Argumenthood, Pronouns, and Nominal Feature Geometry*

Elizabeth Cowper and Daniel Currie Hall
University of Toronto

1 Introduction

Déchaine and Wiltschko (2002, 2007) argue that pronouns can be classified into three types, corresponding to the nominal categories DP, ϕP, and NP. Each category has a characteristic set of syntactic and semantic properties:

- Pro-DPs appear where DPs appear in the syntax, and are always interpreted as arguments rather than as predicates. They behave like R-expressions and thus have no bound readings. They can be coreferential with other arguments by assigned coreference but not by binding.
- Pro-ϕPs appear where ϕPs appear in the syntax. They can be either arguments or predicates, and are able, but not required, to be interpreted as bound variables.
- Pro-NPs appear where NPs appear in the syntax. They can be predicates but not arguments, and are undefined with respect to the binding theory. Their interpretation depends on their semantic content.

The English pronoun *one*, they argue, is a pro-NP. The focus of this paper is the other personal pronouns of English, which Déchaine and Wiltschko argue are of two sorts: pro-DPs and pro-ϕPs. According to Déchaine and Wiltschko (2002), English first- and second-person pronouns are DPs, while third-person pronouns are ϕPs; Déchaine and Wiltschko (2007) present an account, revised in light of binding facts pointed out by Rullmann (2004), in which first- and second-person pronouns, though still usually DPs, can be coerced to be ϕPs by the presence of a suitable A-bar binder.

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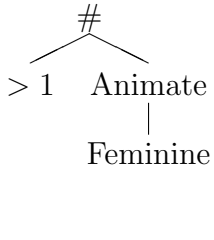
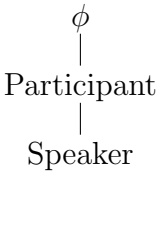
In this paper, we present an account of English pronouns that builds on Déchaine and Wiltschko's set of categorial distinctions and further incorporates insights on the geometry of person, number, gender, and definiteness features (Harley and Ritter 2002; Cowper and Hall 2003; Cowper and Hall 2005; Cowper 2005, *inter alia*). In our approach, the interpretation of DPs, ϕPs, #Ps, and NPs as predicates or arguments, and as constants or bound variables, is determined by the semantic content of the features hosted on each projection. We propose that all English personal pronouns other than *one* are ϕPs, and offer an account of the person asymmetries that is based primarily on features rather than on syntactic categories. We also briefly show how our system of features and projections can apply to Halkomelem and Shuswap, two other langauges treated by Déchaine and Wiltschko (2002).

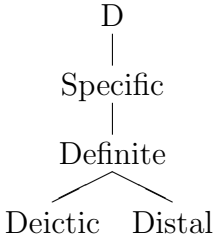
2 The features and their combinations

2.1 Dependency relations

The feature-geometric dependency structures we propose for English are shown in (1). #, ϕ, and D each represent a syntactic head (i.e. a feature that projects in the syntax), and the dependents of each are the features that can characterize that head.

(1) a. 

b. 

c. 

The features in (1a), which appear on the head of a #P, encode number and gender in English.[1] The presence of # in a nominal makes it individuated; nominals lacking a # projection are interpreted as mass. The feature > 1 encodes plural; nominals without this feature are interpreted as singular. The feature Animate characterizes animate or human nominals; in its absence, the nominal is non-human or inanimate.[2] Animate nominals are further subdivided into those that are feminine, characterized by a dependent feature, and

1. Cowper (2005) argues that in three-way number systems, the plural is encoded by a further dependent > 2, and > 1 alone encodes the dual. Nothing in this paper hinges on accepting this particular treatment of duals, however.

2. We do not intend, in using this feature, to make any claims about exactly where speakers of English draw the line, zoologically speaking, between things referred to with *he* or *she* and those referred to with *it*.

those that are not. In the absence of the feature Feminine, a nominal bearing the feature Animate will be interpreted as masculine.

The dependence of Animate on # predicts that expressions referring to animate beings in English will be count, not mass. Gender and animacy are not necessarily dependent on # in other languages; in particular, languages with a more extensive grammatical gender system can have mass nouns with gender. (See Ritter (1993) for discussion of the variable location of gender.)

Person features in English appear on ϕ (Harley and Ritter 2002; Cowper and Hall 2005). The feature ϕ itself introduces an index, converting a predicate into an indexed argument. The dependent feature Participant indicates that the referent is a discourse participant; in the absence of this feature the nominal is interpreted as third person. Participants are further subdivided by the feature Speaker, which characterizes first person nominals. Participant without Speaker gives second person.[3]

The features in the D hierarchy in (1a) are those of Cowper and Hall (2003). D itself introduces a choice function that converts a predicate into an argument, and its dependent features further specify the scope and domain of this choice function. The feature Specific gives the function wide scope; in the absence of further dependents, a Specific DP will be a wide-scope indefinite. Definite DPs have a Definite feature dependent on Specific, and may be further specified with either or both of the features Deictic and Distal. A Deictic DP is explicitly located with reference to the deictic centre of the utterance. A Distal DP, if it is also Deictic, is physically distant from the speaker; in the absence of Deictic, Distal identifies the referent of the DP as being remote from the foreground of the discourse.

2.2 Vocabulary items

The English vocabulary items that spell out the features in (1) are listed in (2). The determiners listed in (2a) spell out features in the D hierarchy and sometimes also number; the pronouns in (2b) spell out features of ϕP and #P, and also Case (which we will not attempt to decompose into features here[4]).

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3. Languages may vary as to which of Speaker or Addressee is the marked dependent of Participant. It has been argued (Béjar 2003) that in Algonquian languages, Addressee is the marked dependent.

4. See, e.g., Béjar and Hall (2000) and Müller (2004) for proposals on case feature systems in Arabic, Old Church Slavonic, and Russian.

(2) English vocabulary items spelling out subsets of (1)

a. Determiners:

a(n)	D, #	*this*	Specific	THIS	Deictic
the	Definite	*these*	Specific, > 1	THESE	Deictic, > 1
sṃ	D	*that*	Distal	THAT	Deictic, Distal
∅	D	*those*	Distal, > 1	THOSE	Deictic, Distal, > 1

b. Pronouns:

I, me	Speaker, Human	*it*	ϕ
you	Participant, Human	*he, him*	ϕ, Human
we, us	Speaker, > 1, Human	*she, her*	ϕ, Feminine
		they, them	ϕ, > 1

The Deictic determiners in the right-hand column of (2a) differ from their non-Deictic counterparts in bearing stress, indicated here by small capitals. In (2), only the most subordinate features realized by each vocabulary item are shown explicitly; we assume that in spelling out any feature from the geometries in (1), a vocabulary item also realizes any and all superordinate features entailed by it.

3 Argumental phrases: ΦP and DP

Given the semantic content of the features presented in §2.1, D and ϕ represent two different ways in which a predicate NP or #P can be converted into an argument of semantic type e: ϕ accomplishes this by introducing an index, D by introducing a choice function. It is thus impossible in our system for a D to take a ϕP complement as it may in Déchaine and Wiltschko's. However, our features do provide a principled semantic account for Déchaine and Wiltschko's (2002) generalization that ϕPs can be bound variables, but DPs cannot.

3.1 ΦP

The feature ϕ creates an argument by introducing an index, which may either be bound, or, in the absence of a suitable binder, receive its reference from the discourse context. If the index is not bound, then person features dependent on ϕ, and number and gender features present in its complement #P, restrict the set of possible referents. If the index is bound, then the ϕP has no featural content of its own. At PF, however, the features of its antecedent determine the form of the pronoun that is used to spell it out.

These two possibilities can be seen in ambiguous sentences such as the one in (3):

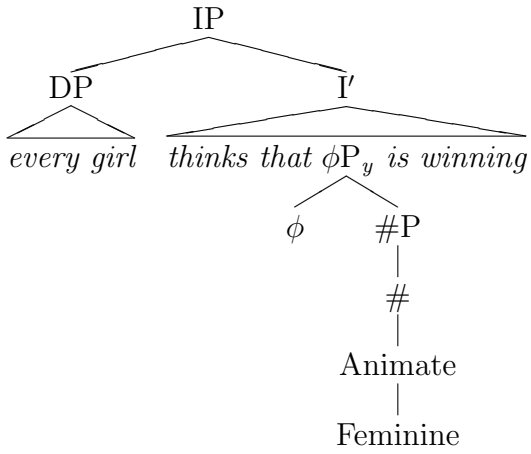
(3) Every girl thinks that she is winning.

a. NON-BOUND: $[\forall x$: GIRL$(x)]$ THINKS$(x$, WINNING$(y))$

b. BOUND: $[\forall x$: GIRL$(x)]$ THINKS$(x$, WINNING$(x))$

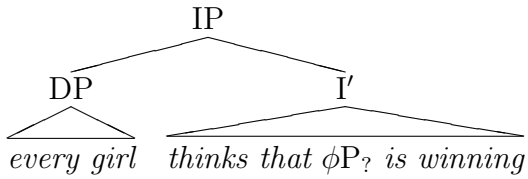
In the non-bound reading of (3), the ϕP *she* has its person and number features already specified, and its index y picks out some contextually salient individual who must be animate and female. The relevant portion of the structure is shown in (4).

(4)



The corresponding structure in the bound reading of (3) is shown in (5):

(5)



The underspecified ϕP$_?$ in (5) must find an antecedent to bind its index (represented here as a question mark) and to supply the ϕ-features that will determine how it is to be spelled out at PF. At LF, the ? index is bound by $[\![$*every girl*$]\!]$, and at PF, the features ϕ, #, Animate, and Feminine are filled in, causing the ϕP$_?$ to be spelled out as *she.*

3.2 DP

The feature D, on the other hand, creates an argument by applying a choice function to the set/predicate F denoted by its complement NP or #P. Additional features dependent on D, if any, further determine the scope and content of the choice function as follows:

- If D has no dependent features, then the denotation of the DP will be $[\eta_i x\ F(x)]$, a (new to the discourse) member of the set F selected by a choice function, as in von Heusinger's (1997) treatment of indefinites.

- If D has the feature Specific, but no other dependents, then $[\eta_i x\ F(x)]$ will obligatorily take wide scope.
- If D has the feature Definite, then the DP will denote $[\varepsilon_i x\ F(x)]$, which is the member of F chosen by the choice function that selects the most contextually salient member of any set, as in von Heusinger's treatment of definites.

Further dependents of Definite alter the way in which the choice function identifies a member of F as salient. Deictic signals that the salient entity is to be located with reference to the deictic centre; Distal indicates that it is spatially, temporally, or discursively remote.

This treatment of the semantics of D correctly predicts that the DPs in (6) cannot receive bound interpretations:[5]

(6) Every girl thinks that $\left\{\begin{array}{l}\text{a girl}\\ \text{the girl}\\ \text{this girl}\\ \textit{etc.}\end{array}\right\}$ is winning.

3.3 Person asymmetries and the categorial status of English pronouns

The system of features and vocabulary items outlined in §2 predicts that all English personal pronouns are ϕPs. This is contrary to Déchaine and Wiltschko's (2002) claim that first- and second-person pronouns are DPs, which is based on data such as (7).

(7) a. Fred knows that John saw him, and Bill does, too.
   i. ✓STRICT: $[\![\textit{does, too}]\!] = \lambda x$. x knows that John saw Fred
   ii. ✓SLOPPY: $[\![\textit{does, too}]\!] = \lambda x$. x knows that John saw x

b. I know that John saw me, and Bill does, too.
   i. ✓STRICT: $[\![\textit{does, too}]\!] = \lambda x$. x knows that John saw me
   ii. *SLOPPY: $[\![\textit{does, too}]\!] \neq \lambda x$. x knows that John saw x

The impossibility of sloppy-identity (bound variable) readings of first- and second-person pronouns in sentences such as (7b) follows automatically from Déchaine and Wiltschko's (2002) claim that such pronouns are pro-DPs rather than pro-ϕPs. However, as Rullmann (2004) points out, first- and second-person pronouns can be interpreted as bound variables in other contexts, such as (8).

5. As Déchaine and Wiltschko (2007) point out, DPs in donkey anaphora contexts can receive apparently bound readings; following Evans (1980), they show that such DPs can successfully be treated as definite descriptions rather than as bound variables.

(8) Only I got a question I could understand.
   a. ✓STRICT: No other person x got a question I could understand.
   b. ✓SLOPPY: No other person x got a question x could understand.

Déchaine and Wiltschko (2007) deal with these facts by positing that operators such as the focusing operator *only* in (8) are capable of coercing first- and second-person pronouns to be pro-ϕPs instead of pro-DPs. (Note that the availability of the strict-identity reading in (8) indicates that this coercion must be optional rather than obligatory.) As an alternative to this approach, we propose that first- and second-person pronouns, like third-person pronouns, are always ϕPs, and that bound readings of them in contexts such as (7b) are ruled out by clashing ϕ-features.

There is considerable interspeaker variation in grammaticality judgements on sloppy-identity readings of first- and second-person pronouns (an observation at least partially confirmed by Martina Wiltschko (p.c.)), and even on bound readings of third-person pronouns in some contexts. For example, some speakers find a sloppy-identity reading markedly less accessible in (9) than in (7a).

(9) Mary knows that John saw her, and Bill does, too.
   a. ✓Strict: $[\![\textit{does, too}]\!] = \lambda x$. x knows that John saw Mary
   b. ?Sloppy: $[\![\textit{does, too}]\!] = \lambda x$. x knows that John saw x

It seems that the difference in gender features between *Bill* and *Mary* can impede to some degree the possibility of interpreting *her* as a bound variable whose elided counterpart refers to Bill. If differing ϕ-features diminish the availability of sloppy-identity readings, then it is unsurprising that such readings are typically dispreferred when first- and second-person pronouns are involved: the subject of the elided clause in a sentence like (7b) will almost always differ in person features from the subject of the first conjunct. If clashing ϕ-features are the culprit in (7b) and (9), then sloppy-identity readings involving overlapping sets of referents with first- or second-person plural pronouns, as in (10), should be more acceptable than their singular counterparts.

(10) a. Jean and I think that our joint paper will be accepted,
   and Susana and I think so, too.
   b. You and Roger want people to treat you as equals,
   and you and Samantha do, too.

In light of the variability of judgements, we tentatively posit that bound interpretations of first- and second-person pronouns are not ungrammatical (i.e., not ruled out by the syntax), but are instead made more or less accessible by a combination of factors affecting the processing of these pronouns in comprehension. A clash in ϕ-features between the potential referents of a pronoun will make it more difficult to interpret as a bound variable,

while the presence of an overt binder such as a focus or distributive operator will make a bound reading more accessible.

The sloppy reading of (7b) can be derived as follows:

1. The structure [[*I know* [*that John saw* ϕP$_?$]], *and* [*Bill knows* [*that John saw* ϕP$_?$], *too*]] is generated.
2. Ellipsis arises through deletion under identity of the second instance of *know(s)* [*that John saw* ϕP$_?$].
3. The ϕ-features of the antecedent *I* are copied onto the surviving instance of ϕP$_?$, causing it to be spelled out as *me.*

In the hearer's processing of the resulting sentence, however, the strict-identity interpretation (in which *me* is underlyingly specified with the feature Speaker, as is its elided counterpart) is straightforwardly accessible, while the sloppy-identity reading requires the listener to abstract away from all the ϕ-features not shared between *me* and *Bill*, with no support from any overt binding operator. (As Déchaine and Wiltschko (2007) note, the addition of contrastive stress provides a focus operator that improves the perceived grammaticality of the sloppy reading.) In a sentence such as (8), on the other hand, the bound variable interpretation is made much more readily available by the presence of *only,* and perhaps also by the absence of an overt non-first person referent for the bound variable—the third persons over which it ranges are all implicit.

This approach to the person asymmetry, while it does not permit the drawing of a solid line between contexts that permit bound first- and second-person pronouns and contexts that do not, offers a potential explanation for the observed variability in intuitions, while preserving Déchaine and Wiltschko's (2007) central insight that overt binders facilitate bound readings that might otherwise be unavailable.

4 Predicate nominals: NP and #P

4.1 NP

According to the semantics of ϕPs sketched above, a ϕP is always an argument, never a predicate. However, English personal pronouns can be used predicatively, both on their own and as parts of complex words. Déchaine and Wiltschko (2002) observe that this is true of third-person pronouns, as in the examples in (11a)–(11e); Rullmann (2004) points out that first- and second-person pronouns can also be used in this way, as in (11f)–(11j).

(11) a. a **she**-wolf
b. a **he**-man

c. Is that a **he** or a **she**? Neither; it's an **it**.

d. "Lady, you are the cruell'st **she** alive,
If you will lead these graces to the grave
And leave the world no copy"
(William Shakespeare, *Twelfth Night* I.v.241–243).

e. The **they**s are not individual **he**s and **she**s with votes (Jenkins 1973).

f. It just looked absolutely **us** somehow.

g. "'Roses are worth more dried than alive'—such a **you** thing to say.
O! how I adore you when you reinvent a rosy cliché"
(The Tragically Hip, "Impossibilium").

h. "You say to **me**-wards, your affection's strong;
Pray love me little, so you love me long"
(Robert Herrick, "Love me little, love me long").

i. Mini-**Me**

j. the **Me**-Decade, the **We**-Decade

We propose that pronouns in contexts such as those in (11) are inserted in N just as common nouns are, rather than spelling out grammatical features in ϕP. The semantic content they represent in these cases is thus a de-grammaticalized version of the features they ordinarily spell out in ϕP.

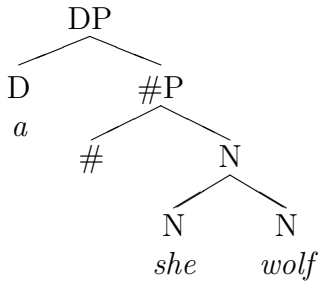
Evidence for this analysis of the syntactic position and de-grammaticalized status of pronouns used in this way comes from the fact that they can combine with determiners, and with the plural suffix (even when they are already plural, as with the *they* in (11e)), and from the fact that they do not enter into the usual patterns of case marking or agreement, as illustrated in (12).

(12) a. "A '**me**' is inconceivable without an '**I**'"(Mead 1913).

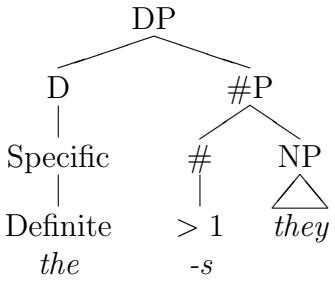
b. *An "**I**" am inconceivable without a "**me**."

If we assume that pronouns can spell out degrammaticalized versions of ϕ-features, the structure of the examples in (11) is entirely unremarkable, as shown in (13):

(13) a.



b.



As expected under this view, pronouns used predicatively cannot be interpreted as bound variables, nor can the full DPs in which they appear, as shown in the examples in (14).

(14) a. I was born in the **Me**-Decade, and you were, too.
✓STRICT: I was born in the Me-Decade, and you were born in the Me-Decade.
*SLOPPY: I was born in the Me-Decade, and you were born in the You-Decade.

b. Nanny is a **she**-goat, and so is Billy.
✓STRICT: Nanny is a she-goat, and Billy is a she-goat.
*SLOPPY: Nanny$_i$ is a she$_i$-goat, and Billy$_j$ is a he$_j$-goat.

4.2 #P

We assume that a #P, like an NP, denotes a predicate, or equivalently a set, rather than an argument. A bare NP, lacking the feature #, is interpreted as mass. For example, the denotation of $[\![mud]\!]_{\text{NP}}$ would be the set of all subparts of the total mass of mud (Allan 1980; Higginbotham 1995). The addition of # creates a set of individuals rather than subparts. If > 1 appears, the members of the set are plural individuals.

Syntactic and semantic evidence for #P as a distinct projection in the syntax can be found in Ritter (1991) and Cowper and Hall (2000), *inter alia.*

4.3 The story so far

Déchaine and Wiltschko (2002) propose three syntactic projections within the nominal phrase, each of which is associated with a type of pronoun with characteristic behaviour. These are listed in (15).

(15) a. DP argument, no bound readings
(English first- and second-person pronouns)

b. ϕP argument or predicate, potentially bound
(English third-person pronouns)

c. NP predicate
(English *one*)

We have divided Déchaine and Wiltschko's ϕ-head into two categories, one of which (ϕ) always heads an argument and is in complementary distribution with D. The other (#) always heads a predicate and may occur between either D or ϕ and NP. This gives four distinct types of nominal phrase, listed in (16).

(16) a. DP argument, with reference determined by a choice function
(no English personal pronouns, only demonstratives)

b. ϕP argument, with reference determined by an index
(all English personal pronouns)

c. #P predicate, denoting a set of (possibly plural) individuals
(English *one*)

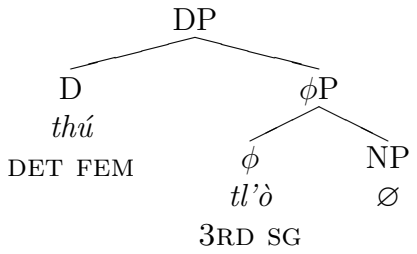
d. NP non-individuated predicate
(degrammaticalized use of English pronouns as nouns)

5 Halkomelem and Shuswap

5.1 Halkomelem

Déchaine and Wiltschko (2002) argue that independent pronouns in Halkomelem are DPs, with structures like that shown in (17).

(17)



Halkomelem independent pronouns are thus morphologically complex phrasal elements, which pattern syntactically with full DPs. In fact, as Déchaine and Wiltschko show, a structure like (17) can contain an overt nominal head, as shown in (18)

(18) Tl'ó-cha-l-su qwemcíwe-t [**thú-tl'ò** q'ami].
then-FUT-1SG-so hug-TRANS DET.FEM-3SG girl
'Then I'm going to hug that girl.'
(Déchaine and Wiltschko 2002: 412, citing Galloway (1993))

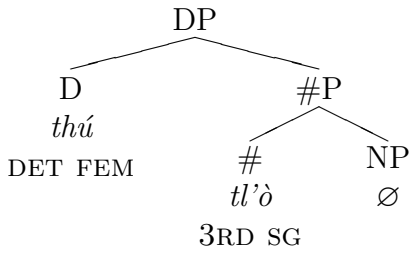
Further evidence for the phrasal structure of these pronouns comes from the fact that the ϕP portion of (17) can occur on its own, as shown in (19). In such cases, the pronoun must be interpreted as a predicate, not as an argument.

(19) **Tl'ò**-cha te Bill kw'e may-th-óme.
3SG-FUT DET Bill COMP help-TRANS-2SG.OBJ
'It will be Bill that helps you.'
(Déchaine and Wiltschko 2002: 413, citing Galloway (1993))

Since for Déchaine and Wiltschko, ϕPs can be either predicates or arguments, it must be explained why a bare ϕP such as the one in (19) cannot be an argument. Déchaine and Wiltschko claim that the insertion of ϕP in an argument position is blocked by the competing, more fully specified, DP.

Under our analysis, a ϕP can never be the complement to a D. Both ϕ and D are functions that turn predicates into e-type arguments, and D can thus never select ϕP as its complement. Instead, we propose that person and number features in Halkomelem are dependents of #, and that the structure of Halkomelem independent pronouns is as shown in (20).

(20)



This is consistent with what we take to be the intent of Déchaine and Wiltschko's proposal, in that they use ϕP as a "cover term for any intermediate functional projection that intervenes between N and D and that encodes ϕ-features" (Déchaine and Wiltschko 2002: 410). For us, then, #P is the instantiation of Déchaine and Wiltschko's predicate-like ϕP.

By distinguishing between ϕP and #P and calling *tl'ò* a # head, we predict that it will always be predicative when it is used without a D, without having to resort to blocking.

5.2 Shuswap

Drawing on work by Lai (1998), Déchaine and Wiltschko argue that independent pronouns in Shuswap are ϕPs. They can be used either as predicates or as arguments, as shown in (21).

(21) a. Pronoun is a predicate
[**Newí7-s**]$_{\text{PRED}}$ [re wík-t-∅-m-es]$_{\text{ARG}}$.
EMPH-3 DET see-TRANS-3SG.OBJ-PAST-3SG.CONJ
'It's HIM that saw him/her.' (Déchaine and Wiltschko 2002, (16))

b. Pronoun is an argument
[Wí.w.k-t-∅-en]$_{\text{PRED}}$ [**newí7-s**]$_{\text{ARG}}$.
see(REDUP)-TRANS-3SG.OBJ-1SG.SUBJ EMPH-3
'I saw HIM.' (Déchaine and Wiltschko 2002, (17a))

However, they cannot appear in contexts requiring a predicate of category N, such as (22).

(22) a. Yirí7 te [**sqélemcw**]$_{\text{N}}$ l wí.w.k-t-sem-s.
DEIC OBL man COMP see(REDUP)-TRANS-1SG.OBJ-3SG.SUBJ
'That's the man that saw me.' (Déchaine and Wiltschko 2002, (13))

b. *Yirí7 te [**newí7-s**] wí.w.k-t-sem-s.
DEIC OBL EMPH-3 see(REDUP)-TRANS-1SG.OBJ-3SG.SUBJ
'That's HIM that saw me.' (Déchaine and Wiltschko 2002, (14))

From the ungrammaticality of (22b) it can be concluded that the pronoun is not an NP. Examples like (23a), where the pronoun appears as the complement of an overt determiner, show that it also cannot be a DP.

(23) a. [Wí.w.k-t-∅-en]$_{\text{PRED}}$ [**re n-tséts-we7**]$_{\text{ARG}}$.
see(REDUP)-TRANS-3SG.OBJ-1SG.SUBJ DET 1SG-EMPH-DEIC
'I saw him.' (Déchaine and Wiltschko 2002, (15a))

b. [Wík-t-∅-s]$_{\text{PRED}}$ [**re John**]$_{\text{ARG}}$.
see-TRANS-3SG.OBJ-3SG.SUBJ DET John
'S/he saw John.' (Déchaine and Wiltschko 2002, (15b))

Under Déchaine and Wiltschko's analysis, this leaves only one possibility: Shuswap independent pronouns must be ϕPs. For us, the fact that they can behave both as predicates and as arguments means that they must be able to spell out both a predicate category (NP or #P) and an argumental category (ϕP or DP). Since NP and DP have been ruled out, we suggest that the pronouns spell out #P, and that there is a null ϕ head that can take #P as a complement. Shuswap independent pronouns may thus appear either alone, as predicates; as the complement of an overt determiner, as in (23a); or as the complement of the null ϕ, in an argument position.

6 English pronouns as pseudo-articles

Having briefly explored some of the cross-linguistic consequences of our proposal, we return to English to deal with another phenomenon noted by Déchaine and Wiltschko (2002)—viz., the asymmetry illustrated in (24):

(24) a. ✓**You** linguists are an eccentric lot.
b. ✓They won't have an easy time convincing **us** linguists.
c. ***They** linguists are an eccentric lot.
d. *They won't have an easy time convincing **him** linguist.

For Déchaine and Wiltschko (2002: 421), the contrast between the grammatical (24a, 24b) and the ungrammatical (24c, 24d) can be made to follow from the categorial difference

they posit between first- and second-person pro-DPs on the one hand and third-person pro-ϕPs on the other.

In §3.3, we argued that all English personal pronouns should be treated as pro-ϕPs; Déchaine and Wiltschko's categorial contrast is thus not available in our system.

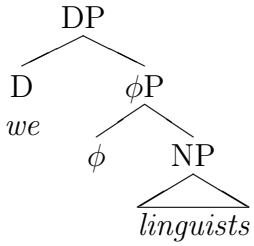
However, judging by the paradigm in (25), it seems that the primary contrast in English pronouns' ability to be used as pseudo-articles is between singular and plural (which Déchaine and Wiltschko (2002: 421) mention in a footnote), rather than between participants and third persons:

(25)

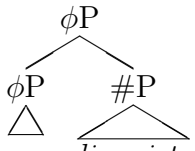
<table>
<tr><th colspan="2">SINGULAR</th><th colspan="2">PLURAL</th></tr>
<tr><th>NOM</th><th>ACC</th><th>NOM</th><th>ACC</th></tr>
<tr><td>*I linguist</td><td>*me linguist</td><td>✓we linguists</td><td>✓us linguists</td></tr>
<tr><td colspan="2">*you linguist</td><td colspan="2">✓you linguists</td></tr>
<tr><td>*she linguist</td><td>*her linguist</td><td rowspan="3">*they linguists</td><td rowspan="3">%them linguists</td></tr>
<tr><td>*he linguist</td><td>*him linguist</td></tr>
<tr><td colspan="2">*it language</td></tr>
</table>

For Déchaine and Wiltschko (2002), the structure of *we linguists* is as in (26); we propose instead that *linguists* is a modifier, rather than a complement, of the pro-ϕP, as in (27a), much like the *the linguists* in (27b).

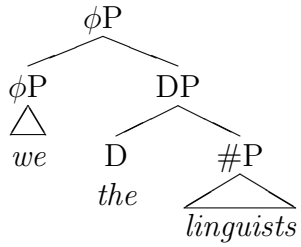
(26)



(27) a.



b.



In a structure such as (27a), a plural pro-ϕP is modified by a #P, which is a predicate. This predicate serves to pick out a sub-individual of the plural individual denoted by the ϕP itself. For example, the meaning of (27a) is derived as in (28):

(28) $[\![we]\!]$ = the salient plural individual x that includes the speaker
$[\![we\ linguists]\!]$ = the plural individual y including the speaker such that $y \sqsubseteq x$ & LINGUISTS(y)
= 'those of us who are linguists'

With a singular pronoun, such restrictive modification will either be vacuous (if the individual identified by the ϕP is a member of the set denoted by the #P) or reduce the referent to a null individual (otherwise). For example, the meaning of **she linguist* would be as shown in (29):

(29) $[\![she]\!]$ = the salient singular individual x such that x is animate and feminine
$[\![she\ linguist]\!]$ = the feminine singular individual y such that $y \sqsubseteq x$ & LINGUIST(y)
= 'the one of her who is a linguist'

If the person *she* refers to is a linguist, the restrictive modification is vacuous; if *she* is not a linguist, the restricted ϕP fails to refer.

In a structure such as (27b), a ϕP is modified by a DP, which is an argument rather than a predicate. The modification may be either appositive (as in *we, the linguists*) or restrictive (as in *we the linguists*). If the modification is appositive, the pro-ϕP alone suffices to identify the plural individual being referred to, and the DP serves only to provide another characterization of the same group. With restrictive modification, the modifying DP provides an unambiguous alternative means of picking out the intended plural individual in a context where the ϕP by itself would be potentially ambiguous.

When a singular ϕP is modified by a DP, appositive modification is unproblematic. Restrictive modification of a singular pro-ϕP by a DP is also possible, but it cannot play a role in determining the individual referent of the pro-ϕP; it can only identify the capacity in which the individual is being referred to, as illustrated in the examples in (30).

(30) a. Restrictive DP, capacity-restricting reading:
✓I was talking to you$_i$ the linguist, not you$_i$ the musician.
= 'I was talking to you *qua* linguist, not *qua* musician.'

b. Restrictive DP, referent-restricting reading:
*I was talking to you$_i$ the linguist, not you$_j$ the musician.

c. Appositive DP, changing addressees in mid-sentence:
✓I was talking to YOU$_i$, the linguist, not YOU$_j$, the musician.

As Déchaine and Wiltschko (2007) point out, expressions such as *us linguists* can never receive bound variable interpretations, even when they occur within the scope of an overt potential binder, as illustrated in (31).

(31) We all think we linguists are smart.
= We all have the property [λx . x thinks we linguists are smart].
$\neq$ We all have the property [λx . x thinks x (linguists) are smart].

For Déchaine and Wiltschko (2007), this fact follows from the fact that the pronoun in a structure such as (26) is necessarily a D, and cannot be coerced into being a ϕP, which would be necessary to permit a bound interpretation. Under our view, the impossibility of a bound reading in (31) is semantic, not syntactic. Whereas an unbound ϕP receives an interpretation that is built compositionally from the semantic content of its features, a bound variable $\phi P_?$ has no features of its own, and its interpretation depends entirely on the content of the operator that binds it. It is therefore incompatible with modification of any sort. We thus correctly predict that pronouns modified in any way cannot receive bound interpretations, in contexts such as those in (32) as well as in (31).

(32) a. Only I got a question that was comprehensible to little old me. (cf. (8))
= No other person x got a question comprehensible to little old me.
$\neq$ No other person x got a question comprehensible to (little old) x.

b. Only we got a question that those of us who are linguists could understand.
= No other person(s) x got a question that those of us who are linguists could understand.
$\neq$ No other person(s) x got a question that those of x who are linguists could understand.

7 Conclusions

The differences among the various types of pronouns made available by universal grammar, which Déchaine and Wiltschko (2002, 2007) attribute to which syntactic projection dominates the pronoun, can be better understood through fine-grained attention to the features making up the syntactic projections and the semantic content of those features. The ambiguous behaviour of ϕP in Déchaine and Wiltschko's treatment can be eliminated by distinguishing between predicative #P and argumental ϕP. We now have four projections with distinct and consistent properties, as shown in (33).

(33)

	DP	ϕP	#P	NP
Predicates	−	−	+	+
Arguments	+	+	−	−
Can be bound	−	+	−	−
Individuated	±	±	+	−

English argumental pronouns can all be treated as pro-ϕPs, while *one/ones* is a #P. The differing availability of a bound-variable interpretation of first- and second-person pronouns,

on the one hand, and third-person pronouns, on the other, is attributed to processing considerations in comprehension, with clashing ϕ-features impeding a bound-variable reading and overt operators facilitating it. This approach renders unnecessary any appeal to coercion in accounting for bound-variable readings of first- and second-person pronouns, while also correctly predicting a high degree of variability in the judgements of bound-variable readings, both between speakers and within speakers depending on the context.

We also proposed that English personal pronouns can be used as nouns, with their semantic content determined by the features they normally spell out. This approach correctly predicts that in such contexts, the normally inflectional features of these pronouns will have absolutely no consequences for agreement or any other syntactic process. Wiltschko (this volume) proposes another way in which inflectional features can be used non-inflectionally, as adjuncts to functional heads rather than as head features. These two proposals raise the question of whether there may be still other ways in which inflectional features can find their way into linguistic expressions.

[Conclusion to be revised based on seeing other papers in the volume, and on discussion in Vancouver].

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