Irish Construct State Nominals & the Radical pro-Drop Phenomenon

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In this paper, I compare Construct State Nominals (henceforth CSNs) in Hebrew with their counterparts in Modern Irish.[1] In spite of showing many striking parallels, especially in respect of determiner placement and definiteness agreement effects, Irish CSNs nonetheless display a number of significant distributional and interpretive contrasts with the Hebrew data. These include differences in adjective placement and in possessive clitic (POSS) attachment, on the co-indexation of pronominal POSS with overt nominal possessors, and contrastive constraints with respect to the syntactic licensing and interpretation of demonstrative elements.

The Irish facts presented here pose a number of empirical problems for earlier syntactic treatments of the Construct State Phenomenon based solely on Semitic data, including the analyses of Ritter (1987,1988), Mohammad (1988) and Borer (1988)). Here, I offer a comparative account of CSNs which preserves the many of the conceptual advantages of the earlier treatments, including especially the idea of head-movement within DP, whilst remedying the empirical inadequacies which arise whenever a direct translation of the analysis to Irish is attempted.

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Somewhat paradoxically perhaps, it will be claimed that it is just those cases where Semitic and Celtic appear to contrast most at the surface level, which provide the clearest evidence in favor of the head-raising proposal, and for a uniform underlying structure for Celtic and Semitic. Hence this analysis is directly opposed to recent proposals by Ouhalla (1990), who would derive Semitic *vs.* Celtic differences from a different hierarchical ordering of functional projections. The present proposal assumes a virtually identical underlying syntactic representation for the two languages both at the DP and at the IP level, and trades instead on morphological or morphosyntactic differences.

Consider, first, the trees in (1) below. It will be argued that the observable distributional and interpretive contrasts between the two languages can be derived in large measure from the syntactic status of the possessive clitic, POSS: Irish POSS is not a syntactic affix (in the sense of Fabb (1984), Jaeggli (1986)) in that it is not associated with a syntactic insertion frame; therefore it does not attract head-movement by the noun. Hence, it can raise independently to D^0. Hebrew POSS, by contrast, is a syntactic affix of the conventional sort: it attracts the nominal head N^0, and the [N+Agr] complex subsequently raises to D^0. The trees in (1a) and (1b) below illustrate the derivations for Hebrew and Irish, respectively.

The only other significant difference between Hebrew and Irish, I'll argue, is that in Hebrew full possessor noun-phrases move to {Spec, AgrP} to get Case, whilst in Irish they remain *in situ*. This, then, is the basic structural proposal. It will immediately be clear in *conceptual* terms this constitutes a very minor revision of earlier analyses. The principal intention is to show that this proposal is empirically rather well-motivated for Irish, and that it has a number of theoretically interesting consequences.

1.   a.   DP   beyt-o 'his house'

1.   b.

a theach 'his house'
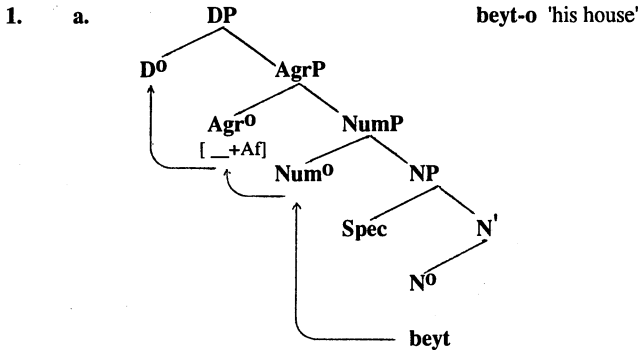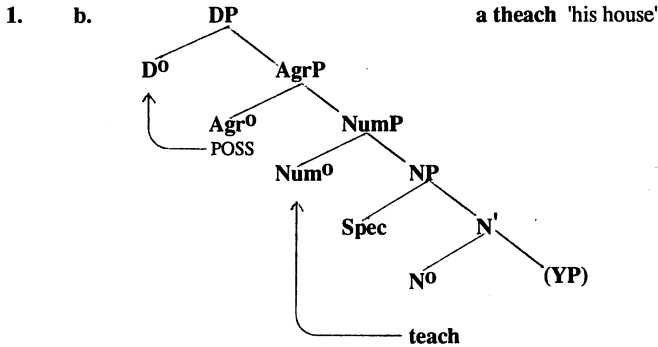
To do this, much of the discussion will concentrate on facts concerning Irish demonstrative elements, and on the contrastive behavior of possessive clitics in the two languages. It will also be shown how the proposed derivation yields a principled account of some otherwise unexplained Case properties in two Irish dialects, and sheds light on the relationship between *definiteness* and *Case assignment*. Finally, it will be indicated how this proposal translates to the clausal level (IP), to deliver a explanation for obligatory character of pro-drop in Irish, which up to now has had to be stipulated.[2]

Consider first the determiner placement and definiteness agreement facts given in (2a-e), the facts which originally prompted a head-raising analysis for *Semitic* CSNs. Comparing the Hebrew with the Irish data, one can see at once a strong parallelism between the two: in particular, in (2c) and (2d) respectively, both languages *forbid* prenominal modification of the head noun by a determiner (2c), and at the same time *require* definiteness agreement between the the head-noun and the possesor noun-phrase (2d). Consideration of these two facts, in conjunction with the existence in Hebrew of an independent 'Construct Form' (2b), gave rise to the earlier CSN/DP analyses, in which the head noun was hypothesized to move from N^0 up to D^0 (Ritter (1987,1988), Mohammad (1988) (At this stage, no AgrP was postulated: Agreement features were taken to be contained under D^0.)

A further property shared by Hebrew and Irish is illustrated in (2e): whilst *definiteness* agreement is required, there is no necessary *number* agreement between the two nouns. This point will be returned to presently, since it provides part of the motivation for the postulation of a separate Number Phrase projection:

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2. a. **ca'if ha-yaldá**   **teach an fhir**
        scarf DET girl   *house DET man-GEN*
        the girl's scarf   the man's house

    b. ***bgadim ha-yalda**   -----
        *ha-bigdey shel ha yalda

    c. **(*ha) bigdey ha-tinok**   **(*an) pictiúr an fhir**
        DET clothes DET-baby   *DET picture DET man-GEN.sg.*
        the baby's clothes   the man's picture

    d. **(*ha) xaver ha-rof'im**   **(*an) solas na réaltaí**
        DET friend DET-doctors   *DET light DET.pl stars-GEN.pl*
        the doctors' friend   the starlight

    e. **xaver ha-rof'im**   **pictiúr an fhir**
        friend DET-doctors   *picture DET man-GEN*
        the friend of the doctors   the picture of the man
        *a friend of the doctors   *a picture of the man

Now consider the placement of adjectives in CSNs, exemplified in (3a-c). It is true to say that much of the empirical motivation for the original head-raising analysis of Hebrew CSNs, independent of the determiner properties just mentioned, is based on these facts. As is well-known, Hebrew forbids placement of an adjective phrase modifying the head-noun between this noun and the possessor noun-phrase (3b); the AP must appear instead to the right of the possessor noun-phrase. This may lead to potential ambiguities as in (3c), whenever both nouns agree in gender. This constraint is not however found in Irish: adjective-phrases may, indeed must, directly follow the noun they modify, including the bare head-noun of CSNs (3b); hence, no ambiguities can arise parallel to the Hebrew case in (3c).[3]

3. a. ***sipur mevadéax yeladim**   **guth láidir an tsagairt**
        story amusing-m.sg. children   *voice strong DET priest-GEN*
        the amusing [children's story]   the priest's powerful voice

    b. **sipur yeladim mevadéax**   **guth an tsagairt láidir**
        story children amusing-m.sg.   *voice DET priest-GEN strong*
        the amusing [children's story]   the powerful priest's voice

    c. **memshélet ha-medina ha-ara'it**   **teach an tsagairt chiúin**
        govt-f.sg. state-f.sg. prov-f.sg   *house DET priest-GEN quiet-GEN*
        govt. of the provisional state   the quiet priest's house
        provisional govt. of the state   *the priest's quiet house

To deriive this distriubtional contrast whilst maintaining a uniform account of the ordering and placement of syntactic categories in the two languages, it must be assumed that in Hebrew the possessor noun-phrase moves to a Specifier position above AP but below the Determiner head. Irish possessor noun-phrases, by contrast, must remain *in situ* in {Spec, NP}. This way of capturing the distributional contrast is of course is only possible if one admits the existence of an intermediate AgrP.[4]

Let us suppose that AgrP does exist, and that possessive clitics showing person agreement, (henceforth POSS), are generated under this node in both languages. In (4), we observe two further differences between Hebrew and Irish POSS: first, POSS is enclitic in Hebrew and proclitic in Irish (4a); second, Irish POSS is syntactically separable from the head-noun. This is revealed by the fact that numeral phrases, together with certain strong quantifers, are able to intervene between the POSS and the head-noun (4b):

4. a. **beyt-o**   **a phictiúr**
        house-3.sg.m.   *3.sg.m. picture*
        his house   his picture

    b. -----   **a cuig dteach**
                                            3.pl five house
                                            their five houses

We may account for both of these properties simultaneously by adopting the proposal outlined at the beginning, namely by assuming that POSS is not a syntactic affix in Irish, and therefore that it does not attract head-movement by N^0. Instead, it can independently raise to D^0, serving at once as an Agreement and as a Determiner element. This hypothesized Agr^0-to-D^0 movement would automatically deliver the obligatory definiteness of such constructions, the property illustrated in (2a). (Notice that this property must be stipulated in any alternative account in which AgrP is projected above DP).

Before considering some additional empirical motivation for Agr^0-to-D^0 raising, as well as for N^0-to-D^0 movement (in the absence of Agr^0 elements), I want to provide further motivation for the NumPhrase projection postulated below AgrP. Up to this point, two types of indirect evidence in support of this projection have been adduced: first, the independence of number specification from definiteness (2d); second, the positioning of *numeral* phrases below D^0 and Agr^0 but above N^0 and the possessor noun-phrase (4b); it seems not implausible to suppose that numerals should adjoin to their corresponding functional projection.[5]
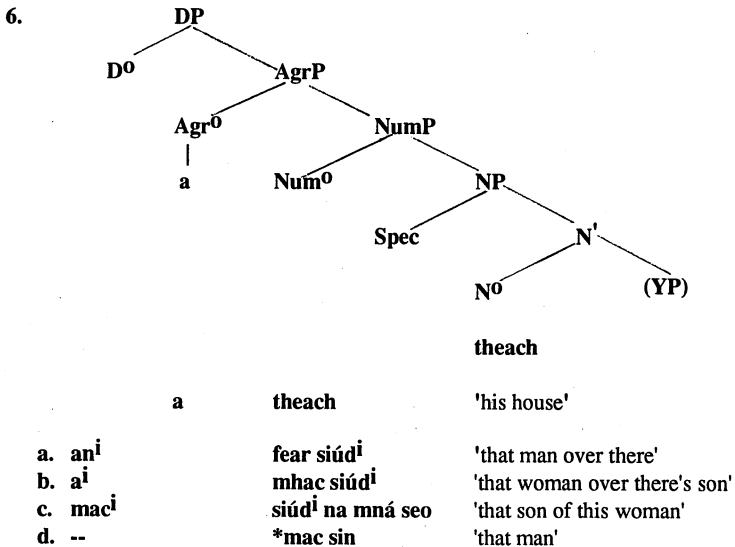
In addition, there is evidence from adjective ordering restrictions (discussed recently by Sproat & Shih (1991) which strongly suggests a d-structure position for Irish nouns to the right of their modifying adjectives, in face of an s-structure position to the left. This applies both to simple noun-phrases and to CSNs. This apparent anomaly would also automatically be resolved, as Sproat & Shih themselves point out (though with a slightly different analysis), if head-nouns always moved to some higher projection within DP; in terms of the present proposal, at least as far as Num^0. In a moment, additional Case facts will be adduced which support this analysis.

Consider now the demonstrative placement facts in (5). Here, the contrasts between Irish and Hebrew seem clearest, yet somewhat ironically it is the Irish demonstrative facts which, I suggest, provide the most conclusive evidence in favor of a head-raising analysis. As can be observed in (5a-c), Irish demonstrative elements show a three-way proximity contrast: *seo, sin, siud* meaning roughly 'this', 'that' and 'yon' (or 'yonder') respectively. Notice first that in *simple* noun-phrases such as those in (5a) (*i.e.* in noun-phrases *without* full NP possessors) demonstratives are subject to a strong syntactic co-occurrence constraint: they must be associated either with an overt prenominal determiner (i), or alternatively they may be licensed by the presence of a possessive clitic (ii). In simple noun-phrases, demonstratives cannot appear without this prenominal licensing:

5. a. **xag ze**   ***[mac sin]**   ***bean siúd**
        festival DEM   *son DEM$_2$*   *woman DEM$_3$*
        this festival   that son   yon woman

    b. **ha-xag ha-ze**   **an fear sin**   **an bhean siúd**
        DET-festival DET-DEM   *DET man DEM$_2$*   *DET woman DEM$_2$*
        this festival   that man   yon woman

                              (ii)   **a mac seo**   **a dteach siúd**
        -----   *3sf son DEM$_1$*   *3.p. house DEM$_3$*
                                       her son   their house

    c. ***rishum-o ha-ze**   **a mac siúd**   **#mo mhac siúd**
        drawing-3.sg.m DET-DEM   *3sf. son DEM$_3$*   *1sg. son DEM$_3$*
        that drawing of his   yon woman's son   #me there's son
                                       *her son there   *my son there

    d. ***bney ha-éle ha-kibuts**   **[mac sin] an fhir seo**
        members DEM DET-kibbutz   *son DEM$_2$ DET man-GEN DEM$_1$*
        these members of the kibbutz   that son of this man

In addition to this syntactic condition, there is a further more interesting constraint on the *interpretation* of demonstrative elements, just in case they are licensed by possessive clitics. As the examples in (5a.ii) and (5b) illustrate, demonstrative elements must share the reference of the possessive clitic, rather than the reference of the head-noun. Hence, in (5b) *a mac siud* can only be interpreted to mean 'the son of that woman over there', and *not* 'her son over there', whilst *mo mhac siud*, *lit.* 'my[1] son over there[1], although not strictly ungrammatical, is strictly ruled out on pragmatic grounds.

It is possible to account simultaneously for both the distributional *and* for the interpretive constraints, if we propose that demonstratives are licensed and identified by *whatever element occupies D^0 at s-structure*. Ungrammatical cases such as those in (5a,6d) would then be ruled out, since no element has raised to D^0. Whenever POSS is projected (5b, 6b), it will automatically license and identify the demonstrative element in virtue of raising to D^0, in spite of these fact that these elements form a discontinuous dependency; in such cases, the demonstrative cannot receive the referential index of the head-noun, and thus cannot be construed with it. In simple noun-phrases headed by determiners (5a, 6a), the demonstrative element will be referentially associated with the head-noun, but this relation will be indirect, mediated by the determiner head (which will bear the same referential index as the head-noun).

6.

	a	theach	'his house'
a.	an[i]	fear siúd[i]	'that man over there'
b.	a[i]	mhac siúd[i]	'that woman over there's son'
c.	mac[i]	siúd[i] na mná seo	'that son of this woman'
d.	--	*mac sin	'that man'

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Of course, such an explanation is only possible if the head-raising account of CSNs proposed here is correct. Notice also that this hypothesis about demonstrative licensing makes an interesting prediction with respect to the behavior of demonstratives in CSNs containing full possessor noun-phrases (5d,6c). If the N^0-to-D^0 analysis is correct, then just in these structures, demonstrative elements should still be licensed even in the absence of prenominal determiners, and they should inherit the reference of the head-noun. As the examples in (5d,6c) show, this is precisely what is found. Thus, the head-raising analysis immediately explains the minimal contrast between (5d,6c) vs. (*5a,*6d).[6]

This analysis also brings with it a number of additional empirical advantages, the first of these being an account for the facts given in (7) having to do with the relationship between definiteness and Genitive case assignment. Traditional Irish grammars (*e.g.* Christian Brothers (1960), (1990)) have pointed out an apparent anomaly in the case-assignment rules for verbal noun complements: in verbal noun constructions, which have essentially the *internal* structure of CSNs[7], complements are assigned genitive case, *unless* these complements are indefinite (and usually adjectivally modified), in which case they may be assigned nominative case (Common case is the traditional terminology). This contrast in illustrated by the examples (7a) vs. (7b):

7. a. **Bíonn sé ag deisiú na gluaisteán ó am go chéile.**
        Be-HAB he PROG repair-VN det-GEN car-GEN from time to time
        He repairs the cars from time to time.

    b. **Bíonn sé ag deisiú gluaisteáin Ghearmánacha ó am go chéile.**
        Be-HAB he PROG repair-VN cars-NOM German-NOM from time to time
        From time to time he repairs German cars.

    c. ***Bíonn sé ag deisiú na gluaisteáin Ghearmánacha.**
        Be-HAB he PROG repair-VN det-NOM cars-NOM German-NOM
        He repairs the German cars.

Under the present analysis, we directly obtain a structural account of these otherwise stipulated 'Common in Form, Genitive in Function' contexts. Let us assume that D^0 is responsible for Genitive case assignment, whilst Num^0 assigns Nominative case. Let us assume further that raising to D^0 is forced just in case D^0 is specified [+DEF]; otherwise, the head-noun need raise only as far as Num^0. In other words, N^0-to-D^0 raising is assumed to be triggered by a Case-independent requirement that [+DEF] be lexicalized. If this is correct, then not only do we derive the case contrasts in (7) in a principled manner, but we are further led to the conclusion that genitive Case assignment to possessor noun-phrases in Irish is to be interpreted as a quite incidental property of this movement.[8] [9]

The assumption that Num^0 assigns nominative case may also explain some peculiarites of the Cois Fhairrge dialect of Munster Irish (discussed briefly in McCloskey & Hale (1984), the data originally due to de Bhaldraithe (1953)). In contrast to most other Irish dialects, this dialect apparently permits structures such as those given in (8), in which the head-noun is modified both by both pre-nominal and post-nominal pronominal possessors. Contrary to what one might otherwise expect, post-nominal pronominals are case-marked *nominative*, rather than genitive. Now, these facts would also follow directly from the current proposal; in (8a) for example, the head-noun having raised to Num^0, lexicalizes the (Nominative) case-assigner closest to the post-nominal possessor.

8. a. **a muirín sise**
        3.f.sg. family she-contr-NOM
        her family

    b. **a chuid seisean**
        3m.sg. portion he-contr-NOM
        his portion

Thus far, the focus has been on providing empirical motivation for the quite articulated DP structure given at the outset, in which DP is superior to AgrP which in turn immediately dominates NumP. A number of arguments have been provided for this fractionation of functional information within the noun-phrase. It has further been claimed that the Hebrew vs. Irish contrasts presented here can best be explained by assuming an essentially uniform structure underlying both Celtic and Semitic noun-phrases, and by attributing any surface contrasts for the most part to morphosyntactic, rather than syntactic differences.

At least two important questions remain, however. The first has to do with the co-occurence restrictions on pre-nominal and post-nominal possessors, namely with Hebrew, in contrast to Irish, permits 'genitive clitic doubling'; the second question has to do with the translation of this analysis to the clausal domain.

For the examples in (7,8), we have just offered a structural account of apparently anomalous Case-assignment facts, by assuming that Num^0 (rather than D^0) assigns nominative case to the postnominal possessor noun-phrase. If this is the correct analysis of the Cois Fhairrge facts, it immediately raises the question of why this means of Case-assignment is not more generally available in other Irish dialects, that is why possessive clitics in Irish cannot freely co-occur with full possessor noun-phrases. The facts, illustrated in (9), are clear enough. In both Hebrew, as well as in Irish dialects other than Cois Fhairrge, there is a strict complementarity between the presence of POSS and any postnominal possessor modification:

9. a. **beyt(*-o) ha-more**
        house-3sgm DET teacher
        the teacher's house

    b. **(*a) phictiúr an fhir**
        3sgm. picture DET man
        the man's picture

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In the case of Hebrew, conventional wisdom has it that this complementarity is to be explained in Case-theoretic terms. The fact that these structures can be rescued by insertion of the Case-marking preposition *shel* before the possessor noun-phrase, lends some support to this idea (*cf.* Borer (1984), Ritter (1987), Mohammad (1988)).[10] In Irish, however --if the present analysis is correct-- then the conventional wisdom is not going to help, since it has just been argued that Num^0 can serve as a potential (nominative) Case assigner.

As an alternative to the standard Case account of the restrictions in (9), I will speculate on a possible approach based not on Case, but rather on Government theory. Consider once more the representation given in (6) and, in particular, the possible CHAIN-relation holding between POSS in Agr^0 and a possessor noun-phrase in {Spec, NP}. Let us suppose that CHAIN-formation of this type between a co-indexed functional category and an A-specifier is subject to Minimality[11]; if this is the case, then there exists a potential antecedent head-governor (the lexicalized Num^0) bearing a conflicting referential index, intervening between Agr/POSS and {Spec,NP}, and thus blocking the formation of a potential argument-chain.

To save the structure, the CHAIN-relation between Agr and the possessor noun-phrase must be given up: the clitic, Agr/POSS is then assigned a [+pronominal] feature, and with it, argument status. Agr/POSS is, in this sense, a 'syntactically derived pronominal.' Since a CHAIN relation between these two elements is no longer possible, the strict complementarity of pronominal Agr and a full noun-phrase, the facts in (9), are then ensured by the Theta Criterion.

Another way of viewing this is to say that whilst in Hebrew the clitic absorbs CASE, in Irish it absorbs a theta-role, and that whilst Case absorption is easily saveable through the insertion of a dummy case-assigner, theta-absorption is not. Naturally, no similar Minimality issues arise in Hebrew, thanks to the movement of possessor noun-phrases to {Spec,AgrP}, which re-constitutes the relationship between Agr^0 and the possessor noun-phrase as an instance of {Spec, Head} Agreement.[12]

Finally, the proposal which has been advanced here for the internal structure of *noun-phrases* in Irish also makes some predictions regarding clausal structure.[13] Amongst those theorists who have developed 'split-INFL' proposals for Celtic, there has been continuing controversy about the correct ordering of functional projections, such as Agr^0 and T^0, between CP and VP.[14]

Ouhalla (1990, 1992), for instance, has proposed that Celtic and Semitic VSO orders are crucially distinguished by a divergent ordering of functional projections: in Semitic (indeed in Afro-Asiatic languages in general) he would

claim that Tense is ordered above Agreement, whilst in Celtic the opposite ordering is supposed to obtain. Conversely, Duffield (1991) and Tallerman (1992) amongst others, have presented counter-arguments, claiming that TP dominates AgrP in Celtic also.

To a considerable extent, the source of this controversy can be traced to the distribution of those morphological elements in Irish that are interpreted to be realizations of Tense features. As the examples in (10) illustrate, verbs in Modern Irish have associated with them two different types of morphology, either of which can be construed as expressing Tense information. Simplifying considerably, in past time contexts, [+PAST] is usually expressed by the preverbal element *do*, realized as *-r* when preceded by a complementizer. This is shown by the examples in (10a). However, some tense information (for example [+future]) must be expressed in certain verb-forms as a verbal *suffix*, occupying a position between the verb-stem and any agreement suffix (10b). To make matters worse, as the examples in (10c) show, both types of tense morphology may appear simultaneously:[15]

10 a. **d'ith sé é**   **dúirt sí gu-r ith sé é**
        PAST eat he it   *said she COMP PAST eat he it*
        he ate it   she said that he ate it

    b. **cuir-eann sé**   **cuir-f-inn**
        put-PRES(HAB) he   *put-FUR-1sg*
        he puts (habitual)   I will put

    c. **d'ól-adh sé**   **d'ol-f-ainn**
        PAST-drink-HAB he   *PAST-drink-FUT-1sg.*
        he used to drink   I would drink

Typically, those who have argued for AgrP-over-TP ordering in Celtic have assumed that the Tense projection is headed by the verbal suffix, and have largely dis-regarded the *do-/-r* morpheme (*cf.* Ouhalla 1990, 1992). Application of V-raising in a manner consistent with the Mirror Principle (Baker 1988) to derive morphologically complex forms such as (10b.ii) above, then, requires the assumption that Agr^0 dominates T^0. By contrast, those who have argued (often for syntactic reasons independent of inflectional morphology)[16] for the opposite ordering of functional projections, have taken *do-/-r* as the morphological expression of Tense, and have sought to explain away the embarrassing suffixal morphology in (10b,c), treating it as syntactically irrelevant.

I want to suggest in conclusion that translation of the DP analysis proposed above to the IP domain can provide a principled, and obviously independently

motivated way of reconciling these two positions, allowing for Tense to dominate Agreement, whilst at the same time permitting the syntactic derivation of inflected verbs in a manner consistent with the Mirror Principle.

Consider finally an abstract clausal representation in which TP dominates AgrP which in turn dominates a lower functional projection, ?P, the clausal correlate of NumP in the noun-phrase. In conceptual terms, it is interesting to ask whether we might 'solve for ?P' the following four-part analogy:

D(efiniteness) is to Num(ber) as T(ense) is to ?

Recent proposals by Stowell (this volume) provide some theoretical content to the suggestion that this independent tense-like projection should be understood as TIME (or Z(eit)Phrase, in Stowell's terminology.) Whatever the conceptual answer turns out to be, however, it is clear that this additional projection immediately yields a syntactic solution to the empirical problem presented by languages like Irish (and perhaps Basque) which display both preverbal and postverbal tense morphology.

Moreover, given standard assumptions of cross-categorial parallelism in X-bar projections, it seems at least in part justified to use this account in the IP domain as further evidence for the correctness of the DP analysis which has been the central focus of this inquiry.

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[2]   Due to time space, details of this translation to the IP domain are developed separately in Duffield (to appear); the general shape of these proposals should nonetheless be clear from the present paper.

[3]   Adjectival modification of the head-noun in cases such as (3b) is not restricted to single adjectives, thus not so easily amenable to an account where N^0 raises through A^0. Nevertheless, the facts of demonstrative placement in these constructions suggest that it is necessary to differentiate between AP vs. PP (or other adjunct) modification of the head-noun.

This raises a more general problem with the present analysis with respect to demonstrative placement: although this analysis provides a systematic account of demonstrative *licensing* and *interpretation*, it cannot account for the *placement* of demonstrative and

contrastive elements, which seem to require a complementary, and radically different structure. This problem is a serious one, and will be addressed in future work.

[4]   Given that Hebrew also contrasts with Irish in the clausal domain in allowing subject movement to {Spec,IP}, to yield SVO word-order (something which is never gramm-atical in Irish) it should not be particularly surprising that a similar specifier movement should take place within DP. However, this does not of course explain why Hebrew does not permit SNO order in the noun-phrase as an alternative, i.e. what rules out further movement from {Spec, AgrP} to {Spec,DP}.

[5]   The postulation of this NumberPhrase also yields without further stipulation an account of the prenominal distribution of the classifier elements *ceann, cuid,* as in the phrase *a cuid eadaí* (her clothes); it seems quite plausible to suppose that such classifier elements are generated directly under Num^O.

On the present account, it is not coincidental that the only prenominal modifying elements in simple noun-phrases are. numeral phrases, classifiers and (certain) quantifiers, (i.e. functional elements) and that all other modification is obligatorily *post*-nominal.

It has been also brought to my attention that independent arguments for NumPhrase in Hebrew have recently been advanced in Ritter (1991).

[6]   In previous work, (Duffield 1990, 1991), I have argued in detail for a syntactic account of the morphophonological phenomenon of initial consonant mutation (ICM) in Irish: largely on the basis of an analysis of pre*verbal* grammatical particles, I have claimed that ICM -- in particular lenition (spirantization) of the verb-stem-- is triggered directly by lexicalised functional categories; in the verbal domain, the relevant functional category is T(ense). If the arguments given below for the parallelism of IP=DP/T=D (outlined below) are on the right track, then we correctly predict that those elements which move to D^O (determiners, POSS elements, and head nouns in CSN structures) should all be potential mutation triggers. That the latter elements also trigger ICM independently of determiners is shown by CSNs where the possessor NP is a proper noun such as *teach Sheáin* (Seán's house). See Duffield (to appear) for further details.

[7]   Whether these constructions involve some additional dominating functional projection, perhaps Object Agreement, as suggested in Duffield (1991) should be regarded as a separate issue. See Ramchand (1992, this volume) for a interesting related proposal for Scots Gaelic.

[8]   This suggestion finds some conceptual support in recent treatments of the 'Verb-second' rule in the Germanic languages, where it has been hypothesized that verb-movement to COMP in finite clauses is triggered by the requirement for a [+Finite] feature in COMP to be lexicalized. Although controversial, it seems not implausible to suppose that finiteness at the clausal level directly corresponds to definiteness in the NP domain.

[9]   In this connection, it might not to be co-incidental that languages which display CSN structures of this type lack overt indefinite articles.

[10]   It is nevertheless open to question whether *shel* should simply be regarded as a pure case-marker (comparable to the accusative marker 'et), or whether it implicates a rather different, somewhat more complex prepositional structure. See Duffield (1992) for some preliminary discussion. Here, I will assume that the Case story is correct for Hebrew.

[11]   In this particular instance, as pointed out to me by Joseph Aoun it seems to make little difference whether we invoke Rigid or Relativized Minimality (Chomsky (1986), Rizzi (1990)).

[12]   As Ken Safir has pointed out, if this analysis were correct, it would seem to conflict with a number of GB accounts of Passive constructions, in particular with the analysis of Jaeggli (1986), where the CHAIN-relation (expressing the external theta-role) between the passive morphology and a syntactically expressed by-phrase should be subject to the same Minimality condition. Logically, there are a number of ways of addressing this objection: one might argue either that by-phrases are related to the verb via some other mechanism (e.g. through

modification, cf. Zubizarreta (1982, 1987); or else that the Minimality Condition is parameterized in some fashion; or perhaps CHAIN-relations are subject to different conditions depending on whether or not both elements of the CHAIN are potential arguments. This question must be left for further research.

13   These issues are treated in more detail in Duffield (in prep).

14   For relevant discusion, see for example the contributions to the recent Comparative Celtic Syntax conference, held in Bangor, Gwynedd (June 1992), especially those of Hendrick, Ouhalla, Rouveret, and Tallerman. Cf. also Rouveret (1991) and Tallerman (1992).

15   This is a rather drastic simplification of a set of complex morphological facts. For a more detailed analysis, see Duffield (1991, Chap 2).

16   For example, it is quite crucial to the syntactic account of initial consonant mutation (ICM) developed in Duffield (1990, 1991) that Tense should dominate Agreement. See fn. 6 above.

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