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FICTIONAL OBJECTS AND FREE DESCRIPTIONS

1. Interest for this issue today

This is work in progress. It is part of a project in which I deal with issues in metaphysics and philosophy of language concerning fictional objects. The point that I am going to make is that in order to articulate the logical principles which govern the discourse on those issues what we need is a sort of free logic.

Non-existing objects, arbitrary objects, and fictional objects received a lot of philosophical attention lately. My interest here will be with fictional objects only. If we look at the recent literature we can see that fictionalism is a lively issue nowadays in metaphysics, philosophical logic, philosophy of language, and aesthetics.

Important works are examining diverse strategies which are meant to deal with those kinds of Meinongian objects. Let me mention only two approaches I find important in the field: Terence Parson's theory of non-existing objects,[1] and Kit Fine's theory of arbitrary objects.[2]

2. An account of fictional objects

For present purposes, my concern is with objects such as *Holmes*, *Dracula*, and the like. If they are the kind of objects that can be native to a story or other such context we may call them fictional.

[1] The theory is put forward and developed in (Parsons, 1980)
[2] In connection with Parson's theory and with my own line of argumentation in this paper see especially (Fine, 1984).

Fictional objects are to be carefully distinguished from other non-fictional non-existent objects. Not every non-existing object is a fictional object. In order to make a clear distinction between fictional objects and some other non-existing objects which are not fictional objects the following proposal is helpful.[3]

Main ontological thesis concerning fictional objects: fictional objects are essentially objects of reference, i.e. objects created through a story or a narrative and introduced via a cluster of descriptions.

The following items substantiate the thesis:

(i) The fictional objects ontologically depend upon the descriptions which are used in order to introduce those fictional objects. We mean this in the sense that there can be no fictional objects without a mark or a symbol by which they are introduced.

(ii) Fictional objects are essentially tied to those marks. There can be no fictional object without the particular mark by which it is introduced.

(iii) Fictional objects are created through their marks being created.

(iv) We may allow that fictional objects with the same internal content be introduced by different marks.

(v) The position that I want to defend is an anti-realist position: features of fictional objects are ultimately to be explained in terms of features of their marks.

However, the view on fictional objects I have in mind is also supportive for descriptivism. Fictional discourse may very well be a proper place for descriptivism. Definite descriptions play an essential role in introducing fictional objects. Fictional terms seem to have a major irreducible descriptive content.

This being noticed, the next legitimate question is what kind of description theories do we need to articulate the principles which govern the discourse about fictional objects? For reasons that I will go over briefly a classical descriptivist account such as Russell's theory of definite descriptions won't do here, and if I am right the kind of theory that helps here is a kind of free description theory.

3. What sort of description theory do we need for making good sense of the principles involved in the fictional discourse?

[3] Cf. Fine (1984).

A major motivation for developing free logic has always been to provide a basis for theories of definite descriptions.[4] The best known theory in classical (non-free) logic is obviously Russell's. Russell's answer to the problems posed by definite descriptions was to deny them the status of singular terms, and to regard an expression of the form 'the so and so' as needing to be eliminated in context, where the most important principles governing this elimination are

(R1) The so and so exists iff exactly one thing is a so and so

and

(R2) The so and so is such and such iff there is exactly one so and so and it is such and such.

Formally,

(R1′) $E!(\iota v)A \leftrightarrow (\exists v)(A \;\&\; (\forall w)(A(w/v) \rightarrow w = v)$

and

(R2′) $B((\iota v)A) \leftrightarrow (\exists v)(A \;\&\; (\forall w)(A(w/v) \rightarrow w = v) \;\&\; Bv)$ (v is free in A.)

The theory tells us how to treat descriptions whose scopes are uniquely fulfilled. It also tells us that there are two ways in which '$E!(\iota v)A$' can fail to be true: (i) if no object at all fulfils the scope of A; and (ii) if more than one object does.

After reigning philosophical logic and philosophy of language for over forty years, Russell's theory has been targeted by some objections that made people see more clearly the status of his theory and its diverse implications. However I wouldn't say that they put the theory entirely to rest. Thus, objections coming mainly from Strawson[5] include things of the following sorts:

(i) A sentence which contains an improper description is not false, as declared by Russell's theory. Rather, it is a sentence through which the speaker fails to refer to anything, and so fails to make a complete statement.

(ii) According again to Strawson, Russell's theory supports the view that a sentence which contains an empty denoting phrase *implies* a sentence which asserts the entity to which the denoting phrase purports to refer, whereas for Strawson himself such a sentence in which an empty definite description occurs *presupposes* a sentence which asserts the existence of that entity.

[4] Cf. Lambert (2003).

[5] See Strawson (1950).

(iii) Strawson emphasizes the idea that many descriptions are context-bound. However, in Russell's theory one can hardly make room for such pragmatic features.

(iv) Some other authors, notably Donnellan,[6] have pointed out that there are cases in which definite descriptions are not used descriptively, but rather in a way in which they are like names of individuals. On the other hand, though, the Russellian approach does not capture what a speaker says when he/she utters a sentence in which a definite description is used referentially as opposed to attributively.

(v) If we allowed descriptions of the form $(\iota v)A$ as substituends for the singular term t in the following identity sentence, the logical principle of identity $t = t$ would be violated, in case the identity $(\iota v)A = (\iota v)A$ is false, if the scope is not uniquely fulfilled, i.e. if the description is improper. However, it is worth emphasizing that Russell gets round this by regarding definite descriptions as not being genuine singular terms at all but 'improper symbols' which may look like singular terms but in fact are not, so they cannot be substituted for the singular term t in the principle above.

(vi) Russell fails to treat what looks like singular terms and behaves like singular terms as singular terms. He makes a distinction between the real logical form of a sentence and its apparent or grammatical form. The grammatical form of a sentence may mislead us as to its true logical form. Now, it's debatable whether or not this is a problem for Russell's theory of definite descriptions. So, if we can find a theory of descriptions in which they are treated as genuine singular terms then we can overcome this drawback of Russell's theory. Free logic with definite descriptions provides such a logical framework, and it seems to be preferable for that reason.

(vii) Last but not least, if we explain away via Russell's approach sentences in which fictional terms occur, then the existential sentences we come up with will give us wrong results, since the existential quantifier in classical logic will have its usual objectual and ontological committing reading. Thus, 'Othello killed Desdemona' will be paraphrased as 'The noble Moor in the service of the Venetian state who does such and such killed Desdemona'. (Of course, 'Desdemona' can be explained away likewise). And now the definite description 'The noble Moor' will be eliminated in context by an existential sentence to the effect that 'There is an exactly one noble Moor who does such

[6] See Donnellan (1966).

and such, and whoever is a noble Moor who does such and such killed Desdemona'. But of course, if you read the existential quantifier the same standard objectual way I read it, and if your ontology is like mine on this particular aspect then you will reject the existential sentence. However, my intuition is to say that 'Othello killed Desdemona' is a true sentence, at least in Shakespeare's story. Hence, something went wrong with the existentially committing Russellian analysis.

What are we supposed to do then? The answer that I explore is that positive free logic with free descriptions is a serious solution to the problem which is worth exploring. I'll take a look at it against the background of a family of free logic systems.

4. A crush course in free logic[7]

Logic free of existential presuppositions is a branch of philosophical logic which has been developed in the last forty years. Existential presuppositions are linked with singular and general terms. Accordingly, the concept of a free logic was understood as 'logic free of existential presuppositions with respect to its singular and general terms'. Standard first order logic with '=' (FOL=) is almost fully free with respect to its general terms or predicates. There is only one exception, though, namely universal terms or predicates like '$\mathrm{P}x \vee \sim\mathrm{P}x$' or '$x = x$'. In (FOL=) '$(\exists x)(\mathrm{P}x \vee \sim\mathrm{P}x)$' and '$(\exists x)(x = x)$' are valid. We can read the latter as 'something exists', and this seems to express a truth of ontology rather than a truth of logic.

The main concern of free logic has been existential presuppositions with respect to singular terms. For in standard FOL= we have for every singular term t and variable v the valid formula: $\vDash (\exists v)(v = t)$. And due to the ontological commitment of singular terms, in FOL= we have rules for quantifiers, such as existential introduction ($\exists$I) and universal elimination ($\forall$E), which are not sound if the terms do not refer to actual existing things.

Against this motivational background, an adequate definition of free logic has to include three components.[8] Thus, a logical system L_F is a free logic if and only if (iff)

[7] A rich resource for the topic is Morscher and Hieke (2001).
[8] In giving this compact presentation of free logic systems I draw on the excellent systematic and historic synopsis one can get in Morscher and Simons (2001).

(1) L_F is free of existential presuppositions with respect to the singular terms of the language of L_F;

(2) L_F is free of existential presuppositions with respect to the general terms of the language of L_F; and

(3) the quantifiers of L_F have existential import.

It is appropriate to speak about a family of systems of free logic. The distinctive feature of those systems is the fact that singular terms which are empty or non-denoting, provided they do not refer to existing things, have a legitimate place in this family of logic systems. Moreover, the theorems of a free logic system are valid even if the singular terms which occur in them are empty.

There are three types of free logic systems. The criterion according to which we can distinguish between those types is whether or not elementary sentences containing empty singular terms are true or false or else lack any truth-value at all.

(FL-) A logical system L_{F-} is a *negative free logic* iff L_{F-} is a free logic and every atomic sentence of L_{F-} containing at least one empty singular term is false.

(FL+) A logical system L_{F+} is a *positive free logic* iff L_{F+} is a free logic and there is at least one true atomic sentence of L_{F+} containing at least one empty singular term.

(FLn) A logical system L_{Fn} is a *neutral free logic* iff L_{Fn} is a free logic and every atomic sentence of L_{Fn} containing at least one empty singular term has no truth-value at all.

Alongside with those three types of free logic systems, the following three semantic approaches that have been developed for free logic systems are now well-entrenched:

(S1) Semantics with a *partial interpretation function* and a *total valuation function*.

(S2) Semantics with an *inner* and an *outer domain*: this uses a *total interpretation function* and a *total valuation function*.

(S3) *Supervaluation semantics*: this type of semantics uses a *partial* and a *total interpretation function* and a *total* and *two partial valuation functions*.

Semantic systems of free logic

	Semantics with a partial interpretation function and a total valuation function	Inner and outer domain	Supervaluation
Interpretation function	Partial	Total	Partial & Total
Valuation function	Total	Total	Total & Two partial valuation functions

Each type of semantic system specifies its own type of models *M*. As usual, a model *M* consists in a domain *D* and in an interpretation function *I*, which is associated with a valuation function *V*. *I* is always defined on the set of descriptive symbols, i.e. non-logical predicates and individual constants of the language of that free logic system. What is distinctive for the semantics for free logic is that *I* is not supposed to assign an *existing* object to each individual constant. *I* therefore assigns to some individual constant *t* of L_F either *a non-existing object* or *no object at all*; in the second case *I*(*t*) remains undefined, and *I* therefore is a partial function. The valuation functions *V* which are based on the interpretation functions *I* are always defined on the set of closed formulae of L_F. They can be either total or partial.

(S1) Semantics with a partial interpretation function and a total valuation function

An M^{pitv}-model is an ordered pair. It comprises a possibly empty domain *D* and a partial function I^{pitv}, i.e. $M^{pitv} = (D, I^{pitv})$, such that

(1) for every individual constant *t* of the language of L_F: either I^{pitv} does not assign anything at all to *t* and $I^{pitv}(t)$ thereby remains undefined or $I^{pitv}(t) \in D$;

(2) for every *n*-place predicate P^n of L_F: $I^{pitv}(P^n) \subseteq D^n$;

(3) for every object $d \in D$ there is an individual constant t of the language of L_F such that $I^{pitv}(t) = d$. [The interpretation function I^{pitv} of an M^{pitv}-model provides a 'full' (or complete) interpretation of the associated domain D.]

Next we define truth and falsehood in a model M^{pitv} for every closed formula A of the language of L_F. We do this by defining a total valuation function V^{pitv} from the set of closed formulae of L_F into the set {T,F} of truth-values as follows:

(1) $V^{pitv}(P^n t_1,t_2,\ldots,t_n)$ = T iff for every t_i ($1 \leq i \leq n$): $I^{pitv}(t_i)$ is defined and $<I^{pitv}(t_1),I^{pitv}(t_2),\ldots,I^{pitv}(t_n)> \in I^{pitv}(P^n)$;

(2) $V^{pitv}(t_1 = t_2)$ = T iff $I^{pitv}(t_1)$ is defined and $I^{pitv}(t_2)$ is defined and $I^{pitv}(t_1) = I^{pitv}(t_2)$.

(3) $V^{pitv}(\mathrm{E!}t)$ = T iff $I^{pitv}(t)$ is defined.

(4) $V^{pitv}(\sim A)$ = T iff $V^{pitv}(A) \neq$ T;

(5) $V^{pitv}(A \rightarrow B)$ = T iff $V^{pitv}(A) \neq$ T or $V^{pitv}(B)$ = T or both;

(6) $V^{pitv}(\forall vA)$ = T iff for every individual constant t: if $I^{pitv}(t)$ is defined then $V^{pitv}(A(t/v))$ = T.

(7) $V^{pitv}(A)$ = F iff $V^{pitv}(A) \neq$ T.

It is worth noticing that the interpretation of quantifiers as shown in clause (6) above is substitutional. Hence, it is obligatory that the interpretation functions of the models provide a complete interpretation. The semantic concepts of validity, logical consequence, and satisfiability are defined in the usual way.

The system L_{F-} of *negative free logic* is adequate, i.e. sound and complete, with respect to the semantics with a partial interpretation function and a total valuation function. However, by a change of clauses (1) and (2) above in the definition of the valuation function V^{pitv} we can adapt M^{pitv}-models in such a way that they can be used for proving the adequacy of systems of positive free logic (in the way done by Hughes Leblanc and Robert K. Meyer).[9]

(S2) Semantics with an inner and an outer domain

We define an M^{iod}-model as a triple: $M^{iod} = (D_o,D_i,I^{iod})$. D_o and D_i are two disjoint and possibly empty sets of objects. D_o is called the *outer domain*, and D_i is called the *inner domain*, whose union is non-empty:

[9] See, for instance, Leblanc and Meyer (1970).

(i) $D_o \cap D_i = \varnothing$

(ii) $D_o \cup D_i \neq \varnothing$.

We define D as the union: $D = D_o \cup D_i$.

The *interpretation function* I^{iod} is a total function which is defined thus:

(1) for every individual constant t of L_F, $I^{iod}(t) \in D$;

(2) for every n-place predicate P^n of L_F, $I^{iod}(P^n) \subseteq D^n$;

(3) for every object $d \in D_i$ there is an individual constant t of L_F such that $I^{iod}(t) = d$.

The valuation function V^{iod} is also total and it assigns a truth-value, i.e. T or F, to each closed formula of L_F relative to an M^{iod}-model. V^{iod} is defined recursively as follows:

(4) $V^{iod}(P^n t_1, t_2, \ldots, t_n) = \mathrm{T}$ iff $\langle I^{iod}(t_1), I^{iod}(t_2), \ldots, I^{iod}(t_n) \rangle \in I^{iod}(P^n)$;

(5) $V^{iod}(t_1 = t_2) = \mathrm{T}$ iff $I^{iod}(t_1) = I^{iod}(t_2)$.

(6) $V^{iod}(\mathrm{E}!t) = \mathrm{T}$ iff $I^{iod}(t) \in D_i$.

(7) $V^{iod}({\sim}A) = \mathrm{T}$ iff $V^{iod}(A) \neq \mathrm{T}$;

(8) $V^{iod}(A \rightarrow B) = \mathrm{T}$ iff $V^{iod}(A) \neq \mathrm{T}$ or $V^{iod}(B) = \mathrm{T}$ or both;

(9) $V^{iod}(\forall vA) = \mathrm{T}$ iff for every individual constant t: if $I^{iod}(t) \in D_i$ then $V^{iod}(A(t/v)) = \mathrm{T}$.

(10) $V^{iod}(A) = \mathrm{F}$ iff $V^{iod}(A) \neq \mathrm{T}$.

M^{iod}-models are used mainly for *positive free logic*. L_{F+} is adequate with respect to M^{iod}-models (as it was proved by Hughes Leblanc and Richmond Thomason).[10]

(S3) Supervaluation semantics

Meinongianism is not appealing for everybody, which makes the inner/outer domain semantics not a favorite for all. Then the question arises how to develop a semantics appropriate for a positive free logic without using the inner/outer domain semantics? *Supervaluation semantics* comes as a compelling solution to this. It starts with models of the same type as in the first approach; however, atomic sentences containing empty singular terms are allowed to be truth-valueless. But this would result in a rejection of classical laws of logic, and in order to avoid this effect, the models are

[10] See, for instance, Leblanc and Thomason (1968).

‘completed’. This way, the truth-value gaps which result in the first part of the valuation process are removed.

This way we build a new type of models: $M^{sv} = (D,I^{sv})$. D is again a possibly empty set of objects and I^{sv} is a partial interpretation function like I^{pitv}. As in the case of M^{pitv}-models, the conditions we impose here on I^{sv} are the same as the conditions we imposed earlier on I^{pitv}. Thus:

(1) for every individual constant t of the language of L_F: either I^{sv} does not assign anything at all to t and $I^{sv}(t)$ thereby remains undefined or $I^{sv}(t) \in D$;

(2) for every n-place predicate P^n of L_F: $I^{sv}(P^n) \subseteq D^n$;

(3) for every object $d \in D$ there is an individual constant t of the language of L_F such that $I^{sv}(t) = d$.

However, unlike V^{pitv}, the valuation function V^{sv} associated with M^{sv}-models is also a partial function (like I^{sv}) and *its domain is restricted to atomic formulae* of L_F. Consequently, V^{sv} is a partial function from closed atomic formulae of L_F into the set {T,F} of truth-values; it is defined as follows:

(1a) If for any t_i $(1 \leq i \leq n)$, $I^{sv}(t_i)$ is defined, then $V^{sv}(P^n t_1,t_2,\ldots,t_n) = \mathrm{T}$ iff $<I^{sv}(t_1),I^{sv}(t_2),\ldots,I^{sv}(t_n)> \in I^{sv}(P^n)$;

(1b) If for at least one t_i $(1 \leq i \leq n)$, $I^{sv}(t_i)$ is undefined, then $V^{sv}(P^n t_1,t_2,\ldots,t_n)$ is undefined.

(2a) If both $I^{sv}(t_1)$ and $I^{sv}(t_2)$ are defined, then $V^{sv}(t_1 = t_2) = \mathrm{T}$ iff $I^{sv}(t_1) = I^{sv}(t_2)$.

(2b) If either $I^{sv}(t_1)$ or $I^{sv}(t_2)$ is undefined but the other is defined then $V^{sv}(t_1 = t_2) =$ F.

(2c) If neither $I^{sv}(t_1)$ nor $I^{sv}(t_2)$ is defined, then $V^{sv}(t_1 = t_2)$ is undefined.

(3) $V^{sv}(\mathrm{E}!t) = \mathrm{T}$ iff $I^{sv}(t)$ is defined, and $V^{sv}(\mathrm{E}!t) = \mathrm{F}$ iff $I^{sv}(t)$ is undefined.

We define now the concept of a *completion* (i.e. a complete supermodel) of an M^{sv}-model:

$M^{csv} = (D',I^{csv})$ is a *completion* of $M^{sv} = (D,I^{sv})$ iff

(1) $D' \neq \varnothing$;

(2) $D \subseteq D'$;

(3) for every n-place predicate P^n: $I^{sv}(P^n) \subseteq I^{csv}(P^n)$;

(4) for every individual constant t: if $I^{sv}(t)$ is defined then $I^{csv}(t) = I^{sv}(t)$;

(5) for every individual constant t: $I^{csv}(t) \in D'$.

(1) through (4) say that M^{csv} is a supermodel of M^{sv}, and clause (5) says that I^{csv} is a total function and M^{csv} is, accordingly, 'complete'.

Now, from the point of view of an M^{sv}-model of which M^{csv} is a completion, the valuation function V^{csv} of an M^{csv}-model is a total function from all the closed formulae of L_F into the set {T,F} of truth-values. V^{csv} therefore depends on V^{sv}. It is defined as follows:

(1) If A is a closed atomic formula of L_F and $V^{sv}(A)$ is defined, then $V^{csv}(A) = V^{sv}(A)$.

(2) If A is a closed atomic formula of L_F and $V^{sv}(A)$ is undefined, then $V^{csv}(A)$ is determined independently of V^{sv} in the usual way for complete models as follows:

(2a) If A is a closed atomic formula of the form $(P^n t_1, t_2, \ldots, t_n)$, then

$V^{csv}(P^n t_1, t_2, \ldots, t_n) = \mathrm{T}$ if $<I^{csv}(t_1), I^{csv}(t_2), \ldots, I^{csv}(t_n)> \in I^{csv}(P^n)$, and

$V^{csv}(P^n t_1, t_2, \ldots, t_n) = \mathrm{F}$ if $<I^{csv}(t_1), I^{csv}(t_2), \ldots, I^{csv}(t_n)> \notin I^{csv}(P^n)$.

(2b) If A is a closed atomic formula of the form $t_1 = t_2$, then $V^{csv}(t_1 = t_2) = \mathrm{T}$ iff $I^{csv}(t_1) = I^{csv}(t_2)$.

(2c) If A is a closed atomic formula of the form E!t, then $V^{sv}(\mathrm{E}!t)$ is always defined. Hence, clause (1) will do the job, i.e. for each individual constant t: $V^{csv}(\mathrm{E}!t) = V^{sv}(\mathrm{E}!t)$.

(3) $V^{csv}(\sim A) = \mathrm{T}$ iff $V^{csv}(A) = \mathrm{F}$;

(4) $V^{csv}(A \rightarrow B) = \mathrm{T}$ iff $V^{csv}(A) = \mathrm{F}$ or $V^{csv}(B) = \mathrm{T}$ or both;

(5) $V^{csv}(\forall vA) = \mathrm{T}$ iff for every individual constant t: if $I^{csv}(\mathrm{E}!t) = \mathrm{T}$ then $V^{csv}(A(t/v)) = \mathrm{T}$.

Next, we define the *supervaluation* $S(M^{sv})$ as a partial function from closed formulae of L_F into the set {T,F} of truth-values as follows:

(1) $S(M^{sv})(A) = \mathrm{T}$ iff $V^{csv}(A) = \mathrm{T}$ for very completion M^{csv} of M^{sv}.

(2) $S(M^{sv})(A) = \mathrm{F}$ iff $V^{csv}(A) = \mathrm{F}$ for very completion M^{csv} of M^{sv}.

(3) $S(M^{sv})(A)$ is undefined otherwise, i.e. iff $V^{csv}(A) = \mathrm{T}$ for at least one completion M^{csv} of M^{sv} and $V^{csv'}(A) = \mathrm{F}$ for at least one completion $M^{csv'}$ of M^{sv}.

Lastly, we define logical consequence in terms of supervaluations in the following way: a closed wff of L_F is *logically supertrue* iff for all M^{sv}-models M^{sv}: $S(M^{sv})(A) = T$.

A closed formula B of L_F is a *logical consequence* of a class C of closed formulae of L_F iff for all M^{sv}-models M^{sv}: if $S(M^{sv})(A) = T$ for each $A \in C$, then $S(M^{sv})(B) = T$.

A set C of closed formulae of L_F is *supersatisfiable* iff there is at least one model M^{sv} such that $S(M^{sv})(B) = T$ for each $B \in C$.

Bas van Fraassen has been used supervaluation semantics in order to prove soundness and completeness of *positive free logic with =*.[11]

5. What is a free description and how does it help?

In order to articulate the principles which govern the fictional discourse a promising approach is positive free logic; for we want at least some sentences containing fictional terms be true in intended interpretations ('in the story', 'in the novel', and the like). However, since the ontological account of fictional objects I sketched before makes those object essentially dependent upon features of their mark through which the objects are introduced into discourse, i.e. makes them objects of reference, fictional singular terms which refer to those objects are essentially tied to descriptions. And as I already pointed out a Russellian construal of descriptions will make sentences containing names of fictional objects literally false. So what we need are descriptive paraphrases of sentences in which fictional singular terms occur, such that improper singular descriptions be allowed as genuine constituents of those paraphrases. In a couple of words, what are needed here are free descriptions.

Indeed, what free logic does is to free us from ontologically committing ourselves to the existential presupposition of classic description theories. Not all 'real' singular terms have to refer. Consequently, we are allowed to put forward description theories which legitimate the view that improper descriptions are genuine singular terms lacking reference.

This is a way out from Russell's theory of definite descriptions. And not only because we collide head on with Russell's view that after all definite descriptions are incomplete symbols not to be identified with a sub-class of genuine proper names. But

[11] See van Fraassen (1966).

also because if we look at Russell's theory from a free logical point of view then his views turn out to be more akin to negative free logic. To the contrary, Frege's theory of definite descriptions is closer in spirit to free logic and it is more akin to positive free logic. The fundamentals of Frege's theory as laid down in Frege (1893) will give ground to this claim. Indeed, Frege took descriptions to be genuine singular terms, and he considered descriptions and simple names as instantiating the general category of proper names. In an ideal scientific language Frege does not find any proper place for empty singular terms. They occur, however, in natural languages in at least two ways: (i) there are proper names which do not refer to anything which really exists (such as 'Holmes', 'Zeus' a.s.o.); (ii) there are improper descriptions which can occur in perfectly meaningful sentences: 'the planet closer to the Sun than Mercury' (the description is improper for it is contingently empty) or 'the greatest prime number' (the description is improper for it is necessarily empty). Frege's way out from this drawback is to secure a referent for descriptions that would otherwise look suspicious due to their non-referring status. Basically, to do this Frege stipulates a solution whose artificiality is obvious. But Frege was not misled by his own move, and he did not attempt anything like a linguistic analysis of the actual usage of improper descriptions. What he meant was a scientific revision of improper use of the language via scientifically better substitutes for problematic phrases in the vernacular. There are two suggested moves that Frege makes in order to circumvent problems of the sort created by descriptions which lack reference. He stipulates that all improper descriptions designate an arbitrarily chosen object, such as the empty set or the number 0 or the truth-value F. Frege construes thus the identity sentence $(\iota v)A = (\iota v)B$ as true when nothing responds to the condition A and nothing responds to B, and likewise if more than one thing is A and more than one thing is B. Or else, he incorporates some set theory or something similar to it (viz. his theory of value-ranges) into his logical theory. Accordingly, if the predicate A is uniquely satisfied then $(\iota v)A$ denotes the unique object denoted by t such that $A(t/v)$, and if A is not uniquely satisfied then $(\iota v)A$ will denote the set $\{v/A\}$ of things that satisfy A.

If we go beyond the conceptual and technical differences that really separate Frege from Russell with regard to the proper logical analysis of singular descriptions, we will find this common classic existential presupposition which is shared by both that in order to be considered real or genuine the singular terms have to refer to something which is either a real existing thing or it is artificially constructed or stipulated.

Free logic liberates us from this assumption. Nowadays, there is a great variety of free descriptions theories. All of them incorporate the following principle which is commonly known as

Lambert's Law: $(\forall v)(v = (\iota w)A \leftrightarrow (\forall w)(A \rightarrow w = v))$.

What the law says is that a description is proper when its scope is uniquely fulfilled.

As such *Lambert's Law* does not hold in standard first order logic. However, if we assume

Hintikka's Law: $\mathrm{E!}t \leftrightarrow (\exists v)(v = t)$

whose import is the equivalence of singular existence with the existence of an individual one can derive Russell's theory, and furthermore the negative free logic implicature of Russell's theory, provided we add the principle $(\iota v)A = (\iota v)A$.

On the other hand, starting from a positive free logic with self-identity, one can add the same minimal assumption which is added by every free theory of definite descriptions, viz. *Lambert's Law*, and get a Fregean positive free description theory. As a matter of fact, a whole hierarchy of definite description theories can be generated starting from the theory containing only *Lambert's Law* as the minimal theory. What is the nature of this hierarchy is not something very well understood.[12] In any rate, free logic is an excellent place to formulate and assess different competing definite description theories, and having in view the essential ties between fictional names and definite descriptions, that makes free logic an ideal background against which one can advance and evaluate metaphysical theses about fictional objects.

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[12] Cf. Lambert (2001).

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