The categorical determination of pronominal binding properties

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The categorical determination of pronominal binding properties

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0. Introduction

Since Ahney’s (1987) re-interpretation of Postal’s (1966) analysis of pronouns, it has been standardly assumed that pronominals are universally of category DP. This paper argues against this assumption. It is shown that there are different pronominal types which crucially differ with respect to their syntactic category. In addition to the morphosyntactic evidence for this claim we will present evidence from the binding properties of the different pronominal elements. It will be shown that the binding properties of these different pronominal elements are in fact determined by their syntactic category. Thus, it will be shown that binding theory is sensitive to syntactic categories.

1. The Problem

According to Binding Theory, pronouns are subject to Condition B (pronouns have to be free in their binding domain). In this paper, I will show that different pronouns show different binding properties. Some pronouns cannot be bound. Thus, the simple view that all pronouns are subject to condition B cannot be maintained. The languages under consideration are two Salish languages (Halkomelem and Shuswap) and two Germanic languages (English and German).

A. The Syntactic Problem:
What are pronouns syntactically and what determines their binding behavior?

B. The Variation Problem:
Why and how exactly do pronouns across languages differ from each other?

C. The Learnability Problem:
How does the child acquire the behavior of pronouns?
One solution to the above problem that comes to mind is of course to parametrize the binding behavior of pronouns. However, we can easily dismiss this possibility given that German has two sets of pronouns which differ in their binding properties. This suggests that we have (at least) two sets of pronouns. However, once two sets of pronouns are identified, the problem arises as to how standard binding theory distinguishes between these pronouns.

2. The Proposal

As mentioned above it seems to be necessary to recognize (at least) two different sets of pronouns. This insight will make up the core of the analysis.

2.1. Solving the syntactic problem.

The problem we are faced with can be solved by dismissing the standard assumption that pronouns are universally of the same syntactic category, namely DP. I propose that different pronominal forms can be of different syntactic categories: namely (nominal) AgrP and DP. I will continue to refer to Pronouns of category AgrP as Agr-pronoun and pronouns of category DP as D-pronoun. With this proposal, we can now easily solve the problem as to how binding theory distinguishes between different types of pronouns: it simply has to be redefined such that it is sensitive to syntactic categories in the following way:

(1) Principle B: (Nominal) AgrPs cannot be bound within their binding domain. Principle C: DPs have to be free.

This means that what at first sight looks like a pronoun can in fact be an R-expression and thus subject to principle C. The result of this proposal is summarized in the table below:

<table>
<thead>
<tr>
<th>Type of Pronoun</th>
<th>Category</th>
<th>Binding Principle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agr-Pronoun</td>
<td>AgrP = Pronoun</td>
<td>Principle B</td>
</tr>
<tr>
<td>D-Pronoun</td>
<td>DP = R-expression</td>
<td>Principle C</td>
</tr>
</tbody>
</table>

Note that this proposal has the advantage formally defining pronouns and R-expressions. It was exactly the lack of such a definition that created the problems above.
2.2. Solving the variation problem

With the assumption that there are (at least) two different kinds of pronouns, the variation problem disappears: apparent syntactic variation of pronominal binding properties reduces to the category of a given pronoun in a given language. The situation in the languages under consideration summarized in the following table:

<table>
<thead>
<tr>
<th>LANGUAGE</th>
<th>EXAMPLE</th>
<th>CATEGORY</th>
<th>BINDING PRINCIPLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>he</td>
<td>AgrP</td>
<td>Principle B</td>
</tr>
<tr>
<td>German</td>
<td>er</td>
<td>AgrP</td>
<td>Principle B</td>
</tr>
<tr>
<td></td>
<td>der</td>
<td>DP</td>
<td>Principle C</td>
</tr>
<tr>
<td>Halkomelem</td>
<td>tútl’b</td>
<td>DP</td>
<td>Principle C</td>
</tr>
<tr>
<td>Shushwap</td>
<td>newl’7s</td>
<td>AgrP</td>
<td>Principle B</td>
</tr>
</tbody>
</table>

2.3. Solving the learnability problem

Given the proposal we have developed, the learnability problem receives a straightforward solution. In order to know the binding properties of a given pronominal form, all the child needs to acquire is the category of the pronoun. I will assume without going into any detail that pronominals are (by default) analyzed as AgrPs unless there is evidence to the contrary. There are (at least) two potential triggers for analyzing pronominals as DPs. First, the pronoun can be homophonous with a determiner, in which case it most likely IS the determiner used pronominally (i.e. with an empty NP). Secondly, the pronoun can be headed by a syntactically visible determiner.

3. Deriving the binding behavior of pronominals

In this section I will show how the proposal developed in section 2 derives the binding properties of pronouns in four languages: English, German, Halkomelem and Shushwap.

3.1. English

Consider first the system of pronouns and determiners in English:

<table>
<thead>
<tr>
<th>Personal Pronouns</th>
<th>MASC.SG.</th>
<th>FEM.SG.</th>
<th>NEUT.SG.</th>
<th>PL.</th>
</tr>
</thead>
<tbody>
<tr>
<td>he</td>
<td>she</td>
<td>it</td>
<td>they</td>
<td></td>
</tr>
</tbody>
</table>

It is obvious from the table above that English pronouns are neither homophonous with the determiner nor do they contain the determiner in any sense. Thus, English pronouns are (by default) analyzed as AgrP. Consequently, English pronouns are subject to
Principle B: they can be bound outside their binding domain as exemplified in the following examples:

(5)  a. *Arnold* believes that he is strong.
     b. *The man* was looking for a coat of his.

As an AgrP subject to principle B the pronouns in (5) can be either coreferent or non-coreferent with the c-commanding DP.

3.2. German

German has two sets of pronouns: a set of personal pronouns and a set of so called d-pronouns. Let us compare these sets of pronouns with the definite determiner. The table below shows the singular and plural nominative forms of all genders:

(6) The pronoun and determiner system

<table>
<thead>
<tr>
<th></th>
<th>MASC.SG</th>
<th>FEM.SG</th>
<th>NEUT.SG</th>
<th>PL.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Pronouns</td>
<td><em>er</em></td>
<td><em>sie</em></td>
<td><em>es</em></td>
<td><em>sie</em></td>
</tr>
<tr>
<td>&quot;D-pronouns&quot;</td>
<td><em>der</em></td>
<td><em>die</em></td>
<td><em>das</em></td>
<td><em>die</em></td>
</tr>
<tr>
<td>Definite determiners</td>
<td><em>der</em></td>
<td><em>die</em></td>
<td><em>das</em></td>
<td><em>die</em></td>
</tr>
</tbody>
</table>

First, let us look more closely at the set of personal pronouns. It is clear from the table above that they are neither homophonous with the determiner nor do they contain the determiner. As in English, they are thus analyzed as AgrP and consequently German personal pronouns are subject to Condition B as exemplified in the following examples:

(7)  a. *Arnold* glaubt daß *er* stark ist
     Arnold believes that he is strong
     ‘Arnold believes that he is strong.’
     b. *Der Mann* hat *seinen* Mantel gesucht.
     the man has his coat searched
     ‘The man was looking for his coat.’

In (7) the pronoun can be construed as either coreferent or non-coreferent with the c-commanding DP.

Next consider the set of d-pronouns. This set is strictly homophonous with the definite determiner. Accordingly these pronouns are analyzed as DPs. Consequently German d-pronouns are predicted to be subject to Condition C, which is indeed the case as exemplified by the examples below:

(8)  a. *Arnold* glaubt daß *der* stark ist.
     Arnold believes that he is strong
     ‘Arnold believes that he is strong.’

---

2 For a more detailed analysis of German d-pronouns and their properties see Wiltschko 1998.
Pronominal Binding Properties

b. Der Mann hat dem seinen Mantel gesucht.
   The man has d-pron his coat searched

In (8) the d-prons can only be construed as non-coreferent with the c-commanding DP. (Note that the example in (8)b is from a non-standard German variety spoken in Bavaria and Austria.)

3.3. Halkomelem

Halkomelem is a central coast Salish language, spoken in British Columbia. The data used here are from the upriver dialect (Stó:lō Halq’eméylem).

Like the other Salish languages, Halkomelem is radically head-marking, i.e. full DP-arguments are optional. Arguments are marked on the verb as clitics or agreement endings. Besides these pronominal forms there is also a set of so called independent (or emphatic) pronouns. These have the same syntactic distribution as full (DP)-arguments. The table below shows the set of independent pronouns in Halkomelem:

(9) Independent pronouns (Galloway 1993: 403)

<table>
<thead>
<tr>
<th></th>
<th>SG</th>
<th>PL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>te’élthe/te’élthe</td>
<td>telhímelh</td>
</tr>
<tr>
<td>2</td>
<td>teléwe</td>
<td>telhwélep</td>
</tr>
<tr>
<td>3</td>
<td>tútu’ô/thút’ô</td>
<td>tút’ô:lem/thút’ô:lem/yut’ô:lem</td>
</tr>
</tbody>
</table>

What is striking about these pronouns is the following empirical observation: they are all “prefixed” with the determiner-like element te (cf. Galloway 1980, 1993). The question is whether tétu in independent pronouns is the determiner or whether it is simply homophonous with the determiner? To decide on this issue we have to take a closer look at the Halkomelem determiner system. Determiners vary along a number of dimensions, i.e. number, gender and remoteness (cf. Galloway 1993). The paradigm is given in the following table:

(10) Halkomelem determiners (Galloway 1993: 387)

<table>
<thead>
<tr>
<th></th>
<th>MALE OR SEX</th>
<th>FEMALE</th>
<th>HUMAN AND SEX</th>
</tr>
</thead>
<tbody>
<tr>
<td>MALE OR SEX</td>
<td>UNSTATED OR INANIMATE</td>
<td></td>
<td>UNSTATED</td>
</tr>
<tr>
<td>PRESENT + VISIBLE</td>
<td>te</td>
<td>the</td>
<td>—</td>
</tr>
<tr>
<td>NEAR + NOT VISIBLE</td>
<td>kwthe</td>
<td>se, kwse</td>
<td>tl’</td>
</tr>
<tr>
<td>DISTANT, ABSTRACT, PAST,</td>
<td>kw’e</td>
<td>kw’the, kwse</td>
<td>tl’</td>
</tr>
<tr>
<td>PLURAL</td>
<td>(any of the above)</td>
<td>(any of the above)</td>
<td>ye</td>
</tr>
</tbody>
</table>

---

3 According to Newman (1977), Halkomelem is the only Salish language where the determiner is found on independent pronouns.

4 According to my own field-work the distribution of tl’ differs from Galloway’s description: it is an oblique determiner used solely on proper names.
Crucially, all of the determiners in table (10) are also attested with independent pronouns. The determiner-like element can agree according to number, gender and remoteness as indicated in the table below (where the crucial determiner morpheme is in boldface):

<table>
<thead>
<tr>
<th></th>
<th>MALE</th>
<th>FEMALE</th>
<th>HUMAN PLURAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>singular</td>
<td>tū(·)tl'ō</td>
<td>thū(·)tl'ō</td>
<td>----</td>
</tr>
<tr>
<td>plural</td>
<td>tutl'ōlem</td>
<td>thul'ōlem</td>
<td>yutl'ōlem</td>
</tr>
<tr>
<td>absent</td>
<td>kwthú:tl'ō</td>
<td>kwsú:tl'ō</td>
<td>kwthú:tl'ōlem</td>
</tr>
</tbody>
</table>

This pattern allows for a straightforward empirical conclusion: Given that all possible determiners are productively used on independent pronouns, we can assume the prefixed te/lu is really the determiner.

Furthermore there is evidence that the determiner is not just lexicalized. Rather it can be analyzed as heading the independent pronoun in a way that is visible for syntax. For reasons of space I will only present one piece of evidence (see Wiltschko 1998a for further evidence).

The determiner on independent pronouns is dropped in predicate position whereas it has to be present in argument position.

(12) a. lám tū-tlō
     go det-3Indep
     'He goes.' (Galloway 1993; p. 173)

b. *lám tō
    go 3Indep

(13) a. tlō-cha te Bill kw'e may-t-ōme
    3-FUT det Bill Comp help-trans-2s.obj
    'It will be Bill that helps you.' (Galloway 1993; p. 172)

b. *tūtl'ō-cha te Bill kw'e may-t-ōme
    det-3-FUT det Bill Comp help-trans-2s.obj

Given the examples in (12) and (13) we can conclude that the determiner on independent pronouns is indeed syntactically visible. Otherwise it would not be expected to be sensitive to the predicate argument distinction, which is a syntactic distinction.

The example in (13) is also important in another respect. It shows that pronominal forms can occur in predicate position. This supports the assumption that "pronouns" are not uniformly of category DP since DPs are excluded from predicate position (see Matthewson 1996).

We can now come back to the binding behavior of pronouns. According to the proposal in 1, Halkomelem independent pronouns are analyzed as DPs. Consequently, they are predicted to be subject to Condition C. This prediction is indeed borne out as shown in the following examples:
Pronominal Binding Properties

(14) a. suq'-t-es te swyeqe1 [te kopú-su7] search-trans-3s det man det coat-3poss; 'The man was looking for his coat.'
b. suq'-t-es te swyeqe1 [te kopú-s tútl'bo7] search-trans-3s det man det coat-3poss det-3Indep 'The man was looking for his coat'
c. *suq'-t-es te swyeqe1 [te kopú-s tútl'bo7] search-trans-3s det man det coat-3poss det-3Indep 'The man was looking for his coat'

Wiltshko 1998a: 444

In (14), we are dealing with a regular VSO sentence, where the object (te kopús) contains a possessive. Here, the 3rd possessive marker (-s) can be read as coreferent with the preceding subject NP (te swyeqe).

(14)b is a parallel construction, with the only exception that the object possessive NP contains a 3rd person independent pronoun (tútl') which functions as the possessor (in addition to the possessive ending (-s). In (14)b the possessor is construed as non-coreferent with the preceding subject NP, yielding a reading where the man was looking for a coat that belongs to somebody else but himself. Crucially, this is the only possible reading that a sentence like (14)b can have. As (14)c shows, if the possessor is construed as coreferent with the preceding subject, the sentence is judged as ungrammatical. Thus the examples in (14) confirm the prediction that pronouns that are of category DP are indeed subject to Condition C.

Note that Halkomelem like other Salish languages crucially differs in its coreference possibilities across clauses (cf. Matthewson, Davis, Gardiner 1993; Demirdache 1996). This is independent of the behavior of pronouns and will not be of any concern in this paper.

3.4. Shushwap

Shushwap (Secwepemctsin) belongs to the Northern Interior branch of Salish spoken in the interior of British Columbia. Like Halkomelem it is radically head-marking and it has a set of independent (emphatic) pronouns given in the table below:

<table>
<thead>
<tr>
<th></th>
<th>SG</th>
<th>PL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>n-tsets-we7</td>
<td>will-enwi7kt/will-enwi7-s-kucw</td>
</tr>
<tr>
<td>2</td>
<td>7-enwi7</td>
<td>will-enwi7-mp</td>
</tr>
<tr>
<td>3</td>
<td>newi7-s</td>
<td>will-enwi7-s</td>
</tr>
</tbody>
</table>

The above paradigm indicates that Shushwap independent pronouns are not homophonous with the determiner (which is re) nor do they contain the determiner. Note however that these pronouns are morphologically complex: they are composed of a stem, a possessive marker and a plural prefix. However Lai 1998 shows that these pronouns are syntactic atoms.
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According to the present proposal they are (by default) analyzed as AgrP. Consequently, Shushwap independent pronouns are predicted to be subject to Condition B. This prediction is indeed borne out:

(16) tsut m qwetséts newi7s
say-3sg past leave-3sg. 3sg.indpr
‘He said that HE left.’

Lai 1998

Notice that there is independent evidence for the claim that independent pronouns in Shushwap are not DPs.
First, some independent pronouns can be preceded by the determiner. If they were DPs themselves this would be unexpected.

(17) wi.w.k-t-Ø-en re n-tsétswe7
see(redup)-tr-3sg.o-1sg.s det 1sg.Indep
‘I saw him.’

(Lai 1998)

Secondly, independent pronouns in Shushwap can occur in predicate position, a position that is excluded for DPs otherwise (cf. Lai 1998):

(18) newi7-s . re wfk-t-Ø-m-es
3sg.Ind det see-tr-3sg.o-pas-3sg.conj
‘It is HIM that saw him/her.’

(Lai 1998)

4. Conclusion

In this paper we have seen crucial evidence that pronouns are not uniformly of category DP. The evidence stems from two different language families: Germanic (English and German) and Salish (Halkomelem and Shushwap). In addition to morphosyntactic evidence for a difference in the categorical status of two different kinds of pronouns we have seen that it correlates with a crucial difference in their binding properties.

Identifying two pronominal categories (AgrP and DP) allows us to maintain a simple definition of binding principle B and C sensitivized to categories (in the spirit of Safir 1995 and Reinhart & Reuland 1993 for anaphora; cf. also Wiltschko 1998b), i.e. AgrPs are subject to Condition B whereas DPs are subject to Condition C, no matter whether they are full DPs or “pronominal” DPs.

References

Pronominal Binding Properties


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