Abstract

The following points are to be argued for in this paper:

- Pronouns are not dangling Ds without lexical complements.
- The locus of Gender is N.
- Lack of descriptive content of N triggers pronominal interpretation.
- N features, when present, are not interpretable on Determiners.
- There seems to be a correlation between uninterpretable of N features and lack of lexically specified denotation.

In English, 1st and 2nd pronouns are Ds, 3rd person ones are N to D elements.

1. Brief overview of the literature

The major works on pronouns include Postal (1969), Abney (1987) and Cardinaletti & Starke (1994). Most linguists, and linguistics textbooks too, are happy to go by Abney's assumption that pronouns are Determiners, albeit with the added clarification that they have no NP complement, unlike Determiners like articles or, even, the rest of functional heads.

In this paper I will try to show not only that this assumption might be wrong, on the basis of empirical and theoretical grounds, but also that English pronouns do not display a uniform categorial makeup.

1.1 Postal

Postal was the first to quite convincingly argue that pronouns - or rather: their surface forms - are "articles" that take a noun like 'one' as a complement in Deep Structure. This noun is later deleted, during the course of the derivation. Naturally, this is true only when pronouns are not complemented by an overt noun phrase. Thus:

(1) We linguists tend to be quite parsimonious
next to

(2) We tend to be quite parsimonious

where whether this we refers to linguists, bank managers or butchers is ultimately a matter of pragmatic inference. In both (1) and (2) the pronominal form (we) and its complement ("deleted" or not) stand for a whole phrase. In Postal's terms, pronominal forms are articles with either an overt or deleted noun phrase complement.

1.2 Abney

Abney recasts Postal's proposal in terms of his DP hypothesis. Accordingly, pronouns are Determiners, functional heads of the same category as articles and demonstratives. Thus, we linguists in example (1) has essentially the same structure as both the linguists and these linguists.

He argues (pp. 282-3) that pronouns must be Determiners for two reasons:

1. They stand in complementary distribution with articles and demonstratives.

2. Assuming that the locus of phi features and Case is Determiners (as is claimed to be true in German) and not nouns, only pronouns are marked for objective Case and gender in English.

As for constructions like (2), he claims them to be DPs consisting of a single D(eterminer) head but, unlike Postal, with no empty NPs as a complement. This is justified in terms of the fact that pronouns are not R-expressions - have no descriptive content - and consistent with his view that puts all the phi features on D: An NP projection would be both redundant (no features to carry) and undesirable (would force a referential interpretation).

1.3 Cardinaletti (1994)

In what seems to be an earlier version of the theory put forward in Cardinaletti & Starke (1994), Cardinaletti (1994) juxtaposes what she considers the two plausible derivations for (strong) pronouns and opts for the second one that involves movement of N to D:

(3) a. [DP [D pronoun] [NP [N e]]]
   b. [DP [D pronoun] [NP [N t]]]

She argues that strong pronouns can not possibly be generated under D, as structures like (4) are ungrammatical:

(4) * she calligrapher

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2 Rounding up his account, he notes that pronouns are "clearly functional elements. They belong to a closed class, and though they refer, they do not describe: they do not provide a predicate over individuals, but merely mark grammatical features" (p.284)
2. English personal pronouns
It is interesting to look into the paradigm of pronouns in English as they present a range of properties that both brings them together with the other Determiners but differentiates them at the same time - compare (1) with (4). In this paper we will restrict our scope to personal pronouns only. As a first step, I am going to attempt an answer to the following questions:

(5) What is the reason for the contrast between (1) and (4)?
(6) Why are both (1) and (2) available?

2.1 Pronouns and (other) Determiners
In order to answer the questions (5) and (6), it would be useful to consider the distributional peculiarities of the definite article (7), demonstratives (8) and pronouns (9, 10), as they may provide us with clues on their derivational history and feature makeup:

(7) the
   a. The (skilled) calligrapher(s)
   b. The (skilled) one(s)
   c. The *(skilled)
(8) this/ these
   a. This (skilled) calligrapher/ These (skilled) calligraphers
   b. This (skilled) one/ These (skilled) ones
   c. This *(skilled)/ These *(skilled)
(9) we
   a. We (skilled) calligraphers
   b. We *(skilled) ones
   c. We *(skilled)
(10) (s)he
   a. *(She) (skilled) calligrapher
   b. *(She) (skilled) one
   c. *(She) *(skilled)

In (7-10) above different elements in D position are tested for grammaticality with
   a. a full nominal complement
   b. a nominal complement headed by "one" (which behaves quasi-pronominally in the sense that it does not have a fixed referent, although it appears in N position)\(^3\)
   c. No complement
What we see is that:

\(^3\) The idea of the pronominal interpretation of 'one' (because it "lacks the specific sense properties of count Nouns") as well as the existence of a phonologically empty counterpart of one that complements pronominal Determiners belong to Radford (1993).
• 3rd person pronouns do not tolerate complements or adjectives
• 1st and 2nd plural pronouns and demonstratives do not take bare adjectives as complements but can stand alone (the reverse is true for the)

### 2.2 Third Person pronouns

As we have seen, *he* and *she* (10) do not tolerate any kind of complement. One could conjecture, staying within the spirit of Abney's 'bare D' proposals, that *he* and *she* need no complement as they are fully specified for person, number, gender and case (recall that all grammatical features reside on D according to Abney).

A first empirical problem would be the set in (9): we is as specified, save for one thing: gender. Nevertheless, it can take a complement and, in Postal's terms, act as an article.

Besides restrictions on co-occurrence within DP, the presence of gender is a good diagnostic to test the categorial status of 3rd person pronouns. In all languages that exhibit gender, this can usually be seen marked morphologically on the noun and/or it is related with semantic properties of the noun: animacy, sex and so on. Moreover, there are not attested any languages with gender systems of a purely formal nature, where the actual semantic properties of the nouns are completely irrelevant. What is more, there are languages - Slavic ones for example - that have no overt articles, but still exhibit a rich gender system involving agreement not only with adjectives but with verb forms, too. I think that all these facts point to the direction that gender is not a property of Determiners, the same way it is not a property of adjectives.

In more technical terms: Gender features are not interpretable on either D or A, gender can be marked there only as a result of agreement - where applicable. Following Chomsky (1995), we can claim that Gender is intrinsic (i.e. lexically specified) on N.

So, how can we account for 3rd person pronouns being marked for Gender?

A possible answer (and to (5) as well) is that *he*, *she* and *it* are the only instances of overt N to D movement in English. Recall that this is exactly Cardinaletti's (3b).

Now, this explains the ungrammaticality of (4) and (10), i.e. all those attempts of something to occupy either D or N, as the former is filled with an empty Determiner and the adjoined nominal head and the latter with this head's copy/trace.

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4 Corbett (1991:63)
5 ibid. p.125-6
6 As in Romance, Slavic or German...
7 pp. 231, 236 & 277
8 The same has been argued by Zwarts (1994), departing from different assumptions.
As to what kind of denotation nominal heads *he*, *she* and *it* have, the answer cannot be other than *none*. Actually, it is going to be argued extensively in this paper that this **null denotation of Ns** involved in the derivation of pronouns is responsible for their "pronominal" interpretation. In English, an example of a noun with no denotation - and thus a **quasi-pronominal** status is "one". This indeed is the normal noun (as seen above) counterpart of those pronominal Ns.

2.2.1 Real 3-D, 3rd person pronouns that are Ds

Now, notice that a combination of a 3rd person pronominal Determiner with a complement phrase is not inconceivable. To illustrate this point, we turn to a language with a phi system quite as impoverished as the English one, Dutch, in order to demonstrate that nothing in the semantics of a 3rd person pronoun prevents it from taking a restrictive complement, in other words: **pronominality is an output of syntax, not a primitive**.

Dutch is also interesting in the sense that it presents two series of 3rd person pronouns. The first consists of ‘common gender’ *he* (=he) and *zij* (=she) that pass (i.e. fail) all the tests in (10); in other words they can only stand alone. The zero hypothesis here would be that they are N to D elements, too.

Next to them the ‘neuter’ pronoun *het* exists in a league of its own. It is a definite pronoun too and, of course, it can stand by itself. What is more, it can also take nominal complements like normal Ds do. All these despite its utter impoverishment: it exists only in singular and it is marked for the default gender: there is no special semantic specification on it (like, say, ‘demonstrative’) to ‘support’ its standing alone (eventually, it is used as an expletive).

Now, *het* is too similar to both English *the* - compare (7) to (11b-c) - and *we* - compare (2) to (11a). I guess it should come as no surprise that the interpretation it receives with a nominal complement is that of a definite article.

(11) a. Het
It
b. Het (vreselijke) kind
the horrible child
c. Het nieuwe huis en het oude.
The new house and the old

Moreover, it would be plausible to claim that when *het* stands by itself, it is in fact complemented by a phonologically null noun of null denotation.

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*At this point I wish to specially thank Laura Rupp for her suggestions and native intuitions.*

equivalent to English ‘one’. Again, we can claim that this is how the pronominal interpretation is triggered in C-I systems: by the presence of a nominal head with no denotation.

The idea of a phonologically null counterpart of ‘one’, which we can dub $e_N$, should now be tested on question (6).

2.3 1st and 2nd person pronouns- Plural

English pronouns of the 1st and 2nd person plural constitute the par excellence paradigm of the analysis for pronouns as Determiners, since Postal (1969)\(^{11}\); nevertheless, an answer to the anything but trivial question (6), why both we (skilled) calligraphers and we are available is desirable.

In more detail, it is expected that the full NP that complements $we$ in (1) is merged there in terms of feature checking. More precisely, when $we$ is merged with the NP (skilled) calligraphers, it locally checks features contained in this phrase (I try to be quite vague at the moment). Merging may come for free but cannot be gratuitous, otherwise, anything would merge with anything.

Now, in the case of (2), i.e. a $we$ by itself, the abnecian story is that it is a dangling (aka “intransitive”) Determiner hanging from a single-membered DP. The problems are of both empirical and theoretical nature:

In which way is a $we$ by itself different from that in $we$ linguists?

What happens to unchecked features when $we$ stands by itself?

Are there two homophonous lexical entries with different feature specifications?

Moreover, $D$ is a functional head. Abney (1987:285) has stipulated that ‘determiners may differ from other functional elements in that determiners appear sometimes without complements’. Why? Or even better, why only sometimes? When exactly?

I believe that the postulation\(^{12}\) of an $e_N$ heading an NP complement is in the right direction in answering these questions. Nevertheless, we should now see if there is something special with $e_N$ that prevents it from co-occurring with adjectives when the head of the dominating DP is $we$ or a demonstrative (8-9).

2.4 N features

2.4.1 Generalising over the data

Let’s begin with a descriptive generalisation, based on the data from the ‘tests’ to which I submitted different types of Determiners in (7-10). It turns out that

\(^{11}\) Here we is going to be used almost exclusively due to its unambiguous interpretation

\(^{12}\) As in Lobeck (1991) and Radford (1993)
(12) Determiners specified for number do not take bare adjectives as complements.

There seems to be something non-trivial here. As is clear in (7-10), Determiners specified for number, like *we, this, these* etc., although they cannot take an adjective + eN as a complement, they can take full NP arguments - and this differentiates them from *he, she, it* that do not take complements whatsoever. The can take adjective + eN as complements and this is quite a productive process, too: it comprises the instances of nominalisation of adjectives.

I think that here is where N features fit into our story. We postulate that N features, although categorial are uninterpretable\(^\text{13}\) on Determiners and Adjectives and also that *the* is different from the rest of Determiner heads because it does not bear an N feature at all, and this contrast will be invoked to explain generalisation (12)\(^\text{14}\).

Now as far as *he, she* and *it and they* are concerned, it is understood that either on D or on N this categorial N feature must be strong, as it triggers overt movement. To tell on which is not an easy task but, still, feasible assumptions can be drawn.

Recall that empty Determiners head proper nouns in English, which contrasts it with languages like Italian (that usually moves proper nouns overtly and adjoins them to this empty Determiner) or Modern Greek (that always inserts an overt expletive Determiner) - as explained in Longobardi (1994). Let us go by the zero hypothesis that it is the same empty determiner that *he, she* and *it* are adjoined to be Spell Out. This empty definite Determiner cannot be strong then in English: it would trigger N to D with proper nouns, too. Then it should be strength of the N feature of N that triggers overt movement\(^\text{15}\).

As for eN itself, it would be enough to assume that its N feature is uninterpretable at LF. Now, the same should be true for *he, she* and *it* as well. Consequently, both eN and 3rd person pronominal Ns:

1. Cannot stand on their own (this would incur a crash), without a Determiner. This seems to hold universally, the presence of eN and other semantically empty nouns is correlated with definiteness, deixis and so on\(^\text{16}\).

\(^{13}\) Contra Chomsky (1995:277) where categorial features are assumed to be always interpretable.

\(^{14}\) On the idea that there seem to be two classes of Determiners. Szabolcsi (1994:216-8)

\(^{15}\) Strength, of course, does not necessarily entail uninterpretabilitv of a feature. An alternative account could be that there is a strong D on N.

\(^{16}\) I oversimplify here. See also Lobeck (1991:83) for a detailed account on what features on functional heads may licence empty lexical ones (her Ellipsis Licensing Principle).
2. The N features of both D and N (being uninterpretable) are eliminated by LF: Pronouns proper\textsuperscript{17} are just a bunch of phi features at LF waiting for the C-I systems, outside the language module, to disambiguate them. This also accommodates Abneys objection to having nouns involved in pronouns, because pronouns have no denotation: no categorial feature of a noun survives at LF.

The whole idea is illustrated below in the context of the ungrammaticality of (9b):

\begin{center}
(13) Why *we skilled is ungrammatical
\end{center}

\begin{center}
\includegraphics[width=0.7\textwidth]{tree.png}
\end{center}

N features are the only ones portrayed above. The problem causing the derivation to crash is with the uninterpretable N feature of e\textsubscript{N}. In normal cases, it will raise covertly to D, where uninterpretable N features are going to be matched, checked and eliminated.

Now, in (13=9b) categorial N of e\textsubscript{N} can raise only as far as A, as this is the closest potential attractor/ antecedent (in MLC and Relativized Minimality terms respectively). This leaves the uninterpretable N feature of the Determiner unchecked and the derivation crashes.

On the other hand, the, being unspecified for N does not face such problems and that's why it can be complemented by adjective + e\textsubscript{N}.

2.4.2 What about 1st and 2nd person singular pronouns?
So far the basic claim that underlies this paper has been that nominals without descriptive content are the essence of pronominality. In other words, both the phonologically empty e\textsubscript{N} and he, she, it, they (and their accusative counterparts, of course) do not have a fixed reference to

\textsuperscript{17}That is, any semantically empty N with a Determiner... Here, I gloss over the presence of the Determiners categorial D feature.
objects of the real world (are not R-expressions) as a result of their lexically encoded meaning and this meaning’s manipulation through the grammatical component but – essentially – because they receive an interpretation beyond LF, restrictions like Binding Principle B notwithstanding.

What remains is to see what I and you (sing.) are. The zero hypothesis is to assume that, like 1st and 2nd person pronouns in the plural, they involve an overt Determiner – Person seems to be encoded on D universally. Recall also that 3rd person pronouns, are instances of phonologically filled but semantically empty N heads raising to a D head because of the strength of their N feature. Pronominal we and you (plural) -like demonstratives- involve covert feature raising of e_N to a filled D. On a par, I and you (sing.) could be like their plural counterparts. Why then do singular Person pronouns not ‘tolerate’ a complement?

First of all, at least 2nd person Determiners in languages as Dutch and German actually do take complements. Consider:

(14) *I linguist resent linguistic discrimination
(15) *You linguist have proved that there exist no superior languages contrasted with German rough equivalents
(16) *Ich Sprachwissenschaftler kann nicht die sprachliche 
    linguist can not the of-languages
    Diskriminierung leiden
discrimination take
(17) Du Sprachwissenschaftler hast es bewiesen, daß...
    You linguist have it proved that...

and Dutch ones:

(18) *Ik saaie taalkundige
    I boring linguist
(19) Jij saaie taalkundige leest alleen maar
    You boring linguist read only all-the-time

Recall that both Dutch and German display an identical behaviour to English wrt to 3rd person and 1st and 2nd person plural pronouns.

Some useful observation towards understanding the full functionality of du and jij as 2nd person articles might be that in both languages there are different forms for singular and plural 2nd person Determiners (du vs. ihr and jij vs. jullie).

As for the 1st person, it must be first noted that restriction of the notion of the ‘speaker’ is not inconceivable from a semantic point of view. Thus, “I as a university lecturer” in

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18 Pointed out to me by Roger Hawkins
(20) I as a university lecturer demand that more money be put into Higher Education

essentially involves restriction as the speaker here refers to himself/herself fulfilling a particular kind of role. The bottom line is that the unacceptability of (14) and (15) 'feels' syntactic and neither semantic nor involving C-I systems.

What I can offer, as a conjecture, to explain the ungrammaticality of (14), (16) and (18) is the following: perhaps it is the case that Determiners I and you (sing.) are not formally specified for Number. In other words, they cannot have a NumP - a full fledged nominal phrase, in other words19 as a complement as they lack Number features and this would probably prevent the derivation from achieving F1. This might fit in nicely with the contrast between (15) on one hand and (17) and (19) on the other: du and jij are surely specified for Number and, consequently, can have NumP complements.

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