Encuneral Noun Phrases

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1. Introduction

The semantics of noun phrases (NPs) is of crucial importance for both philosophy and linguistics. Throughout much of the history of the debate about the semantics of noun phrases there has been an implicit assumption about how they are to be understood. Basically, it is the assumption that NPs come only in two kinds. In this paper we would like to make that assumption explicit and discuss it and its status in the semantics of natural language. We will have a look at how the assumption is to be understood more precisely, what its methodological status should be, whether it has been abandoned in recent work in semantics, and whether it should be abandoned in future work. To do all this, it's best to start with some historical context.

2. Historical Background

We are told[1] that in the middle ages, the "grammarians" taught that any noun phrase that occurred in a sentence[2] had *suppositio*: they stood in certain different relations to a piece of reality. Some of them, such as 'Socrates', in 'Socrates is a man', and 'This animal' in 'This animal is an emu', had "discrete supposition." Others, such as 'a man' and 'an emu', in those sentences, or 'some man' in 'Some man is sleeping' and in 'Jocasta married some man', or 'every man' and 'a woman' in 'Every man loves a woman', have "common supposition". Common supposition was further subdivided into such categories as "determinate supposition" vs. "confused supposition", where the former allowed one to infer a disjunction of instances from the actual term used. (E.g., from 'Some man is sleeping' we can infer 'Either this man is sleeping or that man is sleeping or…'.). And there were further subdivisions such as "merely

[1] By Kneale & Kneale (1962), De Rijk (1982), and Spade (1982), among others.
[2] The restriction to occurrences in a sentence is crucial, since they denied that NPs in isolation had this semantic property. (They nonetheless held that an NP in isolation had *significatione*, or "meaning").

confused supposition" vs. "confused and distributive supposition". We need not dwell on the fine details of supposition theory.[3]

Abstracting a bit, and employing more modern terminology, we might say that the grammarians held that all NPs have a meaning, and that when they occur in a sentence, they also have a *semantic value*; but they distinguished *denoting NPs* from *quantified NPs* by the sort of *suppositio* involved: discrete vs. common.

Some story such as this (with only the exact identity of the object of the *suppositio* relation altered—sometimes they were mental, sometimes universals, sometimes tropes) persisted until the late 19th century, when Frege and Russell analyzed the semantics of quantified NPs as "not really being a unit at all", but rather there was a quantifier and a common noun phrase each of which belonged to different units—and thus first order logic was born.[4] In the picture of the logical analysis of natural language that held ascendancy throughout most of the 20th century, the view was that NPs came in two flavors: referential vs. those that "weren't really units at all." The former category included as paradigmatic cases proper names[5] and (sometimes) demonstrative and definite NPs.

In his (1957) Mostowski introduced generalized quantifiers as a way to talk about structural properties of models of a first-order theory, and Montague's work in language (as collected in Montague,1974) as well as the influential Lewis (1972) applied the idea in such a way that combinations of a quantifier-determiner with a common noun phrase could be semantically viewed as a single unit, thus mirroring the obvious syntax and returning to the kind of analysis favored by the medieval grammarians. When restricted to the classical quantifiers of *some* and *every*, the resulting account is equivalent to classical first order logic, despite this new theory's according the status of "really being a unit" to quantified NPs. The theory of generalized quantifiers has been refined and explained in many later works, such as Barwise & Cooper (1981), van Benthem (1983), and Westerståhl (1989), until by the end of the 20th century it was the standard understanding of NPs in the linguistic-semantics literature,

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[3] All the examples discussed in the text were types of "personal supposition". In addition, there was "material supposition" and "simple supposition". The former is illustrated in the sentence 'Man is monosyllabic', where 'man' "stands for itself"; the latter is illustrated in the sentence 'Man is a species', where 'man' "indicates a universal common nature."

[4] In addition, Russell argued that definite NPs also "weren't really units at all."

[5] Russell sometimes argued that proper names were "really" definite descriptions. Hence they too would "not be real units at all."

as evidenced by Westerståhl (2001). (It seems, however, to be less common in some of the more traditional philosophy of language analyses of linguistic phenomena). In generalized quantifier theory it is possible to treat all NPs, even the classically referential ones such as proper names, as generalized quantifiers. The distinction between referential NPs and the quantificational NPs in this theory amounted to whether they had an "individual sublimation." In this sort of theory all NPs are of one general semantic type, but there are two subtypes, referential and quantificational, that are distinguished in terms of "sublimations."

3. The NP-Bifurcation Hypotheses

So we have three theories of the semantic value for NPs: a medieval theory of *suppositio*, the "not a genuine unit" theory of classical first-order logic, and the recent theory of generalized quantifiers. One can see the similarity among these three different categories of theory: they all held that, at a certain level of abstraction, there were two semantically different types of NPs. One type was referential and the other type was quantificational (to give them names).[6] It is true that the different theories gave different analyses of the two categories, and it is true that they sometimes classified some particular subtypes of the categories as falling into the opposite category.[7] But all of these views separated referential NPs (as we are calling them) from quantificational NPs (as we are calling them). Most of the time these theorists also held that there were no other types of NPs, or at least if they did believe there to be other semantic categories of NPs they held their pens about them. This might be put as

NP Bifurcation Hypothesis: Semantically, every NP is either a referring expression or a quantifier.

The main task of this paper is to assess this hypothesis, both with respect to its truth and its methodological place within natural language semantics. As we will see shortly, none of this is easy unless one understands the hypothesis more precisely. But first, we should see whether or

[6] To be fair, the *supposito* theory had many kinds of *suppositio*, the three basic ones being personal, material, and simple. We are here focusing on personal *suppositio*, wherein we find the two major subtypes.

[7] Russell apparently thought that only "pure demonstratives" such as 'this' and 'that' were referential, and that all other NPs belonged to the other category of "not really being units at all".

not this hypothesis is already given up in more recent work in semantics. There seem to be two kinds of challenges to it.

4. Recent challenges to the hypothesis

Some semantic developments after generalized quantifier theory became a mainstay suggest that the hypothesis is too simplistic. We will discuss the two most important ones of them. We would like to sideline one of them, and discuss the other in some more detail, before we will have to look at how the hypothesis itself is to be understood in more detail to properly assess it. Although we agree that the hypothesis is too simplistic, and ought to be rejected, we don't think that the cases to be discussed in this section get to the heart of what is wrong with it.

A) Predicative NPs

The focus of the semantic analysis of NPs has traditionally been on those that occur in subject position. But NPs can also occur as predicates, as 'a man' in 'Socrates is a man'. Many theorists have understood these along just the same lines as NPs in subject position. As we said above, in the *suppositio* theory 'a man' in this sentence would have common *supposition*, just as it would have in the sentence 'A man is in the room'. Working within the "not really a unit" theory, many semanticists understood 'a man' in this example as a quantifier, and analyzed the sentence so that it amounts to 'A man is such that Socrates is identical to him'.

However, other work[8] suggests that NPs in predicate position, also called predicative NPs, are to be understood as a group of their own, distinct from referential NPs and from quantificational NPs. We will not discuss this case in any detail in this paper. We are rather concerned with a completely different group of examples, and with a much broader rejection of the hypothesis. These concerns are independent of ones that come with predicative NPs, and we will thus simply sideline predicative NPs. If they turn out to form a kind of their own, we applaud it, but we won't take it to show what we are concerned with here. If not, our main considerations are not affected by it either. Our concern in the following is thus the

[8] For instance, Partee (1987: 115) says "I propose basic NP types *e* ('referential'), <*e,t*> ('predicative'), and <<*e,t*>,*t*> ('quantificational')." She continues, "While this last, the type of generalized quantifiers, is the most complex, it is also the most general; we can argue that all NP's have meanings of this type, while only some have meanings of types *e* and <*e,t*>."

Modified NP Bifurcation Hypothesis: Semantically, every NP, except possibly predicative expressions, is either a referring expression or a quantifier.

The question remains, though, whether this modified hypothesis has not already been widely rejected by recent work in semantics. The case that seems most relevant here is modern treatments of indefinites.

B) Indefinite NPs

The second challenge to the NP Bifurcation Hypothesis comes from recent discourse oriented analyses of indefinite NPs, like 'A man' in 'A man entered the room'. In particular in Discourse Representation Theory (DRT), Kamp (1984) and file change semantics, Heim (1983), certain occurrences of the NP 'a man' do not seem to be either a quantifier or a referring expression. Instead they are understood as predicates with a new free variable.[9] But a predicate with a free variable is neither a referring expression, not a quantifier, so prima facie these treatments of indefinites are contrary to the NP Bifurcation Hypothesis. One of the main reasons for this understanding of indefinites is their interaction with anaphora that have their antecedent outside of a single sentence. One might continue a discourse after the above sentence with 'He was not wearing any pants'. The 'he' in this sentence has 'a man' as its antecedent, not within a single sentence but across sentences. Using a particular free variable, or similar device, make an analysis of this possible.

It is true that at the sentence level these analyses of indefinites do not treat them as either quantificational or referential. But it is not clear that this amounts to an abandoning of the NP

[9] Kamp (1984) says, "…the introduction of a discourse referent *u* for an indefinite term is accompanied by two conditions, one to the effect that *u* has the property expressed by the common noun phrase of the term, and the other resulting from substituting *u* for the term in the sentence in which it occurs." Heim (1983) says, "The logical analysis of an indefinite, as presented above, is just a proposition with a variable free in it. E.g., 'a cat' corresponds to something like 'cat(x)'…The free variable in the indefinite remains free in the sentence as a whole. An existential quantifier is not part of the indefinite or of the sentence that contains it, neither is a quantifier of some other force than existential."

Birfurcation Hypothesis, for the role of these indefinites with their free variables re-arises at a larger level of analysis. Since these are discourse-oriented theories, we should be considering how such terms are understood at the level of a discourse. The free variable that the indefinite introduces is understood to be bound existentially, from the outside, ranging over the whole discourse. So, at the level of the discourse, these indefinites look every bit like an existential quantifier phrase in the "not really a unit" theory. It thus looks like that what is given up in a DRT style semantics of indefinites is the view that semantics should be given at the level of a single sentence; and instead it should be given at the level of a discourse. But at the level of the discourse the NP Bifurcation Hypothesis still seems to hold in this sort of theory. At this level, the NP is a quantifier, although it is not so at the level of a single sentence.

Indefinites in DRT are, however, already a retreat from the NP Birfuration Hypothesis. The hypothesis, as implicit in the semantic tradition, did focus on the level of a single sentence. In this paper, however, we would like to consider more radical departures form the hypothesis, cases where it fails even at the level of a single sentence. Thus DRT style analysis rejects the NP Bifurcation Hypothesis along the wrong dimension from our point of view. It rejects the Hypothesis merely because the hypothesis is normally made to apply to sentences, as implicit in the semantic tradition. But it does not reject the Hypothesis for the reason we want to reject it, namely that it allows for too few kinds of NPs at whatever is the right level of analysis. We will be concerned with the latter dimension in this paper.

5. Understanding the Hypotheses

Both the NP Birfuraction Hypothesis and the Modified NP Bifurcation Hypothesis have a strong and a weak reading, depending on whether they are understood exclusively. In both readings, if either of the NP Bifurcation Hypotheses is true then referring expressions and quantified expression (and predicative NPs in the modified hypothesis) exhaust all NPs – there can be no other kinds. If understood exclusively, then also no NP can belong to more than one of the categories – no expression could be more than one of a quantifier and a referring expression (and a predicative expression). Contrary to the exclusive interpretation of the Bifurcation Hypotheses, many people have claimed that the correct thing to say about NPs like

'the man in the corner drinking a martini' is that some occurrences of them are quantificational while other occurrences of the same NP are referential (Donnellan, 1978). Others have claimed that indefinites can be both quantificational and referential, depending on their "specificity" (Chastain, 1975; Fodor & Sag, 1982), while Diesing (1992) argues that indefinites can be both predicative and quantificational. Some have held that definite NPs can be both quantificational and predicative, as in 'Carter is the current Nobel peace laureate' (Wilson, 1978).

We are not concerned with the alleged exclusiveness of the distinction among referential, predicative, and quantificational NPs in this paper, but only with the alleged exhaustiveness of it. To make this clearer, let's introduce some terminology. An NP that would be in conflict with the (unmodified) NP Bifurcation Hypothesis is neither a quantifier nor a referring expression. Such an NP would be non-quantificational and non-referential. To abbreviate, such an NP would be a 'NQ NR' NP, which we will pronounce "encuneral NP". An encuneral NP is thus an NP that is neither a quantifier nor a referring expression. Now we can reformulate the two NP Bifurcation Hypotheses stressing that we are concerned with the exhaustiveness rather than the exclusiveness of the distinction between referring NPs and quantificational NPs:

NP Bifurcation Hypothesis (v.2): There are no encuneral NPs.

Predicative NPs are examples of encuneral NPs. As we said before, however, we are not here concerned with this sort of encuneral NP, even though we think they are distinct from the referential and the quantificational NPs. We will thus mainly be concerned with the modified version of the Hypothesis, as stated here:

Modified NP Bifurcation Hypothesis (v.2): There are no non-predicative encuneral NPs.

Our goal in this paper is to argue against the NP Bifurcation Hypothesis, both as a conjecture and as a methodological principle, and for the existence of non-predicative encuneral NPs; indeed, our view is that there are *very* many different sorts of such NPs. Therefore we shall not be concerned to argue against the NP Bifurcation Hypothesis merely on the grounds that there are predicative NPs; while we think it is right that predicative NPs are different from referential and quantificational NPs, we will not discuss them at all. Instead, we

will turn our attention to those theorists who believe that referential and quantificational NPs exhaust the semantics for at least non-predicative NPs. We will argue that these theorists partly rely on bad methodological assumptions, and that furthermore we have good reason to think that there are many more kinds of NPs than they want to allow. We will thus argue for a rejection of the NP Bifurcation Hypothesis. And since our arguments will not rely on the existence of predicative NPs, these arguments can equally be turned against the Modified NP Bifurcation Hypothesis.

6. The Role of the Hypotheses in Semantics and Philosophy

The NP Bifurcation Hypothesis is in the background of many semantic discussions, especially in the philosophical literature, but it is hardly ever explicitly formulated and even more rarely explicitly discussed. Exceptions in the philosophical literature are (Neale 1990: 6) and (Neale 1993: 90, Principle [T1]) and (Dever 2001). Dever in particular provides some arguments for the NP Bifurcation Hypothesis, especially reasons to prefer it to an alternative theory that arises from considering "incomplete definite descriptions." Dever's examination is typical of the kinds of considerations are brought up to support the NP Bifurcation Hypothesis, and illustrate the effect that the NP Bifurcation Hypothesis has on semantic practice in the philosophical realm. For these reasons we will look a bit more deeply at his discussion.

Although Dever's paper is mainly concerned with the semantics of complex demonstratives, he starts out with a discussion of the NP Bifurcation Hypothesis and he uses this hypothesis when arguing against alternative approaches to complex demonstratives. Dever thinks "[the NP Bifurcation Hypothesis] can be seen as the convergence of two (not always wholly distinct) lines of thought." (p.272). One of them is the theory of direct reference, the other the theory of descriptions and generalized quantifiers more broadly. The former line of thought showed that directly referring terms are not quantifiers, the latter that quantifiers are a rather widespread and general phenomenon. Dever continues to say "I find both strands of the historical impetus towards the [NP Bifurcation Hypothesis] compelling, and I wish to endorse the principle."

However, none of the considerations Dever presents should be seen as genuinely supporting the NP Bifurcation Hypothesis. What the theory of direct reference and the success of the theory of descriptions show is that there are at least *some* directly referring terms and

many descriptions and other quantifiers in our language. These considerations do *not* show that the distinction between referring expressions and quantifiers exhausts all NPs. It is, after all, quite a leap from 'there are some referring NPs and many quantifiers' to 'every NP is either a referring NP or a quantifier'; and we are not given any argument in these considerations for this latter claim. At best it might support a *conjecture* that every NP will fall into either one of these categories. The NP Bifurcation Hypothesis makes a fine conjecture. It might turn out to be true, or it might turn out to be false, but in any case, we don't know which at this stage. However, Dever later in his article uses the NP Bifurcation Hypothesis as an *argument against* competing views. The views under discussion (e.g., Lepore and Ludwig, 2000) are criticized for being in conflict with the NP Bifurcation Hypothesis, and partly because of this they are rejected (Dever 2001 p. 289). If the NP Bifurcation Hypothesis is understood to be merely a conjecture then it of course can't be used in an argument against a competing view about the semantics of a particular class of NPs. Dever's acceptance of the NP Bifurcation Hypothesis makes him go so far as to abandon standard methods of doing syntax in a quite radical way by adopting 3-dimensional syntactic trees. It might be one thing to adopt this revision of common syntax as the only way to make the phenomena concur with an established truth, but it is quite another to do this merely to hold on to an unproven conjecture.

We don't want to criticize Dever's view of complex demonstratives *per se*. However, we think that his reliance on the NP Bifurcation Hypothesis has a negative impact on his discussion. The hypothesis doesn't have sufficient independent theoretical support so that it can be used as a testing point for other theories, and Dever's restricting himself to only consider views that fit the hypothesis in the strict, exclusive reading unnecessarily limits the theoretical options available to deal with the phenomena.

One shouldn't expect to have good *a priori* arguments for the truth of the NP Bifurcation Hypothesis. After all, it is a very broad generalization about our language, and it certainly seems like a mostly empirical issue whether or not it holds about our language. So, one shouldn't expect that the truth of the NP Bifurcation Hypothesis can be established in the abstract. It will have to find empirical support in the semantic analysis of NPs in natural language. It might only turn out at the end, after all NPs have been fully understood, that it is true.

7. The NP Bifurcation Hypothesis as a methodological principle

However, even among those who think that it is too early to say whether or not the NP Bifurcation Hypothesis is true, there are many who think that it should have some kind of a distinguished methodological status.[10] This line of thought agrees that there is insufficient reason to hold the NP Bifurcation Hypothesis to be true, but that nonetheless holds there to be a methodological consideration in its favor. This consideration shows that we should treat the NP Bifurcation Hypothesis to be a guiding principle in semantics and the philosophy of language: we should try to treat NPs as either quantifiers or referring expressions. And we should assume that they can be so treated until proven otherwise. If the NP Bifurcation Hypothesis has such a distinguished methodological status then it is not merely a conjecture that has to be proven or otherwise supported before it can be used in an argument itself. If there is some reason to suppose that the NP Bifurcation Hypothesis is methodologically distinguished so that it is reasonable to assume it until proven otherwise, then this would substantially alter the debate. At the very least, it would put a clear burden of proof on the believer in encuneral NPs to demonstrate the undisputed existence of some encuneral NPs. One would have to give examples of NPs and show that they can't be treated either as referential or as quantificational, no matter what stretching is allowed in these categories. And this not only seems incredibly difficult, but it also raises questions about what it is to treat an NP as referential or quantificational. In this section we will address these issues in some more detail. In particular, we will argue that the NP Bifurcation Hypothesis does not deserve a methodologically special status.

The main support for the NP Bifurcation Hypothesis having a distinguished methodological status comes from the assumption that we should allow for as few kinds of NPs as possible. Thus encuneral NPs should only be allowed into our classification of NPs if it turns out that there are NPs that cannot, no matter how convoluted and stretched the theory becomes, be treated as either referring expressions or quantificational expressions. Let's call this argument for the methodological privilege of the NP Bifurcation Hypothesis the *argument for smallest numbers*. It is not an implausible consideration, and some might see it as merely the requirement for simplicity in categorizing NPs. After all, shouldn't we only allow as few kinds

[10] We are indebted to Jeff King for pushing this issue.

of NPs into our classification as possible? We think not; we think this argument should be rejected, and along with it the alleged methodological privilege of the NP Bifurcation Hypothesis.[11] To see this we have to look more closely at what the NP Bifurcation Hypothesis actually says, and how it should and should not be understood.

One can see that this argument is not as straightforward as it first seems by taking the argument for smallest numbers to extremes. This can be done in one of two ways. First, someone might hypothesize that there is only *one* kind of NP, on the grounds that *this* is the simplest theory. And as a part of justifying this "simplest theory" they might say that whatever semantic theory about our language we accept, it will assign *some* semantic value to every NP. And in keeping with "the simplest theory" we would want to say that the NP *refers to* this semantic value. In particular then, every NP has a referent, and is thus a referring expression – or so this application of "the simplest theory" argument goes.

This argument confounds the semantic value of an NP with its referent, two things that have to be distinguished. Non-referring expressions can have semantic values, and referring expressions can have semantic values other than their referent. In fact, the two notions – referring expression and semantic value – are terms from two different levels of theory. An NP has semantic value only *within* a semantic theory. It is some entity assigned to it so that a generation of the truth conditions is possible (in standard truth conditional semantic theories). There might be several different options that work equally well. On the other hand, it is not true that an NP has a referent[12] merely within a semantic theory. Instead, it simply does or doesn't have a referent. Whether or not an NP is a referring expression, and if it is what its referent is, are *not* theory-internal notions. A semantic theory can theorize about whether or not a particular expression is a referring expression and what its referent is, but this is not something that is only true within a semantic theory. A semantic theory can be correct or incorrect about this.

Consider Montague's treatment of proper names as an example to make the distinction clearer. Montague assigned names the same kind of semantic value that he assigned all NPs, namely sets of properties. The name 'John' has the set of all of John's properties as its

[11] Although it's aimed at a different target, the discussion in Ludlow (1999) about how not to use simplicity arguments in linguistics is relevant here.

[12] Rather, *purports* to have a referent. We will not make this distinction here, as it does not bear directly on our discussion.

semantic value. This is a very clever thing to do since it makes the treatment of complex NPs like 'John and Mary' or 'John and some woman' easier. But does it show that either 'John' refers to a set of properties, or that 'John' is not a referring expression at all? Of course not. Assigning sets of properties as semantic values to names allows us to correctly and simply generate the truth conditions of the sentences in which these names occur, and it allows us to do it more simply than if we assigned the referent as the semantic value of the name. The semantic values of referring expressions and their referents are, of course, not completely independent. In Montague's case, one can be recovered from the other, and some such relationship seems to be required to be able to correctly generate the truth conditions. Nonetheless, a referring expression can have something other then its referent as its semantic value in certain semantic theories. We therefore have to distinguish the notion of a semantic value of an NP from the notion of being a referential expression. Thus the argument above does not show that every NP has a referent, even if every NP has a semantic value in our best semantic theory.

A second use of "the simplest theory" argument again claims that we should assume there to be only one kind of NP, but aims at a somewhat different target. It starts with the claim that the best overall theory of NPs is generalized quantifier theory (let's just grant that for present purposes). But generalized quantifier theory assigns only one kind of semantic value to NPs, namely the type of a quantifier. And since, according to "the simplest theory" argument, we should think that all NPs are of the same kind, we conclude that all NPs are really quantified. This argument makes a mistake similar to the above one. We grant that it might be useful for the purpose of generating truth conditions compositionally to assign a referring NP the same kind of semantic value as that of a quantifier, even though the referring expression is not a quantifier. The question of whether this assignment of semantic values is most economical in correctly generating truth conditions is a separate question from whether the relevant NP *really* is a quantifier. Montague's treatment of proper names again illustrates this case. One can endorse Montague's way of assigning semantic values and of generating the truth conditions of sentences with complex NPs in them while at the same time holding that there is a fundamental difference between referring expressions and quantifiers. A believer in the theory of direct reference, for example, should not necessarily reject a view that assigns generalized quantifier semantic values to referring expressions. For rejecting these kinds of semantic values would

have to be backed up by the belief that the truth conditions are not correctly generated with them. Rejecting that every NP is a quantifier is thus not a claim about the correct way to generate truth conditions.[13]

To sum up, we have to distinguish *what semantic values NPs have* in certain semantic theories from *what kind of NP they are*. These are not completely independent issues, since NPs that are of the same kind will usually get the same kind of semantic value in good semantic theories. But also, these two are not the same, since in some good semantic theories NPs that are of different kinds still could get the same kind of semantic value, and non-referential NPs could get semantic values, too.

8. Referring Expressions and Quantifiers

Before we can further address the alleged distinguished methodological status of the NP Bifurcation Principle we will have to discuss one more issue. We have seen that what kind of semantic value a semantic theory, even a successful one, assigns to an NP is not sufficient to establish to what kind the NP belongs to. The question remains, however, how this latter can be established. What would establish that a particular NP is a quantifier or a referring expression? And this can't be answered until we know what it is to be a quantifier or a referring expression.

What it is for an NP to be a quantifier or a referring expression is obviously most central for our discussion, but unfortunately it is a rather difficult and widely ignored question. Without a clearer understanding of this we won't have any real understanding of the NP Bifurcation Hypothesis and the claim that there are no encuneral NPs. And without that it will be hard to endorse or reject that there are encuneral NPs, or to accept the NP Bifurcation Hypothesis as a methodological principle.

As we have said, Dever endorses the NP Bifurcation Hypothesis, and he gives, at least in outline, a characterization of referring expressions and quantifiers. According to him

> Referring terms are characterized by being syntactically simple, by being 'directly referential' at least in the sense of being rigid with respect to various types of intensional contexts, and by giving rise to object dependence […]. Quantified terms, on the other hand, are characterized by being syntactically complex, by

[13] Similar remarks hold about other semantic information, such as *content* and *object dependence*, but we will not follow this up.

> being typically non-rigid [...] and by giving rise to object independence […](Dever 2001 p.272-3)

Note though that Dever's characterization of quantifiers assumes that the NP Bifurcation Hypothesis is true, and therefore it can't be a basis for a discussion of this hypothesis. Quantifiers, in Dever's description, are characterized negatively, by being what referring terms aren't. Given this characterization of quantifiers the NP Bifurcation Hypothesis might indeed seem trivial. But once we look at cases of non-referential NPs and we ask whether they *really are* quantifiers, it won't be enough merely to see negatively whether or not they are complex, non-rigid and don't give rise to object independence.

As it turns out, giving a non-question begging (with respect to the NP Bifurcation Hypothesis) account of what is a quantifier is not at all trivial. Quantifiers are a class of expressions that have clear and definite cases in them, like 'some man' and 'everything', but how to precisely characterize this class is a substantial question. It is not even clear whether quantifiers do form a unified class of expressions. It might be easy to give a rough and vague characterization of this class, but a precise one that isn't begging the question is a different story. In the sense in which this class of NPs is only vaguely characterized, so is the NP Bifurcation Hypothesis. However, for much of the discussion below we can live with this situation. We can partially and non-question-beggingly characterize quantifiers as follows. Some NPs are paradigmatic cases of quantifiers. These include 'something', 'every dog', and so on. Many others have been classified as quantifiers because they are semantically very similar to the paradigmatic cases of quantifiers and so should be considered to belong to the same semantic category. We can thus roughly and partially characterize the class of quantifiers to consist of the paradigmatic quantifiers and all other NPs that are semantically equal or very similar to the paradigmatic quantifiers. Incomplete as this might seem, it at least doesn't beg the question for or against the NP Bifurcation Hypothesis and it will prove to be good enough for our discussion below. The fact that there is no satisfactory precise characterization of the class of quantifier makes the issue trickier, but it does so for both the believer and the disbeliever in encuneral NPs. The fact that this characterization is neutral between the existence and non-existence of encuneral NPs strongly tells against assigning a distinguished methodological status to the NP Bifurcation Hypothesis, a topic to which we shall now return, before looking at some prima facie cases of encuneral NPs.

9. The methodological issue, again

We have seen that we have to distinguish between what intuitive semantic category an NP belongs to and what semantic value an NP gets within a semantic theory, even in a very successful theory. Let us now use this distinction to investigate what methodological consequences should follow from the goal of simplicity.

In constructing a compositional semantic theory, and in picking semantic values that serve one's purposes best in doing this, it seems clear that simplicity is a good thing. If one picks as few kinds of semantic values as possible, this will, all things being equal, simplify the task and will make the theory better. In such a case simplicity is the methodologically guiding principle: Try to do with as little as you can.

But it is quite a different issue from this whether or not we should assume until proven otherwise that our language has only one or two or three kinds of NPs in it. The issue about how many kinds of NPs there are in our language is closely related to two different large-scale pictures about language and how it works. According to one picture, languages are basically well-behaved and well-structured entities that have many hidden regularities and structure to uncover. A believer in this picture will hold that natural languages are closely related to formal languages which can be given a precise semantics. A quite different picture sees natural language as a motley collection of all kinds of things in which there are parts that can be nicely unified, but other parts that are quite different. A believer in this picture will hold that languages are complex, at most locally similar to any particular formal language, and in general contain a panoply of different characteristics. As can be expected, believers in the first picture of language are more likely to hold that there are only few kinds of NPs, whereas believers in the latter will most likely hold that there are many different kinds. In particular, believers in the former picture will less likely be inclined to believe in encuneral NPs than the believers in the latter. These are large-scale debates in the philosophy of language.

The question before us becomes: is there a methodological primacy for the view that language is simple, over the view that language is complex? Here we really have to say that there is no clear primacy for such a view; these competing views are at the same level. Indeed,

how *could* a methodological principle be justified that says that we should assume that language is simple until proven otherwise?

As we said, simplicity can give rise to *some* methodological principles about NP semantics: it seems plausible that one should use as few kinds of semantic values as possible in a compositional semantic theory of NPs. For, this will lead to an overall simpler, more elegant and better semantic theory, all things being equal. But we have seen above that this is to be distinguished from giving a methodologically distinguished status to the view that there are only two (or three) kinds of NPs. And it is this latter view that is relevant to the discussion of whether or not there are encuneral NPs, but this is the view that does not have a methodologically distinguished status.

Our discussion thus far has been theoretical and abstract. We have argued that there is no good reason to disbelieve in encuneral NPs, and we have argued that there is no good methodological reason to proceed on the assumption that there aren't any until proven otherwise. Whether or not there are encuneral NPs is, or should be, a live issue in contemporary semantics. We hope to make some progress on this issue, how it should be understood, and how it should be addressed.

One question that is not clear at this stage is what an analysis of an NP as encuneral would look like. After all, all standard examples are usually treated either referentially or quantificationally. But what would it be like to treat an NP differently from these? In the next section we would like to outline three cases of NPs and what an encuneral semantics of them would be like. We will present these cases in outline, and we will not attempt to argue here that the encuneral treatment outlined is superior to standard quantificational and referential treatments. This latter issue is a substantial one that goes beyond the scope of this paper. What we aim to do in the next section is simply show that there are other options available for such a semantic analysis, how such an analysis could go, and why it would neither be referential nor quantificational. After discussion these three cases we will present whole groups of NPs that deserve serious consideration as being encuneral NPs.

So far we have discussed the NP Bifurcation Hypothesis as a piece of methodology. We have argued that this hypothesis does not deserve a methodologically distinguished status, but

that it rather incorporates a substantial view about the simplicity of language, one that is up for grabs. Now we will focus on the NP Bifurcation Hypothesis as an hypothesis about language, and we will try to assess whether it is true or false as such. After we have seen how one can give an encuneral treatment to NPs, and that there is a whole range of NPs that prima facie are neither referential nor quantificational, we will conclude that we have little reason to think that the Hypothesis is true. We will not have definitiely argued or established that it is not true, and that there are encuneral NPs instead. To do this one would have to establish it using a particular example. We save the detailed discussion of particular cases for other work. But we hope to make clear that we would put our money against the NP Bifurcation Hypothesis, and that it is quite reasonable to do so.

10. Three Examples

We now look at three examples that illustrate the effect of the NP Bifurcation Hypothesis either on semantic issues or on philosophical issues related to the interpretation of NPs. Some of these examples show more clearly what effect the NP Bifurcation Hypothesis has on the semantic analysis of the phenomenon, while other examples show more clearly the effect upon philosophical conclusions to be drawn from the analysis. In all these cases, the NPs involved might reasonably be taken to be encuneral NPs.

Consider a generic sentence like

(1) The grizzly buries its freshly-killed prey

There have been *semantic* arguments concerning the best way to accommodate such sentences into an overall linguistic theory. Some researchers have thought that since the NP in (1) does not refer to any specific grizzly, and since (1) can be seen as a paraphrase of

(2) Usually/Typically/Most grizzlies bury their freshly-killed prey

it follows that the NP in the original sentence would best be understood as a quantified NP.[14] And thus much work has been done to show how sentences like (1) can be manipulated so as to

[14] Although 'Most grizzlies' is a quantified NP, 'Usually' and 'Typically' are sentential adverbial quantifiers, and some work would need to be done to justify the claim that 'The

generate a "logical form" of the same sort that (2) might have. This group of researchers takes the view that NPs in such generic sentences are "really" quantified NPs. Other researchers have taken the view that NPs like 'The grizzly' are referring expressions. And since they cannot be taken to refer to any particular grizzly or any collection of grizzlies, they take this phrase to refer to some other thing, the kind *Ursus horribilis*. This kind would be something other than the individual grizzlies, something which exists in no particular place and at no particular time.

The adherence of both these research groups to the Bifurcation Hypothesis has made it impossible for them to consider another possible analysis of the NP in (1): that it has a certain inferential role, in particular an inferential role in default inferences. The idea of giving inferential roles to expressions in deductive reasoning is one approach used in the philosophical discussion of logical constants,[15] but such ideas can be extended to other expressions and other forms of inference. If such an analysis were accepted, then generic NPs would *not* be classified as referential NPs – i.e., they would not be said to designate an object; and they would *not* be classified as quantificational NPs — i.e., they would not be thought sufficiently similar to paradigmatic quantifiers. Instead they would be thought to tell us what role the *belief* in (1) ought to play in one's mental life; and tell us about certain other beliefs that could be inferred. And such an analysis would also tell us how to proceed in determining the truth of these sentences, by (for example) saying to consider arbitrary grizzlies and to conclude that they bury their freshly-killed prey, at least in the absence of information to the contrary. If this were the semantic function of the NP, then it would not refer to anything, and it would not be a quantificational NP. Rather its semantic function would be to express a valid rule of inference in default reasoning. The latter is of a quite different kind of semantic function than referring or quantifying.[16]

A second example, but one from which a different lesson can be derived, concerns *average*-NPs, such as in (3)

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grizzly' is "really" a quantified NP in such a case. However, we won't follow this up, since we presume the advocates could and would emend their account in some way.

[15] See, for example, Hacking (1979) and Koslow (1992).

[16] A view like this is given in Reiter (1980), although he was not concerned with the linguistic analysis of generic sentences but instead with "commonsense reasoning in knowledge bases."

(3) The average American has 2.3 children

Some scholars have taken the view that since *the average American* in (3) is clearly a referential NP there must be some fictional, abstract or non-existent entity that it designates.[17] Chomsky (1981, 1995) and some of his followers (Hornstein 1984) have argued that since this NP "obviously" is not referential but has exactly the same status as the NP *the coat in the closet*, we should conclude that the whole notion of "referential semantics" makes no sense. Some other theorists (Higginbotham 1985), trying to evade the charge that "referential semantics" makes no sense, have granted that the analysis of *average*-NPs as referential is clearly incorrect, and have concluded therefore that the correct analysis must therefore be given in terms of a quantificational NP. Sentence (3), for example, is to be understood as

(4) Americans, on average, have 2.3 children.

where the definite singular NP in (3) is replaced by a plural NP that is used quantificationally with the adverb *on average*. The belief in the NP Bifurcation Hypothesis has made these researchers not look for other theories in which *average*-NPs are neither referential nor quantificational. For example, it seems possible to analyze (3) in such a way that 'the average American' has a set of properties as its semantic value, but it does not refer to anything (much less to an object of the abstract or fictional variety) nor is it "really" an adverbially quantified NP.[18] In being a set of properties, this semantic value resembles the sort of value assigned by Montague to proper names. But there is a difference: in the Montague grammar analysis, the semantic value given to proper names is assumed to have an "individual sublimation" – intuitively, it is the referent, although it is picked out as the unique object that satisfies all the properties in this set. NPs like 'the average American' do not have individual sublimations in the sense of having a referent. Even if it should happen (implausibly) to be true that some actual individual had all and only the properties present in the set of properties that is the semantic value of 'the average American', that individual would nonetheless not be the referent of that NP.

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[17] See for example Melia (1995). A subtle version of this is defended in Yablo (2000), where Walton's pretense-based theory of fiction is employed (see Walton, 1990). Yablo takes talk about average Americans to be on a par with talk about fictional objects.; the NPs that do this are referential…to fictional objects.

[18] This is the method favored in Carlson & Pelletier (2002).

A third example of the influence of the NP Bifurcation Hypothesis are certain common semantic treatments of nominalizations. We will use the term 'nominalization' broadly here, to include nominalized adjectives (and other parts of speech) like 'redness', as well as *that*-clauses as in (5) and gerunds as in (6).

(5) Ivan hopes that global warming will make Novosibersk livable

(where the relevant nominalization is 'that global warming will make Novosibersk livable'),

(6) Eating live goldfish is disgusting, cruel, and dangerous

(where the relevant gerund is 'eating live goldfish'). Some theorists have argued that, since we can infer (7) and (8) from (5) and (6), respectively

(7) There is something that Ivan hopes (for)

(8) Something is disgusting, cruel, and dangerous

it follows that the nominalizations in (5) and (6) have to stand for some object or entity. Furthermore, since it is hard to see how the *that*-clause of (5) can be understood as a quantifier, it must therefore be a referring expression – an expression that refers to a proposition, or a fact, or an event, or a state of affairs, or some such thing. Other theorists have insisted that the gerund in (6) must "really" be a quantified NP, along the lines of 'anyone who eats live goldfish'. In this case the predicate will also have to be understood differently, along the lines of 'is acting in a disgusting, cruel and dangerous manner'.

But we might instead think of the *that*-nominalization in (5) as *reporting* what Ivan hopes for, rather than *referring to* an entity that *is* what Ivan hopes (for). And we might think of the gerundal construction in (6) as introducing a type of action rather than being a hidden quantification over certain people and the kinds of things they do. Once the possibility of encuneral NPs is acknowledged in general, it is certainly less pressing to think of *reporting what* as being a kind of *referring to*. An encuneral treatment of *that*-clauses does of course not by itself deny that quantification into a that-clause position is possible; however, it does involve the claim that such quantification is to be understood differently from quantification over a domain of entities. In fact, the belief in encuneral NPs is naturally connected to the belief that quantification in natural language is more complex than merely to range over some domain of entities. Quantifiers binding a position occupied by an encuneral NP will not be of that kind, at least in standard utterances. How this might be developed as a theory of natural

language quantification is of course a further issue, but see Hofweber (2000) for a starting point, and Hofweber (2005b) for more. We will return to this topic at the end of this paper.

11. More examples

Once encuneral NPs are recognized as another possible option besides referential NPs, quantificational NPs, and predicative NPs, a number of examples come to mind that seem on the face of it to fit the bill as encuneral NPs. This section will be devoted to laying out a wide variety of different types of NPs that might reasonably be seen as encuneral. To claim that there is another sort of NP, encuneral NPs, is not of course to claim that there is any semantic unity to this sort. Instead, it is merely a name for "whatever NPs are not referential and not quantificational." In fact, as one studies the various types of NP we will list in this section, one will certainly see that it is very unlikely for there to be just one further, unified semantic type of NP. In addition, we do not include predicative NPs in our listing – or at least, we believe that none of our examples are most naturally seen as predicative.

Before we begin our listing of some of the types of NP that one might reasonably see as encuneral, we emphasize that for each type it is no doubt possible for someone to proffer an analysis in terms favorable to the NP Bifurcation Hypothesis. Various theorists have, in fact, attempted to deal some of them this way, but we will not discuss their efforts. We simply list the following examples to make vivid just how daunting the task is to defend the NP Bifurcation Hypothesis. For many of the examples it will require quite a stretch of the theoretical imagination to deal with them in a way consistent with the NP Bifurcation Hypothesis. In listing these examples we don't, of course, claim to have established that there are encuneral NPs. All we aim to do is to make clear that it is a radical conjecture about natural language to think that there aren't encuneral NPs.

First, there are wider varieties of sentences in each of the categories we have already brought forward. Generic statements can be formed with definite NPs, indefinite NPs, proper names, plural bare NPs, singular bare NPs.

A. Generic-Like NPs

a. The dog is a mammal.

b. The wild horse is making a comeback in the Western US.
c. The computer changed the way people work.
d. The Coke bottle is a cultural icon/has a narrow neck.
e. The Playboy bunny shocked the 1960s middle class.
f. A pheasant lays speckled eggs.
g. A computer computes the daily weather forecast.
h. An albino mouse is used to test new drugs.
i. Bears with blue eyes are intelligent.
j. Fountain pens have become extremely expensive of late.
k. Bald men are sexy.
l. Water covers 80% of the globe.
m. Water in which fluoride has been dissolved decreases the incidence of tooth decay.
n. Gold is valuable.
o. After a house and car, furniture is the most expensive purchase a couple makes.
p. The spies sought information about the biological weapons stockpile.

Average-like NPs can be formed with Definite NPs, Indefinite NPs, and Proper Names.

B. *Average*-Like NPs

a. The usual bird is brownish colored.
b. The American consumer bought 1.2 TVs last year.
c. The ordinary book is about 200 pages long.
d. The normal 15-year-old is beset by insecurity.
e. Your typical male undergraduate enjoys watching sports.
f. A typical American ingests 2200 Calories per day.
g. An ordinary child is very destructive.
h. A normal chair has four legs.
i. It is a strange chair that has six legs.
j. The regular cup of coffee is about 10 oz.
k. The ordinary man on the street doesn't believe that abstract nouns refer.
l. Joe Sixpack's priorities are tilted towards football.
m. John Q. Public is uninterested in local politics.
n. The man on the Clapham omnibus believes that Britain is larger than Japan.

C. Nominalizations and Extractions

a. That Ivan will ever live in a warm climate is unlikely.
b. Thomas' flying to Berlin helped to get the project started.
c. Being a philosopher is fun.
d. How we will manage to finish this paper remains to be seen.
e. Smoking in public places is illegal in California.
f. Thomason's going bald is a tragedy.
g. What we like to do on Sundays is birdwatching.
h. The number of moons of Jupiter is four.
i. Jason believes Recanati is wrong.
j. I don't like how the world is.

k. Futurists are concerned with the way the world might be.
l. History deals with how the world was, not with how the world might have been.

Besides these sorts of examples, which we discussed in somewhat more detail in Section 10 and claimed that each of these types had a plausible encuneral analysis, there are many other types. We mention some of them now, with little further comment.

D. Abstractions

a. The American justice system has been severely challenged recently.
b. Some criminal lawyers make a mockery of the American justice system.
c. Freedom is an almost undeniable human longing.
d. Turn-of-the-century Vienna culture lionized the inventors of the waltz.
e. Prophets always appear before the millennium.
f. Music was developed at a very early stage of human evolution.
g. In medieval times, the child didn't exist.
h. The bachelor played an important role in the *Sturm und Drang* movement.
i. Late night is where the action is.
j. Love is not cruel; Charity suffereth long....
k. The meek shall inherit the earth.
l. The truth is what all honest people strive for.
m. The truth is out there.
n. The rich get richer; the poor get poorer.

E. Frequency-NPs

a. The frequent traveler flies more than twice a month.
b. The occasional gambler comes to my hotel.
c. The occasional professor manages to speak on science policy.
d. The odd barfly still drops in.
e. Frequent urination indicates a disease.
f. Frequent cold showers are often recommended for teenage boys.

F. Group Interpretations

a. The American consumer bought 28,000 BMWs last year.
b. Linguists have 8,000 books in print today.
c. Antelopes gather at the watering hole at dusk.
d. Swarming Africanized bees are dangerous.
e. Visiting relatives can be fun.

G. Derived Kind Predications

a. Man landed on the moon in 1969.

b. Man learned to solve cubic equations in the 16th century.
c. In Alaska, we photographed the grizzly.
d. Mister Fox broke into the chickenhouse again.
e. Sheila didn't want to spend the rest of her life working for the man.

(**G.d** is to be interpreted as saying that it might be a *different* fox who broke into the chickenhouse on separate occasions.)

One of the prime motivating examples for Generalized Quantifier Theory are complex NPs. We do not challenge their conclusion that a compositional theory that gets truth conditions correct can be constructed in which these are treated as (generalized) quantified NPs, just as we are not challenging the success of Montague Grammar to treat proper names as having sets of properties as semantic values, as discussed above. But the issue still remains of whether these phrases *are* quantifiers, or *are* referring expressions.

H. Complex NPs

a. John and Sally ate all the jellybeans.
b. Either John or Sally ate all the jellybeans.
c. Neither John nor Sally ate all the jellybeans.
d. The Nobel Committee will award both Dr. X and Prof. Y the prize.
e. The Nobel Committee will award either Dr. X or Prof. Y the prize.
f. The Nobel Committee will award neither Dr. X nor Prof. Y the prize.
g. John and some woman left the party together/sat side-by-side/kissed each other/read a book.
h. Every man in the room and his date are engaged in some suspicious behavior.

I. Type-Token Cases

a. This book got burned in Germany in the 1930s.
b. This book sells well.
c. This car is made in over 10 countries.

(In **I.c**, we are interested in an ambiguity between the brand of car vs. whether the individual auto has components from 10 countries.)

Finally, we would like to mention another group of examples that do not clearly seem to fit into any of the previous categories and yet do not seem to form any further categories among themselves

J. Potpourri

a. A mind is a terrible thing to waste
b. When dogs have fleas, it is best to keep them away from children.

c. An apple a day keeps the doctor away.
d. An apple a day keeps the doctor away.
e. Labor Day is a holiday in the United States.
f. The way you look at me makes me tremble all over.
g. The way it seems to me is different from most linguists.
h. The way you seem to be is irritating to all right-thinking people.
i. Five dollars will buy a drink in this bar.
j. This car gets 35 miles per gallon.
k. Late night TV is boring.
l. The religious right has been accused of a conspiracy to bomb abortion clinics.
m. The religious right advocates an adoption of fundamentalist religious behavior.

We certainly have not shown that there is a particular example which can't be understood as either a quantifier or a referring NP or a predicative NP. And the mere number of examples for which it is difficult to understand them as falling into any of these three camps alone does not *prove* that there are encuneral NPs. However, these considerations certainly make

The Encuneral NP Hypothesis: There are non-predicative encuneral NPs

a viable option. Reasonable people may disagree with this hypothesis, but we think that it would be most reasonable to accept it. We predict that the acceptance of the encuneral NP hypothesis will prove to be fruitful in both semantics and philosophy.

12. Conclusions

The NP Bifurcation Hypothesis was given initial plausibility merely because of a historical accident: the belief that there are no encuneral NPs is a natural outgrowth of the history of semantics, both in its medieval and its modern garb. The recent history started with the view that first order logic is an appropriate language in which to express the semantics of natural language. In first order logic there is nothing but predicates, singular terms, and quantificational phrases (which are "not even units at all"), and the attempt to force these categories onto natural language is one of the sources of the NP Bifurcation Hypothesis. So in this sense the prevalence of the NP Bifurcation Hypothesis is due to Frege, to Russell, and to all those philosophers and linguists who followed in their footsteps. First order logic and the underlying denotational semantics it is standardly given have had a tremendous influence on our thinking about language. But that the categories of NPs or singular terms that it acknowledges, namely quantifiers and referring expressions, are all the categories of NPs that we find in natural language should be seen as a radical and implausible conjecture. As we

discussed above, Dever finds support for the NP Bifurcation Hypothesis in the historical developments starting from Frege and Russell to the theory of direct reference and generalized quantifier theory. Good as these theories are in dealing with the small class of NPs for which they were originally conceived, it is a radical conjecture to think that *all* NPs are of one of these two kinds. The historical developments don't support the NP Bifurcation Hypothesis, but they do explain how this Hypothesis has achieved the status of an implicit guiding principle that is hardly ever explicitly discussed. Having a look at the vast variety of different NPs we have in natural language should make it clear how radical and implausible this conjecture really is.

We think there is an analogy that can profitably be drawn between our plea for different semantic relations than just denotation and quantification when interpreting NPs and the claim that we need more discourse relations than just assertion when interpreting the force of sentences. For, just as in the latter case there is need for non-truth-claims (questions, exhortations, warnings, etc.), so too there is a need for other semantic relations when interpreting NPs.

A critical stance towards the NP Bifurcation Hypothesis gives rise to several methodological consequences, some for semantic theory and others for philosophical debates.

On the semantic side, embracing the encuneral NP hypothesis gives rise to theoretical freedom. There would be no need to feel forced to semantically treat every NP as a quantified or a referential expression. That is, no need to feel forced to find some particular quantifier that is supposed to be part of the NP, and failing this, to feel forced to imagine or invent some referent for the NP. Semantic function is more diverse than merely “standing for objects” or “ranging over objects”, as the list of examples in the last two sections suggests. One might even hope that once this new freedom is wholly embraced, a new world of possible semantic analyses will follow.

On the philosophical side, we would like to point out that acceptance of the NP bifurcation hypothesis leads quite directly to certain views about ontological commitment and ontology. Since both referring expressions and, according to standard Quinean wisdom, quantifiers bring with them ontological baggage for a believer in the NP bifurcation hypothesis, it follows that

every NP in a sentence[19] will have ontological presuppositions for the literal truth of the sentence. Referring expressions presuppose the things they refer to, quantifiers the things they range over. So both types of NPs acknowledged by the NP Bifurcation Hypothesis are "ontologically loaded." But if the encuneral NP hypothesis is true, then there might be true (non-negative, etc.) sentences that contain such NPs but which have *no* ontological commitments or presuppositions whatsoever. And some of the examples that have led to a lot of debate within philosophy are exactly those that seem to be very good candidates for being encuneral NPs, as we tried to illustrate with our three examples of generics, *average*-NPs, and nominalizations. To deal fully with these issues will involve a much more substantial discussion of issues related to quantification, and of the semantic function *that*-clauses and other philosophically relevant NPs have. But partly because of the NP bifurcation hypothesis this general line of investigation has been neglected.

Finally, let us re-emphasize our belief that even if one chooses to follow us in denying the NP Bifurcation Hypothesis in general, one might nonetheless want to categorize some of the examples we put forward in the last two sections as referential, predicative, or quantificational. And let us also emphasize again that encuneral NPs will encompass a diverse group of semantic functions, and that it is not to be supposed that a unified theory of them is likely. What we hope to have made plausible in this paper is that we have reason to believe that *there are* encuneral NPs, what this means, and that *it matters* for both semantics and philosophy.

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[19] Of the right kind, of course, where the NP does not occur within the scope of a negation, or the like.

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