Pronominal enclisis in VSO languages

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5 Pronominal enclisis in VSO languages

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1. Introduction

In this chapter we present evidence that both Semitic (Arabic and Hebrew) and Welsh clitic systems bear striking similarities to each other, and are significantly different from those of Romance or Germanic. We motivate an analysis of both systems which treats them as base-generated syntactic affixes in Agr. Hence these clitics are not in fact pronouns, that is, XPs.¹

Our central theoretical claim is that this type of clitic system is non-trivially connected to the (full or residual) VSO nature of the languages in question. Adopting and adapting a proposal for English auxiliaries in Chomsky (1993), we propose that weak/clitic pronouns² must check features with an Agr head with strong nominal features. However, we argue that the nature of VSO systems is such that Agr heads with strong features are largely absent. It follows that weak/clitic pronouns cannot be licensed in a VSO system. The functional role of such pronouns – which we will argue to involve licensing pro – is then carried by the Agr heads themselves. We thus tie together two apparently unrelated properties of these languages, namely word order and the nature of the clitic system. We also explain the pervasiveness of agreement marking that these languages show; where a Romance or Germanic language has a pronoun, these languages have agreement, hence it is not a surprise to find agreeing prepositions, for example. Moreover, the apparent preference for enclisis that these languages show is a consequence, in our terms, of the fact that the apparent clitics are really affixes; enclisis thus follows from the Right-Hand Head Rule (Williams 1981b). This result is consistent with the proposal in Kayne (1995) that heads can only adjoin to the left of other heads. Put more simply, our account of Celtic and Semitic clitics is consistent with the idea that clitics are always and only on the left of their hosts and affixal heads are always on the right, as Kayne's theory predicts. Our results thus lend support to Kayne's theory, over a theory which makes no predictions about the direction of head adjunction or affixation such as the one proposed in Chomsky (1994).

In section 3 we present the properties of Semitic clitics and contrast them with Romance. Here we also motivate the analysis of the clitics as base-generated syntactic affixes in Agr. In section 4 we show how the same analysis carries over
to Welsh. In section 5, we present our view of the connection between the clitic typology and VSO typology. Section 6 extends the discussion to look at analytic and synthetic agreement paradigms in Welsh, and the alternation between VS and SV order in Standard Arabic. We show how natural assumptions in the minimalist system can explain what appear to be three different abstract feature values for Agr. Finally, section 6.1 deals with doubling phenomena: we briefly analyse the 'echo pronouns' of Welsh, and show how this system is consistent with the general characterization of 'VSO clitics'.

First, however, we present our assumptions about the extension of standard Government-Binding Case theory which has become known as checking theory and outline the central assumptions that we adopt. For full technical details, see Chomsky (1993: 6–19).

2 Checking Theory

The central idea is that the earlier notion of Case assignment is to be subsumed and generalized to a theory of how functional heads license lexical categories and cause the movement of lexical categories (both heads and maximal projections). The functional heads include Agr (of various kinds), T, C, D, etc. The content of these heads includes abstract features that enter into checking relations with features of lexical categories. The checking operation takes place in the checking domain of a functional head; the checking domain of a head $H$ can be characterized for our purposes as the specifier of $H$ or a head adjoined to $H$ (see Chomsky 1993: 12 for a full definition). For example nominative Case assignment in a language like English is construed as a checking relation between a DP in Spec of AgrSP and AgrS. The element checked is a Case feature (or N feature, in Chomsky's terminology) associated with the functional head AgrS. The presence of a strong N feature on AgrS (in finite clauses; Chomsky suggests that this feature is associated to AgrS by head movement of finite T) causes the subject DP to raise from its VP-internal position to Spec of AgrS. Strong features are those that must be checked prior to the mapping into the phonology (Spell Out). On the other hand, where a given feature is weak, nothing requires movement in the overt syntax (although it must take place in the mapping to LF (Logical Form)). The 'delay' in movement for checking of weak features is ensured by the Procrastinate Principle, which we can formulate as follows:

(1) Movement is delayed whenever possible.

It is a property of PF (Phonetic Form) that strong features must be checked prior to Spell Out; hence, movement cannot be delayed where strong features must be checked. On the other hand, PF is insensitive to the presence of weak features, and hence movement for checking of weak features can be delayed until
after Spell Out. The effect of the Procrastinate Principle is that this kind of movement must be delayed, all other things being equal.

More generally, the abstract features of functional heads are taken to be the elements that trigger movement, both of heads and of maximal projections. Economy principles ensure that movement will take place for no reason other than to check features; whether movement is overt or not is determined by the interaction of strong features with the Procrastinate Principle. The strength or weakness of the abstract features of functional heads is taken to be the sole locus of parametric variation.

In VSO systems, the N-feature associated with nominative Case assignment is weak, and so the subject does not raise overtly; we will discuss this approach to the characterization of VSO typology in detail below.

The interaction of Checking Theory and economy principles also guarantees the strong locality conditions that constrain head movement and A-movement. The relevant economy principle requires movement to be as short as possible (the shortest movement condition), hence it must always move a category just to the nearest potential checking position; movement to a more distant position violates Economy, leading to ungrammaticality. An important notion in this connection is that of equidistance, defined as follows.

(2) If $\alpha$ and $\beta$ are in the same minimal domain, they are equidistant from $\gamma$.

The minimal domain of a head $H$ is the smallest set of nodes contained in the maximal projection of $H$ that are not themselves projections of $H$. In effect, then, the minimal domain of $H$ includes $H$'s specifier, complement and anything adjoined to $H$ or to $HP$. If $H$ undergoes movement to a higher head $G$, then the minimal domain is defined with respect to the resulting chain $(H, t)$. This domain includes the specifier of $G$ and anything adjoined to $GP$, in addition to the specifier of $H$ and anything adjoined to $HP$; it does not include $HP$ itself, since $HP$ is a projection of $H$. It follows from this characterization of minimal domain combined with the definition of equidistance in (2) that the specifier of $HP$ and the specifier of $GP$ are equidistant positions. Movement to either of these two positions has the same status with respect to the shortest movement requirement.

Consider, for example, the derivation of a simple transitive clause in English. Owing to the presence of a strong nominative feature, the subject raises to Spec of AgrSP overtly, as we mentioned above. Assuming that Spec of TP is either absent or not an A-position, this position does not count as a potential landing-site. Similarly, Spec of AgrOP is absent prior to LF (since specifier positions are created by movement and AgrO in English has a weak N-feature which therefore does not trigger overt movement). Hence, movement to Spec of AgrSP satisfies the shortest movement condition. At LF, however, the object must raise to Spec of AgrOP from its base position in VP. This movement involves crossing the base position of the subject, Spec of VP. The verb also raises to AgrO in LF, creating a
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chain \((V, t)\) with a minimal domain which includes both Spec of VP and Spec of 
AgrOP. Thus, Spec of AgrOP and the base position of the subject are equidistant 
from the base position of the object and so the object can move directly to Spec of 
AgrOP, ‘skipping’ the subject position. In this way, the notions of equidistance 
and minimal domain derive the pattern of crossing A-chains in transitive clauses.

In addition to Case features, or N-features, Chomsky proposes that functional 
heads have V-features. These are Tense and Agreement features, and are 
associated with the functional heads which make up the clausal system. V-features 
can be weak or strong, triggering covert or overt verb movement respectively. In 
this way the well-known differences among languages regarding verb placement 
can be captured: English Agr and T have weak V-features, while French Agr and 
T (in finite clauses) have strong V-features (see in particular Emonds 1978: 
Pollock 1989). In VSO languages, the functional heads that make up the clausal 
system typically have strong V-features, as we shall see. See also Bobaljik and 
Carnie (this volume).

In Chomsky’s presentation, N-features are implicitly taken to trigger DP­ 
movement exclusively, and V-features are taken to be the only trigger for head 
movement. We would like to add two provisos to these assumptions. First, we 
take it that it is possible in principle for D-movement to check N-features; that is, 
a DP may come to be licensed by movement of its head D to a higher head which 
bears an N-feature. This idea is the analogue in checking terms of the idea that 
incorporation of the head of a nominal can satisfy that nominal’s Case 
requirement (see Baker 1988; Everett 1989; Rizzi and Roberts 1989). Second, it 
is clear that outside the clausal domain there may be Agr heads whose ‘V-features’ 
trigger movement of the lexical head the Agr is associated with, where that lexical 
head is something other than V. For example, in languages where PPs show overt 
agreement we are led to postulate a prepositional Agr, AgrPrep. The ‘V-features’ 
of this Agr trigger P-movement (this would be the only possibility, given the 
locality constraints on head movement). Given these two considerations, it would 
be preferable to refer to N-features as ‘argument-checking features’ and V- 
features as ‘predicate-checking features’, where arguments are categories that 
receive thematic roles and predicates categories that assign them. Nevertheless, we 
will retain Chomsky’s terminology for ease of exposition.

With the above elements of Checking Theory as background, we can now turn 
to the analysis of word order and clitics in Semitic and Celtic.
3 Properties of Semitic clitics

Our primary concern are examples such as those in (3) with the clitic in bold print.

(3) a. kaan bixayy-ha. (Palestinian Arabic)
   (he) was-sewing-3SG.F
   'He was sewing it.'

b. façan-ha bixayy-l-fistyaan . . . (Palestinian Arabic)
   because-3SG.F sews the-dress . . .
   'because-she sews the dress . . .'

c. Mnunot-eha tlyot yal ha-kir. (Hebrew)
   picture-3SG.F hang on the-wall
   'Her pictures hang on the wall.'

d. Našavnu yal-eha. (Hebrew)
   (we) thought about-3SG.F
   'We thought about-ber.'

An adequate analysis of these clitics must account for the fact that they are manifested on all lexical categories (i.e. on V in (3a), on P in (3b), d) and on N in (3c)). The analysis must also explain why Semitic clitics are without exception enclitics and why they manifest no overt distinctions of Case.

These three properties and others to be presented below, sharply distinguish Semitic clitics from Romance ones, as can be immediately discerned by comparing the expressions in (3) above with the French example in (4) below.

(4) Elle l'a cousu.
   she it-has sewn
   'She has sewn it.'

French and Romance clitics generally appear only on verbs, they manifest Case distinctions and they are either proclitics or enclitics (in French they are proclitics in all cases except positive imperatives; in Italian they are enclitic to infinitives, except in negative imperatives).

The French object clitic in (4) is attached to the auxiliary while the Semitic one in (3a) to the main verb; if the clitic ha in (3a) attaches to the auxiliary kaan, the result is severely ungrammatical. With some exceptions, Romance clitics are attached to the auxiliary in compound tenses. This is never the case in Semitic. Semitic clitics are invariably attached to the main verb in periphrastic constructions. In so far as the generalization underlying clitic placement in French or Italian is that the clitics are attached to the highest verbal head in the clause, that is, the auxiliary in compound tenses, the main verb in simple ones, the generalization holding for Semitic should be stated as in (5).

(5) Clitics are always attached to the closest c-commanding head.


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A second difference evident from the comparison of (3) and (4) is that Romance clitics may appear to the left of their hosts (proclisis) while in Semitic they are, as noted above, without exception enclitics. In Romance, the choice between proclisis and enclisis is determined by the tense and mood of the verb. No such pattern can be found in Semitic.

A third important difference is that while Romance clitics appear on verbs and auxiliaries, Semitic clitics appear on all lexical and some of the functional categories, as in (3) above or in the Palestinian Arabic paradigm in (6) below.

(6) a. Verb + Object
   ʃɪmɪt 1-m ʃɪmlme.
   (I) understood the-teacher
   ʃɪmɪt-ha.
   (I) understood-her
b. Noun + Possessor
   beet 1-m ʃɪmlme
   house, the-teacher
   beet-ha
   her-house
   ‘the teacher’s house’
c. Preposition + Object
   min 1-m ʃɪmlme
   from the-teacher
   min-ha
   from-her
d. Complementizer + Subject
   ʃɪnɪn 1-m ʃɪmlme
   that the-teacher
   ʃɪn-ha
   that-she
e. Quantifier + DP
   kull 1-m ʃɪmlmaat
   all the-teachers
   kull-ha
   all-them

A fifth property of Semitic clitics which distinguishes them from Romance ones is that there are no clitic clusters in Semitic. The relevant case involves clitics in the double-object construction. Arabic causative verbs and a small number of non-causative verbs rather regularly alternate between a double accusative and an accusative dative complement alignment (see Mouchaweb 1986; Hoyt 1989; Hazout 1991). Consider the following paradigm from Cairene Arabic (Kenstowicz and Wahba 1980).

(7) a. ʔɪl mudarris faḥḥim 1-dars li 1-bint. (Ga↓​irene-Arabic)
   the teacher CAUS-understand the-lesson to the-girl
   ‘The teacher explained the lesson to the girl.’
b. ʔɪl mudarris faḥḥim 1-bint 1-dars.
   the-teacher CAUS-understand the-girl the-lesson
c. ʔɪl mudarris faḥḥim-u 1-li 1-bint.
   the-teacher CAUS-understand-it to the-girl
d. ʔɪl mudarris faḥḥim-ha 1-dars.
   the-teacher CAUS-understand-her the-lesson
Examples (7a, b) illustrate the dative alternation. In the first sentence in this pair, there is a direct object and an indirect (prepositional dative) one. The second, dative-shifted sentence, illustrates the double-object variant. The second pair of sentences, (7c, d), illustrate pronominalization of one of the complements. In (7c), the theme is cliticized on the verb and in (7d) the causee, that is, the shifted object.

The crucial data are found in the third pair in (7). When both complements are pronominalized, only one can show up as a clitic on the verb, the other one must find another host. In the first member of this pair, (7e), the direct object is cliticized on the verb while the indirect one appears as a clitic on the preposition. Example (7f) shows that cliticizing both complements on the verb in any order is unacceptable. Put differently, only the prepositional dative construction can be the source for pronominalization of both complements. If clitic clusters are disallowed in CA, then (7e) is the only option when both objects are pronominalized because only in the prepositional dative construction is there a second host for the second clitic.

A final property distinguishing Semitic clitics from Romance ones to be noted at this point is that Romance clitics have a morphological affinity with determiners. No such affinity can be observed in Semitic.

To conclude this descriptive section, we list the relevant properties of Semitic clitics discussed above, noting that for each and every one of them, Romance clitics have the opposite property.

(8) **Properties of Semitic clitics**

<p>| | |</p>
<table>
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<tbody>
<tr>
<td>a.</td>
<td>They occur on the right of their host, never on the left.</td>
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<tr>
<td>b.</td>
<td>They are always attached to the closest c-commanding head.</td>
</tr>
<tr>
<td>c.</td>
<td>They appear on all lexical categories and on certain functional ones.</td>
</tr>
<tr>
<td>d.</td>
<td>They do manifest case distinctions.</td>
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<tr>
<td>e.</td>
<td>They never clustef, that is, there is a single clitic per host.</td>
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<tr>
<td>f.</td>
<td>They bear no morphological resemblance to nominal determiners.</td>
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3.1 Analysis

Assume that Semitic clitics are Agr² elements and consider first object clitics. Suppose that, in Semitic, AgrO² may contain an affix. Thus, when the verb raises out of VP, for example over negation, as in (9), it must adjoin to AgrO² on its path upwards.
The strict locality on clitic attachment, that is, the fact that object clitics and Semitic clitics in general are manifested on their 'closest' host is a consequence of the Head Movement Constraint. The contents of AgrO\(^e\) must appear on the main verb in periphrastic constructions and not on the auxiliary because AgrO c-commands the main verb and not the auxiliary. One major difference between Romance and Semitic clitics thus emerges: Romance clitics are XPs at D-Structure while Semitic clitics are affixal (Agr) heads at all levels.

A problem arises since object clitics lie on the outside of subject agreement. This is not obvious from the examination of (9), since third-person subject agreement on the imperfect form of the verb is represented by means of a prefix and not a suffix. The perfect (or past-tense) verbal form, however, has only suffixal agreement. In (10) we see that object agreement must occur to the right (on the outside) of subject agreement. In the imperfect, the plural morpheme is also suffixal, and once again, object agreement must occur to its right, as in (11).

This leads us to abandon the assumption that AgrS\(^e\) in Semitic contains a syntactic affix. Rather than taking subject agreement morphology on a verb to constitute the affixal contents of AgrS\(^e\), we suggest that it is base-generated on the verb. Movement of V to Agr\(^e\) is motivated by the need to check the appropriate features, as in Chomsky (1993). This claim is mirrored in the verbal morphology. Agr heads have different forms from the lexically incorporated subject agreement markers. The choice between lexical and syntactic affixation of subject agreement seems to be a rather low-level difference. Welsh, as we shall see in section 4, treats subject agreement as an AgrS affix, thus regularizing the pattern observed in other categories.

Proceeding, let us suppose that whenever an affix appears in one of these Agr heads, a DP bearing the appropriate features appears in its Spec at some level of representation, possibly LF. Take this DP to be a referential pro, as in the schema...
category accessed by the subject while AgrO is targeted by the direct abject. The association of AgrSO with subjects and of AgrO0 with objects is due to the operation of derivational constraints (e.g., the need to respect Equidistance, see above, §2) and is not a consequence of some intrinsic connection between the Agr category and the nominal expression in its Spec. The content of Agr0 is constituted of a particular choice of agreement or φ features, but the labels AgrSP, AgrOP etc. do not refer to different categories, but to different instantiations of AgrP. This explains the absence of Case distinctions on these Agr heads. One expects Case distinctions to show up on nominals, i.e. on XPs, and Standard Arabic indeed manifests a robust system of morphological Case, but on DPs, not on clitics.

Further assume, with Chomsky (1993), that AgrSP, AgrOP, etc. are mere heuristic labels. The content of Agr is identical for all Agr heads. This derives the absence of Case distinctions on clitics. One expects Case distinctions to show up on nominals, that is, on XPs, and Standard Arabic indeed manifests a robust system of morphological Case on DPs but not on clitics.

The fact that clitics appear on all lexical and some of the functional categories should now be taken to indicate that all lexical categories have Agr projections, so that a PP or a CP are actually dominated by Agr phrases. The formal similarity between clitics and determiners in Romance suggests that they belong to one and the same category, namely D*. By a similar token, the absence of any such similarity in Semitic is just what one expects if clitics are Agr elements and determiners belong to the category D*.

Turning to the absence of clitic clusters, note that this does not follow from anything yet. The absence of both subject and object clitics showing up on a verb simply follows from the hypothesis that AgrS does not contain an affix, so that a verb base-generated with subject agreement can move through AgrO, pick up the object agreement affix and move further up to AgrS.

The relevant paradigm to examine is one where a verb has more than a single object. Such a test case is provided by the double-object construction, manifested in numerous Arabic dialects. Recall the Cairene Arabic paradigm in (7). Example (7f) in particular illustrates the ungrammaticality of clusters. The view that Arabic clitics are Agr heads allows us to formulate succinctly the restriction violated in this example in the following terms.

(13) There is only a single AgrP associated with VP.

Consideration of (7c, d) shows that the single Agr projection associated with VP can be headed by an affix corresponding to either the direct object (7c) or the indirect object (7d). We take this to be related to the absence of Case distinctions on the Agr heads.

Why should (13) hold? A straightforward and principled answer is provided by Chomsky's notions of domain and equidistance discussed in section 2. Consider a possible structure where (13) does not hold, that is, where VP is dominated by two
Agr projections (as in Ouhalla 1994).^{4}

Chomsky’s proposal is that A-movement of a DP can skip the closest C-commanding Spec position if V has moved to a higher head and extended its domain. This is so since the extraction site and the intermediate Spec position are rendered equidistant from the target Spec. This system allows for objects to raise to Spec of AgrO crossing over the base subject position and for subjects to raise over objects in Spec of AgrO. Crucially, however, only one Spec can be skipped. Thus, if one object moves to Spec of Agr₂ in (14) and the other to Spec of Agr₁, the subject would be stranded in VP. Similarly, if one object moved to Spec of Agr₂ and the subject to Spec of Agr₁, the second object would be stranded.

Pronominalization of both objects in Cairene Arabic requires the prepositional dative construction. One clitic shows up on the verb, indicating that the single AgrP above VP has been triggered. The other clitic is manifested on the preposition, indicating that the preposition’s associated AgrP has been used and that P has raised to its respective Agr. Such a derivation is fully consistent with Chomsky’s approach, since the two AgrPs lie within the domains of two distinct heads.^[5]

To conclude, we have shown that the major properties of Semitic clitics listed in (8) can be uniformly accounted for by the assumption that these clitics are in fact Agr categories to which a lexical head adjoins. The argument associated with the Agr head is a pro, occupying the specifier position of the respective Agr head.

In these respects, Semitic clitics are of a very different sort from those of the Romance languages. In the next section, we shall see that Arabic and Hebrew are not unique in having syntactically active Agr heads where other languages have pronouns. The Celtic languages, and in particular, Welsh, manifest a similar system.
4 Properties of Welsh clitics

Traditional treatments of the Welsh personal pronouns distinguish several classes. Lewis and Pedersen (1989) distinguish independent, enclitic, suffixed, infixed, dependent and independent genitives. Both the independent and the enclitic pronouns have three separate forms each, namely, a simple form, a reduplicative from and a conjunctive one. Distinguishing also two types of dependent genitive, this gives sixteen different forms for each pronoun. Morris-Jones (1913: 271f.) distinguishes independent from dependent pronouns, each of which then falls into three further subclasses. Doing justice to this rich and complex system would go beyond the scope of our limited investigation. We therefore restrict our attention to four classes of elements that might be considered pronominal clitics.

First, there is a class of infixed pronouns (the traditional term). In Modern Literary Welsh, these pronouns are enclitic to sentential particles, but they are largely absent from the spoken language. Sentence (15a) gives an example of an infixed pronoun and (15b) gives the full paradigm (D = soft mutation on a following consonant, H = aspirate mutation).

(15) a. Mi’ch gwelais (i).
   prf-you saw (f).
   'I saw you.'
   b. ·m, ·th + D, ·-l + H (m.)/-i + H (f.)/-s, -n, -ch, ·i + H/-s. 6

A second class is a set of historically genitive forms that appear (a) in possessive constructions, (b) as an object-agreement marker on the verbal noun and (c) as an agreement marker on the complementizer/auxiliary bod: 7 (16d) gives the full paradigm (+N indicates a nasal mutation on the following consonant):

(16) a. el wraig
   his wife
   'his wife'
   b. Mae Megan wedi ei weld.
   is M. after his see
   'M. has seen him.'
   c. Dywedodd y bachgen ein bod wedi cyrraedd.
   said the boy our being after arrive
   'The boy said that we had arrived.'
   d. fy + N, dy + D, ei + D (m.) ei (f.), ein + H, eich, eu.

Third, there are subject-agreement and prepositional-agreement markers, which bear a certain formal resemblance to pronouns. In (17) we present (a) the Modern Literary Welsh present-tense forms of the regular verb caru ‘to love’, (b) the forms of the Modern Welsh inflected preposition ar (‘on’) and (c) the suffixed pronouns of Lewis and Pedersen:
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(17) a. caraf, cerf, cár, carwn, cerwch, carant ‘love’
    b. arnaf, arnat, arno, arni, arnos, arnoch, arnon ‘on’
    c. -f, -d/t, -o/-ddo, -i/-ddi, -m/n, -ch, -ynt/-ddynt.

It seems clear that the agreement forms are related to the pronouns. In their discussion of the origin of these forms Lewis and Pedersen (1989: 282) say that they derive from ‘the habit of suffixing a subject pronoun, after the uncompounded verbal forms. Some of the personal endings derived from Indo-European which resembled to an extent the Celtic subject pronouns became of use in the new system.’

Morris-Jones (1913: 333) makes essentially the same observation for the first- and second-person plural endings; here the endings are clearly derived from the pronouns ni and chwi. Similarly, Morris-Jones (p. 397) says: ‘Personal pronouns forming objects of prepositions in Brit. [Brythonic] and Goidelic came to be agglutinated to the prepositions, and ultimately developed into mere inflections.’

Finally, there are the echo pronouns. These are the simple enclitics of Lewis and Pedersen; their forms are (j)i, ti, o/e, hl, ni, chwi, nhw. These elements are historically nominative. They can double both verbal and prepositional agreement, as well as the el forms:

(18) a. Clitic + verbal noun
    Mae Megan wedi ei weld o.
    is M. after his see he.
    ‘M. has seen him.’
    b. Agreeing verb + subject
    Canon nhw.
    Sang they
    c. Possessor + noun
    el wraig o
    his wife he
    d. Agreeing preposition:
    arno fo
    on+3so him
    e. Complementizer
    Dywedodd y bachgen ein bod ni wedi cyrraedd.
    said the boy our being us after arrive
    ‘The boy said that we had arrived.’

In simple tenses with VSO order and no preverbal particle to host an infixed pronoun, this kind of pronoun functions as a direct object, appearing after the subject giving, for example, Gwelodd Megan o = ‘saw Megan he’ ‘Megan saw him’ (see Morris-Jones 1913: 279).
The verbal and prepositional agreement markers share the following properties with Semitic clitics:

(19) a. They occur on the right of the host.
   b. They attach to the nearest relevant c-commanding head.
   c. They attach to more than just V, that is, P – note that the ei forms are associated with N and C.
   d. They do not manifest case distinctions, despite the fact that verbal agreement goes with a nominative DP and prepositional agreement with a non-nominative.
   e. They never cluster.
   f. They bear no morphological resemblance to determiners – the definite article is y, yr or 'r, depending on the phonological context.

The ei-forms clearly do not show property (19a), but they do show the other properties. In fact, the ei-forms are not proclitic, since numerals and a few adjectives (notably hen 'old' and annwyl 'dear') can intervene between ei and a possessee. (Hen and annwyl are among the very few adjectives that can ever precede the noun they modify in Welsh.)

(20) ei hen dy
    'his old house'

The ei-forms thus seem to be separate from their 'host'. Notice, though, that ei-forms never 'climb' in that they are always associated with a verbal noun in a compound tense, never with an auxiliary; they associate with a range of categories (if verbal nouns are in fact non-finite verb forms, as argued by Sproat (1985) and Borsley (1993), then they associate with N, C and V); they do not manifest case distinctions, they do not resemble determiners and they do not cluster. The last point is illustrated in (21):

(21) Mae Emrys yn ei roi iddo.
    Is E. in his give to 3sa
    'Emrys gives it to him.'

One clitic is manifested by an ei-form; the other by prepositional agreement. If we take the ei-forms and the verbal/prepositional agreement together, then, we see a remarkable similarity with the Semitic facts. The obvious anomaly of these forms vis-à-vis the other types of Celtic and Semitic clitics, concerns the placement of the ei-forms with respect to their 'hosts'.

We argue that the ei-forms and the verbal/prepositional agreement forms constitute a single agreement system. The formal differences are thus essentially a matter of suppletion. Evidence for treating ei-forms and verbal/prepositional agreement as a single system comes from three sources. First, both may appear on C, depending on the nature of C. Where C is occupied by bod, ei-forms can
Pronominal enclisis appear, as illustrated in (16c). Prepositional agreement appears on the prepositional complementizer i (which may be rather similar to English infinitival for); here, as elsewhere, an echo pronoun is possible:

(22) Roeddent hwy wedi clywed [i’dynt ennill y gadair].
    were they after hear - for+3PL win the chair
    'They had just learned that they had won the chair.'

(Hendrick 1994: 180; the minor morphological differences reflect regional variation)

The obvious interpretation of these facts is to assume that there is an Agr-position associated with C, AgrC, as proposed by Shlonsky (forthcoming). The fact that the Agr-element precedes the C-position in (16c) strongly suggests that AgrC is structurally higher than C; see Roberts (1994b).

Second, both types of agreement are incompatible with a full non-pronominal DP following the 'host'.

(23) a. *Mae Megan wedi ei weld Emrys.
     is M. after his see Emrys.
 b. *Canon y plant.
     sang.3PL. the children.
 c. *ei wraig Emrys
     his wife Emrys
 d. *arno Emrys
     on + 3so Emrys
 e. *Dywedodd y bachgen ei bod Megan wedi cyrraedd.
     said the boy her being Megan after arrive

Third, as (18) shows, they are both compatible with an echo pronoun following the host.

Furthermore, the echo pronouns pattern largely as in (19). Example (18) illustrates all of them except for the lack of clustering; this is shown in (24).

(24) Mae Emrys yn ei roio iddo fo.
     is E. in his give he to + 3so he
     'Emrys gives it to him.'

We see that Welsh has two systems of clitic/agreement elements that have properties that are strikingly similar to those of Semitic.

Prepositional and especially verbal agreement in Celtic and clitics in Semitic have often been treated as incorporated pronouns (Anderson 1981 on Breton; Doron 1988 on Hebrew and Irish; Hale 1987 for Irish; Fassi-Fehri 1993 on Arabic). Irish has no echo pronouns of the Welsh type, and so agreement is in complementary distribution with any nominal or pronominal element. While this kind of analysis might work for Irish (but see McCloskey and Hale (1983) for
some arguments against it), it does not carry over naturally to Welsh, given the existence of echo pronouns. Moreover, it is difficult to maintain that the echo pronouns are themselves incorporated, given that they can appear as objects following a non-pronominal subject in simple VSO clauses, they can be co-ordinated with full DPs, and they follow a postnominal adjective in possessives. The last two facts are illustrated in (25):

(25) a. iddo fo a’i frawd
to-3so he and-his brother
‘to him and his brother’
b. ei gar newydd o
his car new he
‘his new car’

Like the Welsh echo pronouns, the existence of clitic doubling in many Semitic languages argues against the incorporation approach. The following examples illustrate clitic doubling in Palestinian Arabic.

(26) a. \(\text{fhimt-ha} \quad \text{3so.f} \quad \text{l-m\text{\textsuperscript{a}lme}}\)
(l) understood-3so.F to the-teacher
‘I understood the teacher.’
b. \(\text{beet-ha} \quad \text{la-l-m\text{\textsuperscript{a}lme}}\)
house-3so.F to-the-teacher
‘the teacher’s house’
c. \(\text{min-ha} \quad \text{la l-m\text{\textsuperscript{a}lme}}\)
from-3so.F to the-teacher
‘from the teacher’

Furthermore, as pointed out in section 3, Kayne’s (1995) approach to phrase structure makes right-adjunction of a head to another head impossible. For these empirical and theoretical reasons, we reject the incorporation approach.

The analysis proposed in section 3 for Semitic clitics carries over to the Welsh agreement + ei system, if we make two provisos. First, unlike Semitic, it seems correct to treat Welsh subject agreement as an affixal head and not as a set of features on V since it patterns with the rest of the system. In a sense, Welsh is more symmetrical than Semitic here. Second, the ei-clitics are clearly distinct from what we find in Semitic. We treat ei, like all the other clitic elements, as a base-generated Agr. Unlike the other elements, however, ei lacks V-features. Thus ei is incompatible with V-raising. For this reason, ei cannot appear in clauses lacking an auxiliary as it will block V-raising to AgrS.10

Similarly, the ei-forms do not trigger N-raising in possessives. With a fully nominal possessor. The order is always Possessed—Possessor, but with the ei-forms this order is reversed:
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(27)  
-a. car John
     'John's car'
b. ei gar
     'his car'

We account for this by saying that N-to-D raising takes place in possessives with full DPs like (27a); here car is in D (see Ritter 1988, 1994; Siloni 1991b, 1994 on N-to-D raising in Semitic constructs). In (27b), ei occupies the AgrD position and, owing to its lack of features triggering movement, car does not move to SpecDP. The parallel with what happens in clauses is clear; ei occupies AgrO and blocks movement of the verb. Given these considerations, we must say that ei-forms lack predicate features (rather than V-features, as was stated above), since they block both N-raising and V-raising.

Treating the Welsh clitic system as parallel to Semitic directly accounts for properties (19c, d, f). Properties (19a, b) depend on the feature specification of the Agr head, as we have just seen. As for the ban on clitic clusters, the account in section 2 carries over perfectly. In fact, the following general prediction emerges:

(28) A language has Agr clitics iff it has no clitic clusters.

Given the analysis presented in section 3, (28) essentially follows from Relativized Minimality since it is this principle that determines that only a single AgrP can be associated with each VP. Conversely (since the prediction is biconditional), if a language has clitic clusters this shows that the clitics are not Agr-heads, a conclusion that tells us something about Romance, Germanic and Slavonic clitics.11

Given the remarkable similarity of the Welsh and Semitic agreement or clitic systems, the set of questions we turn to now revolves around the identification of the parameter(s), the setting of which gives rise to the patterns of agreement and cliticization we have discussed. A major tenet of this work is that the similarity between Welsh and Semitic must be stated on a level more abstract than that of the phenomena themselves. Put plainly, our goal is to associate the similarity of agreement manifested by these language types with another familiar point of similarity, their word order.

5 Pronouns, checking and VSO

The Celtic languages as a whole are, as is well known, fully VSO. This order is characteristic of Semitic too. Modern Standard Arabic is less of a pure VSO language than the Celtic ones, since the order SVO is also an option. The Modern Arabic dialects to a large extent, as well as Hebrew, are best characterized as 'residual' VSO languages.12 Historically, the elements that we have analysed as base-generated Agr in these languages are derived from pronouns. This is clear from the forms of verbal and prepositional agreement in Welsh. The
following Semitic pattern attests to a similar diachronic development. Examples (29a–c) show the forms, (29d) recapitulates the diachronic development.

(29)  
a. huwwa ?akala
    be (free form) ate
    (Classical/Standard Arabic)

b. ?akaltu-hu
    (I) ate-it
    (Classical/Standard Arabic)

c. ?akult-u
    (I) ate-it
    (Palestinian Arabic)

d. huwwa → hu → u

It is also clear that the verbal noun was nominal in Middle Welsh (see Clack 1993) and that the ei-clitics derive from genitive pronouns (see Lewis and Pedersen 1989: 203–7).

The development of these elements into Agr-heads was not due simply to some diachronic ‘weakening’ process, but rather was driven by syntactic constraints connected to the nature of VSO systems. Thus the Romance clitics, although also ‘weakened’ forms (ultimately of the Latin demonstrative *ille*), are distinct in distribution, since the Romance languages are SVO. Even the northern Italian subject clitics – which are synchronically agreement heads and diachronically weakened forms of pronouns – are not suffixal. The following Veneto example (from Poletto 1993: 104) shows this; the fact that the subject precedes the verb indicates that it is not a suffix (and, given Kayne (1995), it cannot be a verbal affix):

(30) Nane el vien.
    John seu come.

Morphophonological weakening alone cannot explain the differences between Celtic/Semitic on the one hand and Romance on the other: why should the weakened pronouns develop into preverbal clitics in the latter languages but into postverbal affixes in the former?

Confirmation that word order is relevant comes from northern Italian dialects. Here the subject clitics are affixal in contexts of I-to-C movement, for instance in interrogatives:

(31) Cossa galo fato?  (Padovano)
    what has-he done

Poletto presents morphological evidence that the inverted subject clitics are affixes (they form a single morphological and phonological unit with the verb; they have a different form from the preverbal clitics; they generally form a more complete paradigm than the preverbal clitics), and so have a morphosyntactic status quite distinct from that of non-inverted subject clitics. In fact, she proposes
an analysis of these elements which treats them effectively as Agr-heads (in AgrC, which, following Shlonsky (forthcoming), she takes to be lower than C). We see then that, where we have inversion in an SVO language, we find 'clitics' that behave like the Celtic and Semitic ones. It seems that VS order is connected to the appearance of this kind of clitic.

The basic property that derives VSO order, we assume, is that AgrS (and/or T, the precise decision on this point is not crucial for our purposes; see Chomsky 1993; Bobaljik and Carnie this volume; McCloskey this volume) has weak N-features. This has two consequences: Spec of AgrS is not a checking position at S-structure and clitic adjunction to the left of AgrS is impossible on the assumption that both kinds of movement are driven by feature checking. Clitic-adjunction to the right of AgrS is impossible on general grounds (Kayne 1989a, 1995). AgrS though, has strong V-features in VSO languages, triggering syntactic verb-raising.)

Generalizing across categories, we arrive at (32):

(32) Agr does not allow S-structure checking of N-features in XSO configurations.

Suppose, following Koopman (1993), Cardinaletti and Starke (1994) and others, that atomic pronouns must check their N-features at S-structure. This idea explains why pronouns very often move overtly where full DPs do not: cf. Scandinavian object shift, Romance clitics and, arguably, Germanic and Slavonic Wackernagel clitics. Following Roberts (1993), we could say that weak or clitic pronouns cannot procrastinate since their content is exhausted by phi-features. Another way to put this, following the spirit (though not the letter) of Chomsky's (1993) account of why English auxiliaries cannot procrastinate, is to say that pronouns are bundles of phi-features in D whose only role is to identify the content of a pro elsewhere in DP (presumably in NP; see Torrego 1988; Uriagereka, forthcoming). Since they have no content, they cannot survive to LF and so cannot procrastinate. The referential/semantic content of a pronominal DP is borne by the pro it contains, not by the morphological features of D. On this view, the structure of a DP containing a weak pronoun is as follows.

(33) \[
\text{DP} \\
\text{D} \rightarrow \text{NP} \\
\text{pronoun} \rightarrow \text{pro}
\]

Now, the view of VSO languages encapsulated by (32) implies that S-structure checking of weak pronouns/clitics will be impossible. We thus derive our central claim (see Ouhalla 1989):

(34) Weak pronouns are impossible in a VSO system.
Instead, the functional role of checking, identifying the content of pro, falls on the only other possible element: Agr. So, in VSO systems base-generated Agr corresponds to the clitic systems of non-VSO languages. Hence the striking parallels between Welsh 'clitics' and Semitic 'clitics', and the general extreme richness and pervasiveness of agreement in these languages. It also explains why 'enclisis' is so prevalent in these languages. This is a consequence of the fact that the 'clitic' is the actual incorporation host of the lexical category, combined with the general requirement that head-to-head adjunction can only be to the left of the host head (Kayne 1989a, 1995). In this sense, the prevalence of enclisis in VSO languages follows from the lack of directionality parameters.\(^\text{(15)}\)

Diachronically, we take it that VSO languages have reanalysed clitics as Agr: as we have seen, this is a traditional observation for Welsh. Also, a VSO language may turn into an SVO one but retain its 'VSO'-style clitic/agreement system; this is what has happened in the case of Hebrew and non-VSO dialects of Arabic.

Our suggestion, then, is that Spec of Agr cannot be filled by an overt pronoun in a VSO language. None the less, we assume that Spec of Agr is filled by pro at some level of representation. One might suggest that pro differs from overt pronouns in not requiring N- or Case-feature checking; the requirement on pro being that it occur in an A-position (for formal licensing) and enter into a Spec-head agreement relation for the recovery of featural content. This in turn would imply that agreement can be distinct from N-feature-checking; an idea that is independently motivated on the basis of Romance past-participle agreement and the existence of agreeing complementizers. On this view, pro, like weak pronouns, cannot procrastinate, perhaps because formal licensing is only possible in the domain of a functional head. An alternative would be to say that pro differs from overt pronouns in that it does not raise in the syntax, that is, that it can procrastinate (assuming that pro, unlike weak/clitic pronouns, has referential content). We will not choose between these two alternatives here, but the account of echo pronouns in Welsh that we propose in the following section is compatible with the latter view but not the former.

In this section, we have presented our central claim: weak/clitic pronouns are impossible in VSO systems. Hence the functional role of such pronouns – identification of DP-internal pro – is taken over entirely by Agr. This explains (a) the pervasiveness of agreement in these languages, (b) the pervasiveness of apparent 'enclisis', (c) the lack of Romance- or Germanic-style weak/clitic pronouns.

6 Analytic and synthetic agreement and the position of the subject

An important distinction must be made between 'analytic' and 'synthetic' Agr in VSO languages. In Welsh, third-person singular agreement is synthetic, in that it
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is compatible with a following non-pronominal DP, while non-third-person singular agreement is only compatible with pro in Spec of Agr. This is shown in (35). (In (35a), pro may be on either side of V, depending on what turns out to be the correct position of V. See below.)

(35) a. (pro) *can odd/canon (pro)  (synthetic) ‘They sang.’
b. can odd/canon y plant  (analytic) ‘The children sang.’

We propose the following account of the difference between analytic and synthetic Agr:

(36) a. Analytic Agr has weak N-features.
   b. Synthetic Agr has no N-feature.

Analytic Agr has features which are checked by DP-raising to Spec at LF in the standard way. Synthetic Agr is a kind of ‘pure’ agreement head, perhaps like Romance participle agreement or agreeing complementizers. Since pro does not require checking of N-features, it is the only type of DP compatible with synthetic Agr (whether pro raises to Spec of AgrS at SS or at LF), whence the ungrammaticality of the examples in (23) with the full DP following the agreement head.

Proposition (36b) raises a conceptual issue having to do with the possibility of functional heads which entirely lack features of a certain type; this clearly extends the range of UG possibilities in an a priori undesirable way. In fact, it is possible to maintain that synthetic Agr has a Case feature, contrary to (36b), which is effectively checked by itself. We can do this by pushing the idea that synthetic AgrS are syntactic affixes. Let us generalize the idea, which is a consequence of the system for movement and checking put forward in Chomsky (1993), that inserting a by the generalized transformation (GT) entails checking a feature of a.

Suppose that syntactic affixes are substituted into their head positions, where head substitution is equivalent to lexical insertion. Then, substitution automatically checks the Case feature of the head, since the Agr element inherently has a Case feature and Agr inherently has a Case feature. For this to work, the notion of checking domain should be regarded as derivative of the GT; that is, we must in general take targets of GT to be coextensive with checking domains. This is certainly feasible in the framework of Chomsky (1993), and clearly desirable. Thus we do not need to weaken UG by allowing functional heads to lack certain feature options. We also derive the general, and non-trivial, result that syntactic affixes effectively ‘absorb Case’. This seems like a good result for the treatment of clitic systems generally.

Another consequence of our approach is that we can account very simply for ‘impersonal passives’ that violate the Motivated Chomage Law of relational grammar (see Comrie 1977; Perlmutter and Postal 1984):
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(37)  a. Fe’i gwelwyd.  (Welsh)
        PRT + him see +  ‘PASS’
        ‘He was seen.’

     b. Kō haya katuš šam ṭet ha-šaša.  (Colloquial Hebrew)
        NEG was written there ACC the-time
        ‘The time wasn’t written there.’

(Shoshani 1980)

We treat the ending -wyd as an indefinite pronoun like English one, French on, Italian si, etc., with the morphosyntax of an agreement affix because it is a base-generated syntactic affix in Agr. So there is nothing to say about Motivated Chômage, because the examples in (37) are not passives at all; there is an arbitrary pro, licensed by the verbal affix, in subject position.

Welsh provides direct evidence that there is no movement here in that an echo pronoun is possible in object position. Contrast the other passive construction in Welsh, where this is not possible (we return to what underlies the ungrammaticality of (38b) in section 6.1 below):

(38)  a. Fe’i gwelwyd o.
        PRT + him saw + ‘PASS’ he
        ‘He was seen.’

     b. Cafodd y ferch ei gweld *(bi).
        got the girl her see (she)
        ‘The girl was seen.’

Arabic differs from Welsh in that SVO orders coexist alongside VSO ones. Alongside (39a), where the verb does not agree with the postverbal subject in number, and thus patterns with the Celtic analytic forms, we find (39b), where full agreement is manifested:

(39)  a. γanna ṭal ṭawlaad.
        sang.M.SG the children
        ‘The children sang.’

     b. ṭal ṭawlaad γan Españ.
        the children sang-3M.PL
        ‘The children sang.’

Example (39b), however, is not equivalent to the Celtic synthetic Agr for the simple fact that this Agr in Arabic forces the subject to appear in its Spec. Hence, it cannot lack N-features or check them by incorporation.

In the framework of our proposal, this should be taken to mean that Arabic has two types of Agr, one with weak N-features – giving rise to VSO order – and one with strong N-features, much like what is found in familiar SVO languages.
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Pronouns can move to Spec of Agr has a strong N-feature, while VSO order is ruled out where the subject is a pronoun:

(40) 

a. Hum γαννυ.  
they sang-3PL.M  
'They sang.'

b. *γαννα hum.  
sang.3SG.M they

This is so because pronouns cannot procrastinate. Thus Arabic nominative pronouns must either occur preverbally, that is, when strong-N Agr is selected, or not occur at all, if the VSO-type, weak-N Agr is selected.

It is not entirely correct that nominative pronouns cannot occur to the right of a verb. They are licit in postverbal position but only when the verb fully agrees with the pronoun.

(41)  
γαννυ hum.  
sang.3PL.M they

The fact that the verb must fully agree with the pronoun in this order should be taken to mean that the configuration in (41) is derived by selecting a strong-N Agr, moving the pronoun to Spec of AgrS and then raising the verb higher than Spec of AgrS.18

Interestingly, free-standing pronouns are only found in subject position in Arabic. In all other environments, only the null pronoun, .+. Agr option is available (Syrian Arabic is apparently different; see Borsley, forthcoming). Put differently, only AgrS has two variants; all the other Agr-heads are pure VSO weak-N heads. It is tempting to relate this to our earlier claim that subject agreement in Arabic is not (always) an affix in AgrS but is lexically incorporated into the verb. We can thus relate the SVO option of Arabic and its absence in Welsh to the availability of lexical affixation of subject agreement in the former but not in the latter. We summarize the distinctions between Welsh AgrS, which we take to be a syntactic affix, and the Arabic Agr characteristic of SV orders in the columns below:

(42)  

<table>
<thead>
<tr>
<th>Welsh</th>
<th>Arabic</th>
</tr>
</thead>
<tbody>
<tr>
<td>No clustering</td>
<td>Clustering</td>
</tr>
<tr>
<td>No weak nominative pronoun</td>
<td>Weak nominative pronoun</td>
</tr>
<tr>
<td>No DP in Spec (obligatory VS)</td>
<td>DP in Spec of AgrS</td>
</tr>
<tr>
<td>Syntactic affixation</td>
<td>Lexical affixation</td>
</tr>
</tbody>
</table>

In this section we have developed an account of the analytic and synthetic agreement paradigms in terms of a simple difference in N-features. In these terms, we were able to capture the salient differences between Welsh and Arabic subject agreement very neatly. We also entertained, somewhat inconclusively, the
possibility that inverted subject clitics in Romance are like the Celtic and Semitic ones.

6.1 Welsh echo pronouns

We saw above that echo pronouns can appear following any Agr-head, whether it hosts incorporation or not (i.e. whether it is a verbal/prepositional agreement affix or an ei-form); compare (18) with (23), repeated here:

(18) a. *Clitic + verbal noun
    Mae Megan wedi ei weld o
    is M. after his see he.
    'M. has seen him.'

b. *Agreeing verb + subject
    Canon nhw.
    sang they

c. *Possessor + noun
    ei wraig o
    his wife he

d. *Agreeing preposition
    arno fo
    on+3sg him

e. *Complementizer
    Dywedodd y bachgen ein bod ni wedi cyrraedd.
    said the boy our being us after arrive
    'The boy said that we had arrived.'

(Awbery 1994: 2)

(23) a. *Mae Megan wedi ei weld Emrys.
    is M. after his see Emrys.

b. *Canon nhw.
    Sang.3pl. the children.

c. *ei wraig Emrys
    his wife Emrys

d. *arno Emrys
    on+3sg Emrys

e. *Dywedodd y bachgen ei bod Megan wedi cyrraedd.
    said the boy her being Megan after arrive

It is implausible to treat all these cases as involving 'inversion' of some kind, and so an analysis along the lines of that proposed in the previous section for (41) does not seem promising. In fact, such an analysis is impossible with the ei-forms, since we can see that the head (the verbal noun in (16a) or the possessee in (16c))
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has not raised over e. This implies that we must seek another account of echo pronouns.

We claimed in section 5 that weak/clitic pronouns generally cannot procrastinate since they lack semantic properties: they have only the formal features necessary for licensing pro. In VSO languages, since Agr-heads are unavailable for S-structure checking, weak/clitic pronouns cannot exist. Implicit in this account is the idea that the internal structure of a pronominal DP in a VSO language is simpler than that of a non-VSO language, containing perhaps only pro, where in non-VSO languages the D-head is frequently realized (and perhaps, if Cardinaletti (1994) is right, other parts of the DP are realized too).

The starting point for an analysis of echo pronouns is to question this conclusion. Suppose the echo pronoun is in the pronominal DP. What are the options for an analysis along these lines? We could take the echo pronoun to be the entire DP. However, this idea goes against the letter of the account of clitics in VSO languages in section 5 in that we then expect echo pronouns not to procrastinate, which they appear to do (we return to this point below), and it goes against the spirit of the account in that we now have pronominal DPs that do not contain pro (and which are not ‘strong’). It is clear that echo pronouns do not move to Spec of the head they are associated with from their relative order with respect to this head. It is also clear that they do not incorporate to that head, for the same reason. We could always posit an abstract incorporation, but in the case of ‘echo pronouns’ in VSO clauses we would be led to posit excorporation of V:

(43) Gwelodd Megan o.
saw Megan him

It seems undesirable to posit abstract incorporation if that entails also positing excorporation (whatever one’s view of the possibility of excorporation in general): this suggests that something is being missed.

An alternative might be to assume that echo pronouns are heads of pronominal DPs, rather like the Torrego and Uriagereka proposal for some Romance clitics (see Torrego 1988; Uriagereka, 1995). This proposal still falls foul of our general analysis of clitics in VSO languages, as we would expect such a DP to be required to incorporate, which it apparently does not do. Moreover, as we pointed out in section 4, echo pronouns are like typical VSO clitics in that they do not resemble determiners and do not show case distinctions. This disfavours analysing them as Ds.

A third possibility, which appears to be the best, is to say that echo pronouns are generated in the Agr-position inside the pronominal DP (see Koopman 1993 for a similar analysis). In this way, they fit the general VSO clitic pattern, and the drawbacks just mentioned for a D-analysis do not hold. We assume, then, that echo pronouns are optional realizations of the Agr of a pronominal DP (Agr occupies a position between D and N – see note 19 and Duffield this volume). It is
unlikely that these elements play a role in licensing pro since they are optional; pro's features are thus recoverable elsewhere. On this view, Irish, Breton and Scots Gaelic – all of which lack echo pronouns – simply lack this expression of AgrD. In Pembrokeshire Welsh, on the other hand, these are the only pronominal forms in some contexts (see Awbery 1994).

This view has an important consequence for the analysis given above. The position of echo pronouns indicates that, in fact, pronominal DPs procrastinate in (pure) VSO systems. Thus we assume that at LF the echo pronoun disappears (since all Agrs disappear), and pro raises to the specifier of its licensing head and checks N-features there. This does not substantially change any of the details of what has gone before, but it suggests that we should not stipulate that pro is licensed in a checking position at SS; pro, like any substantive element, can be licensed at LF. The proposed analysis also implies, interestingly, that even infixed pronouns have a weak feature, since echo pronouns are compatible with them:

(44) Mi'ch gwelais chwi.
     PRT-you saw(I) you
     'I saw you.'

We saw in section 4 above that echo pronouns are also obligatory in transitive clauses with a simple finite verb. This suggests that pro requires morphological features for identification; where there is no overt Agr head, the echo pronoun is required. However, echo pronouns are impossible in the object position of compound passives (with the auxiliary cae; these are distinct from the 'impersonal passives' in (37)), although the preverbal ei form is obligatory.

(45) Cadoff y ferch ei gweld (*hi).
     got the girl her see (she)
     'The girl was seen.'

In terms of the analysis being proposed here, this is a consequence of the fact that the entire object DP has moved, as is standard for objects in passives. Since procrastination is always possible in Welsh, it is not clear why the object should move in passives. It seems that we have to appeal to the Extended Projection Principle (EPP). This is interesting because the EPP does not at first sight appear to hold in VSO languages (see McCloskey this volume).

Wh-movement behaves similarly to passive. An echo pronoun cannot appear at the extraction site (in cases of short extraction; longer extractions involve various kinds of resumptive pronoun strategies – see Hendrick 1988):

(46) a. *Pwy welodd y ferch o?
     who saw the girl he

b. *Pwy mac'r ferch wedi ei weld o?
     who is-the girl after AgrO see he
These facts are straightforwardly predicted by our analysis. The entire object DP is moved and so no echo pronoun can appear in object position.

7 Conclusion
The central point of this chapter has been to tie together two apparently disparate, but strikingly similar, aspects of the syntax of the Celtic and Semitic languages. We have argued that both VSO typology and the prevalence of enclisis in these languages are a consequence of the property in (28). This analysis entails the idea that weak pronouns are essentially a means of identifying pro, an idea which merits further investigation and development.

More generally, we see that two salient common features of these languages can be subsumed under a single generalization, and moreover a generalization which fits into the format for parametric variation proposed in Chomsky (1993). It has often been observed that the Celtic and Semitic languages show striking similarities in their syntax (their phonologies, morphologies and lexicons are quite different); these similarities cannot be attributed to contact or to a genetic relationship, and so they must reflect some accidentally shared common property or properties. If the range of parametric variation allowed by UG is very limited, a desirable assumption on general grounds, then we should expect to find cases of historically and geographically unrelated languages which apparently have many syntactic features in common. Indeed, as our knowledge of the possible dimensions of syntactic variation increases, we expect to find cases of 'parametric isomorphy', where several major parameters have the same value in given pairs of languages. The comparison of the Celtic and Semitic languages is a very fruitful area in which possibilities of this type can be explored and developed, as we hope our work has shown.

Notes

1 This chapter developed out of separate work (Roberts 1994c; Shlonsky 1994forthcoming). A preliminary version was presented at the seventeenth GLOW colloquium, Vienna, April 1994. We are grateful to the audience for their question and comments. We would also like to thank our colleagues in Geneva and Bangor for discussion. Special thanks to Bob Borsley, Guglielmo Cinque, Alain Rouveret and the participants at the third Welsh Syntax Seminar.

2 There is good evidence for the distinction between weak and clitic pronouns in many languages – see Cardinaletti and Starke (1994). However, for the purposes of this chapter, the two can be conflated and both terms are used interchangeably.

3 We assume that AgrSP is not associated with VP but with TP.
Unlike Larson (1988), however, the indirect object in (14) is mapped onto a hierarchically higher position than the direct object. See Belletti and Shlonsky (forthcoming).

We put aside the question of the derivation of (7b), namely the double-object construction within the minimalist framework.

The different third-person forms correspond to historical genitives and accusatives respectively. In all the other persons, the case forms were syncretic. Synchronically, there is no reason to consider these as anything other than morphologically conditioned variants. There are also other variants, such as -w (3sg.) after the preposition/complementizer i ‘to/for.’

It is unclear whether bod here is a complementizer or an auxiliary – a problem that arises elsewhere in Welsh. Hendrick (1994) argues that this is a kind of Aux-to-C construction (see also Rouveret, this volume) in which case we can maintain that the clitic is attached either to the moved I or to C.

When an echo pronoun is a direct object of a finite verb, this is not the case. See the discussion surrounding (43).

A potential case of clustering of echo pronouns arises in simple VSO clauses with a pronominal subject and object: Gwelodd hi o ‘Saw she him’ (‘She saw him’). However, the echo pronouns are in different places here, as section 6 will reveal.

In these cases, there can be an prefixed pronoun in the relevant register, as (15) shows. As we saw above (viz. the discussion following (18)), if the object is pronominal and there is no prefixed pronoun, then the echo pronoun is obligatory. Sometimes the prefixed pronoun only shows up as mutation leading to some revealing minimal pairs:

(i) Mi welodd (hl).
   ‘She saw.’
(ii) Mi gwelodd (hl).
    ‘He/she saw her.’

The lack of soft mutation in (ii) (whose phonological reflex is the presence of initial /g/) indicates that there is an prefixed pronoun between the particle and the verb. Hence in (i) the optional echo pronoun is the subject, doubling the agreement. In (ii), there is an prefixed pronoun and the optional echo pronoun is interpreted as doubling this element, the subject is null. It is significant that in (i), where there is neither an prefixed nor an echo pronoun, no object is recoverable. This shows that Welsh is not a null-object language; that is, pro cannot occur in object position in this kind of context. This also shows that the generalization in Hendrick (1988) that echo pronouns only appear where pro is licensed is not entirely correct.

The obvious conclusion to draw as regards the Romance, Germanic and Slavonic clitic systems is that the clitics are not in Agr. Two possibilities suggest themselves for the treatment of these systems. Either the clitics move to Agr, perhaps by some process combining DP-movement and D-movement of the kind originally proposed in Sportiche (1990), and elaborated in differing ways by Belletti (1993), Cardinaletti and Starke (1994) and Rizzi (1993), or they are base-generated in special Voice Phrases of the kind proposed in Sportiche (1992) with movement of pro to Spec/Voice for checking purposes. To choose between these possibilities, and to consider even a fraction of the relevant data from these languages, would take us too far afield.
12 See Shlonsky (forthcoming) for further discussion.
13 We can allow for second-position clitics like Welsh infixed pronouns and Berber clitics (Ouhalla 1989), if we assume that the 'higher' head that these elements attach to has strong features; alternatively, we could treat this position like VoiceP in the sense of Sportiche (1992) and allow only pro to move into its Spec for reasons discussed in connection with synthetic Agr below. Either way, the second-position case clearly falls outside the generalizations we are making here; see also section 6 on the interaction of infixed and echo pronouns in Welsh.
14 Since Arabic has both a VSO system and an SVO one, (32) holds only of the former. The free pronoun in (29a) thus belongs to the SVO system where it can be checked in Spec/AgrS. The occurrence of free-standing (weak) pronouns in Modern Hebrew is similarly related to the fact that Hebrew is predominantly SVO, in particular in the clausal system.
15 Although we adopt the idea behind Chomsky's account of why English auxiliaries raise, we execute it slightly differently. Chomsky proposes that English auxiliaries raise overtly because, despite the fact English AgrS has only weak features, the auxiliaries cannot survive to LF and so their features must be checked overtly. Effectively, then, Procrastinate is overridden by the fact that the auxiliaries cannot be present at LF. Our approach to checking the features of weak pronouns implies, however, that even if there are no strong features Procrastinate cannot be overridden. Although a stronger approach, our account creates the empirical problem that there can be no raised auxiliaries in English. Notice, however, that Chomsky assumes that modals and do are not base-generated in V, and so arguably do not move (or do not move in the same fashion as, for example, French main verbs, and hence arguably do not move for the same reasons). Moreover, Chomsky's account runs into difficulties with infinitival have-be raising in French (see Pollock 1989), and with the lack of a distinction between auxiliaries and main verbs in the mainland Scandinavian languages (Vikner 1994). It is thus probably the case that Chomsky's account of why English auxiliaries raise should be abandoned on both empirical and conceptual grounds. As an alternative, we suggest that have and be raise overtly because they contain a richer specification of agreement than other English verbs, and the agreement features must be checked before LF. Effectively, then, we treat the auxiliaries like pronouns.
16 It is not feasible in any straightforward way in the rather different framework of Chomsky (1994), however.
17 One could also interpret Sportiche's (1992) doubly filled Voice filter in these terms. The doubly filled Voice filter prevents both a head and a specifier from being phonologically realized. This kind of ban on the co-presence of a head and a specifier can be understood if the head is a syntactic affix which obligatorily checks the relevant feature of the category.
18 This construction is then comparable to cases of subject-clitic inversion in French or in northern Italian dialects (see (31)). The similarity with subject-clitic inversion is all the more telling since (40) is ungrammatical when the subject is not a pronoun but a full DP. The contrast between (40) and (i) below is thus reminiscent of the familiar French contrast in (ii).

(i) *yanruu ?al ?awlaad.
The structure of a DP containing an echo pronoun is thus

A genetic relationship may exist between Indo-European and Afro-Asiatic, but this relationship could not account for the syntactic similarities given that VSO appears to be a Celtic innovation within Indo-European.
Pronominal enclisis