



Russell's Theory of Descriptions and the Definite Article

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Abstract. Is the definite article analyzed by Russell's Theory of Definite Descriptions identical to the definite article as ordinarily used in usual singular contexts? The answer proposed in the paper is "Yes". The aim of the paper is to demonstrate that Russell's theory presents a satisfactory analysis of sentences involving definite descriptions in singular. It is claimed that the theory applies on logical form of sentences, rather than on truth conditions of utterances. Further, the theory of descriptions is to be made independent from the choice of a particular universe bound variables occurring in formal transcriptions of such sentences are supposed to range over. Given this assumption, the theory cannot be blamed for wrong predictions with respect to, e.g., incomplete definite descriptions. A uniform analysis of various occurrences of definite descriptions is suggested.

Russell's Theory of Description offers a highly systematic account of the semantics of the definite article and the logical form of sentences involving definite descriptions. It prescribes, what is the kind of semantic contribution expressions of the form "the *F*" make to the semantic content of sentences, and their utterances, having the form (1):

(1) The *F* is *G*.

The account is systematic in that it is unitarian in a sense. The account is often criticized as being too simplifying. Various kinds of examples are supposed to falsify it and different pictures are offered in its stead. However, it seems to me that critical reflections are sometimes unjustified because based on confusing Russell's theory with considerations alien to the heart of the theory. In what follows, I suggest to divorce the theory and Russell's treatment of the definite article from these consideration.

1. Preliminaries

Before discussing the core of Russell's Theory of Descriptions, there are three things that are to be highlighted in advance. Firstly, Russell's theory deals only with what I shall call singular occurrences of definite descriptions. An occurrence of a definite description within a sentence of the form (1) is said to be *singular*, if (1) is to be understood as saying (among other things) that the nominal part of the definite description is satisfied by exactly one individual. Instances of (1) can be used also in other senses, e.g., in general or generic sense. And Russell's theory does not pretend to cover these kinds of use. Secondly, Russell's theory deals primarily with *sentences* and more specifically with *sentence-types*. Of course, in a derivative sense its predictions penetrate to *sentence-tokens* too, but it seems to me misleading to claim that it has something to do with *utterances of sentences*.¹ Thirdly, Russell's theory is a theory of *logical forms* of sentences involving singular occurrences of definite descriptions. Surely, it is often interpreted as a theory of truth conditions but I find this idea somewhat misleading; for, since truth conditions are relativized to a model interpreting extra-logical signs of the language, the theory should become dependent on a particular model. And this is untenable.² Now I shall describe the three points in more detail.

The definite article occurring in ordinary English can be used in various contexts and receive various interpretations. There are but a few examples:

- (2) The highest mountain in the Earth is in Asia.
- (3) The first man who landed on the Moon was a Russellian.
- (4) The dolphin is friendly.
- (5) The whale is a mammal.
- (6) The father of each boy is proud of him.
- (7) Every communist party has a marxist as the leader.

There are considerable differences between logical forms as well as truth conditions of (2) – (7). According to widespread intuitions, (2) will be true provided the highest member from the set of mountains in the Earth is located in Asia; similarly, (3) will be true provided the first member from the set of all men who landed on the Moon belongs to the set of Russellians. We may say that truth conditions of (2) and (3) are Russellian in that (2) and (3) imply existence and uniqueness in a sense—(2) supposes that there are mountains and that

there is a mountain higher than any other mountain; (3) supposes that there are men who landed on the Moon and that one of them landed on the Moon before any other did it.

This kind of pattern cannot be applied on (5)—it seems that (5) implies neither existence nor uniqueness in the above sense. The most reasonable treatment of (5) is to take it on a par with general sentences “All whales are mammals” or “Every whale is a mammal”. From the logical point of view, the definite article has the force of the general quantifier here. To put it set theoretically, the set of whales is said to be a subset of the set of mammals; the number of individuals in the set of whales is irrelevant here—the set may be even empty. Now compare (5) with (4). (4) can be read as a general sentence too—it can be taken on a par with “Every dolphin is friendly” or “All dolphins are friendly”.³ However, there is also another natural reading of (4), the Russellian one. Suppose a woman is playing with a dolphin in a pool and she utters (4) in this context; moreover, suppose there is exactly one dolphin in the environment (the one she is playing with). Thus, there are at least two readings of (4)—Russellian and general.⁴ Now the consideration dealing with (4) can be extended to cover (5) too. Suppose it is a widespread opinion that whales are fish in fact. Now a scientist examining a particular whale finds out that the specimen is equipped with organs usually possessed by mammals. Being convinced that the specimen under investigation is a mammal, the scientist utters (5) meaning that the whale she is studying is a mammal. The truth conditions of the utterance would be Russellian.

Now consider (6) and (7). First of all, (7) is synonymous to “The leader of every communist party is a marxist” and, thus, there appears to be a common pattern behind (6) and (7). There are different readings for (6) and (7). According to one reading, (6) says that there is exactly one man such that he begot each boy and he is proud of the boys he begot. This reading would be Russellian, but it is hardly the reading one would expect under normal circumstances. The most natural reading of (6) is general. It says that concerning each boy, there is exactly one father of him and that he—the father—is proud of the boy; to put it more perspicuously, for each boy x there is exactly one father y and y is proud of x . Of course, this reading does not imply that all boys have the same father. However, a sort of uniqueness is preserved here too—it is implied that for a boy, x , there is exactly one man, y , who begot him. This result would not be achieved had the definite article been replaced by the indefinite one. The resulting sentence—“A father of each boy is proud of him”—does not imply that there is exactly one father for each boy. The definite article is, indeed, important here for preserving uniqueness, though the uniqueness is not Russellian. Similar considerations can be applied on (7).

Thus, we have isolated at least two kinds of readings of the definite article. The first point to be highlighted is that general reading of the definite article is beyond the scope of the present paper. Such readings are not intended to be covered by Russell's Theory of Descriptions. However, it seems to me that the singular reading (in the above mentioned sense) is suitably captured by Russell's theory. I shall defend the following thesis:

Russell's theory gives right predictions concerning the logical form of singular readings of sentences involving the definite article.

The moral is that general uses of the definite article cannot be invoked against Russell's Theory of Descriptions.⁵

On basis of the above discussion concerning (4) (and (5) – (7)) it could be useful to make the following convenient decision and correction. Let us say that there are (at least) two *sentences* connected with the *sequence of signs* (4). The two sentences, though superficially indistinguishable, differ in their logical form—one of them is general while another one is singular in the above sense. Thus, when one utters (4) in the general sense meaning that every dolphin is friendly, she utters one sentence; and when she utters (4) in the singular sense meaning that there is exactly one dolphin and it is friendly, she utters another sentence. This distinction is quite natural because it is untenable to hold that *one* sentence may possess two distinct logical forms. Each sentence has exactly one logical form and two superficially indistinguishable sequences of signs that are associated with two different logical forms are to be seen as two different sentences.⁶ The thesis mentioned at the end of the above paragraph can be reformulated in this way:

Russell's theory gives right predictions concerning the logical form of singular sentences involving the definite article.

Another vitally important distinction deals with sentence-types, sentence-tokens and utterances. Sentence-types are abstract entities while sentence-tokens are spatio-temporal non-abstract (material) things. Each sentence-token is a material realization of a particular sentence-type and sentence-types can be seen as patterns for sentence-tokens. Utterances are acts in which particular sentence-tokens of a given sentence-type are produced. Sentence-tokens (entities) are to be clearly distinguished from utterances (acts).

Logical form is primarily connected with sentence-types. The logical form of a sentence-token is identical to, and derived from, the logical form of the sentence-type it is a token of; and the sentence-token possesses a particular logical form because the respective sentence-type it is a token of possesses the logical form. Utterances *qua* acts do *not* have logical

forms—logical form can be ascribed to a particular sentence-token produced in a given utterance. Since Russell’s theory deals with logical form of certain kind of sentences, it can be interpreted as dealing primarily with sentence-types. The final version of the above mentioned thesis runs:

Russell’s theory gives right predictions concerning the logical form of singular sentence-types involving the definite article.

The final distinction to be mentioned in this preliminary section is one between logical form and truth conditions. I take Russell’s theory to be a theory of logical form; however, it is often interpreted as a theory of truth conditions. Truth conditions, unlike logical form, are always relativized to a particular model—we say that a sentence is true with respect to such and such model, but we do not say that a sentence has such and such logical form relative to some model; rather, the logical form of a sentence remains the same regardless models. To put it simplifyingly, the logical form of a sentence reveals in the main which logical expressions are present in the sentence and in which positions the expressions occur; the rest comprises variables and schematic letters. For example, the logical form of (5) (when read generally) is given in (8):

$$(8) \quad (\forall x)(Wx \rightarrow Mx),$$

where x is a variable and W and M are schematic letters awaiting interpretation relative to a model. Given that there are just logical expressions, variables and schematic letters in (8), (8) cannot be taken as a representation of truth conditions for (5). The truth conditions are obtained when a particular model is specified and when W and M are ascribed semantic values. The truth conditions can be captured set-theoretically (this policy will be used throughout the paper):

$$(9) \quad \text{“The whale is a mammal” is true (with respect to a model } M) \text{ iff } \mathbf{W} \subseteq \mathbf{M},$$

where \mathbf{W} is the semantic value of W (with respect to M) and \mathbf{M} is the semantic value of M (with respect to M).

The talk of model is usually replaced by the talk of context of utterance. It is supposed that the interpretation is supplied by some sort of contextual factors. I shall follow this policy here too. However, given this assumption, the talk of a *sentence-type* being true or false with respect to a model has to be replaced by the talk of a *sentence-token* being true or false with respect to a given context of utterance. I shall suppose, somewhat simplifyingly, that

sentence-tokens produced in a given context by specific utterances express propositions that are primary bearers of truth values.

Now having sketched several preliminary considerations necessary for identification of the very nature of Russell's Theory of Descriptions, we may discuss the theory in more detail.

2. Russell's Theory of Definite Descriptions

Russell's Theory of Definite Descriptions is a theory of logical form of sentences such as (1) ("The F is G "). Supposing that the formal counterpart of (1) is given in (10):

$$(10) [\iota x: Fx](Gx)$$

and utilizing the language of first order logic, the famous definition is given in (11):

$$(11) [\iota x: Fx](Gx) =_{df} (\exists x)(Fx \ \& \ (\forall y)(Fy \equiv x = y) \ \& \ Gx).$$

The definiens of (11) states what is the logical form of sentences of the kind (1). Given the logical form made explicit in (11) and utilizing set theoretical apparatus, the truth conditions of tokens of (1) are standardly given in the following way:

$$(12) \text{ (A token of) "The } F \text{ is } G\text{" is true iff } |\mathbf{F}| = 1 \ \& \ \mathbf{F} \subseteq \mathbf{G},$$

where \mathbf{F} (\mathbf{G}) is the set of individuals having the property *being F* (*being G*) and $|\mathbf{F}|$ is the cardinality of \mathbf{F} .⁷

What is the most striking feature of the theory is that it is eliminative in a sense. It suggests that it is not necessary to introduce other symbols as primitive into the first order language and, moreover, that it is not necessary to introduce other *kinds* of symbol as primitive therein. The main idea runs: The iota-operator is a variable binding operator forming compound *individual* terms when prefixed to open sentences. It is plain that the first order language involves *no* symbol of this kind. Hence, there is no need for the first order language to involve this *kind* of symbol. Russell's definition shows that it is possible to introduce into the first order language a formal counterpart of the definite article without introducing a new kind of primitive symbols. Quantifiers, connectives and the identity sign suffice because the new symbol can be defined by means of them. It is in this sense Russell's analysis is said to be eliminative.⁸

Russell's contextual definition of the definite article carries with it important implications concerning existence and uniqueness. Utilizing usual inference rules, (13) can be obtained from the definiens of (11):

(13) $(\exists x)(Fx \ \& \ (\forall y)(Fy \equiv x = y))$.

According to Russell, (13) states the logical form of (14):

(14) The *F* exists.

In order for tokens of (14) to be true there has to be exactly one individual having the property *being F* (i.e., (13) corresponds to the first conjunct of (12)). Given that an utterance of (1) implies that there is exactly one individual having the property *being F*, the following thesis holds:

The Uniqueness Thesis (UT)

It is a necessary condition for a token of “The *F* is *G*” to be true that there is exactly one individual having the property *being F*.

The thesis holds quite generally and for all kinds of singular uses of the definite article it is supposed that a kind of uniqueness is implied. The Russellian would claim that UT holds for virtually any kind of singular use the definite article is capable of. I think this claim is empirically correct because regardless the kind of use of a definite description—be it attributive or referential (demonstrative) or anaphoric—the use will be felicitous provided UT is fulfilled (*cf.* below).

Moreover, there is another strong evidence for this conclusion (*cf.* Roberts [2003: 294]). Whenever there occur nominal phrases of the forms “*n*-th *F*” or “*φ*-est *F*”, where *n* is a numeral and *φ* is an adjective, the most natural option is to prefix them the definite article; using another linguistic device (most notably the indefinite article) would lead to infelicity. Compare (15) – (17):

(15) The highest mountain in the Earth is Mount Everest.

(16) *A highest mountain in the Earth is Mount Everest.

(17) *This highest mountain in the Earth is Mount Everest.

Phrases “*n*-th *F*” and “*φ*-est *F*” carry a kind of uniqueness and they have to be prefixed by a determiner that is capable to highlight this fact; the definite article is the most natural choice.

Now a question arises: Given UT, *where* the individual claimed to be uniquely having the property *being F* is supposed to be found? The natural answer runs: In the domain of the variable bound by the iota operator. So far, so good. However, there is a hidden assumption that the domain of the variable is identical to the universal set, i.e., the set of all individuals. *The universe of a given language is identified with the universal set.* And this is by no means

a trivial assumption and, as we shall see, the source of main troubles besetting Russell's theory. Given this assumption, the theory is usually interpreted such that it involves the following variation of The Uniqueness Thesis:

The Global Uniqueness Thesis (GUT)

It is a necessary condition for a token of "The F is G " to be true that there is, in the universal set, exactly one individual having the property *being F* .

According to the view commonly attributed to Russell, the definite article expresses the global uniqueness (see, e.g., Strawson [1950]). The definite article as commonly used in ordinary English is contrasted with Russell's definite article in that the latter, unlike the former, is intimately connected with GUT; or so it is said. Let us abbreviate the definite article defined by Russell's theory as "the_R" and introduce "the_O" for the ordinary definite article. The usual view takes (18) to be the right record of Russell's view:

(18) (A token of) "The_R F is G " is true iff $|\mathbf{F}_A| = 1$ & $\mathbf{F}_A \subseteq \mathbf{G}_A$,

where \mathbf{F}_A (\mathbf{G}_A) is the set of *all* individuals from the universal set having the property *being F* (*being G*). Now we may wonder whether the following thesis holds:

The Identity Thesis (IT)

The definite article as defined by Russell's Theory of Descriptions ("the_R") is identical to the (singular) definite article that is ordinarily used in English ("the_O").

So, does IT hold? This is the question to be discussed in what follows. The usual answer is "No", because "the_R" is usually viewed as connected with GUT. However, I claim that IT does hold because (18) is not essential for Russell's theory. However, in Section 3 I shall assume, for the sake of argument, that (18) (and GUT) captures Russell's intuitions concerning the definite article; in other words, I shall assume that Russell's theory deals with truth conditions and that the universal set is the domain.

3. The Definite Article in Ordinary English

In this section I shall review two kinds of evidence that can be invoked against the general validity of IT:

- (A) The first kind is based on the analysis of certain sentence-tokens involving ordinary definite descriptions uttered in a particular context. The idea is that GUT that is essential for sentence-tokens involving "the_R" is not met by such sentence-tokens.

- (B) The second kind is based on the comparison between “the_R” and cardinal determiners from ordinary English. The idea is that sentence-tokens involving “the_R” differ in serious respects from those involving other cardinality determiners, including “the_O”.

A. Ordinary Sentence-Tokens Involving Definite Descriptions

It seems that the most dominant uses of the ordinary (singular) definite article encompass sentence-tokens involving:

- (a) definite descriptions used attributively without fulfilling GUT;
- (b) definite descriptions used referentially or demonstratively;
- (c) definite descriptions used anaphorically.

Concerning (a), consider a sentence-token of (19) produced by someone watching a performance in a theatre without knowing who authored the piece:

(19) The author is a genius.

The speaker uses the definite description attributively. Given GUT, Russell’s theory predicts that the sentence-token will be false, because there are, in the set of all individuals, a lot of members having the property *being author*. In spite of this fact, we are willing to admit that the speaker said something true by producing the sentence-token even in the world that is author abundant. Now there are (at least) two responses available: either one denies GUT and maintains that the uniqueness effect is achieved in some other way or one denies the assumption that sentence-tokens involving definite descriptions imply a sort of uniqueness. The best strategy is, to my mind, to embrace the first horn of the dilemma; the second horn seems unnecessary and unjustified. For adopting the former option enables one to explain the empirically valid fact that speakers of English would take a production of a sentence-token involving a definite description as infelicitous had the uniqueness effect not been achieved (see Roberts [2003]). So, interpreting Russell’s definite article as one obeying GUT prevents us to admit that IT holds because sentence-tokens involving the ordinary definite article imply the kind of uniqueness that is not in conformity with GUT.

Now, consider case (b). The referential use is a datum that is often used to demonstrate that Russell’s theory fails to state correct truth conditions for sentence-tokens involving referentially used definite descriptions—the truth conditions of such sentence-tokens should be singular, as it is sometimes said.⁹ On the other side, Russell’s theory suggests that the truth conditions have to be general. When someone utters a token of (20),

(20) The man is sick,

and intends to pick out his or her neighbour, it would be silly to claim that he or she intended to say that there is exactly one man in the universe and he is sick. Again, GUT seems to fail in such examples. However, this does not mean that speakers of ordinary English would admit that the production of a token of (20) is felicitous even though no kind of uniqueness has been fulfilled. Of course, it is required that the speaker of the token demonstrated exactly one man in order for her production to be felicitous.¹⁰ There is a gap between this kind of uniqueness requirement and GUT; thus, “the_R” seems to differ from “the_O”.

Finally, consider (c). The anaphoric use of the definite article is quite widespread in English. Anaphora enables us to unify discourse in the sense that the whole particular discourse concerns the same object. For when one utters a suitable phrase anaphorically, she intends to mention something (an individual, a property, etc.) that has been mentioned previously in the discourse. Suppose someone utters a token of (21):

(21) A man and a woman are sitting near the entrance. The man is sick.

“The man” is anaphorically dependent on “a man” from the previous sentence. Now, Russell’s theory suggests that bare sentences are units of analysis. Given this assumption, the second sentence from (21) should be analyzed in isolation from the first sentence and it would claim that there is exactly one man in the universe and he is sick. This prediction is made on the basis of GUT and it demonstrates that GUT leads to unintuitive predictions. Be it as it may, a speaker of English would admit that the second sentence implies a kind of uniqueness and the uttered token of it would be felicitous provided there is exactly one man that has been mentioned *in the relevant piece of discourse*. It would lead to infelicity had the first sentence from (21) start: “Two men and a woman...” Again, this fact demonstrates that occurrences of the ordinary definite article do not obey GUT, even though a kind of uniqueness has to be maintained here.

Thus, the result is that cases (a) – (c) illustrate that IT seems to be wrong because the ordinary definite article, unlike Russell’s one, does not obey GUT. What the above kinds of example indicate is that the global uniqueness is too strong. However, this is not to say that uttered sentence-tokens involving definite descriptions do not imply uniqueness in any sense. It is, in fact, the other way round. When one considers felicity conditions associated with the above sentence-tokens, she has to realize that a sort of uniqueness is implied by them. When one utters (19), it is natural to suppose that the theatrical piece in question has been authored by exactly one man; when one utters (20), it is supposed that exactly one man is the target of

the speaker's referential use of the definite description in question; and when one utters (21), the supposition that exactly one man has been mentioned in the relevant piece of discourse is forthcoming. Had the uniqueness conditions not been met, the uttered sentence-tokens would not be taken as felicitous.¹¹ I take this result to be a confirmation of intuitions Russell's theory is based on and of the idea that the insistence upon the uniqueness conveyed by uttered sentence-tokens involving definite descriptions is at bottom correct.¹²

B. Cardinal Determiners

The term "cardinal determiner" will be used here in a somewhat restricted sense. A determiner *Det* is said to be *cardinal* provided either (i) the number of individuals in set **F** or (ii) the number of individuals in a Boolean compound of sets **F** and **G** is essential for the truth conditions of an utterance of "Det *F* is *G*". Examples of the latter sort are "one", "two", "exactly one", etc.; examples of the former sort are "both", "all the three", "neither" etc. By way of illustration we may bring forward the following:

(22) (A token of) "One *F* is *G*" is true iff $|\mathbf{F} \cap \mathbf{G}| \geq 1$.

(23) (A token of) "Exactly one *F* is *G*" is true iff $|\mathbf{F} \cap \mathbf{G}| = 1$.

(24) (A token of) "Both *F*s are *G*" is true iff $|\mathbf{F}| = 2 \ \& \ \mathbf{F} \subseteq \mathbf{G}$.

The definite article is a cardinal determiner too and should be of the same kind as "both", "neither", "all the three", etc.

Now what is special concerning the second kind of cardinal determiners is that they are usually used to introduce *novelty* into the discourse. It means that when one utters "Exactly *n/n/... F*s are *G*", the *F*s mentioned in the uttered sentence-token need not be ones already introduced in the previous piece of discourse, neither ones that are contextually salient in the speaker's environment, neither ones presupposed in the common background of the interlocutors. The first kind of cardinal determiners is a bit different: When one utters "Both/all the *n/... F*s are *G*", she often supposes that the *F*s mentioned in the sentence-token she uttered are already *familiar*, in some sense, to her interlocutors. Thus, one supposes that such *F*s are relevant for the truth conditions of a given sentence-token that have been previously selected or made salient.¹³

For example, it would not make good sense had one utter a token of (25) out of the blue:

(25) Both men are sick.

But if (25) occurs in a suitable context—say, in an anaphoric one—the strangeness disappears. Consider a token of (26):

(26) Two men and a woman are sitting near the entrance. Both men are sick.

Of course, the particular context should take part in determining the truth conditions for the uttered sentence-token of the second sentence from (26). Since it is the anaphoric reading of “both” that is relevant here, the context in question is determined by the previous piece of discourse. The truth conditions for the uttered sentence-token of the second sentence from (26) would be as follows:

(27) (A token of) “Both men are sick” is true *iff* $|\mathbf{M}_C| = 2 \ \& \ \mathbf{M}_C \subseteq \mathbf{S}_C$,

where \mathbf{M}_C is the set of all men relevant for the context, c , with respect to which the second sentence has been uttered and \mathbf{S}_C is the set of all sick individuals relevant with respect to c .¹⁴ Now it can be said that “both” is but a stylistic variation of “the two”; i.e., “both” may be replaced in any kind of use by “the two”. Again, it makes no good sense to utter a token of (28) out of the blue:

(28) The two men are sick.

And when (28) is uttered as a part of a larger context, say in (29), everything works smoothly:

(29) Two men and a woman are sitting near the entrance. The two men are sick.

Thus, (27) can be straightforwardly adapted for “The two men are sick”. This shows that the definite article is connected here with familiarity. And I guess that the ordinary definite article is usually used in this way: when someone utters (20) (“The man is sick”), a sort of familiarity is presupposed. This fact has been supported by evidence given in the previous part of this section.

The result is that the ordinary definite article behaves as “both” and other cardinal determiners of this class. These cardinal determiners may either introduce novelty into discourse or invoke familiarity. On the other hand, “the_R” that is supposed to be based on GUT works differently and cannot be included in the same class with “both”, “the two”, etc. When someone utters a sentence involving “the_R” the truth conditions of the utterance are never relativized to a domain selected by a previous discourse or common background of the interlocutors. Had “the_R” been a natural language determiner, it would be unique in that its exclusive role is to bring forth novelty (and in this it resembles “one”, “exactly one” etc., and differs from “both”, “the two”, etc.) but, at the same time, the truth conditions of uttered

sentence-tokens involving “the_R” do not involve Boolean compounds (and in this it resembles “both”, “the two”, etc., and differs from “one”, “exactly one” etc.). This is another difference between “the_O” and “the_R” and another reason to deny the validity of IT.

4. Russell’s Theory Reconsidered

The main theses that can be positively traced back to Russell’s Theory of Descriptions are:

- (A) Definite descriptions, unlike true proper names, are not semantically referring expressions. Definite descriptions resemble ordinary quantifier phrases such as “some *F*”, “no *F*”, “all *F*s”, etc. and make a uniform category with them from both the syntactical as well as semantical point of view.
- (B) A sentence-token involving a definite description implies a uniqueness to the effect that, with respect to the universe, **U**, and a subset of **U** involving all individuals having the property expressed by the nominal part of the description, the sentence-token implies that the subset of **U** is a singleton.

It has been suggested, in Section 2, that the uniqueness condition is usually understood along the lines of GUT. Hence, point (B) is often interpreted as (B*):

- (B*) A sentence-token involving a definite description implies a uniqueness to the effect that, with respect to the set of all individuals, **A**, and a subset of **A** involving all individuals having the property expressed by the nominal part of the description, the sentence-token implies that the subset of **A** is a singleton.

The shift from (B) to (B*) is often almost unconscious. The core idea behind this shift is that **U** from (B) is understood as a constant term *naming* the set of all individuals, **A**. To put it differently, it is supposed that **A** is *the universe of language* and that all sentence-tokens involving definite descriptions are supposed to say something concerning **A**. And this is the idea I wish to combat; i.e., I would like to deny the supposition that Russell’s theory is identical to theses (A) and (B*).

Another interpretation seems to be possible that is prompted by some examples from the previous section. The case of anaphora is instructive here. I shall illustrate my point using the case of “both” (or “the two”) from the previous section. Recall that when “both” from (30) is uttered anaphorically (or demonstratively) in a context *c*, (30) is truth-conditionally on a par with (31):

- (30) Both *F*s are *G*.

(31) The two F s are G .

Given that \mathbf{C} is the set of all individuals relevant with respect to the context c , the truth conditions are as follows:

(32) (A token of) “Both F s are G ” is true *iff* (a token of) “The two F s are G ” is true *iff* $|\mathbf{F}_c| = 2 \ \& \ \mathbf{F}_c \subseteq \mathbf{G}_c$.

The index “ c ” suggests that only those F s (G s) are relevant here that are involved in \mathbf{C} . Thus, only those F s are in question here that are also members of \mathbf{C} , i.e., occur in, or are mentioned with respect to, c . To put it differently, it is \mathbf{C} that is, in fact, the relevant universe here; it is the universe of a given discourse. It is possible to extend this approach straightforwardly on the definite article occurring in (1) (“The F is G ”). Instead of (12), we get:

(33) (A token of) “The F is G ” is true *iff* $|\mathbf{F}_c| = 1 \ \& \ \mathbf{F}_c \subseteq \mathbf{G}_c$.

It is easy to see that the theory is still Russellian in its spirit because it obeys (A) and (B) above, though it does not obey (B*).

Instead of the universe of language that is identified with the set of all individuals we may speak about *the universe of a particular discourse* that is to be identified with the set of all individuals relevant with respect to a given discourse. Given this suggestion, \mathbf{U} from (B) is to be understood as a *variable* (not as a name) ranging over sets of individuals. Values of \mathbf{U} may differ for various pieces of discourse. This assumption seems to be empirically more correct than the one according to which each sentence-token involving a definite description says something about the set of all individuals.

The above discussion suggests that Russell was right when claimed that the definite article expresses uniqueness. Given this fact it can be said that “the_O” is similar to “the_R” at least in that both articles bear the uniqueness condition. However, what cannot be correct is that the uniqueness in question is global; thus, what has to be doubted is GUT. The uniqueness condition has to be made more local. The result can look like this:

The Local Uniqueness Thesis (LUT)

It is a necessary condition for a token of “The F is G ” to be true with respect to a given piece of discourse that there is, in the universe of the discourse, exactly one individual having the property *being F*.

The uniqueness expressed by the definite article occurring in a particular token of a sentence having the form (1) (“The F is G ”) is local rather than global. The localness is the

result of the fact that the range of values of variables is determined by the universe of discourse and usually the universe is just a subset of the set of all individuals occurring in a given possible world. Of course, it may happen that when one utters a sentence of the form (1), she means to say something concerning the set of all individuals (within a given possible world). This fact is perfectly compatible with LUT. It is just a borderline case of the universe of discourse determination to say that the universe is identical to the set of all individuals existing in a given possible world.

Since GUT has been replaced by LUT, point (B*) should be replaced by another one reflecting LUT:

(B**) A sentence-token involving a definite description implies a uniqueness to the effect that, with respect to the set, **S**, of all individuals relevant for a particular discourse the sentence-token is a part of and a subset of **S** involving all individuals having the property expressed by the nominal part of the description, the sentence-token implies that the subset of **S** is a singleton.

The final version of Russell's theory is put forth in points (A) and (B**). This version is powerful enough to cover all singular uses the definite article is capable of.

5. Uniqueness, Uniformity, and Universe Choice

The primary aim of Russell's Theory of Descriptions is, to my mind, to offer an account concerning the logical form of certain kind of *sentences*. It can be said that logical form of any sentence involving a definite description is given by the famous definition resumed in (11) (see Section 2). According to Russell's uniform account, sentences involving definite descriptions imply a kind of uniqueness. Is this picture incorrect?

Usual objections against the theory consist in that it misdescribes the truth conditions of uttered sentence-tokens (or utterances) involving definite descriptions. Notice that the focus has been shifted from sentences to uttered sentence-tokens (or utterances of sentences) and from logical form of sentences to truth conditions of uttered sentence-tokens (or utterances). We may guess the shift is a hallmark of Strawson's discussion in his [1950] and subsequent literature influenced by him. When one shifts the focus from one kind of thing to another one, she should not be surprised that something might go wrong. I think the picture of logical form offered by Russell's theory is the correct one for the purposes Russell tried to achieve—it is the best option one may offer within first order language. But when one wants to apply the theory to truth conditions, one has to make some amendments. As far as I can see, the

amendments consist in the proper choice of a particular universe for a given discourse. When this is done, the theory works smoothly.

In view of the above interpretation of Russell's theory, two things are to be sharply separated: (i) Russell's Theory of Descriptions (*qua* a theory dealing with the logical form of certain sentences) and (ii) the choice of a particular universe bound variables occurring in Russell's expansion of a given sentence are said to range over; the choice of a universe is made with respect to a given sentence-token uttered. Russell's theory prescripts what is the analysis of sentences involving definite descriptions; it prescribes that a sentence is equivalent to a complex formula consisting of propositional functions involving free variables, logical connectives, identity-sign and quantifiers binding the free variables. The complex formula uncovers the logical form of such sentences. The choice of a particular universe says what the variables range over when the sentence in question is uttered. It seems to be quite natural to say that the theory of descriptions can be adopted regardless the choice of a particular universe. The theory deals with the logical form of certain kind of sentences, while the choice of a particular universe is independent from it. The theory would prescribe the same logical form to a given sentence irrespective the choice of a particular universe; the logical form would remain unchanged had one universe been replaced by another one.

The above interpretation is quite natural and reflects usual communication practice speakers of English are used to be involved in. Consider an utterance of a token of (34):

(34) The highest mountain is in Asia.

The variables occurring when (34) is transcribed into the first order language are given some range of values. When a token of (34) is uttered, it is usually supposed that the range of values is identical to the set of things existing in the Earth (of course, the set is not identical to the set of all individuals). Given this assumption the token would be true. And when one utters tokens of (34) (and virtually of any other sentence) she usually means to convey something true by the tokens. However, we may also suppose that someone else might be willing to utter (34) such that the range of values for the variables is identical to the set of all things existing in a given possible world; given that the possible world is identical with the actual world, it is sure that the token would be false because there are other mountains in the Universe that are higher than the highest mountain in the Earth. In both kinds of case one may successfully apply Russell's theory and ascribe the same logical form to both tokens. The difference between them is simply the result of different choices of ranges of values for the variables.

And this choice has nothing to do with correctness or incorrectness of the Theory of Descriptions.

The logical form Russell’s theory prescribes for a sentence involving a definite description is a suitable departure point for discovering the truth conditions of a particular token of the sentence in question; the other requirement necessary in this enterprise is the choice of the universe with respect to which the token is to be assessed as true or false. Various tokens of the same sentence, though having the same logical form, may differ in their truth conditions; the truth conditions might differ in view of the difference in the choices of the universes. In this way, Russell’s theory presents a general framework—and a plausible one, I suppose—that can be filled in various ways. So, when you want to apply the theory to the truth conditions of uttered tokens, you may do that. But it is necessary to realize that Russell’s theory itself is not responsible for the choice of the universe with respect to which sentence-tokens are to be verified or falsified. Thus, when the uniqueness requirement is not fulfilled, it is not Russell’s theory that is to be blamed for the failure; rather, it is our choice of the universe that is to be seen as unsatisfactory.

6. Analysis

Russell’s theory is a powerful tool defending the idea that each uttered sentence-token involving a definite description implies uniqueness. Given the fact that this holds for any sentence-token regardless the way the definite description involved in it is used, the uniqueness is implied by utterances involving descriptions used attributively and utterances involving descriptions used referentially (demonstratively) as well as utterances involving descriptions used anaphorically. When a definite description is used anaphorically, the relevant universe is the set involving individuals mentioned, or alluded to, in the previous piece of discourse; when it is used demonstratively, the relevant universe is the set of individuals demonstrated to by the speaker’s act of demonstration; etc. Let us apply now the above interpretation of the Theory of Descriptions on the examples given in Section 3.

To begin with, consider the case when the definite article is used demonstratively (or referentially). We have considered an utterance of (20) (“The man is sick”). Of course, the logical form of (20) is given by the standard Russellian transcription:

$$(35) (\exists x)(Man(x) \ \& \ (\forall y)(Man(y) \equiv x = y) \ \& \ Sick(x)).$$

Given that the token of (20) is uttered within a context c , the truth-conditions are:

$$(36) \text{ A token of “The man is sick” is true with respect to } c \text{ iff } |\mathbf{M}^*| = 1 \ \& \ \mathbf{M}^* \subseteq \mathbf{S}^*,$$

where:

$$\begin{aligned}\mathbf{M} &= \{x; x \text{ is male}\}, \\ \mathbf{S} &= \{x; x \text{ is sick}\}, \\ \mathbf{D}_c &= \{x; x \text{ is demonstrated by the speaker}\}, \\ \mathbf{M}^* &= \{x; x \in \mathbf{M} \ \& \ x \in \mathbf{D}_c\}, \\ \mathbf{S}^* &= \{x; x \in \mathbf{S} \ \& \ x \in \mathbf{D}_c\}.\end{aligned}$$

When “The man is sick” is used anaphorically, as in (21), the truth-conditions would be a bit different, even though the logical form would remain unchanged. Suppose c is again the relevant context of utterance. We get:

$$(37) \text{ A token of “The man is sick” is true with respect to } c \text{ iff } |\mathbf{M}^*| = 1 \ \& \ \mathbf{M}^* \subseteq \mathbf{S}^*,$$

where:

$$\begin{aligned}\mathbf{M} &= \{x; x \text{ is male}\}, \\ \mathbf{S} &= \{x; x \text{ is sick}\}, \\ \mathbf{A}_c &= \{x; x \text{ is spoken about in the previous piece of discourse}\}, \\ \mathbf{M}^* &= \{x; x \in \mathbf{M} \ \& \ x \in \mathbf{A}_c\}, \\ \mathbf{S}^* &= \{x; x \in \mathbf{S} \ \& \ x \in \mathbf{A}_c\}.\end{aligned}$$

What is important is that the logical form is the same regardless the choice of the universe as well as regardless the kind of utterance.

The above examples were quite straightforward. Now take into account a more complicated kind of case. A definite description can be used attributively, as in (19) (“The author is a genius”). Here it is impossible (and also irrelevant) to pick out demonstratively or anaphorically a member of a singleton set involving as its only member some murderer or other. As has been pointed out by H. Wettstein [1981], another kind of reference, the one to the victim, has to be taken into account. We may reason as follows: The set of authors is the domain of the relation *being-author-of* while the set of works is the converse domain of the relation. This fact can be utilized in this kind of case. Regarding the utterance of (19), the converse domain of the relation can be identified with the singleton set having as its only member the theatrical piece that can be independently identified, say, demonstratively (or anaphorically or by a proper name). Thus, the truth-conditions of the sentence-token can be given in this form:

$$(38) \text{ A token of “The author is a genius” is true with respect to } c \text{ iff } |\mathbf{A}^*| = 1 \ \& \ \mathbf{A}^* \subseteq \mathbf{G}^*,$$

where:

a is a particular theatrical piece,

$\mathbf{G} = \{x; x \text{ is a genius}\}$,

$\mathbf{D}_c = \{x; x \text{ is demonstrated by the speaker}\}$,

$\mathbf{R}_A = \{\langle x, y \rangle; x \text{ authored } y\}$,

$\mathbf{A}^* = \{x; \langle x, a \rangle \in \mathbf{R}_A \ \& \ x \in \mathbf{D}_c\}$,

$\mathbf{G}^* = \{x; x \in \mathbf{G} \ \& \ x \in \mathbf{D}_c\}$.

The above example is quite special in that the relevant domain is determined by a relation. It can be generalized in order to cover any uttered sentence-token involving a definite description consisting of a predicate that is *derivative* in the following sense. We may say that “being a president”, “being a murderer”, “being a father”, etc. are derivative predicates in that they can be truly ascribed to anyone, only if he or she is in some appropriate relationship to someone or something, i.e., he or she has to be a president of some country or a murderer of some man or a father of a child, etc.¹⁵

Of course, it is easy to devise examples involving attributively used definite descriptions having as their nominal parts non-derivative predicates. Consider the following case adopted from Zvolenszky [2005]. Suppose the speaker is designing the layout of her apartment and gesturing towards a particular sketch of a table she utters a token of (39):

(39) The table will be custom-made.

“The table” involves a non-derivative predicate “being table” and, moreover, we cannot recourse to demonstrations or other referential acts. Though it is highly probable that the example at hand should be construed anaphorically, I shall suppress this assumption. Anyway, we cannot utter a token of (39) out of the blue without contextually supplanted domains for variables. The logical form of (39) is given by the Russellian picture while the truth conditions of the particular token can be put forth in this way:

(40) A token of “The table will be custom-made” is true with respect to c iff $|\mathbf{T}^*| = 1$ &
 $\mathbf{T}^* \subseteq \mathbf{M}^*$,

where:

$\mathbf{T} = \{x; x \text{ is a table}\}$,

$\mathbf{M} = \{x; x \text{ is custom-made}\}$,

$\mathbf{S}_c = \{x; x \text{ is relevant with respect to the uttered sentence-token}\}$,

$$\mathbf{T}^* = \{x; x \in \mathbf{T} \ \& \ x \in \mathbf{S}_c\},$$

$$\mathbf{M}^* = \{x; x \in \mathbf{M} \ \& \ x \in \mathbf{S}_c\}.$$

Of course, it remains unspecified how \mathbf{S}_c , the set of relevant individuals, is determined. There are two major ways possible: the demonstrative/referential kind of determination or the anaphoric kind of determination. Thus, at bottom, examples such as (39) are on a par with examples such as (19) – (21).

Be it as it may, one thing remains untouched: what is the logical form of a particular sentence-token is quite independent of a particular domain. The choice is an independent matter having nothing to do with the logical form *per se*. In this manner, Russell's insights regarding the semantics of the definite article stay intact even when either referential or anaphoric utterances are under discussion.¹⁶

Footnotes

¹ In this I am in full agreement with Kent Bach's interpretation of Russell's theory; see Bach [1987]. Bach's picture differs from that of Stephen Neale who prefers to interpret the Theory of Descriptions as a theory dealing with utterances; see Neale [2004].

² It seems to me that the untenable interpretation is the primary source of many attacks on Russell's theory. I cannot go into details here but I think the problem of so-called incomplete definite descriptions, for example, stems from this kind of interpretation; concerning Russell's theory, the problem would not arise had the theory been interpreted as a theory of logical form.

³ I am indebted here to Ernesto Napoli for the example and the discussion.

⁴ It seems that still another reading of (4) is available. Someone may use (4) in the sense that dolphins are usually friendly or that most dolphins are friendly. For the sake of simplicity I shall put aside this kind of reading.

⁵ Of course, this is not to say that there cannot be more general theory covering all kinds of use of the definite article by a single account. An interesting attempt to supply such a theory is Delia Graff's [2001].

⁶ For more details see Neale [1993].

⁷ Interestingly, the main ideas Russell incorporated into his Theory of Descriptions can be found in earlier works of Peano and Frege, as has been convincingly pointed out by Rodríguez-Consuegra [2000].

⁸ It has been sometimes pointed out that the particular logical notation used by Russell is not necessary for the very nature of the theory (*cf.* Neale [1990]). This point is well-made; however, I think Russell's aim was not just to explain the semantics of the definite article (or of definite descriptions) but to offer an explanation that would be put forth using first order language without any symbol alien to it.

⁹ The thesis that definite descriptions are sometimes semantically referential expressions is very popular. Michael Devitt expressed it recently in this way:

The argument [...] is that the definite [description], 'the *F*' is like the deictic 'that *F*' [...] [T]he expressions have a very similar conventional role. We could usually change one for the other without apparent cost to our goal of communicating a singular thought. When a demonstration (a pointing gesture) is called for, 'that *F*' may seem more appropriate, when it is not, 'the *F*'. However, in each case, the other expression would usually do fine. Little if any stage setting is required to change one expression to the other. [...] This function of [definite descriptions] is as conventional as that of demonstratives (Devitt [2004: 288 – 289]).

I shall not discuss Devitt's argument here, though I cannot agree with his line of reasoning. As far as I can see, the kind of conventions he mentions does not suffice to establish the semantic ambiguity for the definite article. The argument has been discussed by, e.g., Bach [2004] and Neale [2004]. Of course, vast empirical evidence supports the idea that definite descriptions can be *used* referentially; however, this by no means proves that they are *semantically* referential phrases.

¹⁰ Observe that even Strawson in his discussion concerning "The table is covered with books" claims that the requirement of uniqueness is, in fact, preserved in another way:

It is indeed tautologically true that, in such a use, the phrase ["the table"] will have an application only in the event of there being one table and no more *which is being referred to*, and that it will be understood to have an application only in the event of there being one table and no more which it is understood as being used to refer to (Strawson [1950: 332]).

¹¹ This idea has been supported by vast empirical evidence in Roberts [2003].

¹² For this reason I cannot adopt the idea that “the semantic values of ‘a(n) *F*’ and ‘the *F*’ are the same as the semantic value of ‘some *F*’” (Szabó [2000: 30]).

¹³ This is not to say that the first kind of determiners are *always* used to invoke familiarity. To be more precise, the difference between the two kinds of cardinal determiners is that the second kind of determiners is *always* used to introduce novelty, while the first kind of determiner is *sometimes* (well, quite often) used to invoke familiarity (though, sometimes it is used to introduce novelty, too). However, the statistics concerning the kind of use the determiners are capable of is not essential here.

¹⁴ Of course, this is not to say that “both” is used only to invoke familiarity in this sense (*cf.* footnote 12). Consider the following examples:

- (i) Both John’s parents are teachers.
- (ii) Both John’s children are boys.

It seems that both (i) and (ii) can be used out of the blue without any air of strangeness. However, when all is said and done this can hold only for (ii). For when one utters a token of (i), her utterance is felicitous because of the common knowledge that each man has exactly two (biological) parents. Thus, this kind of example cannot introduce novelty in the right sense. Of course, (ii) can (but need not) be used to introduce novelty. This kind of use would imply strict “uniqueness” in Russell’s sense: an utterance of (ii) would be felicitous only provided John has exactly two children.

¹⁵ This is not to say that regarding “the murderer”, for example, there is a hidden argument place at the level of logical form that is not visible at the surface level. It means that “being murderer” and “being murderer of” are treated as different predicates, even though they are related in a sense.

¹⁶ A version of the paper has been read at the conference *Descriptions and Logical Forms: 100 Years of “On Denoting”*, December 15th – 17th, 2005, Padua (Italy). I am indebted to participants of the conference for helpful comments. Moreover, I would like to express my gratitude to Ernesto Napoli who read the previous version of the paper and supplied extensive and penetrating comments.

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