'NEPTUNE' BETWEEN 'HESPERUS' AND 'VULCAN'.

ON DESCRIPTIVE NAMES AND NON-EXISTENCE

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Abstract

This work will focus on some aspects of descriptive names. The New Theory of Reference, in line with Kripke, takes descriptive names to be proper names. I will argue in this paper that descriptive names and certain theory in reference to them, even when it disagrees with the New Theory of Reference, can shed light on our understanding of (some) non-existence statements.

I define the concept of *descriptive name for hypothesised object (DNHO)*. My thesis being that DNHOs are, as I will specify, descriptions: a proposition expressed by the utterance 'n is F', where 'n' is a DNHO, is not singular at all; it is a descriptive proposition.

To sum up, concerning proper names, the truth lies closer to the New Theory of Reference, but descriptivism is not altogether false. As for DNHOs descriptivism is, in some cases, the right fit.

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'A descriptive name is a proper name whose reference is fixed by means of an attributive definite description -e.g. 'Julius' as a name given to whoever invented the zip ('Jack the Ripper' and 'Neptune' are real life examples of this phenomenon).' (Recanati 1993, 107)

Le Verrier hypothesised Neptune to be *the planet responsible for perturbations in the orbit of Uranus*, which led to the eventual discovery of this planet by Galle. Furthermore, Le Verrier hypothesised that there was a *planet between Mercury and the Sun causing perturbations in the orbit of Mercury*. This hypothetical planet he called 'Vulcan'; be it as it may, Vulcan does not in fact exist. 'Neptune' and 'Vulcan' are thus concrete examples of descriptive names.

This work will focus on some aspects of descriptive names, which, at first glance, have features in common with both descriptions and proper names. This characteristic of descriptive names is amazing if we accept, as New Theory of Reference does,[i] that there is a major difference between proper names and definite descriptions: utterances containing a proper name express *singular propositions* - namely, those propositions which contain the bearer of the name as constituent-, whereas those containing a definite description do not; they express -let us say-

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descriptive propositions. Are descriptive names descriptions or proper names? The New Theory of Reference, in line with Kripke, takes descriptive names to be proper names.

I will argue in this paper that descriptive names and certain theory in reference to them, even when it disagrees with the New Theory of Reference, can shed light on our understanding of (some) non-existence statements. For this purpose, I will focus on the names 'Vulcan' and 'Neptune', cognisant that generalizations drawn from my conclusions are applicable in other cases.

1. The category of descriptive names

The 'New Theory of Reference' tends to take *all* proper names as non descriptive (or Millian, or directly referential) in the sense pointed out above: utterances containing a proper name express a *singular proposition*. Despite this fact, New Theorists of Reference accept that not all proper names work in the same way. For instance, Kripke himself considers *some* names to have their referents semantically fixed by (non-rigid and attributive) descriptions. Even though this is not the general rule, it sometimes happens, and such terms are called 'descriptive names'. As is generally accepted, most or many of Kripke's examples of the *contingent a priori* find their source in the existence of descriptive names. 'Neptune' is just one such example. New Theory of Reference assumes that, despite the aforementioned peculiarity, descriptive names, as it were, behave semantically like other proper names. Kripke expresses it in this way:

'If, on the other hand, we merely use the description to *fix the reference* then that man will be the referent of 'Aristotle' in all possible worlds. The only use of the description will have been to pick out to which man we mean to refer. But then, when we say counterfactually 'suppose Aristotle had never gone into philosophy at all', we need not mean 'suppose a man who studied with Plato, and taught Alexander the Great, and wrote this and that, and so on, had never gone into philosophy at all', which might seem like a contradiction. We need only mean, 'suppose that *that man* had never gone into philosophy at all'.' (Kripke 1980, 57)

We must deduce, by virtue of the latter, that those situations, in which a description fixes the referent of a proper name, *never* affect that proper name's non descriptive (Millian, directly referential) character; i.e., 'that man' is, no doubt, directly referential.

I will argue that Kripke may be wrong, and that *some* descriptive names are more similar to descriptions than to proper names. The aim of this work is to provide a small stepping-stone from which to assert that the category of proper names is not, generally speaking, as homogeneous as New Theory of Reference assumes, even though I accept this theory's main thesis. There are notable exceptions. Soames, in a recent work, argues that *partially descriptive names*,[ii] such as 'Princeton University' or 'The Empire State Building', run the danger of not being very clear as to whether an utterance containing this kind of partially descriptive name expresses a standard (or pure) singular proposition or not (Soames 2002, ch. 5). He asserts that some descriptive content forms part of the proposition expressed by an utterance containing

that (partially descriptive) name. So, said proposition is singular, but not '*purely singular*'. The relevance of this difference lies in that partially descriptive names, as opposed to proper names, are not rigid designators: despite some possible worlds in which the actual referent exists, the partially descriptive name designates neither that actual referent nor anything else (Soames 2002, 120).

In any case, this paper specifically deals with descriptive names; divergences between proper names and descriptive names differ from those which take place between proper names and partially descriptive names. From my point of view, in the case of some descriptive names their descriptive content is what matters, whereas in partially descriptive names both descriptive content and name's bearer matter. Let us imagine a spectrum. On one end, we have proper names and, on the other, definite descriptions. While partially descriptive names are closer to proper names, some descriptive names approximate definite descriptions.

2. Differences between 'Hesperus' and 'Neptune'

It is necessary to distinguish between two kinds of descriptive names. On the one hand, some descriptive names are introduced by means of (non-rigid and attributive) definite descriptions whether or not we have independent knowledge of the objects which satisfy those descriptions. Such is the case with 'Neptune', where Neptune was *hypothesised* by Le Verrier to be the planet responsible for perturbations in the orbit of Uranus. Nevertheless, it was only hypothesised; in other words, Le Verrier's knowledge of Neptune, at the moment the name 'Neptune' is introduced, is wholly *descriptive knowledge*. On the other hand, Hesperus' case is one in which we have some *de re* knowledge (knowledge by acquaintance) of the object to which the

description applies. For our purposes the name 'Hesperus' was introduced in this manner:[iii] "let us call this heavenly body *we see* every evening 'Hesperus'".

I call any name relative to the former case a 'descriptive name for hypothesised object' (DNHO). My thesis being that DNHOs are, as I will specify, descriptions: a proposition expressed by the utterance 'n is F', where 'n' is a DNHO, is not singular at all; it is a descriptive proposition.

Let us examine a plausible scenario for Hesperus' case; someone *sees* a heavenly body and she decides to call *what she sees* 'Hesperus'. In the case of 'Neptune' this approach to thinking about 'Hesperus' does not apply, because Neptune is merely an *hypothesised object*, postulated within a theory where there are several problems to be solved.

Moreover, with Hesperus there is the possibility of *referential use of the description*, such as 'the evening star', to fix the reference of 'Hesperus',[iv] even though Hesperus is in all actuality a planet. Of course, in this case, it is incorrect to speak of 'Hesperus' as a descriptive name, on the basis that we have, by definition, accepted *attributive descriptions* to fix the reference of descriptive names. Kripke, concerning 'Phosphorus', says:

> Following Donnellan's remarks on definite descriptions, we should add that in some cases, an object may be identified, and the reference of a name fixed, using a description which may turn out to be false of its object. The case where the reference of 'Phosphorus' is determined as the 'morning star' which later turns out not to be a star, is an obvious example. In such cases, the description which fixes the reference clearly is in no sense known a

priori to hold of the object, though a more cautious substitute may
be. If such a more cautious substitute is available, it is really the
substitute which fixes the reference in the sense intended in the
text. (Kripke 1980, 80, footnote 34)

Nevertheless, what is interesting is that this feature of the term 'Hesperus'
(or for that matter 'Phosphorus') indicates we can fix its reference using other kinds
of expressions, some of which are descriptions, and some others directly referential,
such as 'that' or 'that planet'. This creates a plurality of possibilities which signals the
use of the description not as attributive, but as referential. Donnellan expresses it in
this way:

'But if the definite description is used referentially we can
report the speaker as having attributed F to something. And we may
refer to what the speaker referred to, using whatever description or
name suits our purpose.' (Donnellan 1966, 63)

It is my position that every referential use of a description is parasitic of
some direct or *de re* knowledge of the reference which implies either the speaker's
direct knowledge of the referent or some causal link between the speaker's use of the
description and somebody's direct knowledge of the referent. This is obvious if we
take into account the most important feature of the referential use of a description: it
may refer to an object, even though that object does not satisfy the description. An
intuitive explanation for such a phenomenon may go something like this. When A

says 'The G is F' and she has the intention of expressing the singular proposition that *a is F*, instead of *the G is F*, the description is used just to bring to the hearer's mind a mental file attached to the object *a*; for referential use of the description, the important feature is to grasp *a* itself. When the description is used in an attributive manner, the process differs in that the proposition expressed is not singular, what matters is not the object which satisfies the description. My goal is not to analyse why one process or another is sometimes activated, and sometimes not.[v] What is mandatory is to stress the importance of said feature as it pertains to the referential use of the description: other expressions, whether descriptive or directly referential, often times activate said process, namely, that they may be used to express the same singular proposition. We encounter different choices which can activate the same process. One reason for this feature is that ostension or direct knowledge of the object along with some common beliefs about it are at hand.[vi] All this is applicable to 'Hesperus', but not to 'Neptune'.

These facts may lead us to the conclusion that 'Hesperus' is a dubious descriptive name, since in fact the very name might have been introduced by means of some directly referential expression: 'that object', for instance. Even Kripke himself entertains some doubts about the suitability of 'Hesperus' as a descriptive name. He refers to 'Hesperus', when he says:

> '*An even better case* of determining the reference of a name by description, as opposed to *ostension*, is the discovery of the planet Neptune.' (Kripke 1980, footnote 33) (The emphasis is mine)

So 'Neptune', as a descriptive name, is for him a better case study than 'Hesperus'. Regardless of whether or not 'Hesperus' is a descriptive name, there is a major difference between 'Hesperus' and 'Neptune': 'Neptune' is a DNHO. Hence, ostension is not and, more importantly, *cannot* be involved in the process that fixes the reference of 'Neptune'.[vii]

Is a DNHO a proper name? *That depends*. It depends on whether some day the case of 'Neptune' takes a similar road as the case of 'Hesperus' or it takes on attributes similar to those of the case of 'Vulcan'. Whereas 'Vulcan' is a definite description[viii] and 'Hesperus' a proper name, 'Neptune' is a definite description which, depending on the existence of the planet, has the capability of becoming a proper name.

When Le Verrier introduced 'Neptune', his entire knowledge concerning Neptune was essentially descriptive, and it was coherently grafted onto the current body of astronomical theory; in other words, in order to reconcile our astronomical knowledge with the facts, we must incorporate this descriptive knowledge as a hypothesis, and we pack it under the name 'Neptune'. In Neptune's case, our entire knowledge of it is *essentially* descriptive knowledge and is coherently inserted within that body of knowledge called 'astronomical'; in other words, in order to 'better' our astronomical knowledge, we introduce descriptive knowledge in the form of a hypothesis. We pack descriptive knowledge in the name 'Neptune'. When the name was introduced, whether Neptune exists or not remained an open issue. When Neptune was discovered, the descriptive knowledge became knowledge about an object labelled 'Neptune', which went on to become a standard proper name, as is 'Hesperus'. If there had been no such object, then 'Neptune' would have been a mere

abbreviation for a description or a bundle of descriptions.^{ix} Before the discovery of the planet, any utterance of a sentence containing the word 'Neptune' did not express a singular proposition. In my view a DNHO remains a description, unless the hypothesised object turns out to be real.

Let us turn our attention momentarily to 'Jack the Ripper'. Jack the Ripper is an hypothesised object, and must be confirmed, like any hypothesis must, in the context of —and along with— a theory. There are those who assert that Hesperus is also an hypothesised object, even when we perceive it, because perceived objects are in some sense hypothesised objects. It is not my goal to focus on this issue. However, if we were to understand the concept of hypothesis in this way, we would have to distinguish between weak(er) and strong(er) hypotheses, in which case Neptune would be a strongly hypothesised object. Hence, a clear distinction between the case of Hesperus and the case of Neptune.

3. Objections and replies

In recent discussions about empty names(/non-existence), Salmon argues that 'Vulcan' is, firstly, a proper name and, secondly, a referring name. The same may hold true for the name 'Sherlock Holmes'. Nonetheless, what marks the difference between one and the other is that the referent of 'Vulcan' is, in Salmon's words, a mythical object, whereas the referent of 'Sherlock Holmes' is fictional. In any case, Salmon lumps both fictional and mythical objects together under the term *abstract objects*. 'Sherlock Holmes' and 'Vulcan' are semantically close, meaning that they are referring proper names in the sense that the New Theory of Reference proposes,

namely that propositions expressed by utterances which contain them are singular. In Salmon's view, most empty names are either mythical or fictional objects. So, let us suppose we raise the following question: is there such a thing as a non-referring proper name? Salmon seems to think so, and 'Nappy' is just such an example (Salmon 1998, 305). Let us introduce the name 'Nappy' in this way: Nappy is the new emperor of France, provided that there presently is an emperor of France. But since we know that there is not emperor of France, we are only just imagining one. Salmon thinks that the names of *creatures of imagination* are non-referring.[x] The difference between 'Vulcan' and 'Nappy' is that the former is introduced in the context of a theory which is supposed to be true —even though it may be false—, whereas the context of the latter is a 'theory' known to be false.

In general, I am prone to disagree with Salmon's view. I find a similarity between the cases of 'Holmes' and 'Vulcan' hard to believe. Both cases should be better served if each were analysed from separate and distinct perspectives. Recanati´s own words succinctly express very well what is proper of DNHOs such as Vulcan.

> 'A descriptive name such as 'Julius', 'Neptune', or 'Jack the Ripper' is created only in the expectation that more information about the bearer will accumulate, thus eventuating in the possibility of thinking of the latter non-descriptively. This possibility is simply anticipated by the use of a descriptive name.' (Recanati 1993, 180)

The same cannot be said about 'Holmes'. The rules of the *game* differ for names of fictional objects than for DHNOs: if we try to find similarities (as Salmon

suggests) between games that are so different, we will disfigure both. In any event, I will not deal with names from fiction.

Let us take a detour away from names for creatures of fiction, creatures of imagination, and even descriptive names that are not DNHOs. As Recanati states, when a DNHO is introduced, there is the expectation of thinking non-descriptively of the name bearer. What happens if this expectation is misguided? In other words, what if there is no bearer? And what about the non-descriptive thought of a non-existent bearer?

As far as I am concerned, Recanati does not offer answers to these questions, however, let us examine three potential answers:

(i) Salmon: 'Vulcan' is a referring proper name of an abstract entity.

(ii) Braun: 'Vulcan' is a non-referring proper name.[xi]

(iii) My proposal: 'Vulcan' is not a proper name.

Braun gives us good reasons to believe (i) is false.

'Consider now the actual case of Le Verrier. It is unlikely that he went through such a formal ceremony when he introduced the name 'Vulcan'. But his thoughts and intentions were similar to those he would have had if he had gone through such a ceremony. He certainly wished to speak about a planet, and not about another completely different type of object. He surely thought that if there were no intra-Mercurial planet, then Vulcan would not exist…' (Braun, forthcoming)

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Salmon considers that 'Vulcan' refers to an abstract object which, because it is an abstract object, cannot be a planet and cannot be the cause of orbital perturbations. Were Vulcan to refer to such an abstract object, then a jump would have occurred. We would no longer be in the realm of astronomy, but in another field altogether; as Salmon seems to think, probably in the genre of fiction. This abstract Vulcan nonetheless is not Le Verrier's pretended Vulcan and cannot have any of its features; but our main concern here, of course, is Le Verrier's Vulcan and his use of 'Vulcan'.

Now let us look at (ii) and (iii).

In my view (ii) provides a good answer for cases different from 'Vulcan'. As for 'Hesperus', if those who introduced the name were hallucinating, then its naming ("let us call the heavenly body *we see* each evening, 'Hesperus'") would have failed. In this case an utterance containing 'Hesperus' would express a *gappy* proposition, and 'Hesperus' would be a non-referring proper name. Though, there are other circumstances in which our name-giving would have failed as well.

Nevertheless, as we have seen, the introduction of DNHOs is an all-together different process. Hesperus, per its 'baptism', is not an hypothesised object.[xii] In the case of a DNHO, its reference is specified and can be specified *only* by descriptive means: neither hallucination nor other failed circumstances related to ostension or direct knowledge of the object are possible. For this reason, an utterance containing 'Vulcan' does not express a *singular proposition*, regardless of whether it is gappy or not. The utterance expresses a descriptive (and false) proposition. In fact, 'Vulcan' can substitute a description or bundle of descriptions that *defines* 'Vulcan', and the utterance 'Vulcan does not exist' needs to be analysed in the Russellian way.

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Recanati more or less describes the position I am taking, while criticizing it in this way:

> 'Thus 'Neptune' once was a descriptive name, in the sense that its referent was known only by description. One day astronomers became acquainted with Neptune and continued to use the name. The claim I'm criticizing entails that there are two distinct homonymous names 'Neptune', one belonging to the category of descriptive names and the second to the category of ordinary names.' (Recanati 1993, 180)

If we substitute 'DNHO' where the term 'descriptive name' occurs in the quote above, a picture of my position will emerge: 'Neptune' is an homonymous name because, prior to Neptune's discovery, the name meant a description, whereas after its discovery 'Neptune' meant a planet. From Recanati's point of view, the mistake inherent in this position is not only that one must accept the homonymous name 'Neptune', but that such a position presupposes that 'Neptune' in its first stage is essentially descriptive, which means that the information available concerning the bearer of 'Neptune' can be used to *individuate* the very name (Recanati 1993, 179-180). For Recanati, this is problematic, because new information about the hypothetical Neptune requires that the name 'Neptune' become a different name, and he rejects this conclusion. However, I do not see a problem with it. 'Neptune' is simply a name for a hypothesis which may become richer or poorer. If it makes sense to speak of the *same* hypothesis even when it changes in some grade, we can say that

'Neptune' means the *same* (hypothesis). By comparison, 'Vulcan' fits in the view described and it makes sense as well.

The discovery by astronomers of the planet Neptune in the subsequent stage is the crucial moment in which the hypothesis becomes true. As a result, we now have an object, and 'Neptune' names this object, which is the source of our descriptive knowledge. So the name 'Neptune' acquires a new life**.** I agree with Kripke when he says we can affirm that 'if Neptune had been knocked off its course one million years earlier, it would have caused no such perturbations…' (Kripke 1980, 79, footnote 33), but I would add: yes, we can affirm that only after the discovery of Neptune.

As for DNHOs the discovery of the hypothesized object brings about an essential change in the behaviour of the name. With this discovery the description that defined 'Neptune' in the first place may take on a referential use; there is the possibility of a 'misfit'.[xiii] This possibility was not present in the first stage because the description did not have as its source the referent itself. As I have stressed, the description (and the name 'Neptune') was born as an hypothesis to create a fit between the theory and several astronomical facts. Things change when contact is made with the referent.

Let us briefly examine one possible objection to my thesis.[xiv] Such an objection might go something like this: 'how does this argument differentiate between questions which are clearly epistemic and those which are semantic? By this, we should understand as an epistemic question *whether we know that 'Neptune' has a referent* before observing it; while the semantic question would consider *whether 'Neptune' actually has a referent* prior to our observation of it. Perhaps, the semantic

is independent of the epistemic, this possibility does exist, in which case, you may be confusing both questions'.

Kripke provides us, in a general sense, with sound argumentation which proves helpful when distinguishing between the semantics of 'N' versus the *data* we may have about N. What is true, is that, without any alteration to the semantics of 'N,' *our data* about N may vary substantially. With this in mind, then, one may justify the relative independence of epistemic and semantic questions. The argument, up to here, is in complete concordance with my thesis. Notwithstanding, this paper proposes to question whether, in all cases of the introduction *via* definite description of a proper name, such an introduction is successful. As is clearly the case with 'Vulcan,' situations exist in which what occurs is *not* that the object to which 'N' makes reference is an abstract entity, for example, but that 'N', in reality, is not a genuine proper name. The points herein expounded are, in effect, of an epistemic nature, by which one must accept that certain epistemic limitations are *necessary* in order for a successful introduction *via* description of genuine proper names to take place. Such a position is wholly compatible with the (relative) independence of epistemic and semantic questions. As far as DNHOs are concerned, unless we have a sufficient *de re* knowledge of the referent, we do not have a genuine proper name. Let us suppose that I decide to call whoever is knocking at my door at this instant, even now as I am writing this, by the proper name "Thisdoorperson."[xv] Upon answering the door, I discover that the wind created those sounds which I interpreted as a knock on my door, obviously by someone. By this example, one may be convinced of the adequate treatment which our proposal gives to the "Thisdoorperson" scenario.

To sum up, and echoing Russell's words, all grammatical proper names are not logical proper names. The world of grammatical proper names is heterogeneous. For descriptivism all names are descriptions, and for the New Theory of Reference they are directly referential. The truth lies closer to the New Theory of Reference, but descriptivism is not altogether false. As for DNHOs descriptivism is, in some cases, the right fit.

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[i] I borrow this term from (Perry, 1988) who in turn borrows it from (Wettstein, 1986).

[ii] It is obvious that the reasons for a descriptive name and for a partially descriptive name to be called *descriptive* are different. In the second case, and not in the first one, the description itself appears in the very proper name.

[iii] Whether such a case actually occurred is irrelevant to this argument. In any case, Kripke accepts 'Hesperus' as a descriptive name (maybe with some doubt, as we will see later):

'There may be some cases where the description picture is true, where some man really gives a name by going into the privacy of his room and saying that the referent is to be the unique thing with certain identifying properties. 'Jack the Ripper' was a possible example which I gave. Another was 'Hesperus'.' (Kripke 1980, 94).

'It seems plausible to suppose that, in some cases, the referent of a name is indeed fixed via a description in the same way that the metric system was fixed. When the mythical agent first saw Hesperus…' (Kripke 1980, 57).

[iv] On attributive and referential use of descriptions, see (Donnellan, 1966).

[v] I align myself with Recanati´s theory (Recanati 1993, chapter 15), but this does not affect my argument.

[vi] Here, my focus is on the moment in which the name is introduced. At any subsequent moment, a speaker may not directly know the object, but her use of the name is situated in a *referential framework* which have that object as its *referential source*. About those concepts, see (Everett, 2000). When we use the description referentially that referential source is what matters.

[vii] That 'cannot' does not express any metaphysical impossibility. I have in mind a weaker modality.

[viii] It semantically works as a definite description.

[ix] The description should be interpreted rigidly, which means that 'Neptune' is a rigid designator, even though it is not a directly referential expression.

[x] I take this phrase from (Caplan, 2004).

[xi] What is sure is that Recanati would not accept (iii) because in his opinion DNHOs are proper names (Recanati 1993, 10.4).

[xii] Unless we accept that a perceived object is (in a very weak sense) an hypothesised object. This is not my position.

[xiii] (Recanati 1993, 111). I'm using against Recanati some ideas proposed by Recanati himself.

[xiv] I World like to express my gratitude to the anonymous referee who proposed this objection.

[xv] This case study is inspired by the example proposed in (Everett 2000, 50)

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