The internal and external distribution of pronominal DPs

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The form and distribution of pronouns varies considerably crosslinguistically. In this paper, I will propose that there is a direct relation between the form (i.e. DP internal realization), and syntactic distribution (i.e. DP external realization).[*]

Pronominal elements can be homophonous with determiners (French *le/la/les*, Dutch *'t*, ...), or not (English *him/her/them*, French *lui*, Dutch *'m* ...), or they can be composed, as demonstrative pronouns in many African languages, or the Welsh reduplicated pronouns discussed below. Pronominal elements can be overt or covert (e.g. *pro*). Overt pronominal elements can distribute as DPs (i.e. their distribution is identical to that of (specific) DPs), as clitics (their distribution is that of a head which occurs in a particular syntactic position), or as agreement morphology (i.e. as a head that shows up if an XP is or has moved through its Spec position).

The analysis of the syntax of pronominal elements meets with considerable analytical difficulties. Whether a particular pronominal element has the distribution of a DP or not, presupposes an understanding of the distribution of the relevant type of DP.

Whether distributional differences can be accounted for by a combination of the distribution of DPs, and heads (i.e. whether a pronoun is a head that has undergone head movement from the DP position) further presupposes an understanding of the distribution of heads. Further questions arise beyond these analytical problems. If the pronominal element is a head, what position is it cliticized to? What distinguishes it from agreement? Why do pronouns, but not DPs, trigger obligatory agreement in some languages? Why do clitics and agreement occur in the particular positions they do? How should pro-drop be analyzed? How are clitic doubling constructions to be analyzed? How should the often different distribution of first and second person pronouns versus third person pronouns be accounted for?

Most studies of pronominal elements base their analyses on their distribution in syntactic structures, and pay little or no attention to the actual form of the pronoun[1]. This may be because there is not much overt evidence on which to base an analysis, or because there does not seem to be much at stake, or simply because the internal structure of DPs has not been developed enough to allow this question to be asked. I argue in this paper that a proper understanding of the form and structure of pronominal elements is in fact extremely important: there is an intimate connection between the DP internal syntax and the DP external syntax.

 I will start out with an analysis of the internal structure of pronominal DPs, and show that pronominal DPs consist of (at least) two basic elements, NumP and D[2], which can be in an overt agreement relation, with NumP in Spec, DP. Languages vary with respect to overtness or covertness of NumP and of D. This defines a typology of possible pronouns, and has immediate consequences for the external distribution of pronouns. In particular, the structure of pronominal DPs, taken together with movement theory, predicts the existence of NumP movement with D-stranding. NumP movement, as I will show, is the key that leads to understanding many aspects of the distribution of pronominal elements. Since NumP movement plays such an important part in accounting for the syntax of pronominal elements, I motivate its existence carefully. I establish NumP movement and D stranding on the basis of the distribution of pronouns, agreement, and lexical DPs in Welsh, which has a sufficiently rich pronominal syntax to make the empirical argument for NumP movement and D-stranding. The NumP

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[1]This seems to have changed in the beginning of the ninetees. See several abstracts in the GLOW newsletter 1993, Rouveret, 1990, Cardinaletti 1993, Carstens 1993 among others.

[2]Or some D-like head. The label is not important, the position within the hierarchy of the DP is.
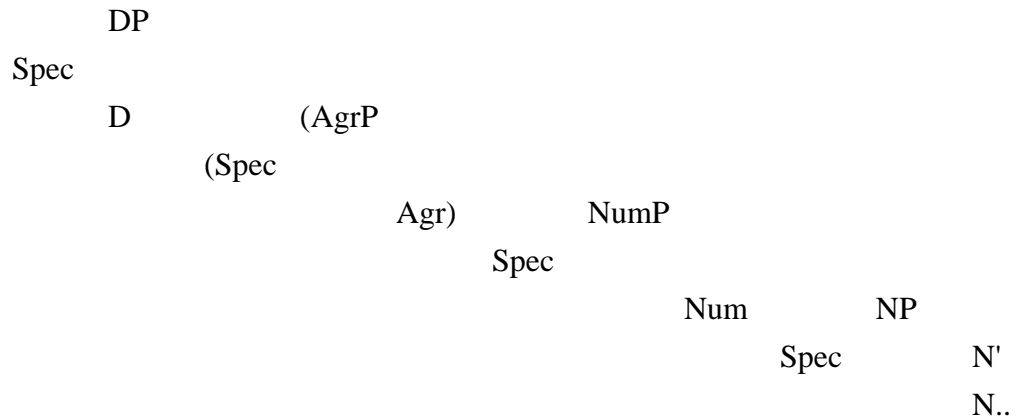
movement analysis straightforwardly accounts for the distribution of pronouns in Mainland Scandinavian (section 5); and can be extended to English in section 6. The analysis proposed in this paper allows to reduce the important superficial differences of languages like Welsh and English to identical structures, with differences in what gets lexicalized.

1. The form of the pronoun

Pronouns are specific DPs, and should therefore be represented as specific DPs. Following Postal 1969, it is often assumed that pronouns are intransitive Ds (DP --> D) (Abney 1987, Cardinalletti, 1993, among others). This proposal explains the homophony of pronouns and Ds in some languages, but it fails to capture the fact that pronouns in some sense stands for nouns, encode person and number features, nor does it make explicit what kind of relation there is between between D and N. This proposal furthermore cannot accommodate pronominal forms that are not homophonous with Ds, nor compound pronouns, and merely treats the form of the pronoun and the relation to the structure as accidental.

   There is no reason why pronouns should not fit into the regular DP structure. This is, in fact, the null hypothesis. Recent work on the internal structure of DPs (Abney, 1987, Carstens 1991, Ritter 1991, Szabolcsi 1987, Stowell, 1991, Valois 1991, among others) has shown that DPs are highly structured projections, similar to clausal projections, with at least the following structure (NumP stands for Number Phrase; AgrP, I assume, is related to the presence of a DP internal subject (i.e. a genitive DP) and is only present when a genitive DP needs to be licenced. I therefore omit AgrP from DPs not containing a genitive DP)):

(1) $[_{DP} [_{Spec} \ [_{D} \ [_{AgrP} Agr \ [_{NumP} \text{ Spec } [_{Num} [_{NP} \quad]]]]$

```
                    DP
            Spec
                    D               (AgrP
                        (Spec
                                    Agr)            NumP
                                            Spec
                                                    Num         NP
                                                            Spec        N'
                                                                        N..
```

The linear order of constituents in the DP is derived by various movements and paralels the way in which the linear order in a clause is derived. Head movement accounts for displaced heads, and DP movement for the position of the structurally Case marked DP (genitive) in the overt syntax. As I show below, there are additional DP movements, of constituents *smaller* than DP.

　　　Since pronouns are DPs (1) defines the space for crosslinguistic variation. Pronouns are specific, they stand for a head noun, and they encode person, number and gender features. We therefore minimally expect the structure in (2)[3]:

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[3]For simplicity reasons, I omit person and gender features, though I believe these should project a person and gender projection respectively. These projections probably enter in an accout for the difference in distribution between 1st/2nd personal pronouns and third person pronouns, but do not affect the main points made in this paper.

(2)
                              DP
            Spec
                   D   NumP
                        Spec
                              Num   NP
                                    Spec   N'
                                                  N
                                                  person
                                                  number
                                                  gender
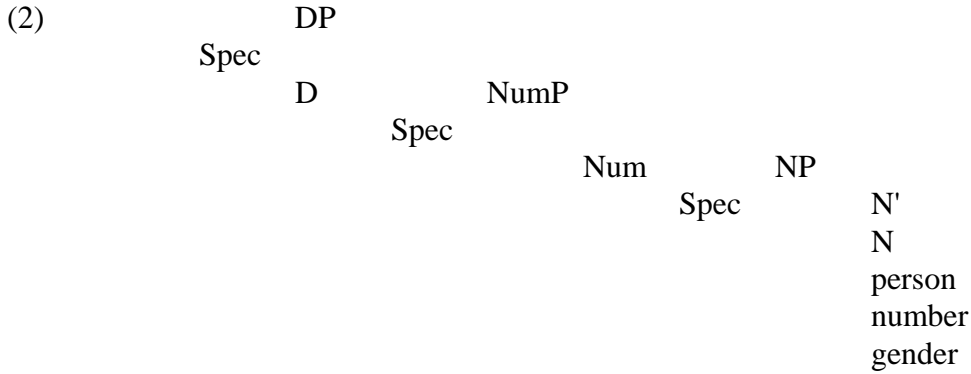
It is reasonable to assume that pronouns are lexically marked for number, person and gender features. These features must therefore be checked. In principle this can be achieved in one of two ways: either by head movement to a functional category, or by movement of some projection containing the pronoun to a Spec position where the features of the pronoun can be checked under Spec head agreement, at LF at the latest. If we assume that specificity must also be checked at LF, and is checked by a particular D, we expect the LF representations and the associated derivations presented in (3). Certain movements are incompatible with others: this is indicated with a star in the table below.[4] The symbol + indicates those derivations that are relevant for the particular pronouns under scrutiny in this paper:

(3)

N to Num		Num to D	NP to Spec, NumP		NP to Spec, DP	NumP to Spec, DP	
a. +	+	-		*	*	+	+
b.	+	+		*	*		*
c. +	-	-	+	+	?	+	+
d.	-	+		+	+		*

I should point out that, for the purposes of this paper, head movement of the pronoun for checking purposes (3b) plays a limited role. Most of the work will be achieved by Spec Head agreement.

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[4] For example, N to Num movement bleeds NP to Spec, DP movement: the NP would contain an unbound trace in the head position. In other words, NumP movement to Spec DP is forced in this case.

(4)   NP movement to Spec, NumP; NumP to Spec, DP;
       Spec head agreement beteen NP and Num, and NumP and D.
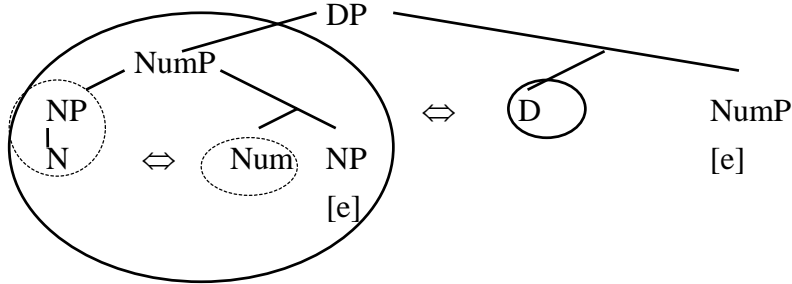
(5)   N movement to Num, NumP movement to Spec, DP

For reasons of simplicity, I abstract away from the internal structure of NumP in the remainder of this article, and simplify the structure to (6):

(6)
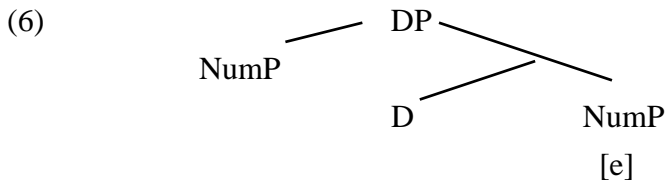
The overt syntax can reflect the various stages between (2) and (4) and (5), depending on whether movement is overt or not, how much movement is overt and what elements are lexical.

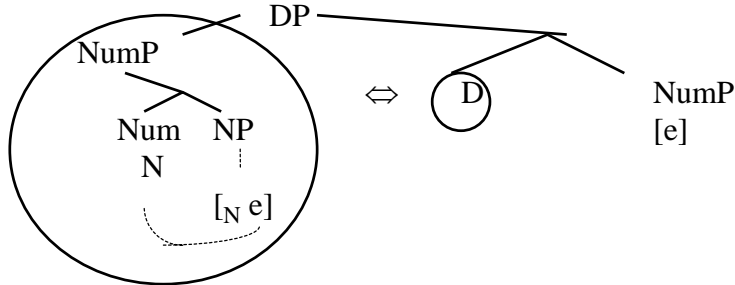   Given the background so far, I now turn to various pronominal systems. In English, I assume, and motivate below, NP moves to Spec NumP, and NumP to Spec DP in the overt syntax. [5][6] NumP agrees with an empty D. The obligatory absence of D

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[5]This generalization does not extend to emphatic pronouns.

[6]Possibly through an intermediate position if this is the position where person features are licensed (PersP or AgrP). Note that it might be the case that this node is only present when non-

paralels the obligatory absence of C when Spec, CP is filled (cf Koopman 1991, Sportiche 1995).

(7)   English (overt syntax):

```
                          DP
          NumP                       
            |              D        NumP
          pron            [e]        [e]
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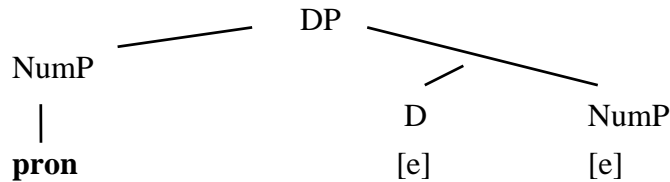
In this structure, NumP, an element *smaller* than DP, moves to Spec, DP. Justification for NumP movement comes from other languages. Nkemnji 1993, for example, provides quite convincing arguments in favour of overt NumP movement, based on the derivation of DP internal word orders and agreement patterns within the DP for Nweh, a Grassfield language spoken in Cameroon. [7] I argue in Koopman 1994 that NumP movement to Spec, DP actually underlies a necessary LF representation which permits further movement of the head N to check slectional restrictions with the theta-role assigner. In short, languages differ whether NumP movement takes place in the overt syntax or at LF. In addition, in English, a pronominal NumP must move in the overt syntax, but a lexical NumP does not (*house John the; John house the). As shown in Valois (1991), lexical Ns remain low in the hierarchy, possibly in-situ[8]:

(8)   a. pronominal NumPs moves to Spec, DP in the overt syntax;
             b. lexical NumPs move at LF

This asymmetry is ultimately responsible for the different distributional properties of pronouns and lexical DPs. Pronominal NumP are governed by an external governor. This

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third person features must be licensed. This might give some insight into the as yet unsolved problem why in so many languages the distribution of first and second pronouns differs from that of third person pronouns.

[7]See also Moritz 1993 for Ncufie, another Grassfield Bantu language.

[8]I will not attempt to explain this asymmetry.

either allows further NumP movement (4 , 5, and 6), or head movement of the pronoun. Lexical NumP are not in a position that allows for further syntactic movement. The lack of (lexical) N incorporation in English syntax is therefore a direct consequence of the overt syntax: a lexical N cannot undergo N incorporation, because it is too low in the structure[9].

  French pronominal DPs mirror English DPs (abstracting away from the obligatory cliticization of D): a *covert* (i.e small NumP *pro*) agrees with an *overt* D. It is typically the case in French that the head is overt, and the element in the Spec silent : wh-operators in French for example are silent and the head C is overt whenever possible (i.e when "recoverable").

(9)   *French*:

              DP

     NumP

            D   NumP

     "pro"   le/la/les

                     [e]

Pronominal DPs thus far differ with respect to the internal structure of NumP, whether NumP moves to Spec, DP in the syntax or not, and whether NumP in Spec, DP is overt and D is overt or covert. Restricting attention to languages with overt NumP movement to Spec DP, other combinations of overt/covert are expected to occur. For example, a pronominal DP with both NumP and D silent is a likely candidate for the representation of *pro:*

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[9]This may also explains why only NP can be a complement in morphology, but not NumP: only when a morpheme takes a NP complement can N incorporate. The presence of any higher projection blocks incorporation. This approach quite generally extends to derive incorporation asymmetries from the structural properties of the overt syntax. (see Koopman 1994, for some discussion) , and derives the relativized minimality effects for incorporation of Baker and Hale 1990.

(10)   small *pro*

                                        DP
               Num
                              D   NumP
               "pro"   [e]
                                             [e]

Small *pro* is further constrained by the need to be identified: in (10) covert NumP *pro* is not identified, because of the absence of overt features; identification will depend on agreement with some external head. We further might expect a pronominal DP with both NumP and D overt. Welsh reduplicated pronouns fit into this slot, as I will show in the next section[10].

2. The pronominal system of Welsh

In the pronominal system of Welsh all possibilities in terms of overt/covert NumP and overt/covert D seem to be attested, as I will now show. Welsh pronominal paradigms are quite complex[11]. There is a basic distinction between pronouns that can only be used in the absence of agreement (*independent pronouns*) and pronouns that cooccur with agreement (*dependent or auxiliary pronouns*).

        I start the analysis of the Welsh pronominal system with the paradigm of reduplicated pronouns, which belong to the series of so-called independent pronouns[12],[13].

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[10]I believe that reduplicated pronouns, which frequently occur in African languages, fit into this structure. It is interesting to note that superficially speaking African languages allow both Spec and head position to be overt at the same time. This is generally not the case in Indo-European languages.

[11]The analysis of Welsh pronominal paradigms is based primarily on Williams 1980.

[12]Williams, 1980, p.46 writes: *"the reduplicated forms are somewhat more emphatic than the simple".* I interpret this statement as evidence that there is no real difference between simple and reduplicated independent pronouns.

[13]I assume, without argument, that vowel reduction accounts for the appearence of *y* and not *i* in the paradigm of the reduplicated pronouns.

(11)   reduplicated pronouns (Williams, 1980, p.46)
              1. my*fi*   ny*ni*
              2. ty*di*   chwy*chwi*
              3. (efe, *efo*   hwynt*hwy*
                fe/fo (masc.))
                hy*hi*   (fem)

Third person masculine pronouns are between parentheses. They are identical to the auxiliary or affixed pronouns discussed below (except for *efe* which only occurs as a reduplicated pronoun[14]). The second part of the reduplicated pronoun is italicized to draw attention to the (significant) homophony of this part and the so-called auxiliary pronouns presented in (12).

     Auxiliary or affixed pronouns cooccur with agreement.

(12)   Auxiliary or affixed pronouns   (Williams, 1980, p.48)
              1.   i/*fi*   *ni*
              2.   *di*,ti   *chwi*
              3.   (masc.)*ef*/efo   *hwy*,hwynt
                     fo/fe
                     (fem.) *hi*

As before, auxiliary forms that appear as the second part of a reduplicated pronoun are in italics.

     Reduplicated pronouns are clearly composed of some pronominal element followed by an *auxiliary* or *affixed* pronoun, encoding person, number and gender as well.

     The similarity between auxiliary pronouns and the second part of reduplicated pronouns in fact seems to extend beyond their segmental forms. Phonology also seems to treat them in similar ways. The italicized forms in the reduplicated paradigm are

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[14]Although *efe* might be composed of *e* and *fe*, I have not been able to come up with anything interesting for third person (non-feminine) pronouns. Arguments will be based primarily on the distribution of first and second person pronouns.

accented, which is unusual since the accent usually falls on the penultimate syllable. Auxiliary pronouns can be accented as well[15].

Suppose that the first part of the reduplicated pronoun is a NumP, and that the auxiliary pronoun is (some kind of) a D agreeing with the NumP. This would allow auxiliary pronouns and reduplicated pronouns to immediately directly fit into the proposed structure for pronominal DPs, and describe their difference. They only differ with respect to overtness or covertness of NumP[16].

(13)   Welsh:
            a. auxiliary pronouns

                              DP
        NumP
                              D   NumP
        pro   fi
                                                    [e]

            b. reduplicated pronouns:
                              DP
        NumP
                                   D   NumP
        mi   fi
                                                    [e]

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[15]Ssee Morris-Jones (1931) : *"The affixed pronoun has often an accent of its own. In poetry it is usually accented."* (op. cited, p. 83)

[16]A number of irregulaities are glossed over: third person pronouns (non-feminine) do not appear to allow for an overt NumP in Spec DP. Some other forms in the auxiliary pronouns do not occur as reduplicated pronouns (*i, ti, hwynt*). The use of both *i* and *ti* appears to be phonologically conditioned (Williams, p.50, 74 (i)). The occurrence of *hwynt* as an auxiliary pronoun is potentially problematic, but not attested in any of the other grammars I have consulted. I will ignore this form in the remainder of this paper.

The first part of the reduplicated pronoun should thus be analyzed as NumP. At this point, a comparison between the reduplicated independent (11), the ("short") independent (14) and auxiliary pronouns (12) becomes important (as before, the forms in italics are auxiliary pronouns, i.e. the forms we have analyzed as agreeing Ds):

(14)   Simple independent personal pronouns:

1.	mi,*fi*		*ni*	
2.	ti,*di*		*chwi*	
3.	ef	(*masc.*)	*hwy*, hwynt	
	hi	(*fem.*)		

 The non-italicized elements *my, mi* and *ty,ti*, and *hwynt* can unambigously be analyzed as NumPs, since they also appear as the first part of the reduplicated pronoun, i.e. as the part that we analyzed as NumP. Welsh independent pronouns thus either have a English-like structure, with D covert and NumP overt, or a French like structure, with an agreeing overt D, and silent NumP:

(15)   Independent pronouns (1st person):

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                              DP
              NumP
                              D                    NumP
              mi             [e]
                                                    [e]


      or:
                              DP
              NumP
                              D                    NumP
              pro            fi
                                                    [e]
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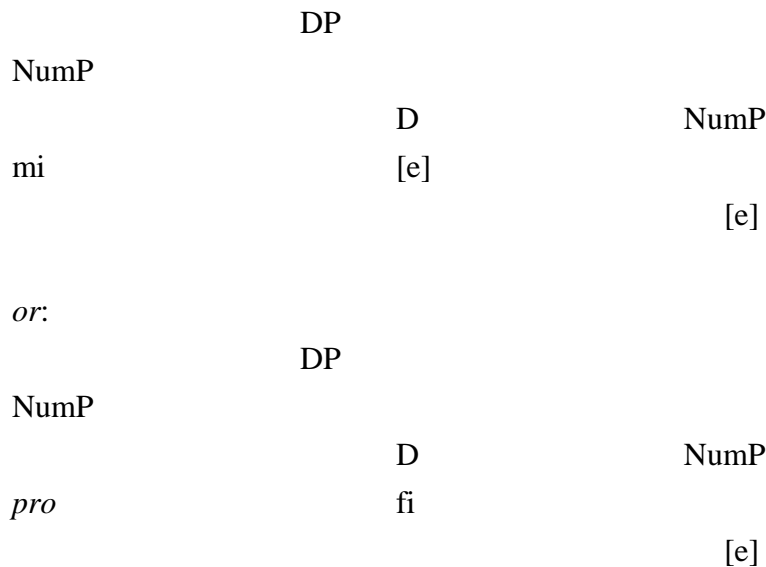
Besides these forms, there is another series of independent pronouns, called conjunctive[17] pronouns (16):

(16)   Singular   Plural
        1. minnau   ninnau
        2. tithau   chwithau
        3. yntau (masc.)   hwythau, hwyntau
          hithau (fem.)

These pronouns are important in as far as they appear to be composed of an overt NumP, as can be concluded from 1s and 2s forms (*mi/ti*, not *fi, di*) and some other head (*thau*).

Finally, since Welsh also allows *pro* in agreement configurations, there are pronominal DPs with both NumP and D silent:

(17)   DP
      NumP
                      D   NumP
        pro   [e]
                                      [e]

In sum, Welsh pronouns are composed of NumP and D, and all combinations of covert/overt NumP and covert/overt D are attested:

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[17]Conjunctive pronouns have a variety of uses: they are used in apposition to a noun (*David 'he too'*), in case of a conjunction of a lexical DP and a pronoun, and have a variety of other uses ('even I', 'while she' etc).
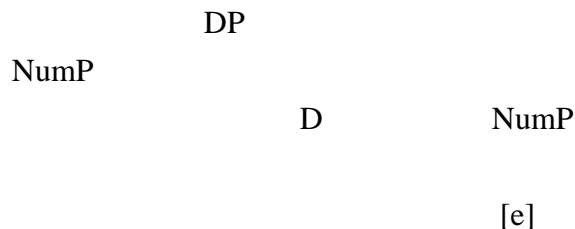
(18)   *Welsh Pronominal Paradigms*:

NumP   *D ;*   *+ = overt, - = silent*

+   -   : some independent pronouns (e.g. *mi*)

+   +   : reduplicated pronouns, conjunctive pronouns

                                   (with special D)

-                      +   : auxiliary pronouns

-                      -   : *pro*

This analysis of the internal structure of Welsh pronouns becomes extremely important in the following sections. I will propose an account of overt agreement in Welsh, based on the idea that NumP in Spec, DP can undergo further movement to Spec, Agr, and thus trigger agreement, stranding D, causing apparent clitic doubling when D is overt.

3. External Syntax.

Given the structure of pronominal DPs, there is a certain number of possibilities with respect to their external (i.e. syntactic) distribution. The entire pronominal DP could undergo further movement to a DP position (19a); The head of NumP in Spec, DP or D itself can undergo head movement when governed by an appropriate host (19b). A final possibility, given that NumP occurs in Spec, DP, and Spec positions are typically extraction sites, would be for NumP to move from Spec, DP to a further (designated) position, stranding D. The head of this position must be able to license NumP, a constituent that is smaller than a DP. I will assume that Agr, or D (as Sportiche (1995) 's clitic projection) is such a position (19c):

(19)   a. *DP movement or NumP movement:*

                        DP
            NumP
                              D   NumP

                                   [e]

b. *Head movement*:

DP

NumP

D   NumP

[e]
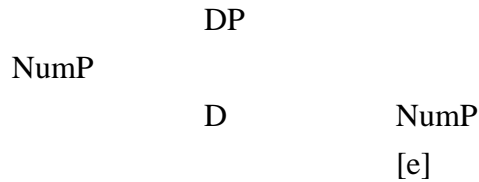
c. *NumP movement and D-stranding:*

Agr/D

DP

NumP

D   NumP

[e]
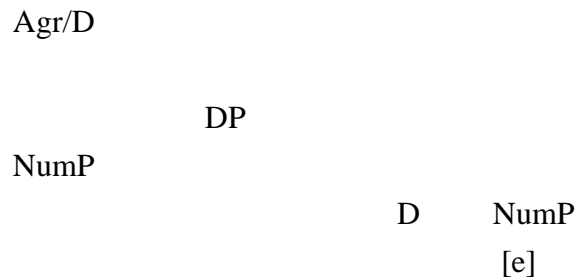
In the remainder of this article, I present strong arguments in support of NumP movement and D-stranding (19c), based on the fact that it will provide a quite simple analysis of Welsh agreement.

4. **Welsh Agreement.**

As in other Celtic languages, [18] there are *agreement* and *non-agreement* configurations in Welsh. Agreement is realized in three different ways depending on the syntactic environment: as an inflectional suffix (subject verb agreement, and prepositional agreement), as a prefix in nominal environments, and as an infix (representing the object

[18]For the distribution of agreement, *pro*, and pronouns in Celtic languages, see, among others, Anderson 1982, McCloskey and Hale 1984, Stump 1984, 1989, Hendrick 1989, Sadler 1988, Rouveret 1990.

between C and V in CVSO structures in highly formal Welsh.[19]. Agreement is asymmetric: it is obligatory with pronominals, whether overt or covert, but excluded with lexical DPs. *Pro* is licensed only with overt agreement.

The following examples illustrate the different environments and their particular properties. A summary is presented in (20) on p. 19 below:

(21)   a. Agorodd y dynion y drws   (Sadler, p.51)
       opened-3S the men the door
       'The men opened the door'

      b. y dynion a ddarllenodd/*ddralenasant y llyfr (Sadler, p.52)
       the men pt read-3S /*read-3Pl the book
       'The men who read the book'

      c. Agoront (hwy) y drws   (Sadler, p.51)
       opened-3P (they) the door
       'They opened the door'

As these examples show, Welsh finite clauses exhibit VSO order in finite clauses. Finite verbs come in either *analytic* or *synthetic* forms. The analytic form encodes information about the tense and mood of the clause, but is invariantly inflected as third person singular. The synthetic form encodes tense and mood and is fully inflected for person or number. The analytic form must be used with a lexical DP subject, as in (21a), or with a wh-trace, as in (21b). The *synthetic* form, fully inflected for person and number, *must* occur with pronouns, whether overt or covert. Thus, verbs fully agree with pronominal subjects, but not with lexical DPs. Since third person agreement on Vs does not encode gender difference, it cannot be seen if lexical DPs trigger gender agreement as is the case in Arabic.

Welsh has a class of inflected Ps. A representative agreement pattern for P is given in (22) and (23) for the P *ar* 'on':.

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[19]This context differs from the others: agreement is only possible in highly formal varieties of Welsh. In addition, it is optional. There are further structural conditions on its appearence (Sadler 1988, p.76).

(22)   a.   ar y   plant   b. * arno y plant

                       on the children   on-3S the children

(23)   Singular   Plural   (Hendrick, 1988, p.38)

             1S   arnaf (i)   arnon (ni)

             2S   arnat (ti)   arnoch (chwi)

             3SM arno (fe/fo)   arnynt

             3SF arni (hi)

 An inflected P does not agree with a lexical DP (22a). Ps differ from finite V which must
carry 3rd singular agreement with a lexical DP subject. As (22b) shows, this is
impossible with Ps.

        Inflected Ps further distinguish themselves from inflected verbs in overtly
encoding gender agreement for third person singular pronouns (*arno fe* 'on3SM him' and
arni hi 'on3SF her'). Gender agreement shows up in nominal environments as well: *ei*
(3SM) causes lenition[20].

        Agreement shows up as a clitic-like prefix, in the case of genitive agreement in
DPs (24), and object agreement with nonfinite verbs (so-called verbal nouns) (25):

(24)   a.   car Aled   b.   *ei gar Aled
               car Aled   3S car Aled
               'Aled's car'

       c.   ei gar (hi)   d.   * car hi
               3SM car Aled   car her

       e.   ei   car (hi)
               3SF   car (her)

(25)   a.   Gwnaeth Emrys werthu y llyfr   (Sadler, p.73-74)
               did-3S   Emrys sell   the book
               'Emrys sold the book'

       b.   *Gwneath Emrys werthu   ef

---

[20]I have nothing to say about this asymmetry with respect to gender agreement..

did-3S Emrys sell   it

    c.   Gwneath Emrys ei werthu   (ef)
              did-3S Emrys 3SM sell   it
              'Emrys sold it'

The agreement pattern is identical to the one discussed so far: agreement is impossible with lexical DPs, but obligatory in pro-drop structures or structures with an overt pronoun. As with Ps, no third person agreement marker appears on N when its subject is a lexical DP.

In highly literary Welsh, an infixed agreement form may *optionally* appear in front of the V when there is a so-called overt presentational suffix (C):

(26)   a.   Fe'th welodd   di   (Sadler (20), p.75)
                     pt-2S saw-3S   you
                     'He/she saw you'

         b.   Fe'th welodd   (Sadler (21), p.75)
                     pt-2S saw-3S

The presence of agreement licenses *pro*. If agreement is absent, *pro* is excluded:

(27)   Fe welodd *(di)
            pt   saw-3S   you

Pronouns cooccurring with agreement are called "affixed" or "auxiliary" pronouns. These pronouns we have analyzed as agreeing Ds:

(28)   auxiliary pronouns cooccur with agreement

Pronouns that occur in configurations without agreement, most notably object pronouns in sentences with VSO order, or complements of Ps that lack an inflectional paradigm, are called "independent" pronouns. These pronouns cannot cooccur with overt agreement:

(29)   independent pronouns cannot occur with agreement

In verb initial VSO structures, object agreement is impossible in all varieties of Welsh: the independent form of the pronoun must be used, and *pro* is disallowed:

(30)   a.   Glywoch   chi Sion/ef
              hear-PAST-2Pl you Sion/him
              'you heard Sion/him'

        b.   *Clywoch   chi
              You heard   him

        c.   Glywoch   chi mi
              hear-PAST-2PL you me
              'you heard me'

As (30b) shows, *pro* is licensed only if there is overt agreement.

        (20) summarizes the distribution of lexical DPs, agreement, and auxiliary pronouns:

(20)   (a)   overt pronouns and pro obligatorily trigger agreement in agreement

                     environments;
        (b)   auxiliary pronouns cooccur with agreement;
        (c)   independent pronouns cannot occur with agreement
        (d)   Lexical DPs don't trigger agreement;
        (e)   *pro* is licensed iff there is overt agreement;
        (f)   Finite verb forms must carry agreement, either full agreement with
                     a pronoun or third person agreement; other lexical categories have
                     non agreeing forms.
        (g)   Finite verb forms do not agree in gender; P and N do

In this paper, I present an account for the properties in (20a-e). I will not address the interesting problem of the source of third person agreement on tensed verbs in (20f)[21],

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[21]I believe that this asymmetry is ultimately due to the presence of Tense. Tense causes there to be a pronoun in Spec, TP, which will raise to Spec, Agr, triggering third person agreement. There

nor will I attempt to say anything about the problem of the distribution of *a*, wh-traces and the resumptive pronoun strategy (see Sadler (1988), Rouveret (1990) among others).

4. The Analysis of Welsh Agreement

Agreement in Welsh is asymmetric: only pronouns trigger agreement, but lexical DPs do not. This suggests that overt agreement reflects the overt syntax, and therefore yields insight into the distribution of different elements in the overt syntax.:

(31)   Agreement (in Welsh) reflects the configuration in the overt syntax

 If agreement is triggered in Spec, Agr in the overt syntax, Spec, Agr contains an overt agreement element in the overt syntax with *pro* and pronouns, but not with lexical DPs. Thus:

(32)   a. Agr is triggered by an overt pronominal element in Spec, Agr;
                    b. There is no agreement triggering element in Spec, Agr in the overt
                    syntax with lexical DPs.

This simple account of the agreement asymmetries will receive strong support if it can be shown that lexical DPs and pronominal elements have different distributions, i.e. if lexical DPs do not occur in Spec, Agr, but pronominal elements do. What pronominal category could actually be occupying Spec, Agr? There are two possibilities: either the entire pronominal DP moves to Spec, Agr, as in Koopman (1989), or part of the DP (NumP) occurs in Spec, Agr, with D stranded in a DP position. I will now motivate the latter.

4.1.Are pronominal DPs in Spec, Agr? Analytical difficulties.

Suppose first that pronominal DPs, but not lexical DPs, move to Spec, Agr positions in the overt syntax. If this is correct, overt pronouns and lexical DPs should occupy different positions in the overt syntax. Is there independent empirical support for a different distribution of pronominal and lexical DPs?

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is indirect evidence for a null agreement in DPs containing a genitive DP. In this construction, the definite article must be silent, even though the genitive DP is quite low in the structure (in Spec, NP see 4.2.). The absence of the definite article can be explained if there is a zero Agr in this construction that must move and substitute for D.

In this section, I outline the analytical difficulties that one encountes in trying to argue for pronominal DP movement. These analytical problems are actually quite representative of the kind of problems one runs into doing contemporary syntactic analysis.

It is difficult to determine where a head is in the overt syntax, and where lexical DPs occur. There are many configurations in which pronominal DPs *could* very well occur in higher positions than lexical DPs, but which do not allow to establish that this *must* be the case. I will briefly discuss these configurations here, discuss some data in Welsh and other Celtic languages, which suggest that pronominal DPs are higher. Through this discussion, I also illustrate why the argument is difficult to make.

Consider the following configuration, in which both a pronominal DP and a lexical DP raise, but in which the pronoun raises to a Spec position that is higher than the lexical DP. Suppose furthermore that the head does not end up in the position between the pronoun and the lexical DP, but raises to a position which is still higher than the pronoun[22]:

(33)   X [pronoun [e [lexical DP [...

Many configurations in Welsh fit the schema in (33). Consider subjects for example. Lexical subject DPs must raise in Welsh, as argued in Koopman and Sportiche (1991, 234-235) since they precede sentence medial negation. But pronouns could still raise higher to an Agr triggering position. This is only possible if V moved higher than Agr, possibly to C, as is often assumed for Celtic languages[23] Basically, then, some modifier must be found which occurs between the pronoun and the lexical DP. But even so, the different positioning of the pronoun could be due to head movement of the pronoun, and the argument cannot be made tightly. .

Awberry (1990) presents evidence based on the distribution of subjects with sentence medial negation in Welsh dialects which suggests that pronouns must always raise. In these dialects, pronouns must precede sentence medial negation, definite DPs

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[22]Similar difficulties arise of course when the head stays lower than lexical DPs and pronouns, as is the case with English subjects.

[23]This analysis is not available if C lowers to I in Welsh, as McCloskey 1993 convincingly shows for Irish. The analysis arrived at below is consistent with V being in Agr, as in Koopman and Sportiche 1991.

may precede or follow negation, [24] and indefinite DPs follow negation. However, this paradigm only shows that pronouns *must* raise. It does not show that pronouns must raise to a different position than DP subjects which precede medial negation.

Other Celtic languages have phenomena that suggest that pronominals occupy different positions than lexical DPs. The problem here is that the distribution might be due to head movement of the pronoun. There is a paradigm in Breton for example which suggests that pronominal DPs move to Agr triggering positions which lexical DPs cannot reach. While Breton disallows overt pronouns with agreement[25], the Welsh pattern surfaces with emphatic pronouns, which obligatorily trigger agreement. The following distribution of DPs, agreement, and emphatic pronouns hold in negative sentences in Breton, which involve a negative C (*ne*) and a sentence medial negation (*ket*):

(34)   a.   Ne gousk ket   ar baotred   (Stump, 1984, (35a))
                          PCL sleep not   the boys
                          'The boys do not sleep'

            b.   Ne gouskont ket   (Stump, 1984, (34a))
                          PCL sleep3P not
                          'They do not sleep'

            c.   Ne gouskont-int ket   (Stump, 1984, (35b))
                          PCL sleep3P- they not
                          They don't sleep

            d.   * Ne gousk-int ket
                         PCL sleep-they not

Lexical DP subjects follow medial negation *ket* (34a), and are thus quite low. Pronouns trigger agreement (34b). Importantly, emphatic pronouns *precede* negation (34c) while obligatorily triggering agreement (34d). This seems quite solid evidence that pronouns

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[24]I do not know if the position of the DP correlates with a specific reading for the DP or not.

[25]See Anderson 1982, Stump 1984 and Hendrick 1988, among others

raise to a higher position than lexical DPs. The emphatic pronoun could have cliticized onto V, however, and could have moved with V[26]

Two other potential arguments could be made for Irish, based on the distribution of object pronouns in tensed clauses and the position of overt subject pronouns. Irish pronominal objects tend to occur in clause final position. Chung and McCloskey (1987) analyse this positioning as resulting from a rule of pronoun postposing, which postposes only pronouns to the nonargument maximal projection that most immediately dominates them. There are two surprizing facts about this rule: it applies only to *pronominal* DPs, and it shifts a pronoun to the *right*. If pronominal DPs must occur in Spec, Agr positions, but Celtic lexical DPs cannot, we can assume that the pronoun postposing is actually an instance of the same process: the pronoun moves to a Spec position which is only available in tensed sentences, but to a *final* Spec position. Although these data are highly suggestive, I do not know why this Spec position would be final, whereas other Spec positions are initial, nor how to motivate its final position through obligatory movement of the complement of AgrO for example. Chung and McCloskey (1987) further note that certain parenthetical or interjective elements can intervene between the finite verb and the lexical subject, but not between the finite verb and a pronominal subject:

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[26]If emphatic pronouns obligatorily moved to Spec, AgrP, (i) should be impossible, with a synthetic verb form:

    (i)   *ne   gouskont ket int

                    PCL   sleep-3P not they

Stump (1989, p.414) points out that this surface string is acceptable, but only with *int* as a rightdislocated element. Borsley and Stephens (1989, p.414) argue that such examples are grammatical in Stephens dialect:

    (ii)   ne oant   ket int deut   (Borsley and Stephens, 1989, p.414)

                    PCT were3P not they come

See Stump (1989, p. 437 footnote 7) for further discussion. If (ii) is fine in Stephens dialect, it suggest cliticization in Stephens dialect is optional. The grammaticality of (ii) poses no problem for the analysis presented below. It simply implies there are two processes: NumP movement, and D cliticization, with the latter optional in Stephens dialect.

(35)   a. Tá   arndóigh, saighdiúirí ar on bhelach (C&McC, (133a)
               be(pres) of-course soldiers   on the road
               'There are, of course, soldiers on the road'

          b. *Tá   arndóigh, siad ar on bhelach (C&McC, (134a)
              be(pres) of-course they on the road
              'They are, of course, on the road',

They argue that the pronoun is a phonological clitic. However, if pronouns must move to some Spec position higher than lexical DPs, the pronouns in (35) could actually be in a position higher than parentheticals, which in turn are higher than lexical subject DPs. The problem again is that the pronoun could have cliticized from the surface position of the lexical DP onto the inflected verb, and could have pied-piped with the V to the higher head position. This analysis has some appeal for Irish because the finite verb in these configurations does not agree with the pronoun.

      These examples illustrate some of the problems in determining where pronouns occur: either it cannot be ruled out that the head has moved to some head position higher than Agr, or a different distribution of pronouns could be the result of head movement from the position in which regular DPs occur. The question thus arises if it *can* be shown where pronominal DPs occur, and whether our hypothesis is actually testable.

4.2. Pronouns and agreement in DPs: pronominal DPs are not in Spec, Agr

It can be shown though the structure of Welsh DPs that pronominal DPs have the same distribution as lexical DPs, and that lexical DPs do not occur in Spec, Agr (thus confirming (32b)). This argument requires some preliminary discussion and analysis of the internal structure of the DP in Welsh.

      In the DP, Agr surfaces as a prefix which can be separated from the head N by certain adjectives and numerals:

(36)   ei tri hen lyfr   (Sadler, (48) p. 105)
             his three old book
             'the three old books'

While prenominal adjectives can be argued to forms lexical compounds with N (Williams, 1980, p.38), as McCloskey and Hale (1984, p.524) propose for the prenominal adjectives in Irish, a lexical compound analysis cannot be justified for numerals. Agr is
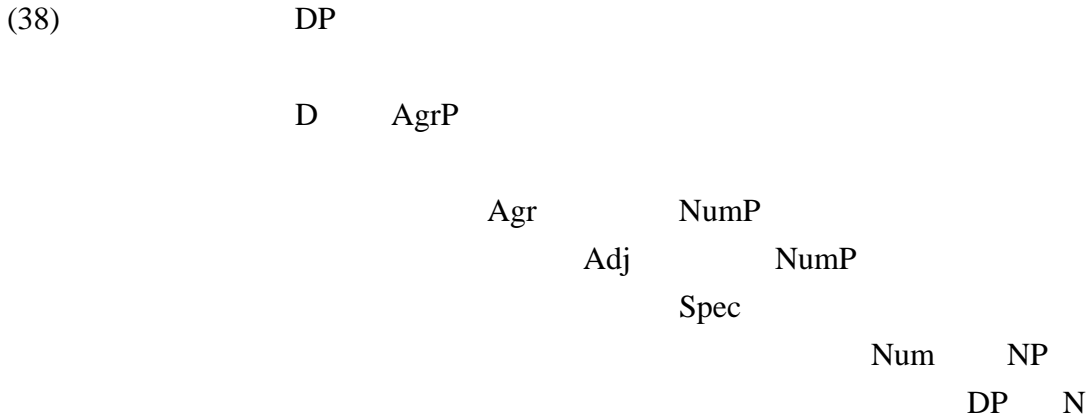
thus an independent head, occurring higher than Num. The headhood of Agr is further confirmed by the fact that Agr can cliticize onto a preceding N.

The data in (36) might suggest that the head N is lower than Num. The situation is slightly more complex, however, because the head N precedes adjectives, the subject DP and complements:

(37)   a. hanes bywiog Wyn am   yr ymfudwyr (Awberry, 1977, p.192, (200)
              story lively Wyn about   the immigrants
              Wyn's lively story about the immigrants

            b. llyfr newyydd Dafydd
             book new   David
             'David's new book'

These examples show that subjects of DPs occur quite low in the structure, presumably in situ in Spec, NP. This explains why they precede complements of N. Since they are preceded by N, N must have moved to a position higher than Spec NP, at least to Num. If adjectives are adjoined to NumP, N must have moved to a higher head position, possibly Agr. N would therefore rightadjoin to Agr. This is in accordance with the fact that quite generally adjunction to a head in Welsh seems to be *right* adjunction, as the syntax of Welsh numerals shows. Numerals do not appear to behave as modifiers, but rather as heads in Welsh. Plural number is realized an an inflectional suffix on Ns. Welsh numerals, however, must be followed by a *singular* noun (Williams, 1980, p.41). Cf. *three book* in (36) not *three books.* Thus *plural nouns and cardinal numerals are in complementary distribution*. This suggests that plural and numerals occupy the same head position (Num). I assume that N with plural base generated morphology raises to Num, where plural is checked by Num. When Num is occupied by a numeral, the numeral occurs in Num, and there is therefore no way to check plural morphology. The noun therefore cannot carry plural morphology. Since overt numerals (i.e. Num) precedes

the head N, N *right-adjoins* to Num[27]. Agr occurs to the *left* of Num, and is therefore higher than Num. I assume that Num, containing Num and N, right adjoins to Agr. Agr possibly excorporates and moves on to D.

(38)   DP

         D   AgrP

                   Agr   NumP
                            Adj   NumP
                                     Spec
                                               Num   NP
                                                      DP   N

Since the lexical subject DP occurs in Spec, NP, and not occur in Spec, Agr, there is no agreement with lexical DPs[28]. Since pronominals obligatorily trigger agreement, there must be a pronominal element in Spec, Agr in the overt syntax. We can now test our hypotheses as to what pronominal element raises, DP or NumP. If the entire pronominal

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[27]   This is further confirmed by the position of the head N in composite numbers:

        (i)   tair   merch ac ddeg
                       three(fem.) girl and ten
                       'thirteen girls'

The head N adjoins to the right of the head of the compound numeral.

(ii)   NumP

                        Num   NP

            3   N
                   | and ten   N
                   | [e]
                   |_____|
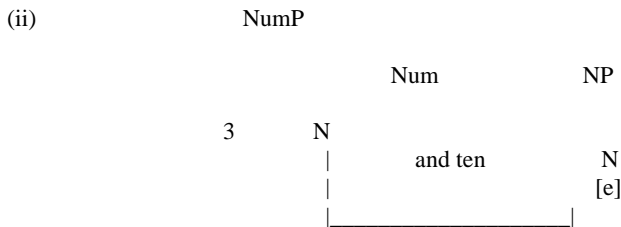
[28]Agr does appear to contain an empty element which moves into D. This might explain the obligatory absence of the definite article in structures containing a lexical subject. See also footnote 21.

DP raises, overt pronouns should precede adjectives; if it does not, pronominal DPs should occupy the same position as lexical DPs.

(39) a. ei   hanes (*ef) bywiog *ef*   am   yr ymfudwyr
          Agr3   story (*his) lively   his   about the immigrants
          'His lively story about the immigrants'

    b. ei   llyfr   (*ef) newyydd *ef*
        Agr3   book   (*his) new   his
        'His new book'

Overt pronominal elements can never precede adjectives, as the examples in (39) show. They therefore occur in exactly the same position as lexical DPs [29]. Pronominal DPs are therefore not in Spec, Agr, and we are back to the question why pronominals trigger obligatory agreement, but not lexical DPs.

4.3. NumP movement and D-stranding

Suppose that overt agreement *is* triggered in Spec, Agr, not by the entire pronominal DP, but by a NumP, with the overt pronoun (the auxiliary pronoun) being a stranded D. If this is correct, (39b) would be assigned the following representation:

(40)   DP

          D   AgrP

              NumP Agr   NumP
              pro   fy   Adj   NumP

                              Num   NP
                                         DP   N
                                      [e] D   [e]
                                           fi

NumP moves DP internally to Spec, DP, triggering overt agreement on D (*fi*); Then, NumP moves on to Spec, Agr, triggering agreement on Agr. (It is very likely, but

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[29]Thanks to Ian Roberts for helping me check these examples.

irrelevant for the present discussion, that *fy* further moves on to D, thus accounting for the obligatory absence of the determiner when Agr is present). Note that the form tells us that Agr is overt with NumP silent, rather than NumP overt and Agr silent *f* and *d* characterize first and second person agreement on D, *m* and *t* characterize first and second person NumP. Covert NumP thus occurs in Spec, Agr, with Agr overt. This actually always seems to be the case: only covert NumP can occur in Spec, Agr; there do not appear to be forms that are composed of overt NumP and silent Agr or with both NumP and Agr overt[30]. I conclude tentatively:

(41)   Only covert NumP, *pro*, can appear in Spec, Agr in the overt syntax

The situation in (41) therefore slightly differs from that within the DP, where in some cases NumP can be overt. In fact, (41) holds for all Celtic languages: overt Agr cooccurs with *Pro*, i.e. silent NumP.

     The agreement asymmetrydirectly falls out from the different internal structure of pronominal and lexical DPs: only with pronominal DPs can NumP move to Spec, Agr and trigger agreement. Lexical NumPs cannot escape from the DP simply because N undergoes head movement to Agr: there can therefore be no NumP in Spec Agr with lexical DPs, and ledxcial DPs therefore do not trigger agreement.

     The proposed analysis in terms of NumP movement and D-stranding makes specific predictions about the distribution of forms that can or cannot cooccur with Agr. Pronominal paradigms in Welsh can be analyzed in terms of whether NumP is overt or not, and whether D is overt or not ((13), repeated here for convenience):

(13)   *Welsh Pronominal Paradigms*:

NumP	D ;+ = overt, -= silent	
+	-	: some independent pronouns (e.g. *mi)*
+	+	: reduplicated pronouns, conjunctive pronouns (special D head)
-	+	: auxiliary pronouns
-	-	: *pro*

 This analysis is exclusively based on the internal syntax of pronominal DPs, i.e. on a comparison of the forms and the different pronominal paradigms.

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[30]Historically, though, there seem to have been some cases with NumP overt. In particular, some of the preverbal particles derive from pronouns, i.e. NumP in our account (*mi*, *fe*...).

This analysis, however, makes direct predictions about the distribution of NumPs and Ds. Pronominal forms consisting of an overt NumP should *never* be able to cooccur with Agr, since there simply would be no source for overt Agr. Furthermore, since NumP movement underlies overt Agr, only those elements analyzed as stranded Ds should be able to cooccur with Agr.

These predictions are borne out. Pronouns, with overt NumP, like *mi* (1P) for example, can only occur in environments without Agr:

(42)   a.   gyda *mi*

                     with me

        b.   *arnaf mi

                     on 1PS me

(42b) is ruled out for the simple reason that there is no NumP in Spec, AgrP. (42a) is fine since there is no overt Agr.

Reduplicated and conjunctive pronouns contain an overt NumP and should never cooccur with agreement. This again is correct: reduplicated and conjunctive pronouns are defined as independent pronouns, i.e. pronouns that only occur in configurations without agreement.

Overt pronominal elements cooccurring with Agr must necessarily be stranded Ds since NumP has moved away. This is correct; only the so-called auxiliary pronouns, i.e. precisely those pronouns analyzed as agreeing Ds, can cooccur with overt Agr. Some independent pronouns are composed of a null NumP and an overt D. These pronouns can be used as independent pronouns, as in (43a), where the pronoun is used as an answer to a question (the representation of (43a) is given in (43b)):

(43)   a.   fi 'I/me'

        b.   [$_{DP}$ [$_{NumP}$*pro*[fi] [$_{NumP}$ e]]

Finally, consider the distribution of *pro,* (i.e. silent NumP), which can be summarized as follows:

(44)   *DP-internal Pro-drop*

        a.   [$_{DP}$ [$_{NumP}$ *pro*[$_{AGR}$ Agr] [$_{NumP}$ e]]

        b.   *[$_{DP}$ [$_{NumP}$ *pro*[$_{AGR}$ e] [$_{NumP}$ e]]

        DP-external pro-drop

        c.   [[$_{NumP}$ *pro$_i$*] [$_{Agr}$Agr [....[[$_{DP}$[e]$_i$[$_D$D]

d. $[[_{NumP} pro_i] [_{Agr}Agr [....[[_{DP}[e]_i[_D[e]]$

e.* $[[_{NumP} pro_i] [_{Agr}[e] [...[[_{DP}[e]_i[_DD]$

f.* $[[_{NumP} pro_i] [_{Agr}[e] [....[[_{DP}[e]_i[_D[e]]$

With DP internal pro-drop, D must be overt (44a); similarly, with DP external pro-drop Agr must be overt (as (44e) shows it is not sufficient for D to be overt). This paradigm shows that silent NumP must be identified by an overtly agreeing head, or rather that the head of a silent NumP head must be identified by an overtly agreeing head:

(45) The head of a silent NumP chain must be identified by overt agreement

The analysis is thus extremely simple. Overt agreement is triggered by NumP raising (and when overt agreement is chosen NumP must raise). Lexical DPs do not trigger agreement, because there is no possible NumP that triggers agreement.

To conclude this section, let me illustrate the derivation. A sentence like (46a) has the corresponding derivation in (46b) corresponds:

(46) *NumP to Spec, Agr; stranded D is overt*

a. Trois   fi

Turn-past-Agr I

'I turned'

b. $[_{AgrP} [_{Nump}pro][[_{Agr} V] T] Agr] [_{TP} [_{DP_i}[_{NumP}P e] fi [_T e][_{VP}[_{DP}e] V$
e]...
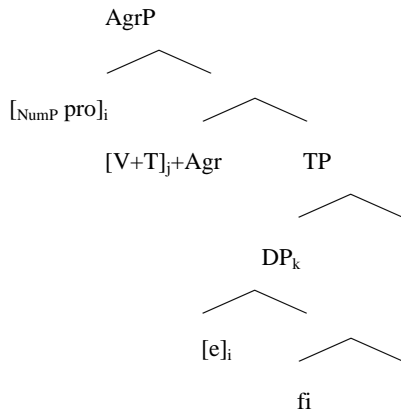
The pronominal DP moves to the position definite DPs must move to in the overt syntax. Within the DP, NumP moves to Spec, DP triggering agreement on D, and further escapes to Spec, AgrP, stranding D. Tensed clauses must have agreement. This forces raising of NumP in the overt syntax. The V itself raises through the relevant intermediate functional categories to T and Agr.

This analysis is compatible with any analysis in which V, or any other lexical category for that matter, never raising higher than Agr. This is consistent with McCloskey's (1992) arguments that C in Irish lowers to V (i.e. V is not in C). As far as I have been able to determine, similar arguments hold for Welsh.

4.4. Conclusion

The analysis of the internal structure of Welsh pronouns and the external distribution of pronouns, agreement, *pro* and lexical DPs provides strong evidence both for the proposal that pronominal DPs consists of a NumP in Spec, DP and a D which are in an agreement relation, and for the existence of NumP movement to a higher Spec, Agr position where external agreement is triggered. It is precisely the richness of pronominal paradigms, and the occurrence of asymmetric overt agreement, which allowed me to construct an argument for overt agreement triggered through NumP movement. This analysis furthermore presents strong evidence in favour of analyzing agreement as resulting from a overt Spec head relation.

Let me consider more concretely howthe generalizations in (20), repeated here for convenience, ares accounted for.

(20)　　　　(a)　　overt pronouns and *pro* obligatorily trigger agreement in
　　　　　　　　　agreement environments;
　　　　　(b)　　auxiliary pronouns cooccur with agreement;
　　　　　(c)　　independent pronouns cannot occur with agreement
　　　　　(d)　　Lexical DPs don't trigger agreement;
　　　　　(e)　　*pro* is licensed iff there is overt agreement;

Obligatory (silent) NumP movement explains (20a). With overt agreement, NumP *must* move to Spec, Agr in the overt syntax.

Auxiliary pronouns cooccur with agreement (20b), (i.e. there is clitic doubling with overt pronouns), because they are agreeing Ds, stranded by NumP movement to Spec, Agr.

The statement in (20c) has to be adjusted somewhat: those independent pronouns that contain an overt NumP cannot cooccur with agreement. This explains why reduplicated pronouns, conjunctive pronouns, and simple independent pronouns with overt NumP do not cooccur with agreement: NumP is overt within the pronominal DP in all these pronouns, and (sentential) Agr can only cooccur with silent NumP (41).

 Lexical DPs do not trigger agreement, (20d), simply because they do not occur in Spec, Agr in the overt syntax. Their NumP is contained within the lexical DP (the head N moves to Num, Num and N move to Agr), and therefore there is no possible source for agreement. Agreement asymmetries therefore follow entirely from the structure of the DP in the overt syntax: if NumP is in Spec, DP, further movement is possible. If NumP is not in Spec, DP, as in the case of lexical DPs, further movement is of course impossible.

Pro (empty NumP) is licensed iff there is overt agreement (20e). The head of an empty NumP chain must be licensed by overt agreement. *Pro* thus occurs in Spec, DP licensed by an agreeing D, (this is the case with certain independent pronouns that consist of an agreeing D in contexts without overt agreement), or when licensed by overt agreement. Note furthermore that we have further assumed that the lexical head occurs in Agr in the overt syntax: heads move to Agr, but no higher. Head movement will extend the domain, allowing NumP to reach Spec, Agr. Since heads do not move any higher, however, NumP cannot escape outside of these domains: there are therefore no clitic climbing or cases of multiple agreement beyond those already discussed.

The proposed analysis strongly supports agreement as a reflex of a overt Spec head relation. There is a competing theory for agreement, however, which consists of treating agreement as an incorporated pronoun (Anderson, 1981, McCloskey and Hale (1984), Taraldsen (1992), Rouveret (1991)). This theory is motivated primarily on the basis of Celtic languages, and aims to capture the complementary disibribution of agreement (no full agreement with lexical DPs, full agreement with pronominal DPs); I have offered a different account for this asymmetry which is based on a fundamental asymmetry between the overt distribution of pronouns and lexical DPs in phrases (both clauses and DPs). This asymmetry is in fact widely attested in other languages, and the present theory is therefore simpler in so far as it makes use only of Spec head agreement and the distribution of pronouns. I cannot actually show that the incorporation theory of agreement is incorrect: this theory would be consistent with the analysis in this paper, provided that NumP movement to a position from which its head can be incorporated into some higher head position is assumed (i.e. agreement in DPs is much to high for direct incorporation). Proponents of the incorporation theory could capitalize on the fact that NumP triggering agreement must obligatorily be empty: if the head of NumP

incorporated this would follow. However, if this is correct, there would be several ways of triggering agreement available in Universal Grammar, surely not an attractive hypothesis from the point of view of the language learner[31].

4.5. NumP movement in Irish and other Celtic languages

The NumP movement analysis quite straightforwardly extends to Irish and other Celtic languages: NumP movement must occur in configurations with overt agreement, but cannot occur in the absence of agreement[32]. Thus, full pronouns must be used in non-agreement contexts.

As McCloskey and Hale (1984) discuss, Irish verbal paradigms are defective and do not show full agreement for all forms. When an analytic verb form exist, or is chosen, full pronouns must be used, i.e. there can be no NumP movement, because silent NumP is not identified by an agreeing head. Although Irish differs from Welsh and lacks pronominal forms consisting of a NumP and an agreeing D, there are other forms which consist of a pronoun, i.e. NumP, preceding a particular head (reflexive or emphatic pronouns, demonstratives[33], and contrastively stressed pronouns (McCloskey and Hale, 1984, pp.493-494.). Only the contrastive suffix overtly agrees with NumP in its Spec. These heads can be stranded by NumP movement as well, in configurations with overt agreement (cf McCloskey and Hale, 1984). Note that in non-agreement contexts, the NumPs *precede* these heads, as expected: since NumP is in the Spec of the particular head, it has is precisely reached the position from where it could undergo further movement. As in Welsh, the stranded head occupies the same position as lexical DPs[34], as the internal structure of DPs allow us to conclude:

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[31]The alternative, reducing all agreement to cases of incorporation, as proposed in Taraldsen (1992) does not seem exactly promising.

[32]I will not atttempt to account for the agreement patterns under coordination as described in McCloskey and Hale (1984).

[33]I am aware of complications with the demonstrative pronoun (*e seo this*, and not **seo teach this house* but *an teach seo the house this*. An analysis of this construction will take me too far afield.

[34]This is also true for Breton (cf. Stump 1989 p.438).

(47)   a.   a   shaol   suarach   féin   (M&H, 1984, (63b), p. 514)

               MRS life   wretched   REFLEX

               'His own wretched life'

       b.   ár   soal   stoirneach-inne   (M&H, 1984, (65c), p. 515)

               P1   life   stormy CONTR P1

               'Our stormy life'

Quite generally, lexical DPs cannot trigger agreement, for the same reasons as in Welsh: lexical NumPs are contained within Spec, DP in the syntax. They therefore cannot move to Spec, Agr. There is no possible source for overt AGR.

5. Mainland Scandinavian NumP movement

So far, Celtic languages illustrate silent NumP movement to Spec, Agr, with overt Agr. The NumP movement analysis also straightforwardly accounts for the distribution of pronouns in Mainland Scandinavian languages, as I will now show. As is well-known (Holmberg, 1986, among others), pronouns in the mainland Scandinavian languages move to positions where lexical DPs cannot occur. Pronoun shift depends on V-movement, in the sense that the pronoun never moves to a position outside the domain of a verbal chain. This is generally taken to indicate that V-movement extends the domain in which movement is possible. Because pronouns fail to license parasitic gaps, pronoun shift is generally assumed to be movement to an A-position.

I only analyze Norwegian pronouns in this section, although I believe that the results extend to other Mainland Scandinavian languages, as well. Let us start with an analysis of Norwegian pronouns, based on Hestvik (1990). Hestvik argues that English pronouns and Norwegian pronouns, which are neither homophonous with Ds nor transparently composed elements, have different representations: English pronouns are undecomposable NPs (DPs in more modern terminology), and cannot be modified (*he with long hair, *she from upstairs*), Norwegian pronouns are Ns and behave as Ns in the sense that they can be modified. The equivalent of *he with long hair* is fine in Norwegian.Translating Hestvik into our structures for pronouns, pronouns are either N or NumP, depending on whether the pronoun can be modified by a PP or not. Treating English pronouns as undecomposable NumPs and Norwegian pronouns as decomposable into N and Num, is rather unsatisfactory, however. After all, the NumP projection expresses the idea that there is both a Num head and a N head. English pronouns should therefore be treated as being composed of N and Num (and person) as well. The question

thus arises how to account for the possibility/impossibility for a pronoun to be modified. Let us maintain the account that English pronouns start out as N as well, and explore a different way to account for the possibility of pronominal modification. Assume that it follows from the particular overt syntax of the DP. Within the proposed pronominal structure, there are two likely candidates: PP modification is impossible if N movement occurs, or, PP modification is impossible when NumP movement occurs. The former will not explain the impossibility for modification. First, in comparable configurations V movement seems perfectly possible. And secondly, in languages with head movement of N, like French for example, N can move and still be modified by a PP modifier.

(48)   L' ami   italien de Jean aux   cheveux longs
            the friend   Italien of Johnwith   hair   long
            'John's Italien friend with long hair'

The head N has raised out of the NP to a position higher than the position in which the possessor occurs, and the adjective. Yet PP modifiers can occur.

If the presence of a PP modifier does not depend on N movement, could it depend on overt movement of NumP? For this option to be right, it must be shown that PP modifiers may occur when NumP does not move in the overt syntax, as is the case with regular English DPs, and that PP modifiers are excluded if NumP moves to Spec, DP, as with English pronouns.

The possibility of NP modification by a PP is not restricted to pronouns crosslinguistically, but actually also shows up with lexical Ns. While Ns in most Indo-European languages can be modified by PPs, Ns in many other languages cannot (Abe (Kwa) (Koopman, fieldnotes), Bambara (Mande) (Crook, 1990), Nweh (Nkennji 1993), and Turkish (Kural, personal communication)). In these languages, PP modifiers occur with verbal projections, but not with nominal projections[35] (the equivalent of PP modification is expressed by a relative clause). Why then are PP modifiers allowed in certain languages, but not in others? Languages that do not tolerate PP modifiers of NP appear to be D final. Often D agrees with the head N. Since many of these languages are otherwise head initial, this suggests that a projection of N has moved to Spec, DP, triggering agreement on D, as Nkemnji (1995) argues for Nweh (Grassfield Bantu). If

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[35]This generalization actually extends to complements: many languages cannot both license a possessor and a theme in their DPs, and can only license an internal argument if the genitive position is available.

this is correct, the structure is roughly identical to the one proposed for English pronouns, but with lexical NumP movement:

(49)   DP
                          NumP
                                                        D
              Num   NP   NumP
                               N'   [e]
                               N
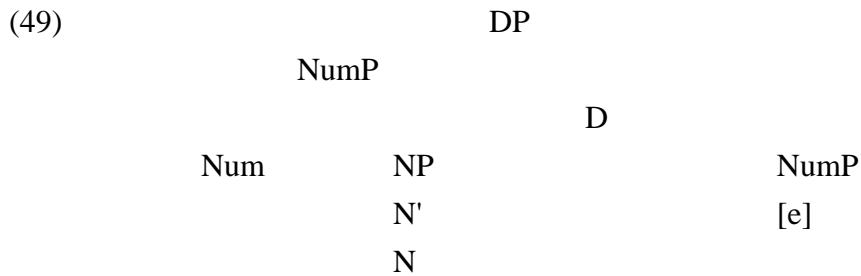
Given these observations, we can now assume the desriptive generalizations in (50):

(50)   a. PP modifiers are not allowed if NumP moves to Spec, DP
                  b. PP modifiers are allowed if N moves to Num or a higher head, or if N
                     is in-situ

Although it is unclear at this point what explains (50a), I conclude that PP modifiers cannot occur with English pronouns, not because they are unanalyzable NumPs, but because NumP obligatorily moves to Spec, DP. The impossibility of PP modification thus provides an additional argument for NumP movement in English pronominal DPs.

Since Norwegian pronouns can be modified, NumP has not moved to Spec, DP when the pronoun is modified. This raises the question if NumP ever moves in Norwegian. I assume it does, because of the fact that NumP can undergo movement to a higher Spec position, yielding pronoun shift: this indicates DP internal NumP movement. Norwegian pronouns are thus analyzed as consisting of a silent D and an overt NumP, with optional DP internal movement of NumP to Spec, DP. However, when the pronoun is modified, it must be the case that overt NumP movement to Spec, DP has not taken place. Since NumP is overt, overt NumP should be able to further move to Spec, Agr positions, as in Welsh, but now with Agr silent: this, I assume is precisely what happens with pronoun shift. NumP movement should furthermore only be possible when NumP moves to Spec, DP in the overt syntax. In particular, if NumP does not or cannot move to Spec, DP, the pronominal DPs should have exactly the same distribution as lexical DPs.

These predictions are borne out. Although pronoun shift is strongly preferred, it is not obligatory (it is near obligatory),. This immediately follows from the optionality of NumP to Spec, DP movement in the overt syntax. If NumP does not move to Spec, DP, a

pronominal DP will have the same distribution as a lexical DP, because NumP will be unable to move to Spec, Agr in the overt syntax. This yields the effect of optionality of pronoun shift, which thus in fact reduces to the distribution of constiutents within the DP. If NumP *does* move to Spec, DP, it will be able to undergo further movement and move to Spec, Agr, thus yielding object shift[36]. Pronoun shift should be *impossible* in those cases where NumP movement to Spec, DP is impossible, i.e. with pronouns that are modified by PPs. Holmberg (1986) notes (but does not explain) the feact that pronouns that are modified by PPs cannot undergo object shift. The following paradigm shows this for Norwegian [37] [38]

(51)   a.   Jeg   liker   *ham*   ikke
                  I   like   him   not

          b.   Jeg liker   ikke   *han med langt haring*
                  I   like   not   him with long hair
                  '*I don't like him with long hair[39]'

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[36]Here I assume that V movement somehow "activates" AgrO.

[37]Thanks to Arild Hestvik for the examples.

[38]Similar examples can be constructed for Dutch pronouns with PP modifiers. These pronouns have the distribution of lexical DPs. The pronoun cannot be a clitic form (*d'r* or *'m*):

(i)   ik ken *d'r/ haar van boven   niet goed
             I know   her from upstais not well

This shows that when there is a clitic form, NumP to Spec, DP must take place, and when there is not, NumP to Spec, DP is optional. Note that this conclusion holds independently of the problem how these clitics should be analyzed: if they involve NumP movement, they must be preceded by NumP movement to Spec, DP; if they involve head movement, NumP movement to Spec, DP must be assumed as well.

[39]The star stands for the interpretation 'I don't like the person with long hair', not for a small clause construal 'I don't like him when he has long hair'

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c.	*Jeg	liker	*han*	*med langt haring* ikke
	I	like	him	with long hair not

d.	*Jeg	liker	*han* ikke *med langt haring*
	I	like	him not with long hair

(51a) involves DP internal NumP movement to Spec, DP followed by NumP movement to Spec, Agr. (51b) shows that a pronoun with a PP modifier has the distribution of a lexical DP: it cannot undergo pronoun shift (51c), nor, quite surprizingly, can the pronoun shift stranding the modified PP (51d). This paradigm is immediately explained: when a NumP is modified it is prohibited from moving to Spec, DP (50); (51c) is therefore excluded in the same way as shifting of a lexical DP, i.e. NumP cannot reach Spec, AgrO; (51d) is excluded in the same way: NumP is unable to reach Spec, DP in the first place, and movement to Spec, Agr is therefore impossible[40].

A final property of object shift is that it fails to license parasitic gaps. Rather than attributing this to the A or A-bar status of the landing site, as is common practice, this could be due instead to the fact that the moved category is too small, i.e. NumP, not DP, to license a parasitic gap.

6. **English pronouns.**

Although the distribution of lexical DPs and pronouns in English overlaps to a large extent, their distribution differs in a number of constructions. As I will now show, the distribution of English pronouns also reduces to the movement of NumP to some designated position (which I assume is Spec, Agr, as in Welsh and in Norwegian).

Consider first, however, what to expect given the particular structure of the English pronominal DP. English pronouns are composed of overt NumP and silent D (7). If there is further NumP to Spec, Agr movement, as in Welsh and Norwegian, *overt*

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[40]This account raises the question how object shift in Icelandic, where lexical DPs and pronominal DPs both shift should be accounted for. I believe that this phenomena is much closer to scrambling in Dutch, which applies to both pronouns and specific DPs, whereas the pronoun/lexical DP asymmetry is closer to clitic placement, i.e. involves NumP movement to a pronominal head projection (Dutch actually has both processes). This imples that there is a distinction between AgrO (which could be accusative Case) and pronominal AgrO, which could be much closer to Sportiche's (1995) clitic projections.

NumP should occur in Spec, Agr. Moreover, given the fact that NumP is *overt*, (and not silent as in Welsh), we expect Agr to be *silent,* given the fact that English seems to mark either Spec or head position, but not both (i.e. the doubly filled COMP filter):

(52)   a. [$_{NumP}$pronoun [$_{Agr}$ e] ... (*English, Norwegian...*
             b. [$_{NumP}$ [e] [$_{Agr}$ Agr] ...   (*Welsh, Irish ...*)

If this is correct, English is not a pro-drop language, simply because NumP is overt not silent. This does not explain why NumP cannot also be *covert* in configurations that *do* show agreement. Suppose however that *pro* (i.e. covert NumP) is only licensed if the head of NumP is in a Spec head relation with overt Agr (or rather with the head of an overt Agr chain), as in Welsh.) This configuration is arguable never satisfied in English (except for the Spec, CP, and C of relative clauses, where NumP can actually be empty): English has no person agreement other than some restricted subject verb agreement. Agreeing main verbs are always lower in the structure than AgrS; AgrS is therefore always empty at S-structure, and NumP must therefore be overt. If auxiliaries carrying Agr never occur in AgrS either, but either remain lower, or raise higher (in the case of SAI), overt Agr is actually never in a position to license the head of an empty NumP chain. NumP therefore must always be overt.

        It follows from (52b) and the discussion above that there will be no analytical help in English from the presence or absence of agreement; nor can we use stranded Ds, because D is silent. Arguments for NumP movement can be constructed, though, on the basis of the syntax of certain QPs containing [*all*, *both*] (henceforth *allPs*), which can be stranded.
Consider the following paradigm:

(53)   a. all of these people/all of them came
             b. all these people/*all they came
             c. I saw them all/*these people all
             d. I spoke to them all/ * to these people all

All can be followed by an *of-DP* (53a) (which has no bearing on our discussion), or by a bare DP (53b), which is the configuration that interests us. When *all* is followed by an *of-DP*, pronouns and lexical DPs distribute in exactly the same way as they do in PPs. When *all* is followed by a bare DP, as in (53b), pronouns cannot follow *all* but must precede (53c).The distribution of pronouns and lexical DPs is thus asymmetric: pronouns must

precede *all*, but lexical DPs cannot (53c, 53d). Based on this paradigm Maling (1976) proposes that pronouns and certain quantifiers obligatorily undergo a rule of Quantifier Pronoun flip (*Q-flip*). How should Q-flip be analyzed? What position does the pronoun occupy? There are two possibilities: the pronoun could be either within the projection containing *all*, call it allP, as (53d) seems to suggests, or it could be outside the allP.

Suppose first that pronouns are within the allP, and occupy Spec, allP. The problem arises why this position is restricted to pronouns: Spec, allP does not really seem to be restricted to pronouns, in the sense that DPs can move through this projection in the case of Q-float Sportiche (1988). In Celtic languages, lexical DPs can never move through Spec, Agr positions, as can be concluded from the fact that full agreement is impossible in case of wh-extraction. Suppose however that, notwithstanding the appearences, the pronoun is not within the allP, but rather in Spec, Agr. More precisely, suppose that the situation is exactly as in Welsh, with NumP moving to Spec, Agr. That this is the correct analysis is what I will argue in the remainder of this section.

Let us first consider support for anlayzing the pronoun as being outside the *allP*.

(54)   a.   All these candies I really like
          b.   *Them all I really like

(55)   Q.   Wich ones do you want, all the yellow candies, or all the green ones?
          A: a.   all the candies
                  b.   all of them
                  c.   *them all
                  d.   I want them all

(56)   Q.   Which book do you want? This one or that one?
          A: a.   Both the books
                  b.   Both of them
                  c.   *them both
                  d.   I want them both

While the order *all DP* can be used as an independent DP constituent, the order *pronoun Q* cannot[41]. This constitutes strong evidence that pronouns are not within the *allP,* but actually have raised outside. (57) thus follows:

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[41]The same is true for topicalization: (?)all these people I really like, *them all I really like.

(57)   Pronouns must raise outside the *allP*.

The problem now arises how to reconcile (57) with (53d). I will assume that the pronoun in (53d) has raised to Spec, AgrP, with the lexical DP in a lower position, and P raising to some projection higher than the pronoun. (This would be possible, if one assumes PP shells, as in Koopman (1991)).
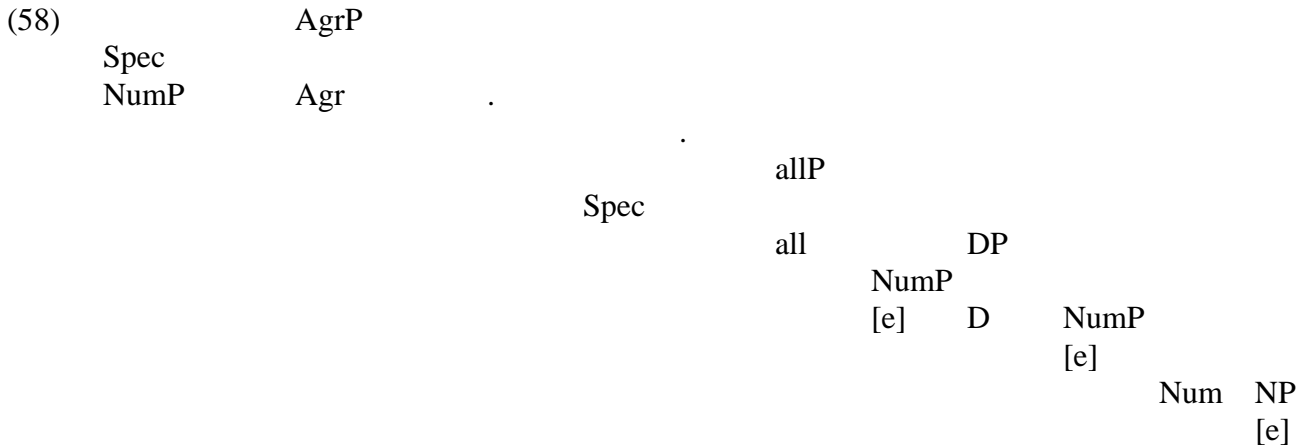
    If pronouns are not within the allP, where are they? In which position do pronouns occur? Insight into this problem comes from the environments that allow for pronouns linked to *allPs*: subjects, objects or objects of P. Given the analysis of Welsh, we can therefore assume that the pronouns move to Spec, AgrS, Spec, AgrO and Spec, AgrP in the overt syntax . But why do only pronouns raise to Spec, Agr positions in the overt syntax? The same answer can be given to Enlgish as we provided for Welsh and Norwegian. The asymmetry reduces to an asymmetry in the DP structure of pronouns and lexical DPs. Only pronouns move because NumP is in Spec, DP in the overt syntax, and can therefore undergo further movement in configurations where Spec, Agr is structurally available. Lexical NumP are in situ and can therefore not undergo any movement[42].

    We thus assume that, as in Welsh, NumP must move to Spec, Agr, whenever possible:

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[42]Overt movement can be easily forced in Chomsky's 1992 theory where only morphological features can cause overt movement in the syntax (strong morphological features must be eliminated through checking in the overt syntax). English pronouns differ morphologically from English lexical Ns in carrying overt morphological Case distinctions. Pronominal movement could therefore be motivated as DP movement to the position where these features are checked. Asymmetries between pronominal DPs and lexical DPs would arise from the principle of Procrastinate (Chomsky 1992: don't move unless you are forced to). There are quite serious problems with Procrastinate, however. Consider for instance Chomsky's assumption that English accusative DPs do not or (do not optionally) move in the overt syntax. The distribution of DPs in the verb particle construction quite strongly argues in favour of optional DP movement of lexical DPs (Johnson 1991, Koopman 1991, among others). But if DPs can optionally move, the impossibility of structures like (i) cannot be explained:

(i)   a. *with these people all

An account which forces movement of the entire pronominal DP thus runs into the problem that optional DP movement should be able to move the DP to the same positions as well.

(58)   AgrP
        Spec
        NumP   Agr   .

                                    .
                                            allP
                                Spec
                                all   DP
                                        NumP
                                        [e]   D   NumP
                                                        [e]
                                                                Num   NP
                                                                        [e]

This explains the asymmetry: pronouns are NumPs which appear in Spec, DP in the overt syntax. They therefore are in a position from which further syntactic movement not only is possible, but actually required in configurations in which Agr is projected. [43]

        The syntax of allPs thus shows that pronouns (i.e. NumPs) must occur in Spec, Agr positions which cannot host lexical DPs (i.e. *with these people all*). If this is correct,

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[43]While pronouns move to Spec AgrS, Spec, AgrO and Spec, AgrPP, Spec, AgrN is absent from this list, in contrast with Welsh. In fact, interesting problems arise with this position in DPs in English.

(i)   a.   I spoke to the mother(SG) of all these children

            b.   I spoke to the mothers of all these children

            c.   ?*I spoke to all these children's mother

            d.   (??) I spoke to all these children's mothers

            e.   **I spoke to them/their all's mother(s)

While (ie) is crushingly bad, the source sentences (ic) and (ic) are pretty unacceptable as well. It is unclear whether the interpretation in (ib) is available for (id): this sentence feels like a garden path, and judgments are accordingly. However, irregardless of what explains(ic) and ((ic), if in addition, NumP must move to some higher Agr position, the ungrammaticality of (ie) is explained: the DP containing the pronoun is in Spec, AgrN: NumP cannot move to a higher Spec position, say Spec, AgrO, or Spec, AgrP because it is not governed from the outside.

it can be concluded that pronouns *always* occur in Spec, Agr positions. Support for this assumption comes from the verb particle construction: in the verb particle construction pronouns *must* occur in preparticle position, whereas lexical NPs can either precede or follow:

(59)   a. I put him up
      b. *I put up him
      c. I put my family up
      d. I put up my family

If NumPs must occur in Spec, Agr, and lexical DPs cannot, there must be both a Spec, Agr position and a lexical DP position preceding the particle (as concluded in Johnson,1990). NumPs must move to Spec, Agr, and lexical DPs may optionally move to a Spec position preceding the particle.

   How does NumP movement procede? The following examples yield insight in the derivation:

(60)   a. I called them all up
      b. *I called these people all up
      c. *I called them up all

The allP obligatorily precedes the particle when NumP extraction has occurred. This position is not explained by head movement of *all* left adjoining to P: if P adoined to the left of the allP, the allP should be transparent for DP movement, and lexical DP movement to the pre-particle position should be possible. (60b) is therefore wrongly predicted to be possible. I therefore conclude that NumP extraction is preceded by DP movement to preparticle position:

(61)   AgrP
                        NumP
                                    Agr
                                V   PP
                                        allP

        ↑
        | [[e] [$_D$e] all
        |
        |_____| ↑   P   DP
           NumP movement | [e]
                               |_____|
                                allP movement
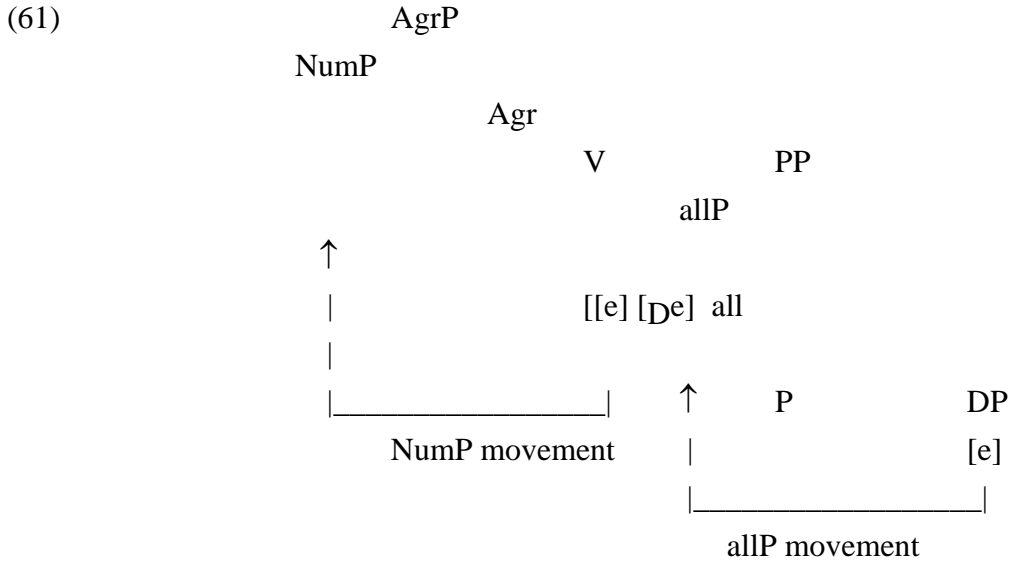
Finally, since English V in the verb particle construction obligatorily precedes pronouns it follows that V moves from a V position to some higher head position, which is higher than the Spec, Agr position to which the pronoun moves.

In sum, English pronouns occur in a position from which lexical DPs are excluded. Since distributional asymmetries show up exactly in the configurations where pronouns in Welsh trigger agreement, we argued that English NumPs overtly move to Spec, Agr positions when these positions are syntactically projected. Note that we have not entertained an analysis which accounts for the position of pronouns by head movement of the pronoun (NumP movement to Spec, allP followed by adjunction to the right of a higher host (V, P, and AgrS?..)[44]. English pronouns do not look like clitics.

A strong argument in favour of the NumP analysis is that it captures the similarities between English and Welsh: English exactly looks like Welsh, except that it has overt NumP, and silent Ds and Agrs. English and Welsh syntactic configurations are thus entirely identical, and the difference ultimately reduces to the internal structure of the pronominal DP: in English NumP is always overt and D and Agr are silent, NumP in Welsh can be empty and D and Agr are overt.

7. Conclusion

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[44]It is often argued that English pronouns are clitics.

In this article, I provided arguments that pronominal DPs consist of NumP in Spec, DP and D, and shown that this hypothesis has direct consequences for the syntactic distribution of pronouns. In particular, I argued that asymmetries in the distribution of pronouns and lexical DPs follow from NumP movement to Spec, Agr positions, whenever possible. This analysis finds strong support in the internal analysis of Welsh pronominal paradigms and agreement, and also yields insight into the distribution of pronominal elements crosslinguistically. Thus, the distribution of pronouns in Norwegian and English is basically identical to that of Welsh and other Celtic languages, and reduces to the optionality of NumP movement DP internally (optional in Norwegian (pronouns can be modified) but obligatory in English/Welsh), and to whether the language is one in which NumP is overt (English/Norwegian) and D/Agr silent) or is one with NumP silent (Welsh and other Celtic languages), and D/Agr overt:

(62)   A.   NumP movement to Spec, DP or not:

$[_{NumP} [_D] ....]$: obligatory: English/Welsh

optional: Norwegian

B: NumP overt/covert ; Agr/D overt/covert:

(i) $[_{NumP}$pronoun $[_{Agr/D}$ e] ... (*English, Norwegian...*

(ii) $[_{NumP}$ pro $[_{Agr}$ Agr/D] ... (*Welsh*[45] ...)

The coexistence of both systems, as in the Welsh pronominal DP, in which all possible combinations of overt/covert NumP and overt/covert D are attested, provides the empirical basis on which NumP movement to Spec, Agr could be established. If there are languages in which NumPs never raise to Spec, DP, we would expect pronouns to have exactly the same distribution in the overt syntax as lexical DPs, and to not interact in any way with Spec, Agr, simply because they are too low in the structure.

       Our analysis provides new understanding in the syntax of pronouns and agreement, and shows that a common structure underlies both. The next question is how this proposal applies to clitic constructions. Romance clitic constructions quite straightforwardly fit into the structure presented so-far. Sportiche (1995) argues for an analysis of clitic constructions as involving a base generated head (the clitic) and an

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[45]D can be overt or covert in Welsh .

element in the Spec, Clitic which has undergone movement from a DP position: if the moved element is actually NumP, Romance languages fit into the schema above, with NumP silent and Agr overt (52bii), although quite interestingly, D in the pronominal DP is silent (or alternatively has undergone movement to the Agr position). If this is correct, there is a common structure underlying the distribution of pronouns, clitic and agreement, involving NumP movement and Agr.

The analysis raises many new questions which go beyond the scope of this article. I will briefly address some of these. First, the analysis yields new insight in the distribution of *pro*. As a prerequisite for a pro-drop language, the language must be a silent NumP language. Furthermore, the language must be an overt Agr language[46]. And finally, we speculated, the head of Agr must be in a Spec, head relation with the Spec containing *pro*: i.e. pro-drop is dependent on the position of the head carrying Agr [47].

Agr licenses NumP in the syntax. This raises questions about its nature, its function, and its position (see Sportiche 1995 for discussion of these issues). Agr, as used in this paper, encodes person and number features, and is identical to what is sometimes called pronominal agreement. The content of Agr differs from participle agreement or adjectival agreement in Indo-European languages, which do not encode person agreement. Note that I have also been using agreement as a reflex of a Spec head relation, as for instance the DP internal agreement between NumP and D. This suggests that the two views in the literature on Agr are both correct: there are certain instances of Agr that involve an overt syntactic head (i.e. pronominal agreement), and certain cases in which agreement is a by-product of a particular Spec, head relation.

In the languages under discussion, Spec, Agr can only host NumP in the overt syntax, but not lexical DPs. This raises two questions. Is this always the case? And if so, why? I will assume without further evidence that the agreement asymmetries reflect LF; Agr only licenses NumP, never DPs[48]: this would follow if the LF function of Agr is the

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[46]Or maybe a silent Agr language and a silent NumP language, as Chinese/Japanese.

[47]If French finite verb do not occur in Agr, but lower, and the V in other Romance languages moves to Agr, it would follow French is not (subject) pro-drop.

[48]There are typically Agr asymmetries with overt object agreement. Overt object agreement is often restricted to specific DPs. This might follow if agreement is always and only triggered by NumP. If the [NumP D] structure is a prequisite for triggering of object agreement, you must belong to a particular class of DPs for NumP extraction to be possible. If the DP is lower than

licensing of *pronominal* features. If this is correct, lexical DPs with no pronominal features to license occur in a different position at LF, probably the Case positions, and contrary to common assumptions, Agr and Case are two independent heads, having distinct licensing purposes (Sportiche (1995). This would provide a motivation both for the obligatory raising of subject lexical DPs in Welsh and for additional NumP movement: raising of the lexical DPs to the Spec, Nom position, and NumP to Spec, Agr in the overt syntax, reflects the actual licensing positions at LF. A similar explanation extends to English objects: they can optionally move to Spec, AccP, but NumP must obligatorily move to Spec, Agr. Why does Spec, Agr only host NumP, not DP? We will leave this question open for future research.

Where precisely is Agr located and what crosslinguistic differences are observed? Given the position of Agr in Welsh, we can conclude that AgrS occurs just below C, AgrN just below D, AgrP just below the "complementizer" position of P. The position of (pronominal) AgrO is less clear. It is lower than AgrS. Sometimes it seems to be higher than T, as for example in languages in which tense is realized independent of AgrS and AgrO, and in which AgrS AgrO are fused as portmanteau mophemes; sometimes it is lower than T (Basque, Bantu), and separated from AgrS by T. The problem of the position of AgrO thus recall similar problems concerning the position of NegP[49].

AgrO, there will be no agreement. If it is in a based generated A'-position, there will be agreement with a NumP in Spec, Agr.

[49] Finally, the question arises what light this analysis sheds on clitic doubling constructions. In Welsh, pronouns are obligatorily doubled by Agr: this clitic doubling was decribed as NumP movement to Spec, Agr with D stranding. This suggests a similar analysis for clitic doubling constructions quite generally. The problem in clitic doubling constructions is finding a source for the clitic. In clitic doubling constructions, the doubled DP must typically be precede by a dummy P (Spanish *a*, Hebrew *sel*,...) Classical analyses of clitic doubling constructions (Jaeggli 1981, Borer 1984, for example) assume that the clitic absorbs Case, and that the function of the dummy P is to Case mark the DP. The analysis presented in this paper provides another way of looking at the appearence of P, however. In the absence of P, there is no source for NumP movement: the lexical NumP is within the DP. It could be proposed that the dummy P creates an additional position from which NumP extraction is possible. The dummy P, creates an additional agreement projection, AgrP, in which an expletive NumP occurs, agreeing with NumP in the DP. It is the expletive NumP that moves to a higher Spec, Agr, yielding clitic doubling. In other words, these dummy Ps are parasitic on P, and project part of the PP structure. this allows the presence of an

References

Abney, S. (1987), *The English Noun Phrase in its Sentential Aspect*, MIT PhD thesis.

Anderson, Stephen (1982), 'Where is Morphology', in *Linguistic Inquiry* 12, 571-612.

Awberry, G (1976), *The Syntax of Welsh: A Tranformational view of the Passsive*,
        Cambridge University Press, London.

Awberry, G. (1990) 'Dialect Syntax: a neglected source for Welsh'. in R. Hendrick (ed.).

Baker, Mark and Kenneth Hale (1990), 'Relativized Minimality and Pronoun Incorporation",
        Linguistic Inquiry 21.289-297.

Borer, Hagit (1984), *Parametric Syntax*, Foris Publications, Dordrecht.

Borsley R. and J. Stephens (1989), 'Agreement and the position of subjects in Breton',
         in *Natural Language and Linguistic Theory* 3, 407-427.

Cardinalleti, Anna (1993), 'On the Internal structure of pronominal DPs', ms. University
        of Venice.

Carstens, Vicki (1991), *The Morphology and Syntax of Determiner Phrases in KiSwahili*.
        PhD dissertation, UCLA.

Carstens, Vicki, (1993), *Deriving agreement,* ms, Cornell University.

Chomsky, Noam (1991), 'Some Notes on Economy of Derivation and Representation'in R.
        Freidin (ed.) *Principles and Parameters in Comparative Grammar*. MIT Press.
        Cambridge.

Chomsky, Noam (1992), *Towards a Minimalist Program for Linguistic Theory. MIT
Occasional Papers in Linguistics, 1.*

Chung, Sandra and James McCloskey (1987) 'Government, barriers and small clauses in
        Modern Irish,'. In *Linguistic Inquiry* 18. pp.173-237.

Corver, N. (1990), *The Syntax of Left Branch Extractions.* PhD dissertation, Tilburg.

Crook, Harold (1990), The internal structure of DPs in Bambara', Unpublished UCLA
        MA thesis.

Grimshaw, Jane (1991), 'Extended Projections", ms. Brandeis University.

Hendrick, Randall (1989) *Anaphora in Celtic and Universal Grammar* Kluwer, Dordrecht.

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expletive NumP. This NumP can further move to Spec, Agr, only if there is no C like type
position dominating Agr, i.e. these dummy Ps project transparent PP small clauses (in that way
they resemble Ds).

Hendrick, Randall (1990), *The Syntax of Modern Celtic Languages*. San Diego: Academic
Press, 27-79.

Hestvik, Arild (1990), *LF movement of Pronouns and the Computation of Binding Domains*,
PhD dissertation, Brandeis University.

Holmberg, Anders (1986), *Word Order and Syntactic Features in the Scandinavian
Languiages and English*, PhD dissertation, Stockholm.

Jackendoff, Ray (1990), *Semantic Structures*, MIT Press. Cambridge, Mass.

Jaeggli, Osvaldo (1981), *Topics in Romance Syntax,* Foris Publications.

Johnson, Kyle (1991), 'Object Positions', in *Natural Language and Linguistic Theory*,
577-637.

Kayne, Richard (1985), 'Principles of Particle Constructions' In Gueron et al .eds.
Grammatical Representation, Foris Publications, Dordrecht.

Koopman, H. & D. Sportiche (1989) "Pronouns, Logical Variables and Logophoricity in
Abe", *Linguistic Inquiry* (pp. 555- 589)

Koopman, H. and D. Sportiche (1991) "The Position of Subjects" in *Lingua* 85.2/3

Koopman, Hilda (1984), *The Syntax of Verbs*, Foris Publications, Dordrecht.

Koopman, Hilda (1988), 'The Structure of the VP in Dutch', paper presented in Geneva.

Koopman, Hilda (1991), 'The Verb Particle Construction and the Syntax of PPs', ms.
UCLA.

Koopman, Hilda (1993), *The Structure of Dutch PPs*, to appear in *Linguistic Inquiry*.

Koopman, Hilda (1994), 'Licensing Heads', in Norbert Hornstein and David Lightfoot, *Verb
Movement*, Cambridge University Press.

Koopman, H. and D. Sportiche (1982), 'Variables and the Bijection Principle', in
The Linguistic Review 2, l39-160.

Koopman, Hilda and Dominique Sportiche (1989), 'Pronouns, Logical Variables and
Logophoricity in Abe", *Linguistic Inquiry* (p555- 589)

Koopman, Hilda and Dominique Sportiche (1991), "The position of Subjects", in *Lingua*,
85, 211-258.

McCloskey James and Kenneth Hale (1984), 'On the syntax of person-number inflection in
Modern Irish'. *Natural Language and Linguistic Theory* 6, 143-189.

McCloskey, James (1992) , 'On the Scope of Verb Movement in Irish', unpublished paper,
UCSC.

Moritz, Luc (1993), *DPs in Ncufie*, in Koopman and Kural (ed) *The structure of Ncufie*

UCLA Working papers..

Nkemnji , Michael (1995) 'Heavy Pied-piping in Nweh' UCLA Ph. D thesis. .

Postal, Paul (1969), 'On the so-called "pronouns"in English, ", in D. Reibel and S. Shane
        (eds.) Modern Studies in English, Prentice-Hall, Englewood Cliffs NJ. 201-224.

Ritter, E. (1991) 'Two Functional categories in Noun Phrases: Evidence from Modern
Hebrew,

        , ms. UQAM.

Rouveret, Alain (1990), 'X-bar Theory, Minimality and barrierhood in Welsh'. in R.
        Hendrick (ed)

Rouveret, Alain (1991), Functional Categories and Agreement, in *The Linguistic Review*,
        353-387

Sadler, Louise (1988), *Welsh Syntax. A Government-Binding Approach*, Croom H, Kent.

Sportiche, D. (1995) "Sketch of a Reductionist Approach to Syntactic Variations and
        Dependencies", in H. Campos and P. Kempchinsky eds*., Evolution and Revolution in
        in Romance Syntax*, Georgetown University Press.

Sportiche, D. (1995a) "Clitic Constructions", in *Phrase Structure and the Lexicon*, L. Zaring
        and J. Rooryck, Kluwer Academic Publishers, Dordrecht.

Sportiche, Dominique (1990), 'Movement, Agreement and Case', ms, UCLA.

Stowell, T. (1991) "Small Clause Restructuring", in R. Freidin, ed., *Principles and
        Parameters in Comparative Grammar*, MIT Press, Cambridge.

Stump, Geoffry (1984), "Agreement versus Incorporation in Breton", *Natural Language and
        Linguistic Theory* 2, 289-348.

Stump, Geoffry (1989), Further Remarks on Breton Agreement, ", in *Natural Language and
        Linguistic Theory* 3, 429-472.

Szabolci, Anna (1987) Functional Categories in the Noun Phrase' in I. Kenesei ed.
        to Hungarian vol. 2. Budapest: Jate Szeged.

Taraldsen, T (1992) *Pronouns and agreement*, GLOW newsletter.

Valois, Daniel (1991) *The Internal Syntax of DP*. PhD dissertation, UCLA.

Watkins, T. A (1972) The Welsh personal pronoun in *Word* 28:146-165.

Williams, Stephen J. (1980), *A Welsh Grammar*, University of Wales Press, Cardiff.