russell inherits such a point of view from Peano. However, an explanation of this sort does not address the larger issue at hand. Therefore, even if we admit the null-class into our ontology, the theory of denoting concepts still struggles with empty denoting phrases. (One might also argue that the empty denoting phrase does not denote the null-class, but denotes *nothing*. However, if that is the case, then it is not obvious why we would admit the null-class into our ontology in the first place, and it is still more unclear what is to be said about propositions containing empty denoting concepts.) Therefore, admitting the null-class is no help in our theory's ability to say *truly* that the present King of France does not exist.

2.2.3. *Hylton's Solution.* Hylton's point is slightly different that this. We have already seen that the *being/existence* distinction is not sufficient to deal with certain ontological considerations arising from the theory of denoting concepts insofar as it leads to a contradiction concerning the null-class and null class-concepts. Hylton's solution also shows that the *being/existence* distinction is not necessary, but

without appealing to a null class. Thus, he avoids the problems that we have seen arise from these solutions. However, as we will see, his solution is also not sensitive Russell's notion of *about*.

Hylton's argument is that the theory of denoting concepts itself gives Russell a way of avoiding the sort of ontological commitments that have come to light: namely, unless an object *is* in some sense, how can we deny that it exists? How can it be the *subject* of a proposition? To answer these questions, Hylton highlights the fact the this ontological problem only arises if one accepts unequivocally that the entities that a proposition is, or claims to be, about must occur *in* the proposition. That is, if a proposition is *about* something, then that thing must *be* in some sense (Hylton, 1989, 94).

However, the key move in Hylton's argument is to point out that, on the theory of denoting concepts, the proposition «the present King of France is bald» *does not* contain **the present King of France** (the thing); rather, it contains *the present King of France* (the denoting concept):

> Russell in PoM thus has resources at his disposal that would enable him to deny being to the present king of France. He can do this while still accepting that the sentence "The present king of France is bald" expresses a proposition. According to the theory of denoting concepts, this proposition does not contain the present king of France (as the corresponding proposition about Socrates would contain Socrates); it contains instead the denoting concept *the present king of France*. Given that a denoting concept may lack a denotation, nothing in Russell's account of the proposition demands that there be a present king of France, in any sense of "be". (Hylton, 1989, 94)

Essentially, Hylton's view is that the theory of denoting concepts allows an exception to the general rule that a proposition must contain what it is about.

Hylton's point addresses the *being/existence* distinction, which we have already seen does not work for Russell's theory. His point is that Russell did not realise that he does not need to rely upon the *being/existence* distinction because the theory already has the machinery with which to deal with such ontological considerations. Hence, Hylton is of the view that Russell could simply have dropped the *being/existence* distinction, since it was not doing any real philosophical work in his theory—or in the least, it was not doing the heavy lifting that it appeared to be doing. Had Russell simply dropped the *being/existence* distinction, he would not have had to move to the theory of descriptions in order to deal with the *ontological* problems that underlie nonexistents.

On account of this, Hylton points out that Russell can consistently deny that there is such a thing as, e.g., the member of the class K, since

> if one makes an assertion using the words 'the member of K' then the corresponding proposition contains not the member of K but rather the denoting concept *the member of K*. And it is perfectly possible for there to be a denoting concept which denotes nothing. (Hylton, 1990, 212)

Since it is clear in both PoM and OD that Russell was willing to admit denoting concepts which do not denote anything, Hylton takes this solution to be consistent with Russell's own commitments. This addresses the ontological desideratum for our theory (and so, this also addresses the meaningfulness desideratum). If this were all that we needed, then Hylton would certainly be correct in his conclusion that the move from the theory of denoting concepts to the theory of descriptions was not necessary.

However, this solution does not take into account the full weight of the aboutness relation. First, on the face of it, Russell explicitly denies what Hylton is claiming here. Namely, under the theory of denoting concepts a proposition contains a denoting concept precisely when that proposition is *not* about the concept but about the denotation of the denoting concept. In order to remain sensitive to Russell's own definition, Hylton's solution requires us to again ask what it is that is denoted by empty denoting concepts. The truth of propositions containing such concepts is going to depend, in a deep way, upon what this denotation actually is.

We may narrow our scope in interpreting Hylton and say that the "exception" to the general rule only applies to empty denoting concepts. On this interpretation, we might say that the denotation of a denoting concept just is the concept itself. This seems consistent with what Hylton says. However, we still run afoul of our specifications for the aboutness relation and its role as a truth-maker. That is, our paradigm sentence "the present King of France does not exist" expresses a proposition that is about *the concept*, *the Present King of France*, and the proposition says *of it* that it does not exist. However, this makes our proposition false by the following line of reasoning. The term given by the concept *the present King of France* exists insofar as we can define a class-concept, e.g., *empty denoting concepts*, that contains this concept as a term. So, the theory can be silent on the ontology of the *thing*, **the Present King of France**, and so need not require any being/existence distinction for it; but since the denotation of an empty denoting concept is the concept itself, aboutness dictates that «the present King of France does not exist» must be false under Hylton's solution, insofar as the thing that the proposition is about—i.e., the denoting concept—*does* exist. As such, taking the truth desideratum seriously has the immediate consequence that Hylton's solution cannot actually be cashed out.

2.3. **Truth and the Truth Puzzle.** What we require is a solution to the truth puzzle. That is, we want our theory to be able to give truth conditions for propositions which depend upon what the proposition is about—i.e., in the case of subject-predicate propositions, a proposition attributing a property to some subject is true or false depending upon what the proposition is about and whether the property in question holds of that very thing. However, allowing for empty denoting concepts to denote the null-class means that all propositions containing such denoting concepts are actually about the null-class. This is obviously problematic insofar as (1) it runs counter to intuitions that the proposition «the present King of France is bald» is *about* a present King of France and *not* a class containing no terms. This opens also the doors to a plethora of propositions that we should not want to admit are true. e.g., «the present King of France is a class». Even if one is to bite the bullet on these sort of considerations, we run into the further problem that if we assume that the null-class exists, and the concept *the present King of France* denotes the null-class, we run afoul of the truth of the proposition «the present King of France does not exist». That is to say, *the present King of France* denotes the null-class, and

(*ex hypothesi*) the null-class exists. Therefore, the proposition «the present King of France does not exist», is *false* by dint of the fact that it is *about* the null-class.

Recall that the truth puzzle was more fine-grained than our original considerations of meaning and ontology. That is, our theory needs to take account of several different types of propositions containing denoting concepts. Consider again the sentences

(P1) "The present King of France is bald",
(P2) "The present King of France is a King", and
(P3) "The present King of France does not exist".

In the very least, a solution to the truth puzzle requires that the proposition expressed by (P3) be true. The truth or falsity of (P2) and (P1) are going to depend on the machinery by which the propositions expressed are *made* true or false.

Russell himself struggles with intuitions about analytic sentences of the form of (P2). The discussion in Section 73 of PoM highlights the importance of the truth puzzle (Russell, 1903, 73-4). However, in order to say whether any of (P1-3) is true or false, one needs to take account of the ontological status of the denotations of these empty denoting concepts.

We have seen that the possible solutions to the ontological puzzle under the theory of denoting concepts run afoul of the truth of (P3). Thus, regardless of what they say about (P1-2), they cannot be adequate solutions. Namely, if *the present King of France* denotes the null class, under the assumption that the null class exists, then the proposition expressed by (P3) is false. Similarly, under Hylton's solution, *the Present King of France* denotes a concept, which also exists, and so the proposition expressed by (P3) is false. Regardless of whether or not one's intuitions suggest that (P1) or (P2) ought to be true or false, one *cannot* bite the bullet on the "falsity" of (P3); our theory *must* make (P3) true. This is perhaps most explicit in Russell (1919):

> It is argued, *e.g.* by Meinong, that we can speak about "the golden mountain," "the round square," and so on; we can make true propositions of which these are the subjects; hence they must have some kind of logical being, since otherwise the propositions in which they occur would be meaningless. In such theories, it seems to me, there is a failure of that feeling for reality which ought to be preserved even in the most abstract studies. Logic, I should maintain, must no more admit a unicorn than zoology can; for logic is concerned with the real world just as truly as zoology, though with its more abstract and general features. (169)

How does the truth puzzle fare for our three sentences under the theory of descriptions? The corresponding analysis for each sentence is given as follows:

(A1) $\exists x(\phi x \wedge \forall y(\phi y \rightarrow x = y) \wedge \psi x)$,
(A2) $\exists x(\phi x \wedge \forall y(\phi y \rightarrow x = y) \wedge \psi x)$, and
(A3) $\neg\exists x(\phi x)$.

We have already seen that (A3) is true under this analysis. Thus, the theory of denoting concepts at least gets right the bare minimum of what we required from our theory. Note that (P1) and (P2) express the same *logical* form, though in (A1) ψx is interpreted as "x is bald", and in (A2) ψx is interpreted as "x is a present

King of France". In order to capture the analytic nature of the structure of (A2), which might make us think that (P2) expresses a true proposition, we would need to appeal to some sort of containment relation in the underlying theory—namely, if x is a present King of France, then x is a King.

The theory of descriptions says that both (A1) and (A2) are false. This may not accord with pre-theoretic intuitions about (A2); however, as was noted in the introduction, it is not necessarily a concern that our theory does not accord with basic intuitions regarding whether the present King of France is a King, since Russell himself preferred clarity to intuition in his metaphilosophical commitments. What is important, however, is that the theory of descriptions gives a *reason* why these are false. Namely, because there is no such entity that satisfies all the requisite conjuncts. Thus, the theory further tell us why our intuitions may have been wrong: we were not considering the logical structure of the proposition, but merely the surface grammar of the sentence, which we have seen is misleading. Apparently, the theory of descriptions is able to solve the truth puzzle in a way that the theory of denoting concepts does not. Insofar as we care about the truth puzzle, the move to the theory of descriptions was indeed necessary.

3. Conclusion

I summarise the argument thus. What we desired from our theory was a solution to the analysis puzzle. This puzzle arises from the fact that propositions generally contain the entities which they are about, but certain types of expressions express propositions that are not about the denoting concept appearing in the proposition in question, but rather about the object which the denoting concept denotes. However, some denoting concepts appear to lack a denotation. Thus, *how should we analyse propositions that are about nonexistent entities?*

If what we are concerned with is the *meaningfulness* of sentences containing empty denoting phrases, then we see that both the theory of descriptions and the theory of denoting concepts provide a solution to the analysis puzzle insofar as they explain whether and how sentences containing empty denoting phrases meaningfully *express* propositions. The theory of denoting concepts does this in a way that is consistent with the surface grammar of the sentence in question, whereas the theory of descriptions seeks out a more pure logical form of the (ultimately misleading) grammatical structure of the sentence. However, upon closer inspection, we see that a solution to the meaningfulness puzzle gives rise to problems surrounding the ontology of the entities named by the denoting phrases. Therefore, a solution to the meaningfulness puzzle does not provide a solution to the analysis puzzle.

We might then consider the ontological puzzle, which is characterised by the question, *what is the ontological status of the present King of France?* Russell's original solution to the ontological puzzle—positing a distinction between being and existence—leads to a contradiction. The contradiction is easily avoided by admitting the null class. However, this gives rise to a new set of problems surrounding the aboutness relation and the truth of the propositions in question. Namely, *Are propositions containing empty denoting concepts true or false? By dint of what?* We saw that this solution runs afoul of aboutness considerations insofar as it makes false «The present King of France does not exist».

The third solution to the ontological puzzle is Hylton's solution. However, we have seen that Hylton's solution also runs afoul of the truth puzzle. This is because

Hylton does not take into account the subtlety of the aboutness relation. Once we start considering aboutness carefully, we see that Hylton's solution also gives rise to a new set of problems concerning truth—namely, it makes false «The present King of France does not exist».

Thus, a solution to the meaningfulness puzzle cannot solve the analysis puzzle insofar as it gives rise to the ontological puzzle. Further, a solution to the ontological puzzle cannot solve the analysis puzzle insofar as it either gives rise to a contradiction, or it gives rise to the truth puzzle. A solution to the truth puzzle, however, provides a solution to the analysis puzzle while at the same time answering questions surrounding meaning and ontology.

However, taking the *truth puzzle* seriously has the immediate consequence that the theory of denoting concepts does not have the technical machinery necessary to deal adequately with propositions containing empty denoting concepts. This thesis is directly opposed to Hylton's claim that it does. We have seen that the reason why Hylton's claim does not satisfy this desideratum has to do with the aboutness relation. Further, this was shown in a way that Hylton, it seems, would need to accept, given that he accepts the interpretation of the aboutness relation that has been outlined here. Finally, I have argued that we should indeed take the truth desideratum seriously insofar as (1) Russell himself grappled with problems surrounding the truth value of propositions containing empty denoting concepts, which seems to imply that it is an important criterion for the theory to satisfy; (2) Russell's theory of denoting concepts places a heavy explanatory burden on the notion of aboutness, and aboutness itself is inherently wrapped up in truth.

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Appendix A. Aboutness

This Appendix highlights some key considerations regarding the *aboutness* relation, which is pivotal to Russell's theory of denoting concepts. Throughout Russell's changing views on denotation, the notion of *aboutness* plays a pivotal role. However, though the term "aboutness" has since taken on a technical meaning (i.e., in the secondary literature), it does not appear, technically or otherwise, in PoM. What I mean by this is the following: Russell is very careful to define the various bits of technical machinery that come into play in his theory of denoting concepts. There are entire sections or chapters devoted to *assertions*, *proper names*, *adjectives* and *verbs*, *classes*, *propositional functions*, *variables*, etc. However, no such analysis exists for the *aboutness* relation.[20]

This is strange, given that (Russell, 1903, 56) literally defines denoting concepts in terms of the *aboutness* relation: "[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 particular way with the concept" (emphasis mine). In light of this, Hylton (1990) points out that

> the theory of denoting places heavy demands on the notion of *about*: a term is a denoting concept just in case the presence of that term in a proposition results in the proposition not being about the term, but rather about some other term (or combination of terms). (209)

So, *aboutness* is a relation between propositions and terms—i.e., the things which the propositions are about. Further, it is by dint of the *aboutness* relation that a term is a denoting concept.

We have seen already (Section 2.1) that "term" is technical for Russell, and that it is inherently broad in what it is supposed to encompass. Recall that there are two (exhaustive) kinds of terms—*things* and *concepts*—and two (non-exhaustive) kinds of concepts—*adjectives* and *verbs*. We should note that when Russell introduces the notion of a *term*, he says that he uses the words "unit", "individual", and "entity" as synonyms. The first two of these are supposed to indicate the *singularity* of the term in question, and the last is supposed to indicate its *being*. However, Russell later refines his definition of terms and introduces *object* as a technical notion which is supposed to encompass *terms* as well as *complexes of terms*—See Figure 2.

Hence, it is more accurate to understand *aboutness* as a relation between propositions and *objects* rather than simple propositions and terms, since "object" is a more general word that Russell (1903, 55) uses to include both intrinsically unitary things (terms) and also intrinsically plural things (complexes of terms), as well as cases of ambiguity (such as "a man"). (This captures the idea that a proposition may be *about* a term or a complex of terms.) We examine the notion of *about* thus.

A.1. **The Notion of About.** To see how aboutness figures into denoting concepts, consider the following two propositions:

(W1) «Wittgenstein was born in 1889», and

[20]As far as I can tell, Russell *never* wrote in a sustained way about aboutness. The secondary literature that specifically focuses on this relation generally cites PoM. Though, an exception is Salmon (2007). There are several discussions of *aboutness* in the secondary literature, related and unrelated to the theory of denoting concepts. See, for example, Bar-Elli (1980a,b); Atlas (1980); Makin (1995, 2000); Perkins Jr. (2007); Amijee (2013); Lebens (2017).

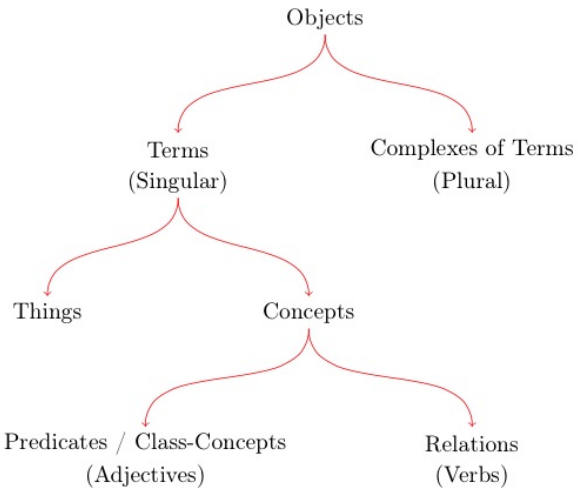

FIGURE 2. Russell's Taxonomy of Terms

(W2) «The author of *Tractatus Logico-Philosophicus* was born in 1889».

Both of these propositions are *about* Wittgenstein, in spite of the fact that **Wittgenstein** does not occur in any part of (W2). The class-concept *author(s) of Tractatus Logico-Philosophicus* gives rise to a class, which happens to contain only **Wittgenstein**. Hence, the denoting phrase "*the* author of *Tractatus Logico-Philosophicus*" expresses a denoting concept. From the point of view of the theory of denoting concepts, we are alerted to the existence of a denoting phrase in the sentence "The author of *Tractatus Logico-Philosophicus* was born in 1989", because of the syntactic (i.e., grammatical) structure of the sentence. This in turn signals the existence of a denoting concept in the correspondent proposition (W2), and so the proposition (W2) is not about the (class)-*concept*, *authors of Tractatus Logico-Philosophicus*, but rather about the individual himself—namely, **Wittgenstein**.

The *aboutness* relation and the theory of denoting concepts are both deeply wrapped up in Russell's notion of a class-concept. He explicitly states in PoM that "[a]ll denoting concepts ... are derived from class-concepts" (Russell, 1903, 74). First, we must distinguish between, what Russell calls, the *class-concept* and the *concept of a class*. We have already seen that a class-concept gives rise to a class and that the latter is an object that is not a concept, whereas the former is a concept. Russell (1903) further differentiates class, class-concept, and concept of a class with the following example: "*man* is the class-concept, *men* (the concept) is the concept of the class, and men (the object denoted by the concept *men*) are the class" (67). The key difference here has to do with the fact that a *concept of the class* unambiguously denotes, whereas the *class-concept* does not denote at all. Thus, *denoting concept* is the genus, and the concept of the class is a species of denoting concept.

Since aboutness is supposed to be a relation that holds between propositions and objects—i.e., terms or complexes of terms—there is a distinction to be made

between a *class as many* and a *class as one*. In particular, Russell (1903) points out that "[a] concept of a class, if it denotes a class as one, is not the same as any concept of the class which it denotes" (43). That is, the concept *class of men* determines a single thing which is understood as a class as one, whereas the concept *men*—i.e., *all men*—determines many things understood collectively as a class as many. Indeed, the class as many is going to refer canonically to *plural nouns*, whereas the class as one is going to refer to singular nouns.

At this point, we are in a position to ask what work the aboutness relation is supposed to be doing here and, in doing so, determine why Russell's theory really places a significant explanatory burden on aboutness. Russell (1903) says that he "shall speak of the terms of a proposition as those terms, however numerous, which occur in a proposition and may be regarded as subject about which the proposition is" (45). This highlights the easy case for aboutness as a relation between propositions (i.e., those which do not contain denoting concepts) and objects. For example, it is not controversial that the proposition «Socrates is mortal» is *about* (the term) **Socrates**.

The case where a proposition contains a denoting concept is slightly more difficult. However, Russell somewhat clarifies the aboutness relation with respect to denoting concepts—that is, in the case when a proposition is not *about* the denoting concept itself, but the object which the denoting concept denotes:

> When a class-concept, preceded by one of the six words *all*, *every*, *any*, *a*, *some*, *the*, occurs in a proposition, the proposition is, as a rule, not about the concept formed of the two words together, but about an object quite different from this, in general not a concept at all, but a term or complex of terms. (Russell, 1903, 64)

As such, *teacher of Plato* is a class-concept. "The teacher of Plato" is a denoting phrase, which expresses the denoting concept *the teacher of Plato*, which in turn denotes **Socrates**. Therefore, «the teacher of Plato is mortal» is about **Socrates**, rather than the concept *the teacher of Plato*. This is supposed to be apparent because, for the most part, these sort of propositions—i.e., ones containing denoting concepts—*are false of the concept itself*. For example, the proposition expressed by the sentence "I met a man" is true just in case there is some particular individual, denoted by the denoting concept *a man*, whom the speaker met; it is nonsense to say of the concept *a man* that the speaker met it, and this is clearly not what is meant when someone says "I met a man".

It might initially seem that understanding when a proposition is about one sort of object rather than another depends solely upon some linguistic intuition had by native speakers of the language—e.g., the proposition «I met a man» is just *obviously* about a person and not a concept. However, we can afford to be a bit more rigorous about this relation. What our discussion here has shown is that underlying the *aboutness* relation is a notion of *truth*. However, it has to do with truth in a particular sort of way. It is not necessary that a proposition's being about a particular object requires that the proposition be true, but that it be true for the right reason.[21] Consider the fact that «Wittgenstein was born in 1890» is a false proposition. This proposition is still about Wittgenstein. So, if it is not the case

[21]This is a general metasemantic problem concerning aboutness and intentionality, the issues of which are still quite live. See, for example, Yablo (2014); Simchen (2017)

that a proposition needs to be true for it to be about the object it is in fact about, why can we not simply say that the sentence "all men are mortal" expresses a false proposition that is about the concept *men*? The answer is that it is false for the wrong reason. While there may be some considerations regarding intentions (in the production of propositions) or interpretation (in the consumption of propositions), or the metaphysics of the propositions themselves, that shed some light on what is underlying the mechanics of aboutness here, Russell says nothing on the subject. Hence, we will not concern ourselves with the details of this machinery, as this would take us too far astride, but we will proceed in fairly broad strokes.

Hylton attempts to clarify some of what is going on with the aboutness relation, with the same conclusion that truth must be relevant to it in a significant way. We have already seen that aboutness is not simply a constituency relation. Namely, when we consider propositions containing denoting concepts, they are not about the constituents of the proposition—i.e., the denoting concepts themselves—but the thing denoted by the denoting concept. In response to the question of what it is for a proposition to be about a particular object, Hylton (1990, 209) says that two "very similar" lines of reply suggest themselves.

On the one hand, we might consider a proposition to be about, for example, **Socrates**, when the truth of that proposition depends upon whether or not Socrates has a certain property (or, stands in a particular relation to some other object). In this way, a proposition P is about some object t if and only if P's being true depends upon the truth of some other proposition, P', of which t actually is a constituent.

This view is, perhaps, vacuous for propositions that do contain the entities which they are about—i.e., the truth of a proposition of this sort "depends solely upon itself" (Hylton, 1990, 209). However, this becomes significant when we consider propositions which contain denoting concepts. As Hylton (1990) points out:

> the denoting concept *the teacher of Plato* is about Socrates because the truth of the original proposition depends upon the truth of a different proposition, namely one which contains Socrates where the original proposition contains the denoting concept. (209)

This way of figuring aboutness takes into account the apparent significance of truth that we noted above. There are obviously further complications that might arise from such a view; however, for now we will rest content with the simplified view that we might understand the aboutness relation as a *truth-maker*.[22]

Again, these considerations are not explicit in PoM, and Russell does not say very much about how this relation is supposed to obtain: "Russell in PoM rests

[22]Note that Hylton (1990) points out a second way of figuring aboutness by distinguishing a proposition from its content. A proposition containing a denoting concept—e.g. *the teacher of Plato*—does not say something about the concept itself, but rather **Socrates**. Thus Hylton (1990) points out that "[w]hat the content of a given proposition (i.e., a given combination of terms) is will depend upon facts external to the proposition—facts about what denotes what" (210). However, by Hylton's own admission, this second view is circular insofar as *aboutness* is explained in terms of *content*, *content* is explained in terms of *denoting*, and *denoting* is explained in terms of *aboutness*. Further, the *content* view can be reduced to the *truth-maker* view insofar as the content of a proposition containing a denoting concept might be taken as the proposition that results from replacing the denoting concept with its denotation. As such, we will only concern ourselves with understanding aboutness as a truth-maker.

content with the notion of aboutness, without considering the implications of this notion" (Hylton, 1990, 210). Nonetheless, the explanatory burden that is placed on the aboutness relation has significant consequences for the theory of denoting concepts.

A.2. **Truth Values and Empty Denoting Concepts.** What does the theory, thus laid out, say about sentences as "the present king of France is bald"? *The present King of France* is an empty denoting concept, since there is no present King of France. Russell (1903) has a brief discussion of denoting concepts which do not denote anything in section 73 of PoM. He says that

> It is necessary to realize, in the first place, that a concept may denote although it does not denote anything. This occurs when there are propositions in which the said concept occurs, and which are not about the said concept, but all such propositions are false. Or rather, the above is a first step towards the explanation of a denoting concept which denotes nothing.

This is consistent with our understanding of the aboutness relation. A proposition is able to be about an object that does not exist when everything is false of that object. In this way, we may simply take the proposition expressed by "the present King of France is bald" to be false, simpliciter. However, Russell goes on to point out that the above explanation cannot be adequate since, e.g., "even primes other than 2 are numbers" appears to be a true proposition. Indeed, any analytic statement that is about a non-existent object appears to have this quality. e.g., "the round square is round", "the present King of France is a present King of France", etc.[23]

Seemingly, these sort of propositions are not (or need not be) always false. Further, the proposition concerns the thing the concept denotes rather than the denoting concept itself. However, the denotation of the denoting concept *even primes other than* 2 is nothing, since this denoting concept does not denote anything. Russell goes on to say that

> a is a class-concept when "x is an a" is a propositional function. The denoting concepts associated with a will not denote anything when "x is an a" is false for all values of x. This is a complete definition of a denoting concept which does not denote anything; and in this case we shall say that a is a null class-concept, and that "all as" is a null concept of a class. (Russell, 1903, 74)

For example, let a be the class-concept *present Kings of France*. This class-concept happens to be null. However, it still gives rise to the concept of the class *all present Kings of France*. This also happens to be null. The explanation why the denoting concept *the present King of France* does not denote anything is because for any x, «x is a present King of France» is false. Note that this is the converse of Russell's "first step" toward an explanation of denoting concepts which do not denote. We

[23]Note that a sentence like "Raskolnikov is a character in a Dostoevsky novel" has an entirely different quality than the sentence "Raskolnikov has a nervous disposition". The propositions expressed by these sentences are about inherently different things: the first is about an actual object in the real world, whereas the second is about a fictional object which does not exist in the real world.

initially said that an explanation was given by the fact that in the proposition «x is an a», x does not denote anything when every proposition of this form is false for that x. However, this gave rise to the problem that certain propositions of the form «x is an a» appear to be true. Thus, the analysis is that when no object x gives rise to a true proposition of the form «x is an a», the class-concept given by a is null, and thus any denoting concept that it got from this class-concept is going to denote nothing.

To clarify further, the "first step" looked at propositions of the form «the present King of France is an a», whereas the "complete definition" looks at propositions of the form «x is a present King of France». Since there is no such x that gives rise to a true proposition of the second type, it follows that the class-concept *present kings of France* is null, and so the denoting concept *the present King of France* denotes nothing. Note that this does *not* mean that *the present King of France* denotes the null-class. By this point, Russell denied that such a thing even existed. A null class concept and a null concept of the class are not to be confused with the null-class itself. For example, class concepts and the concept of a class are both *concepts*, whereas the null class is not a concept. The former two are allowed, but there is no non-conceptual *thing* which is null.

This gives rise to a significant number of difficulties, some of which Russell was certainly aware. Russell abandons the theory of denoting concepts in favour of the theory of descriptions. Part of the necessity for the move from the latter to the former theory may have to do with the difficulties which we considered here. However, Hylton's point is that the technical machinery which Russell had built in the theory of denoting concepts already gave him the ability to deal with propositions that contain null class-concepts, or denoting concepts which do not denote anything. We have seen why, when we take seriously aboutness considerations, this is false.

Appendix B. The Theory of Descriptions

This Appendix highlights some of the key technical components of the theory of descriptions.[24] Hylton (1990, 238) points out that perhaps the clearest difference between the theory of denoting concepts and the later theory of descriptions is that the latter theory does not actually make any use of the original notion of denoting—i.e., of denoting concepts—from PoM. Instead, the theory of descriptions is concerned primarily with *denoting phrases*, which are themselves *linguistic* entities occurring in *sentences*, rather than the non-linguistic *denoting concepts* (occurring in propositions) that were at the forefront in PoM.

In particular, the theory of descriptions is supposed to explain the function of descriptions, either definite or indefinite, by explaining the *form* of the proposition that is expressed by the sentence in which the description, or denoting phrase, occurs. In this sense, Russell's use of "denoting" is less technical in the theory of descriptions than it is in the theory of denoting concepts. Accordingly, "denotes" in the theory of descriptions might be taken as synonymous with "indicates" or "refers to" (Hylton, 1989, 93).

This is a significant departure from the theory of denoting concepts insofar as the theory of descriptions does not pick out an entity in the proposition which corresponds to the description, whereas, in the theory of denoting concepts, the denoting concept itself does precisely this—i.e., the denoting concept is such an entity occurring in the proposition that is picked out by the denoting phrase. Further, in the theory of descriptions, denoting phrases are "not assumed to have meaning in isolation" and "never have meaning in themselves, but ... every proposition in whose verbal expression [the description or denoting phrase occurs] has meaning" (Russell, 1905, 480). In this way, the analysis is an analysis of a *sentence* containing a denoting phrase rather than an analysis of the denoting phrase itself—i.e., via a proposition containing a denoting concept and the denotation of the denoting concept contained therein.

In the theory of descriptions, the notion of *variable* is taken as fundamental: a propositional function «$C(x)$», in which the (wholly undetermined) variable x is a constituent, is assumed to be given.[25] For example, if "$C(x)$" indicates the

[24]There is, of course, a *huge* literature on the theory of descriptions, as it is an inherently influential, interesting, and complicated bit of philosophy. (Google Scholar suggests that "On Denoting" has been cited by 4633 articles!) Thus, this appendix will, in no way, do justice to the subtleties of Russell's article—for example, I will not discuss the famous "Grey's Elegy Argument" (though see, for example, Levine (2004); Costreie (2005); Brogaard (2006); Rebera (2009); Rosenkrantz (2017)), or the integration of the theory of descriptions to Russell's larger philosophical programme—including, for example, knowledge by acquaintance (though see, e.g., Bar-Elli (1989).) nor will I attempt to do justice to the expansive secondary literature. Here I will simply try to outline the core of the theory of denoting concepts, as it is relevant for the discussion here—in particular, the parts of the theory required for answering the three constituents of the analysis puzzle.

[25]Note that the distinction between the linguistic sentence, "$C(x)$", and the non-linguistic propositional function, «$C(x)$», is somewhat vexed here. Russell (1905) actually says "I use '$C(x)$' to mean a proposition in which x is a constituent" (480). However, his use of quote marks here is puzzling, since this *should* indicate a linguistic entity—i.e., the *sentence* "$C(x)$". However, he then states that this means a *propositional function*, which is non-linguistic. Additionally, he does not use quote marks for x, which seems to imply that he is talking about the actual variable, x, and not the linguistic entity 'x' expressing the variable. This is further complicated by the fact that Russell explicitly *denies* in Appendix A of PoM that the variable is a constituent of the propositional function, because order matters when there is more than one variable in the propositional function in question, and so a propositional function, with its several variables, cannot be thought

sentence "x was born in 1889", we can replace "x" with the word "Wittgenstein". Then the sentence "C(Wittgenstein)" expresses the true proposition «Wittgenstein was born in 1889». However, if we replace "x" with "Russell", the resultant sentence "C(Russell)" expresses the false proposition «C(Russell)».

Further, "$C(x)$ is always true" is taken to be primitive, and so indefinable.[26] From this we can understand the quantifiers *everything*, *nothing*, and *something*—i.e., primitive denoting phrases—as being interpreted in the following ways:

(1) $C(everything)$ means "$C(x)$ is always true",
(2) $C(nothing)$ means "'$C(x)$ is false' is always true", and
(3) $C(something)$ means "It is false that '$C(x)$ is false' is always true".

The last of these can be abbreviated by "$C(x)$ is sometimes true" or "$C(x)$ is not always false" (Russell, 1905, 480-1). So, on the theory of descriptions, "I met a man" is parsed as "'I met x, and x is human' is not always false". Or, more strictly speaking: "It is false that '*I met x and x is human* is false' is always true".

Note that it seems strange here to say that $C(everything)$ *means* "$C(x)$ is always true" as this appears to be saying that a proposition *means* a sentence, when we might think that the reverse is true (especially in light of Russell's comments on meaning from PoM). However, I am simply following Russell's use of quotation marks here. The reducibility, in fact, seems to be a relation between two sentences which express the same proposition. That is to say, the *sentence* "$C(everything)$" means (reduces to) the sentence "$C(x)$ is always true", and the *analysis* of these two sentences is that they result in the same proposition.

The basic idea of the theory of descriptions, then, is a proper analysis of propositions whose verbal expressions (i.e., sentences) contain denoting phrases. It was said above that a denoting phrase occurring in a sentence is a matter of form—See Figure 3. In this way, it makes sense to say that a denoting phrase has no meaning in isolation insofar as, e.g., "the present King of France", does not have meaning—that is, it must be paired with the *assertion* (e.g., "is bald") to have meaning. (In the theory of denoting concepts, the "meaning" of the denoting concept is its denotation.)

A crucial difference between the theory of denoting concepts and the theory of descriptions has to do with the relation between what we might call *grammatical form*—i.e., of linguistic sentences—and *logical form*—i.e., of non-linguistic propositions. We noted in the previous section that, in PoM, Russell believed that the *grammatical* form of a sentence was indeed a good indicator of the *logical* form of

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of in terms of parts and wholes. See Russell (1903, §482). In particular, he says that, for Frege, in $2x^3 + x$, the function is $2()^3 + ()$, but there is nothing that determines that the blanks must be filled by the same variable, and so we cannot distinguish between $2x^3 + x$ and $2x^3 + y$ (509). This is further complicated by the fact that it is not clear whether Russell thinks, in Part 1 of PoM, that the variable can be understood as a constituent of the propositional function, since this was written in ignorance of Frege's work and prior to Appendix A; however, by 1910 Russell explicitly says that propositional functions *contain* variables (Whitehead and Russell, 1925, 38). Still, by this point he has begun to deny that propositions are themselves entities. Further, he does not talk about propositional functions in a sustained way between 1903 and 1910. While these considerations are important to keep in mind, a detailed analysis of the changing relation between propositional functions and variables throughout Russell's philosophical programme from 1903–1923 is beyond the scope of this essay.

[26]Note that Russell (1905) refers to this as a "notion" (480), so it is not wholly clear whether he means the linguistic sentence or the proposition. Nonetheless, I will follow Russell's usage of quotations here.

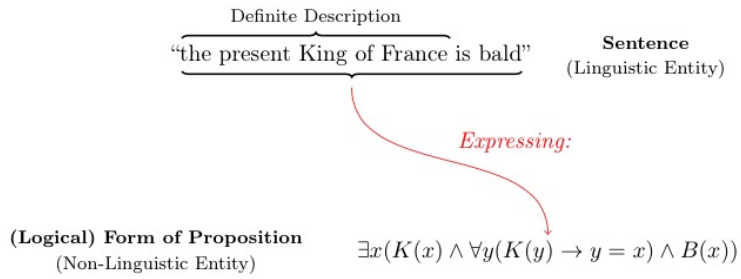

FIGURE 3. The Form of a Denoting Phrase (1905)

the proposition which it expresses. This was evidenced by the mode of analysis employed in the theory of denoting concepts. (See again, Figure 1.) In particular, the denoting phrase "the present King of France", in the sentence "the Present King of France is bald", corresponds to the constituent denoting concept *the present King of France* in the proposition «the present King of France is bald», and the predicate phrase "is bald" corresponds to the constituent *is bald* in the proposition. However, in the theory of descriptions, the sentence "the present King of France is bald" reduces to a sentence which more accurately reflects the logical structure of the proposition:

> "It is not always false of x that x is a present King of France and that x is bald and that 'if y is a present King of France then y is identical with x' is always true of y".

In this case, the *grammatical* form of the sentence "the present King of France is bald" is incongruous with its logical form and so cannot be a useful guide for the correctness of our philosophical analysis.

Since the denoting phrase "the present King of France" no longer corresponds to a constituent of the proposition which the sentence containing the denoting phrase expresses, Russell effectively bypasses certain issues regarding the denotation of such phrases—i.e., issues concerning denoting concepts which apparently do not denote anything (empty denoting concepts). He explicitly states from the outset that a denoting phrase may "be denoting and yet not denote anything" (Russell, 1905, 479). Similarly, a denoting phrase may denote a single object (as in "the Present King of England"), or it may denote ambiguously (as in "a man"). In some sense, it does not matter whether the denoting phrase denotes anything because, as we have seen, there is no object in the proposition which corresponds to the denoting phrase.

There are specific considerations in "On Denoting" concerning an individual's epistemic relation to the constituents of the denoting phrase—i.e., via *acquaintance*; however, these considerations are not at stake here. What does come into play is the metaphysical status (and ontological commitments) of the *aboutness* relation. Sentences containing phrases which are denoting but do not denote anything are still intuitively *about* the thing which the denoting phrase *apparently* denotes. These considerations about aboutness are present in OD; however, this is now a relation between sentences and the things that they are about. This is a different relation,

and in particular it is not doing the same theoretical work that aboutness was doing in PoM—it is not as theoretically loaded.

Russell complains that, on Frege's view, a denoting phrase like "the present King of France" is supposed to denote the null-class.[27] However, he goes on to say that this is "plainly artificial" and so does not give an adequate analysis of the phrase (Russell, 1905, 484). Further, Russell explicitly says in PoM that there is no null-class—see Section 2. As such, the theory of descriptions explicitly avoids the problems which the theory of denoting concepts runs into with respect to various commitments surrounding denoting concepts which do not denote, as well as what propositions containing such concepts are about.

For more details on the theory of descriptions as a response to the ontological problems that arise from Meinong's views on intentionality and ontology, see, e.g., Smith (1985); Griffin (1985); Griffin and Jacquette (2009). For more on the theory of descriptions as a response to the views of Frege see, e.g., Geach (1959, 1978); Blackburn and Code (1978); Sainsbury (1979); Levine (2004); Costreie (2005); Brogaard (2006); Rebera (2009); Rosenkrantz (2017). For more on the existential implications of Russell's theories of denotation, see, e.g., Russell and MacColl (1905); Rescher (1959); Vorsteg (1967); Griffiths (1976); Orenstein (1995).

[27]"Frege's view" here refers to his view in the *Grundgesetze*. See Frege (2013).