Mind your Ps and Ks! Quirky subjects and nominal licensing[*]

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1 Introduction

The relationship between adpositions and both abstract Case and morphological case is a vexed one. On the one hand, there's clear evidence that adpositions appear to assign Case, so that adpositional phrases themselves do not need structural licensing; on the other, some adpositions seem to be a realization of Case.

In Adger (2013), I argued that the adpositions one finds inside nominal phrases that are traditionally analysed as complements are actually realizations of Case. This execution emerges from a proposal that apparent complements of relational nominals should rather be analysed as specifiers of a functional category, which I called ק (pronounced as the Hebrew letter Qof). ק is functional and has a restricted range of functional meanings (part, kin, role, etc.) akin to, say, the temporal meanings of T. I argued that this made sense of the fact that the semantics of relational nouns is restricted in a way that is unexpected if a functional category is not involved. This approach was then used to explain the optionality of nominal arguments and the typological generalization that they systematically appear further from the noun than adjectival modifiers do.

Since the arguments are specifiers, they are, in the system of Adger 2013, licensed via a kind of specifier-head agreement. I implemented this by adopting
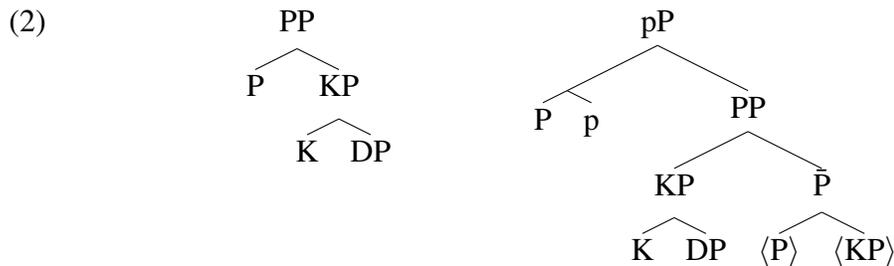
the idea, stemming from Lamontagne and Travis (1987), that the functional structure of nominals reaches to a Case projection, K (see also Bittner and Hale 1996, Wiltschko 2014). I proposed that, when a KP is in the specifier of ꝑ it agrees with that head, and is realised as the relevant adposition (in English, for example, ꝑ is usually realized as *of*, but other languages, such as Norewgian, key the form of the adposition to the nominal relation ꝑ denotes). The structure then is as follows[1]:

(1)

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              ꝑP
             /  \
           KP    \
          /  \   ꝑ  NP
         K   DP     /\
                   ...
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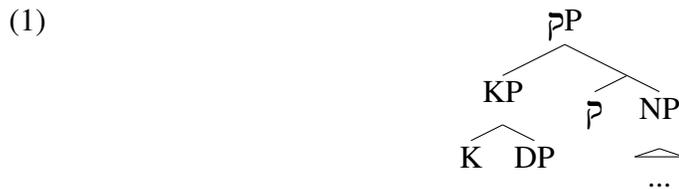
K agrees with ꝑ and is realised as the relevant adposition, so in an example like *the edge of the table*, K is pronounced *of.*

    This does not entail that all apparent adpositions are Ks, of course. Adpositions themselves can idiosyncratically assign morphological cases, just as verbs can, and this suggests that some adpositions are yet higher heads in the nominal extended projection, as proposed by Grimshaw (1991), whether via a complement structure, or via an agreement structure, perhaps with further raising, as in the layered structure for PP proposed by Koopman (2000) and many others[2]:

(2)

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        PP                        pP
       /  \                      /  \
      P    KP                  /     \
          /  \               P  p     PP
         K   DP                      /  \
                                   KP    P̄
                                  /  \   /  \
                                 K   DP ⟨P⟩ ⟨KP⟩
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A prediction of the idea that certain adpositions are realizations of K heads in specifier positions is that we should find adpositional phrases as Subjects in ver-

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[1]The system in Adger 2013 was given in a telescoped approach to phrase structure (Brody 2000), and treated the NP also as a specifier, but I give it here in a more standard format. That system also assumed a Brodyesque approach to head movement as pronunciation of the whole extended projection at some point within that projection, extending this to allow spans (Williams 1994, Svenonius 2012). I ignore this here, though everything I say is compatible with a restatement in these terms.

[2]Such structures may actually involve ꝑ themselves, with the apparent P actually being ꝑ and raising to a higher P projection.

bal functional structure. I revisit an intriguing Quirky Subject phenomenon in Irish and Scottish Gaelic, first analysed by McCloskey (1984), and reanalysed by Stowell (1989). Both McCloskey and Stowell's analysis have theoretical problems, and are challenging to translate into current theory. I will argue for an alternative analysis involving KPs and PPs in specifiers as sketched above.

2 Two quirky subjects in Scottish Gaelic

Scottish Gaelic, like Modern Irish, has a number of constructions where what is a Subject in English appears as an apparent complement of a preposition (McCloskey 1984, Stowell 1989). For the purposes of the discussion here, I confine myself to two of these prepositions: *le*, 'with' and *do*, 'to' and the relevant cases are where they mark the subject in constructions involving the copula, *is/bu*[3].

We are interested, then, in examples of two kinds. In the first, the Subject is marked with the preposition *le*, appearing in an agreeing form in (3-a) and (3-b) and with a DP complement in (3-c)[4]:

(3)   a.   Is   fhearr **leis**   an fhior-chriosduigh
          COP.PRES better with.3SG the true-christian
          'He prefers the true Cristian.'   DASG 145

      b.   B'   fhèarr **leinn**   fo   'r   cois iad
          COP.PRES better with.1.PL under our feet them
          'We'd prefer them under our feet.'   DASG 104

      c.   'S   fhearr **le   Iain** an cat
          COP.PRES better with Iain the cat
          'Iain prefers the cat.'

The second type, which appears at first blush to be parallel to the *le* examples, marks the Subject with the preposition *do*:

(4)   a.   'S   fhèarr **dhuinn** carbad a ghabhail
          COP.PRES better to.1.PL car   A take.VN
          'We'd better take a car.'   DASG text 69

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[3]The copula in Gaelic appears in only these two forms, which are roughly present (*is*, sometimes just *'s*) and past/future/conditional (*bu/b'*). The variation between the present and past form of the copula here will not concern us. Both are possible irrespective of the preposition and mainly signal changes in tense or conditionality.

[4]Where I have taken examples from The Digital Archive of Scottish Gaelic (Ó Maolalaigh 2006), I notate them with DASG, and the text number.

b. B'   fheàrr **dhomh** bhi 'g   obair air a' bhuntàta
    COP.PRES better to.1.SG be ASP work on the potatoes
    'I had better work on the potatoes'   DASG text 94

c. 'S   fheàrr **do Dhaibhidh** carbad a ghabhail
    COP.PRES better to David   car   A take.VN
    'David had better take a car.'

All the examples above involve the predicate *feàrr*, 'better,' which is the irregular comparative of *math*, 'good' and which appears in these examples in its lenited form *fheàrr*, a result of the morphophonological properties of the copula.

An immediate generalization that is evident from the translations is that when *fheàrr* combines with *le*, 'with', the result has the meaning of psychological predication: the Subject is an Experiencer. In contrast, when *fheàrr* combines with *do*, 'to,' the result is a kind of modal meaning: the subject is under a requirement of some sort and is, in these examples anyway, an Agent. This alternation between a psychological and modal meaning with *fheàrr* is no coincidence, but is rather a regular feature of the two prepositions in this copular context (distinguishing it, as we will see, from similar examples in Modern Irish). We can see this by examining the various predicates that appear in this construction. First let us look at some examples with *le*:

(5) a. Is   coma   le Aonghus siud.
         COP.PRES indifferent with Angus   that
         'Angus doesn't care about that.'

     b. Bu   bheag leo   na dhòirteadh iad de dh'fhuil.
         COP.PAST little with.3PL what spill.COND them of blood
         'They cared little how much blood they spilled.'

     c. Is   toil   leis   na caileagan iad.
         COP.PRES pleasant with.sc def the girls   them
         'The girls like them.'

     d. Bu   mhiann leam   taing a thoirt do dh'Iain.
         COP.PAST desire   with.1SG thanks PRT give.VN to Iain
         'I'd like to give thanks to Iain.'

     e. Bu   mhath leinn   fada bharrachd a   dhèanamh.
         COP.PAST good   with.3PL much more   PRT do.VN
         'We'd like to do much more.'

     f. Am bu   chaomh leat   rudeigin?
         Q   COP.PAST pleasant with.2SG something
         'Would you like something?'

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In all of these examples we see psychological predication with an Experiencer expressed by the *le*-marked DP or pronoun. The copula is immediately followed by what is usually an adjectival predicate (with the exception of the noun *miann*, 'wish, desire'). The apparent object of the psychological predicate is either a DP, as in (5-a), (5-c), (5-f) as well as in (5-d), where it is an amount free relative, or a nominalized clause of some kind (in (5-b) and (5-e) the verb appears in its nominalized, so called verbal noun, form with a preposed object). All of these psychological predicates may take either a DP or a nominalized clause as an argument.

Compare the examples in (5), with those in (6):

(6) a. Is   fheudar dhomh an t-each a   reic.
         COP.PRES need   to.1sg the horse PRT sell.VN
         'I must sell the horse.'
     b. 'S   àbhaist dha   fuireach an-seo.
         COP.PRES custom to.3sgm stay.VN here
         'He usually stays there.'
     c. Bu   chòir do dh'Iain na soithichean a   nighe.
         COP.PAST ought to Iain   the clothes   PRT washVN
         'Iain ought to wash the clothes.'
     d. Is   urrainn dhi   a' chraobh sin a   dhìreadh.
         COP.PRES ability to.3SGF the tree   that PRT climb.VN
         'She can climb that tree.'
     e. B'   èiginn   dhan an rìgh an dùthaich fhàgail.
         COP.PAST necessity to.DEF the king the country leave.VN
         'The king had to leave the country.'
     f. Is   mithich dhomh falbh.
         COP.PRES time   to.1SG leave
         'It's time for me to leave/I should leave.'

In these cases, where the Subject is *do*-marked, the semantics does not involve an Experiencer. Rather we have a modal meaning (or at least a meaning that quantifies over situations). The predicate following the copula is a noun in all cases and, after the *do*-marked Subject, we find a nominalized tenseless clause, headed by a verbal noun, as we saw in a subset of the Experiencer constructions.

The Scottish Gaelic constructions seem, then, somewhat different from the Irish ones discussed by McCloskey (1984) and Stowell (1989). In Irish, modal constructions can appear with *le*-marked subjects, as well as *do*-marked ones:

(7) a. Is   féidir le   Ciarán teach a cheannach
         COP.PRES able   with Ciaran house to buy
         'Ciaran can buy a house.'
     b. B'   éigean do Chiarán teach a cheannach.
         COP.PRES must   to Ciaran   house to buy
         'Ciaran had to buy a house.'

McCloskey argued that these Irish constructions involve raising of the Subject from the lower clause to the matrix clause, into a position that is the complement of the preposition *le* or *do*. This analysis raised problems for the Projection Principle, which, at the time, forbade such movement. Stowell, in contrast, argued that the correct analysis of such cases does not violate the Projection Principle, since the relevant prepositions should be analysed as inherent case markers. In his approach inherent case has to be assigned in an ECM configuration under government from the higher predicate, severing the standard connection between inherent case and theta-assignment.

   I will, in contrast, show that though the thematic properties of *le* and *do*-marked nominals in Gaelic are distinct, their structural position seems to be identical. This, I'll argue, suggests that they are both in the specifier of a functional head which has two variants: one which assigns argument status to its specifier, while the other does not (analogously to v* and v). The preposition is a realization of the K head, as sketched above, agreeing with these different variants, and the relevant KP is either externally or internally Merged to the relevant functional category's projection, giving rise to a classical control/raising alternation. This analysis requires neither raising to the complement of a P, nor does it appeal to inherent case assignment under government.

3 Structure of Experiencer Constructions

Adger and Ramchand (2006a), in an examination of certain Experiencer constructions in Gaelic, show that these typically involve what they call a psych-noun. As well as the Experiencer constructions with the copula just discussed, a common way to express psychological predication in Gaelic uses the auxiliary *bidh*, 'be'. *Bidh* has a number of irregular forms, including its present tense form *tha*, as in (8):
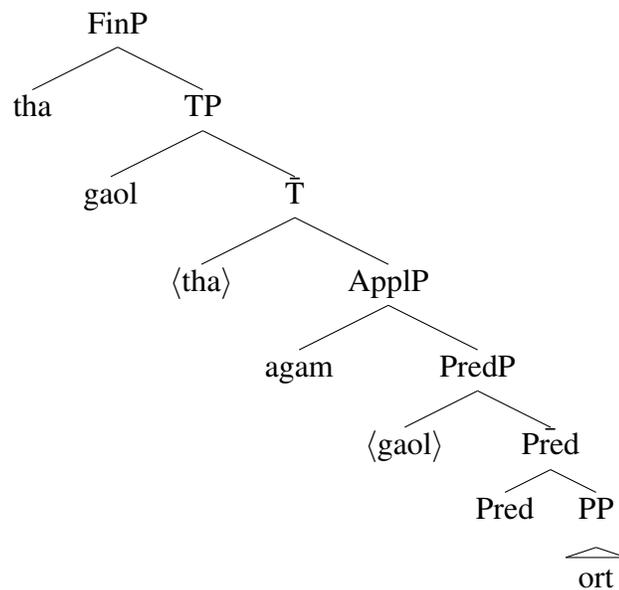
(8) Tha   gaol agam ort
     be.sc pres love at.1SG on.2SG

6

'I love you.'

Here we see the psych-noun *gaol*, 'love', following the finite auxiliary, with its apparent arguments, Experiencer and Theme, in turn following the psych-noun. Both of these arguments appear as PPs.

Adger and Ramchand argue that, in examples like (8), the Experiencer is not in constituency with the psych-noun, but rather that the psych-noun has moved from a position lower in the structure, where it is the subject of a locative predication. They propose that: (i) the psych noun itself is the subject of a locative predication; (ii) that the Experiencer is introduced in the specifier of an applicative head, similar to the head that introduces the subject of possession, and (iii) that the psych-noun raises into the structural subject position, immediately to the right of the finite verb. The structure of (8) is, then, as follows, with category labels updated to reflect later understanding of the range of verb movement in the language (e.g. Adger 2007):

(9)

```
                    FinP
                   /    \
                 tha     TP
                        /   \
                     gaol    T̄
                            /  \
                        ⟨tha⟩   ApplP
                               /    \
                            agam    PredP
                                   /    \
                              ⟨gaol⟩     Pr̄ed
                                        /    \
                                    Pred     PP
                                              △
                                             ort
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The evidence that Adger and Ramchand use to motivate this structure comes from both constituency and binding effects. In terms of binding, they show that it is possible to bind from the Experiencer to the Theme (and not vice versa) suggesting that the former c-commands the latter and ruling out a structure where the Experiencer is in constituency with the psych-noun. In terms of constituent structure effects, they show that the psych-noun can appear in clefted constructions

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together with the Theme, but not with the Experiencer, as in, for example, (10):

(10)　　's　　　e [gaol air Iain] a　th'　　agam
　　　　COP.PRES it love　on Iain　that be.PRES at-me
　　　　'I love Iain.'

(11)　　*'s　　　e [gaol aig Iain] a　th'　　orm
　　　　COP.PRES it love　at　Iain　that be.PRES on-me
　　　　'I love Iain.'

A further argument for this structure is that the Experiencer is uniformly marked by the preposition *aig*, 'at'. This contrasts with the Theme which appears to be in some kind of a selectional relationship with the psych noun. Adger and Ramchand's structure makes sense of the uniform marking of the Experiencer: it always involves the same functional licenser, Appl, while the predicational relationship between the psych noun and its Theme PP more plausibly allows for idiosyncratic selection.

Adger and Ramchand (2006) do not consider the cases of psych-adjectives appearing with the copula *is/bu* discussed in the introductory section, though these are briefly adressed in an unpublished presentation (Adger and Ramchand 2005b). There Adger and Ramchand argued that, parallel to the auxiliary psych construction, in copular psych-adjective constructions, the Experiencer is introduced high in a specifier position. One piece of evidence for this comes from ellipsis.

As is well known, Irish and Gaelic have a responsive construction which is used to express affirmation or negation in response to a polar question that involves repeating the finite verb, possibly together with various other elements. McCloskey (1991) argues persuasively that this responsive construction involves ellipsis of the constituent following the finite verb. In copular psychological predication, it turns out that this elided constituent must include the Experiencer:

(12)　　a.　An　　coma　　leat　　dè　a　thachras?
　　　　　　COP.Q indifferent with.2SG what that happen.FUT.REL
　　　　　　'Do you care what will happen?'
　　　　b.　Cha　　choma
　　　　　　COP.NEG indifferent
　　　　　　'No.'
　　　　c.　*Cha　　choma　　leam
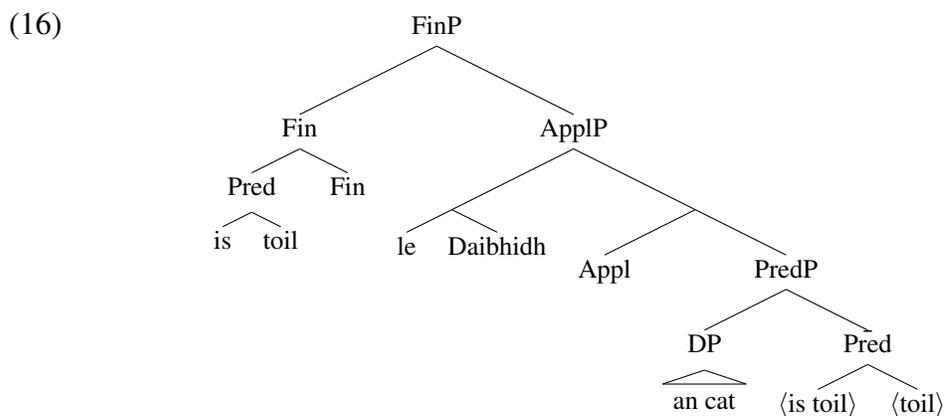　　　　　　COP.NEG indifferent
　　　　　　'No.'

This strongly suggests that the Experiencer is not in constituency with the psych-noun but is rather part of a constituent which is the complement of the category that hosts the psych-noun.

Further, Adger and Ramchand argue that binding evidence in these copular constructions suggests that the Experiencer c-commands the Theme:

(13)   Is   toil   le Daibhidh agus Iain a   chèile
       COP.PRES pleasant with David   and Iain each other
       'David and Ian like each other'

(14)   *Is   toil   leis a   chèile Daibhidh agus Iain
       COP.PRES pleasant with each other David   and Iain
       'David and Ian like each other'

Adger and Ramchand conclude that copular psychological predication is similar to auxiliary-based psychological predication. Both involve an Experiencer introduced as a specifier which c-commands a Predicate Phrase. While the psych-noun is the subject of that phrase in the auxiliary construction, the psych-adjective is the predicate of it in the copular construction. The psych-adjective incorporates into the copula in Pred, and then that head raises to the initial position. This gives roughly the structure in (16) for the Experiencer construction in (15) (again, updating category labels):

(15)   'S toil le Daibhidh an cat.

(16)

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                        FinP
                   ┌──────┴──────┐
                  Fin          ApplP
               ┌───┴───┐    ┌─────┴─────┐
              Pred    Fin  le Daibhidh       
             ┌──┴──┐                   ┌──────┴──────┐
            is    toil              Appl          PredP
                                           ┌────────┴────────┐
                                          DP               Pred
                                        ┌──┴──┐        ┌──────┴──────┐
                                       an cat      ⟨is toil⟩      ⟨toil⟩
```

That we have head movement in these cases is motivated by the impossibility of modifying the psych-adjective with modifiers in this construction, although these adjectives can be modified in straightforward predicative constructions when they are in situ:

(17)   a.   Tha   mi uabhasach coma   dè   a   thachras.
             be.PRES I terribly   indifferent what REL happen.FUT
             'I couldn't care less what will happen.'

       b.   *Is   uabhasach coma   leum   dè a thachras.
             cop.PRES terribly   indifferent with.1SG what REL happen.FUT
             'I couldn't care less what will happen.'

If the copula incorporates the head of its complement, and adjectives cannot strand their modifiers, a head movement analysis accounts for this. What looks like the complement of the psych construction here turns out to be the subject of an adjectival predicate[5].

In cases where a psych-predicate has a clausal argument, as in (18), I will extend Adger and Ramchand's proposal, and assume that, just as in the case of simple DP arguments, the clausal argument is a non-finite VP, headed, in Gaelic, by the so-called Verbal Noun (VN) form of the verb:

(18)   B'   fheàrr leam   a bhith aig an sgoil.
         COP.PAST better with.1SG PRT be.VN at   the school
         'I'd prefer to be at school.'

(19)
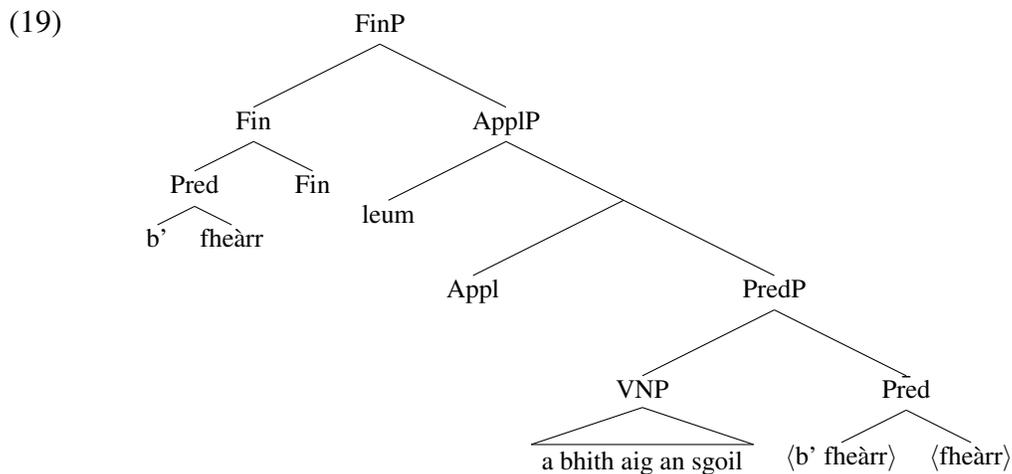
This neatly accounts for an ambiguity in the attachment of adverbs that appear after the Experiencer, as in:

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[5]I noted above that just one of the predicates that appears with *le* is a noun, *miann*, 'desire, wish'. It too is ungrammatical with any kind of modifier in this construction, suggesting that it may also be the complement to the copula, as opposed to the kind of psych-noun we see in the auxiliary psych constructions discussed by Adger and Ramchand. I will assume it has the same syntax as the psych-adjectives.

(20) B'   fheàrr leam   gu tric a   bhith aig an sgoil.
      COP.PAST better with.1SG ADV often PRT be.VN at   the school
      'I'd often prefer to be at school.' or 'I'd prefer to be at school often.'

The second reading, where 'often' modifies the non-finite clause, is preferably
expressed with a final adverb, though the medial one is possible. On the higher
reading, the adverb adjoins to PredP, and scopes over the moved predicate; on the
lower one, it adjoins to the nominalised clause.

Given the uniform thematic interpretation of the *le*-marked DP, it appears that
the relationship between it and the lower clause is one of control (whether via
co-construal of the two arguments via PRO, or via movement with multiple theta-
roles assigned to a single syntactic object).

With this in place, let's now turn to the modal cases, which are most parallel
to the raising constructions in Irish discussed by McCloskey and by Stowell.

4   Structure of Modal Constructions

The Scottish Gaelic modal construction is differentiated from the Experiencer
construction in a number of ways.

First, unlike the psych-adjective cases, the predicates following the copula in
the cases with *do* are all nominals: *àbhaist*, 'custom'; *còir*, 'right, duty'; *urrainn*,
'ability'; *èiginn*, 'hardship'; *mithich*, '(right) time'[6]. Again, there is one excep-
tion: *feàrr* is a comparative adjective. However, Adger (2005) shows that mor-
phological comparatives in Gaelic are nominalized forms of adjectives, a fact that
accounts for their odd syntax, so it seems plausible that all predicates in this con-
struction are nominals. Given this, I will call the predicate in these constructions
modal-nouns.

Second, modal-noun constructions, unlike the psych-adjective constructions,
do not allow simple DP complements; they must rather appear with a nominalized
clause containing a verbal noun[7]:

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[6]The word *feudar* is not found outside this construction (except as an alternative spelling of
a modal verb meaning 'may'), so it is difficult to categorize. The standard dictionary of Scottish
Gaelic (Dwelly 2001/1911), categorizes it as a noun.

[7]Two non-modal nominal predicates appear with the copula and *do*-marked DPs: *aithne*, 'ac-
quaintance' and *ciall*, 'sense'. These can both take true DP object. I leave their syntax for another
time.

(21)   a.   B'   fhèarr dhomh falbh
              COP.PAST better do.1ST leave.VN
              'I'd better leave.'
       b.   *B'   fhèarr dhomh bainne
              COP.PRES better to.1SG milk
              for 'I'd rather (have) milk.'

If we substitute simple DPs for the clausal complements in our earlier examples, the resulting sentences are unacceptable, even though the intended semantics is recoverable[8]:

(22)   a.   *Is   fheudar dhomh each.
              COP.PRES need   to.1sg horse
              'I need a horse.'
       b.   *Bu   chòir do dh'Iain na soithichean ud.
              COP.PAST ought to Iain   the clothes   these
              'Iain ought (to wear) these clothes.'
       c.   *B'   èiginn   do rìgh crùn.
              COP.PAST necessity to king crown
              'A king needs a crown.'
       d.   *Is   mithich dhomh dinnear.
              COP.PRES time   to.1SG dinner
              'It's time for me to (have) dinner.'

These become fine if the nominal object is an argument of a verb in a lower clause, for example, expressing possession:

(23)   a.   Is   fheudar dhomh each a   bhith agam.
              COP.PRES need   to.1sg horse PRT be.VN at.1SG
              'I need (to have) a horse.'

(i)   Is   aithne   dhomh fear gun   mhnaoi
      COP.PRES acquaintance to.1.SG man without wife
      'I know a man without a wife.'   DASG text 101

(ii)   'S   e so a   's   ciall do na sean-fhocail
      COP it this that COP sense to the proverb
      'It's this that the proverb means.'   DASG text 108.

[8]*feàrr* has a comparative use with *do* too, which allows a nominal object with a pure comparative reading. (21-b) has a possible reading: Milk would be better for me (than e.g. beer). However, the modal reading is absent.

b. Bu   chòir do dh'Iain na soithichean ud   a   bhith
    COP.PAST duty to Iain   the clothes   these PRT be.VN
    air.
    on.3SGM
    'Iain ought (to wear) these clothes.'

c. B'   èiginn   do rìgh crùn a   bhith aige.
    COP.PAST necessity to king crown PRT be.VN at.3SGM
    'A king is required to wear a crown.'

d. Is   mithich dhomh dinnear ithe.
    COP.PRES time   to.1SG dinner eat.VN
    'It's time for me to eat dinner.'

Further, modal nominals can have a finite clausal argument, as well as the non-finite clausal arguments we have seen so far:

(24) a. chan   urrainn gun robh   ùine aca   air bàrdachd a   chur an
          COP.NEG ability that be.PAST time at.3pl on poetry   PRT put in
          altan a chéile
          joins to each-other
          They couldn't have had time to compose poetry together.' DASG
          303

      b. Is fheudar gun do   rinn   foghlam, foghlam, foghlam
          COP need   that PAST do.PAST education education education
          feum air choreigin dham eanchainn
          use on some   to-my brain
          'Education, education, education, must have done some use to my
          brain.' DASG 333

I'll assume then that the semantics of these modal-nouns is monadic and requires a clausal argument of some sort, backing up McCloskey and Stowell's analysis of this type of modal as one place predicates.

Though these two properties (being nominal and requiring a clausal argument) are distinct from the psych-adjective constructions, there are clear syntactic similarities. Like psych-adjectives, modal-nouns cannot be modified in the copular construction, suggesting a similar head-movement derivation:

(25) *Bu chòir mhòr dhomh falbh
       COP duty big   to.1SG leave.VN
       'I really should leave.' (*Lit*: A big obligation is to me to leave)

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This suggests that the modal nouns, like the psych-adjectives, incorporate into the copula and raise to their surface position. Because they are incorporated into a head, they cannot be modified. This proposal also explains why, even though modal-nouns are nouns, they can't be relativized. Examples like the following are crashingly bad:

(26) *A' chòir a   bu   dhomh falbh
       the duty that COP.PAST to.1SG leave.VN
       'My duty to leave.'

Analogizing with these relevant aspects of the psych-adjective constructions, I suggest the following structure:

(27)   Bu chòir do Daibhidh falbh.
       COP duty to Daibhidh leave.VN
       'David ought to leave.'

(28)
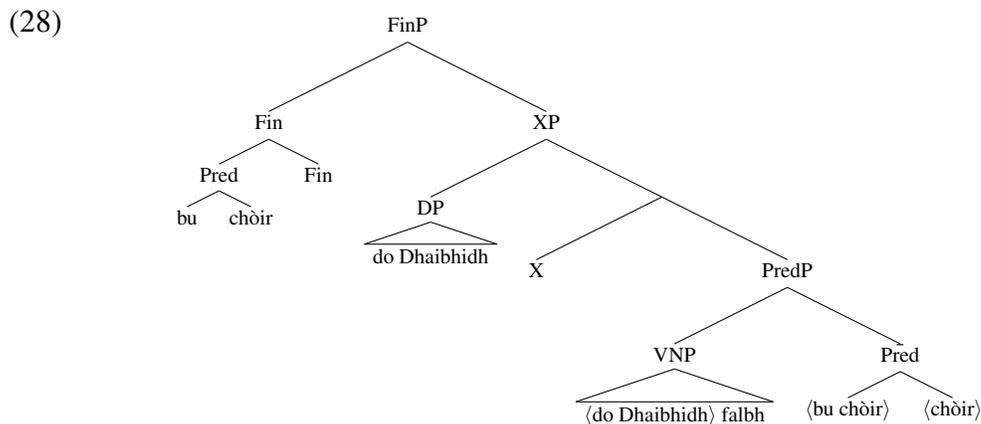
If the supposition that modal-nouns are semantically one place predicates taking a clausal argument is correct, then the *do*-marked DP must have raised from that clausal argument, just as McCloskey and Stowell both assume for the corresponding cases in Irish.

In Scottish Gaelic, then, we have a raising analysis for *do*-marked DPs, but a control analysis for *le*-marked DPs. Prima facie reasons to adopt this have already been mentioned. *Le*-marked DPs are always Experiencers, and hence animate. Although the examples we have seen of *do*-marked DPs so far are all animate subjects, this is not necessary. In fact there don't seem to be any particular restrictions on the thematic role of the *do* marked DP. It can be any thematic role that a subject of a predicate can have, as we'd expect if it were raised to a non-thematic

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position from the lower clause:

(29) B'   urrainn do lus   no do duilleag mairsinn beò
      COP.PAST ability to plant or to leaf   remain   alive
      'Plants and leaves could stay alive.' DASG text 69

(30) bu   chòir do pheacadh bhi   air   aideachadh do Dhia
      COP.PAST right to sin   be.VN after confessing to God
      'Sin should be confessed to God' DASG text 112002

There are good syntactic reasons to take this perspective too. McCloskey gives examples like the following in Irish to show that a *do*-marked Subject in that language may be separated from the remainder of the non-finite clause by an adverb with matrix scope:

(31) Is dóiche   daobhtha go mór ruaig dhearg ionnsuighthe a
      COP likely.CMPR to3PL   ADV great rush red   attack.GEN   PRT
      thabhairt ar Thír Chonaill.
      give.VN   on Land Conall.sc gen
      'They are far more likely to launch a ferocious attack on Donegal.'

This data is replicable in Gaelic. Examples like the following are acceptable (though, the final position for the adverb is also possible)

(32) a. Bu   chòir do Dhaibhidh gu   cinnteach Lunnainn fhàgail
          COP.PAST duty to Daibhidh ADV certain   London   leave.VN
          'David certainly should leave London.'
      b. Cha b'   urrainn do Mhàiri gu   cinnteach an leabhar ud
          NEG COP.PAST ability to Màiri ADV certain   the book   that
          a   leughadh
          PRT read.VN
          'Mary certainly could not read that book.'
      c. B'   fheàrr do Dhaibhidh gu   mòr a   bhith sàmhach
          COP.PAST better to Daibhidh ADV big PRT be.VN quiet
          'David really had better be quiet.'

This suggests that the *do*-marked DP is indeed in the matrix clause, with the adverb attached to PredP, scoping over the raised modal-noun:

(33)
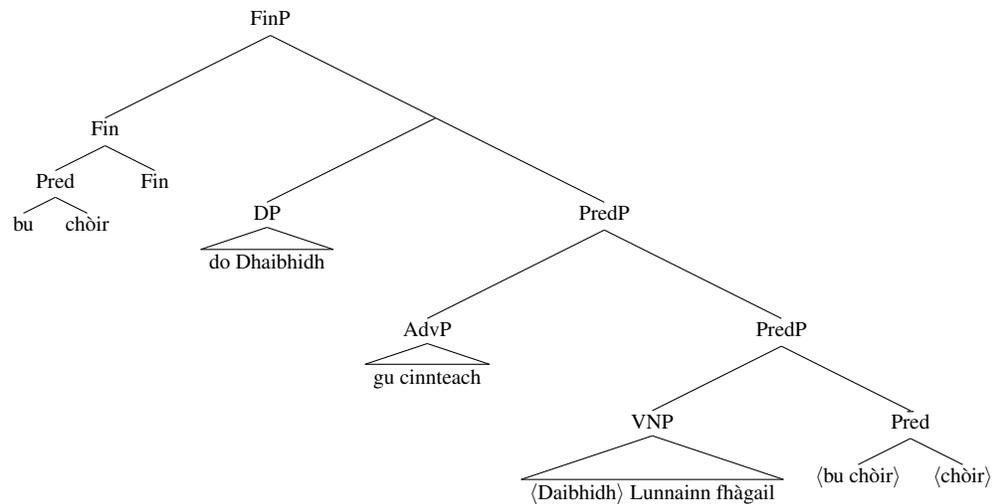
This adverbial data is, I think, strong evidence for accepting for Gaelic the raising analysis that both McCloskey and Stowell adopt for Irish. However, there are some interesting differences between Irish and Gaelic.

McCloskey shows that, in Irish, it is possible to cleft a raised *le/do* marked phrase. He uses this as part of an argument that the phrase is therefore a constituent, and not a structure where *do* is a non-finite complementizer assigning case to the Subject that follows it (analogously to *for* in English examples like *I'd prefer for you to go*.)

Unfortunately, neither McCloskey or Stowell give relevant examples where the *le/do*-marked DP appears in a copular construction, so a direct comparison is not available, but they do show that for modal verbs that take a *le*-marked DP, the P can be clefted with the DP:

(34) Is [le Ciarán] a thiocfadh [a bheith i bhfad ar shiul]
COP with Ciaran REL come-COND to be in far on travel
'It's Ciaran who could be far away.'

This clefting pattern is, as far as I can tell, not replicated in Gaelic for the cases that concern us. Examples like the following are not accepted:

(35) *'S ann do Mhàiri a bu chòir a bhidh ann
COP THERE to Màiri REL COP.PAST duty PRT be.VN there
'It's Mary that ought to be there.'

The particle *ann*, 'there' immediately after the copula in the cleft appears when

PPs are clefted, as in (36), but is impossible with *do*-marked subjects, so there is a striking contrast between (35) and (36).

(36)   'S   ann   do Mhàiri a   bha   mi ag   innse an sgeul
            COP THERE to Màiri   REL be.PAST I   ASP.SIMP tell.VN the story
            'It was to Mary that I was telling the story.'

In fact, the way to construct a cleft of the *do*-marked DP is to drop the preposition altogether, using the cleft particle that appears with DPs, *e*, 'it'.

(37)   'S   e Màiri a   bu   chòir a   bhidh ann
            COP IT Màiri REL COP.PAST duty   PRT be.VN there
            'It's Mary that ought to be there.'

P-stranding in clefts is possible in general for most speakers, where the form of the stranded P is usually third masculine singular, irrespective of the number and gender of the clefted element (the conditions on when stranding is possible and in what varieties is complex and still somewhat unclear (Adger and Ramchand 2006a)). However, such stranding is not possible in these raising constructions:

(38)   *'S   e Màiri a   bu   chòir dha/dhi   a   bhidh ann
            COP IT Màiri REL COP.PAST duty   to.sc3sgm/3SGF PRT be.VN there
            'It's Mary that ought to be there.'

In contrast, *le*-marked Experiencers can marginally be clefted for at least some speakers, while others prefer to strand the P. Speakers I have consulted do not accept simply deleting the P, though I'm wary about claiming that this is not ever found[9]:

(39)   a. %'S   ann   le Iain as   fheàrr cofaidh
                 COP THERE to Iain REL.COP.PRES better coffee
                 'It's Iain that prefers coffee.'
         b.   'S   e Iain as   fheàrr leis   cofaidh
                 COP it Iain REL.COP.PRES better with.3SGM coffee
                 'It's Iain that prefers coffee.'
         c. *'S   e Iain as   fheàrr cofaidh
                 COP it Iain REL.COP.PRES better coffee

---

[9] I collected this particular data with *le*-marked DPs in clefts a number of years ago, the number of speakers I consulted was low (three), and I did not control for dialect or age, so the pattern in (39) is at most indicative.

'It's Iain that prefers coffee.'

There are also examples from the Digital Archive of Scottish Gaelic (Ó Mao-lalaigh 2006) that could be analysed as involving stranding, one in a cleft and the other in a relative, suggesting again that this is an option, though it's impossible to be sure that this is how one should analyse these cases, and again they are isolated examples from distinct times and varieties:

(40) a. 'S   e   Mac   Néill a   b'   fhearr   leis
          COP.PRES it MacNéill REL COP.PAST better with.3SGM the
          a'   chaillich buanachd
          old-woman win.VN
          "It's MacNéill that would prefer the old woman to win" DASG text 302
      b. ma   tha   gille òg   a-muigh an siud as   toil
          if   be.PRES boy   young outside the there COP.PRES.REL pleasant
          leis   a   bhith a'   seinn
          with.3SG.M PRT be.VN ASP.SIMP sing.VN
          "If there was a young boy outside there that would like to sing" DASG text 500005

There seems then to be a difference in the status of *do* vs *le*: the former is susceptible to deletion, and its DP extracts like a DP, while the latter is less susceptible to deletion and its DP extracts in a way that is more similar to how DP complements of Ps extract. The data, however, is somewhat murky.

Somewhat clearer in empirical terms is a difference between the *le*-marked and *do*-marked DPs in copular constructions in constituent question contexts. Consider first examples of simple subject, object and prepositional object extractions in Gaelic:

(41) a. Cò   a   dh'innse an sgeul do Shìleas?
          Who REL told.PAST the story to Sìleas
          'Who told the story to Sìleas?'
      b. Dè   a   dh'innse Màiri do Shìleas?
          What REL tell.PAST Màiri to Sìleas
          'What did Màiri tell to Sìleas?'
      c. Cò   dha a   dh'innse Màiri an sgeul?
          Who to   REL tell.PAST Màiri the story
          'Who did Màiri tell the story to'

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The word *cò*, 'who, what' is used for animates, except when a prepositional object is extracted, when it can be used for either inanimates or animates; *dè* is used for inanimates. In short-distance questions, the preferred strategy for extracting prepositional objects is the one seen in (41-c): the preposition is pied-piped but appears after the wh-word in its third masculine singular form, irrespective of the gender of the extracted DP. There is some dialectal variation in when the preposition may be stranded, with most varieties preferring to strand the preposition in long distance questions, though the patterns become complex (again, see Adger and Ramchand 2006a).

A straightforward analysis of the prepositional cases would be to take the wh-word to be the complement of the PP, raising to the specifier of the PP, and then pied-piping it, or stranding it, depending on various other factors:

(42)　　a.　[$_{PP}$ cò [$_{\bar{P}}$ do ⟨cò⟩] ... ⟨PP⟩
　　　　b.　[$_{DP}$ cò] ... [$_{PP}$ ⟨cò⟩ [$_{\bar{P}}$ do ⟨cò⟩]

The preposition *do* then appears in its 3rd singular form *dha*, as in (41-c) because of the trace that follows it[10].

With this in hand, let's turn to how our two constructions behave under extraction. The *le*-marked DP in psych-adjective constructions extracts just like a prepositional object, pied-piping the P. It appears in its third singular masculine form *leis*, followed by the relative complementizer *a* and the copula *is* (usually written as a single word *as*):

(43)　　Cò　leis　　　as　　　fhèarr bainne
　　　　Who with.3SG REL.COP better milk
　　　　'Who prefers milk?'

However, in modal-noun constructions, the pied-piping version is unacceptable:

(44)　　*Cò　dha　　as　　　fhèarr falbh
　　　　Who to.3SG REL. COP better leave.VN
　　　　'Who had better leave?'

Instead, the preposition *do* is omitted:

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[10]I treat the displacement of the wh-word here as movement for familiarity, though I think it more likely that what is in the base and intermediate positions is rather a chain of phi-featureless pro-elements linked by Agree, as in Adger and Ramchand (2005a). They propose that it is this pro that is responsible for the default form of the preposition seen in these examples and others.

(45) Cò   as   fhèarr falbh
     Who REL. COP better leave
     'Who had better leave?'

Given the clear evidence from the interpretation of matrix adverbs that *do*-DPs
have raised, the data from clefting and constituent questions provides strong sup-
port for Stowell's (1989) proposal that the preposition is actually a case marker:
the *do*-marked DP is extracted like a DP, rather than a PP in both clefts and in
questions, while the *le*-marked DP is extracted like a PP[11].

5   Implications

I have argued above that Gaelic has two very similar constructions, one involving
control, with a high Experiencer position, and the other involving raising of a
lower subject to a higher non-thematic position. Those positions, however, seem
to be very similar. They appear immediately after the raised predicate, whether it
is a psych-adjective or a modal noun and they both appear to the left of adverbs
with matrix scope as we saw above, repeated here:

(46)   a.   B'   fheàrr leam   gu tric a   bhith aig an sgoil.
            COP.PAST better with.1SG ADV often PRT be.VN at the school
            'I'd often prefer to be at school.'
       b.   Bu   chòir do Dhaibhidh gu   cinnteach Lunnainn fhàgail
            COP.PAST duty to Daibhidh ADV certain   London   leave.VN
            'David certainly should leave London.'

These adverbs cannot separate the predicate from the subject in either case

(47)   a.   *B'   fheàrr gu tric leam   a   bhith aig an sgoil.
            COP.PAST better ADV often with.1SG PRT be.VN at the school
            'I'd often prefer to be at school.'
       b.   *Bu   chòir gu   cinnteach do Dhaibhidh Lunnainn fhàgail
            COP.PAST duty ADV certain   to Daibhidh London   leave.VN
            'David certainly should leave London.'

---

[11]Both McCloskey and Stowell provide evidence from the position of non-finite negation in
Irish, showing that it appears to the left of overt subjects of non-finite clauses, but that raised *le*/*do*-
marked DPs occur to its left. This data does not have the same force in Scottish Gaelic because the
impossibility of true subjects of non-finite clauses would be consistent with a VP-level attachment
for negation (Adger 2007)

The parallel structures I gave above capture these syntactic similarities. We have, however, also seen syntactic differences: *do* in a *do*-marked DP seems to be more like a pure case marker, as Stowell argued for the parallel prepositions in raising constructions in Irish, while the *le*-marked DPs seem to be more like fully fledged PPs.

Stowell's own analysis is that, in Irish, *le* and *do* appear on inherently case marked nominal phrases. In his theory, the raising predicate assigns inherent case under government across a non-finite clausal boundary to the Subject of the non-finite clause at D-structure. The Subject then raises at S-structure to its surface position, analogously to quirky case in languages like Icelandic (Zaenen, Maling, and Thráinsson 1985). These are then cases of Quirky Raising (see also McCloskey 1985):

(48)   [... Modal [$_{\text{Clause}}$ Subject[inher] Predicate]] $\rightarrow$ [... Modal Subject[inher]
         [$_{\text{Clause}}$ ⟨Subject⟩ Predicate]]

A challenge for this analysis is that it severs the link between inherent case and theta-assignment, as the relevant subject is an argument of the embedded predicate but receives inherent case from the higher clause (in Stowell's analysis, inherent case is assigned under government in an ECM configuration).

I think a more straightforward account can be given in terms of our more recent understanding of the role of functional categories in theta-assignment combined with the view that nominal licensing involves a kind of specifier-head agreement that requires formal feature sharing. I suggested in the introduction that the theory in Adger (2013) provides that alternative analysis. Recall that that theory takes certain adpositions to be the realizations of a K head in the nominal extended projection when KP is in the specifier of a functional category:

(49)

FP
KP   F XP
K DP   ...

We have empirically motivated above the ideas that (i) the psych-adjective constructions, like the psych-noun constructions analysed by Adger and Ramchand (2006b) involve a possessive applicative projection, Appl; (ii) the surface position of the *do*-marked DP is structurally indistinguishable from that of the *le*-marked DP. The one extra idea we need is that Appl, just like v*, has a variant that does not

assign argument status to its specifier. This allows us to assign close to identical structures for our two Gaelic constructions.

The modal construction will involve the the non-theta assigning variant of Appl (which I'll notate with no accompanying *, on analogy with unaccusative little v):

(50)   bu   chòir do Dhaibhidh Lunnainn fhàgail
       COP.PAST duty to David   London   leave.VN
   "David ought to leave London."

(51)
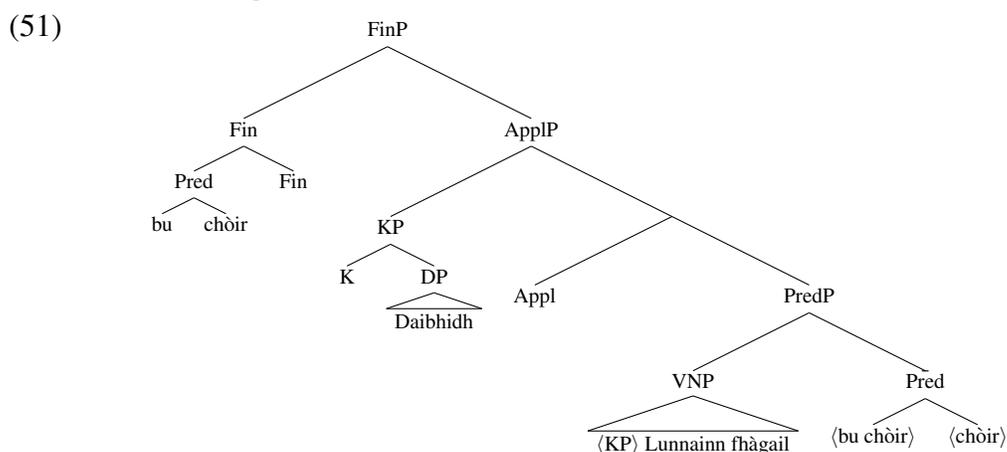
The KP subject of the non-finite VP needs to be structurally licensed, and raises to the specifier of Appl. K and Appl are in an agreement relation (whether via standard specifier head agreement, or via more recent versions, such as Chomsky's (2013) proposal that a labelling algorithm searches into phrasal sisters, identifying a shared feature, in our case this would be a shared feature in both K and Appl). K that agrees with Appl, by whatever mechanism, is realised as *do*, just as in Adger's (2013) analysis of PP complements to N.

The Experiencer construction is close to identical in overall structure but there are two differences. First, it involves control since the relevant applicative head, which I'll notate as Appl* (on analogy with v*), assigns an Experiencer role to its specifier. Second, that specifier appears to be a P, as opposed to a K, since the extraction data showed that the *le*-marked DP behaved in extraction contexts as though it were the complement of a preposition. Adopting the hypothesis that P appears at the top of the extended projection of nouns, we have:

(52)   bu   toil   le   Daibhidh Lunnainn fhàgail
       COP.PAST pleasant with David   London   leave.VN

"David would like to leave London."

(53)
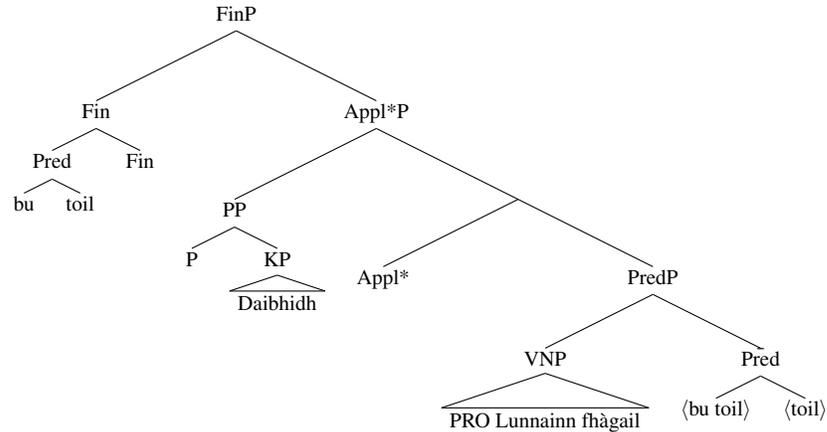
Again we say that P and Appl* share a formal feature. In this case, however, KP is licensed by being the complement of P, and is able to be separated from its P in extraction contexts, as I showed above. This contrasts with the modal noun construction where K actually is *do*, and hence KP cannot be extracted from *do*, accounting for the impossibility of stranding or pied-piping (which, recall, requires the KP to move to the left of the wh-word), either in clefts or in constituent questions.

The proposal perhaps also makes sense of the absence of *do* in clefting and in constituent questions. If *do* is simply the pronunciation of K when K is in a spec-head agreement relation with Appl, then when KP has moved away from Appl, although it is structurally licensed during the derivation, K will no longer be in a spec-head relationship when the structure is pronounced. Alternatively, if Adger and Ramchand (2005) are correct, and what is in the base position in extraction in Gaelic is a featureless null category, the K that heads that category is not required to be phonologically overt.

6   Conclusions

The adpositional quirky subject constructions of Irish and Gaelic were theoretically important in the Government and Binding theory as their analysis challenged core tenets of that theory, both in McCloskey's approach and, although to a lesser extent, in Stowell's. The new data I've presented here from Scottish Gaelic suggests that there is a single licensing position for both control and raising constructions, and I've argued that that position is an applicative head, optionally introduc-

ing an Experiencer argument (which can probably be understood as a possessor of a mental state). I've further argued that the quirky case assignment should be understood as agreement between the applicative head and either a K or a P head in the extended nominal projection. Theoretically, the approach is made possible by the approach to argument structure that has developed within Minimalism that takes arguments to be introduced by functional categories, and by an approach to nominal licensing that takes nominals to be licensed in specifiers of categories they formally agree with.

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