Chapter 20

Rethinking the syntax of nominal predication

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Human languages often disallow bare nominals as predicates. Scottish Gaelic is a particularly striking case, in that it disallows simple nominal predication entirely, using alternative syntactic means to deliver the required meanings. This paper provides an answer both to the larger question of why NP predication is so restricted, and to the more local one of why Gaelic uses the particular syntactic forms it does, based on a principle that regulates the interface between syntax and semantics: syntactic predicates must have open eventuality variables.

1 Introduction

Scottish Gaelic, like Irish, does not allow simple noun phrase predication, of the type one sees in English.

(1) a. Lilly is a cat.
b. Anson is a teacher.

This paper finds the reason for this at the interface between syntax and semantics. I propose a general principle regulating predication as follows:

(2) For an XP to act as a syntactic predicate, it must have a semantically open eventuality variable.

I combine this with the proposal, motivated in Adger (2013), that underived nouns are sortal (one place) semantic predicates of individuals, and so never involve an eventuality variable. It follows that an NP can never act as a syntactic predicate.

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Languages, however, need to express nominal predication, so they get around the strictures imposed by these principles in various ways. I show how Scottish Gaelic uses two distinct strategies for this purpose. The overall conclusion is that universal restrictions at the syntax semantics interface nevertheless leave languages open to a range of syntactic solutions to express thought, leading to restricted variability in how predication is syntactically expressed.

2 The basic set of puzzles

Languages often go out of their way to do something strange when they use projections of nominals as predicates. For example, Scottish Gaelic (and related Celtic languages), allow simple [DP predicate] orders after the finite auxiliary when the predicate is an adjective or a prepositional phrase (Chung & McCloskey 1987):

(3) Scottish Gaelic
Tha Calum faiceallach.
Be.PRS Calum careful
'Calum is (being) careful.'

(4) Scottish Gaelic
Tha Calum anns a' bhùth.
Be.PRS Calum in the shop
'Calum is in the shop.'

However, as noted by Adger & Ramchand (2003), the predicate cannot be a nominal:

(5) Scottish Gaelic
* Tha Calum oileanach.
Be.PRS Calum student
intended: 'Calum is a student.'

There are two ways of expressing the English translation in (5) (Cram 1983; Schreiner 2015). In the first, the auxiliary subject predicate structure is maintained, but an apparently prepositional element appears before the nominal (I'll term this the *p-strategy*):

(6) Scottish Gaelic
Tha Calum na oileanach.
Be.PRS I in.POSS.3SG.M student
'Calum is a student.'

The alternative is to use a clefting structure (the *cleft-strategy*):[1]

(7) 'S e oileanach a th' ann an Calum
COP it student REL be.PRS in Calum
'Calum is a student.'

In both strategies, the preposition *ann an*, 'in' appears.[2] In the p-strategy, *ann an* inflects as though it were followed by a possessive clitic, taking exactly the same morphological forms that it would in a true nominal:

(8) Scottish Gaelic
Bha e nam/nad/na thaigh
be.PST he in-my/in-your/in-his house
'He was in my/your/his house.'

(9) Scottish Gaelic
Bha e na/nar/nur/nan taigh
be.PST he in-her/in-our/in-your[pl]/in-their house
'He was in her/our/your/their house.'

The second mark of this strategy is that the subject precedes the inflected *ann an*:

(10) Scottish Gaelic
Tha Calum na oileanach.
Be.PRS I in.POSS.3SG.M student
'Calum is a student.'

[1]There is, in formal/archaic registers, a third possibility, where a bare copula is used (what Adger & Ramchand 2003 call the *inverted copular construction*, ICC), as in (1). However, for simple nominal predication at least, this is vanishingly rare in normal discourse:

(i) Scottish Gaelic
Is cat Lilly (archaic)
COP cat Lilly
'Lilly is a cat'

[2]A word on the morphology of this preposition to avoid confusion in interpreting the glosses. The bare form of the preposition used before indefinite NPs and proper names is written as two words *ann an*, pronounced [aʊnən], but before definites or (for some speakers) universals it is *anns*, [aʊns]. It has agreeing forms, e.g. *annam*, 'in me', *innte*, 'in her' and, confusingly, *ann*, 'in him', and it also has special forms it takes before possessive clitics, e.g. *nam*, 'in my', *na*, 'in his/in her' (depending on whether the following noun is lenited (masculine) or not (feminine)), *nar*, 'in our', etc.

(11) Scottish Gaelic
* Tha oileanach na Calum.
Be.PRS student in.POSS.3SG.M Calum
intended: 'Calum is a student.'

In the cleft-strategy, in contrast, the preposition appears in its "bare" form, and the apparent subject follows it. The morphology of the preposition here is just what would be expected for prepositions with full DP complements. This observation is further confirmed by the fact that when the subject is a definite DP (that is, when it is headed by the definite article and certain other determiners), the preposition inflects for definiteness:

(12) Scottish Gaelic
'S e oileanach a th' anns a' bhalach
COP it student REL be.PRS in.DEF the boy
'The boy is a student.'

Contrary to what we saw with the p-strategy, here the apparent subject follows the preposition and the predicate precedes it. Compare (12) with (13):

(13) Scottish Gaelic
* 'S e am balach a th' ann an oileanach
COP it the boy REL be.PRS in student
intended: 'The boy is a student.'

These two strategies might be thought of simply as different syntactic options built on the same core structure, with a prepositional element taking a small clause complement, followed by either subject raising, or A-bar extraction of the predicate:

(14) a. $[_{TP}$ SubjectDP in $[_{SC}$ ⟨DP⟩ PredicateNP]]
b. PredicateNP $[_{CP}$ $[_{TP}$ in $[_{SC}$ SubjectDP ⟨NP⟩]]

We can call this the *unified small clause* analysis (USC). The USC has two immediate advantages, one analytical and one theoretical: analytically, it straightforwardly captures the odd "flip" of the preposition/subject order, while theoretically it allows one to maintain the idea that the basic "thematic" relation of predication is captured in the same way, with the apparent differences due to surface syntactic effects. This kind of approach, preserving the uniformity of thematic

assignment hypothesis (the UTAH of Baker 1988), is familiar from transformational analyses of passive, raising, etc.

A further advantage is that it allows one to say that there is nothing special about NP predication in Gaelic (beyond, perhaps, some statement that a small clause with an NP predicate must have at least one of its constituents "evacuated"). That is, NP predication reduces to the same underlying structure as adjectival and prepositional predication.

However, I'm going to argue against this position and for an analysis that treats these two strategies as derivationally unrelated. I'll argue on the grounds of interpretational differences between the two strategies that the p-strategy involves co-opting an aspectual functional category from the verbal domain to license the subject, while the cleft-strategy involves the syntax of property inclusion. In both cases the functional category that is spelled out as the (sometimes reduplicated) preposition *ann an*, 'in', is interpreted as a kind of inclusion: either an individual is included in a stative situation, or a property is included in a set of properties. However, these are fundamentally different relations, both syntactically and semantically. The coincidence in form is metaphorical, not theoretical. We can call this approach the syntax–semantics interface approach (SSIA).

The analytic problem of the preposition/subject order is solved in the SSIA by taking the two structures to be generated differently. On the theoretical level, this proposal actually pushes the syntax–semantics connection deeper than a UTAH-style formulation: it connects the syntax, not just to the semantics of nominal predication, but rather to different fine-grained semantic types of predication.

I'll propose that the two different strategies are distinct solutions to a fundamental and uniform constraint on the syntax/semantics of nominals: they simply cannot have a syntactic subject (cf. Baker 2003). Adger (2013) proposes that when arguments are introduced as specifiers of a lexical category they can only be so introduced via an event variable (cf. Kratzer 1996). Only functional categories in the extended projection of verbs have this capacity, so nominals must take other routes to be associated with arguments. One route that Gaelic takes is to coopt stative aspect from the verbal extended projection, and to use this stative functional category to introduce a subject. The other route is to use the syntax of property inclusion, so that the apparent subject is a higher level predicate, an analysis motivated by the syntax of clefts in Gaelic in general (Adger 2011b).

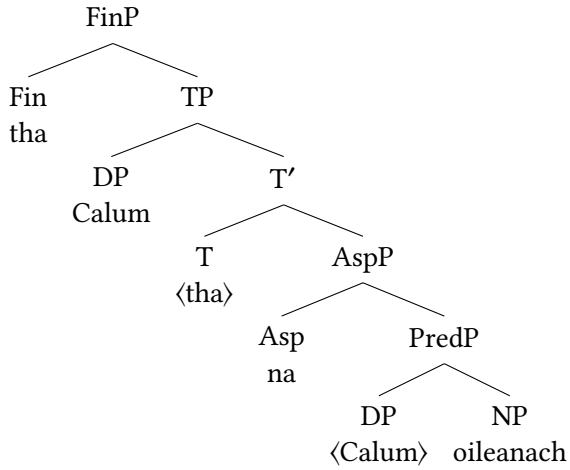
I contrast this approach with that offered by Schreiner (2015). Schreiner argues for a uniformly nominal syntax for the p-strategy, building on the theory presented in Roy (2006), which takes nominals to be endowed with an event variable. This closes off a solution to the deeper problem about why the p-strategy

exists in the first place, and why a simple nominal predication structure is impossible in Gaelic. I also argue that the syntactic empirical data favours an account of the p-strategy that takes it to have a distinct syntax from true nominals.

3 A unified small clause style analysis

I first sketch out, and then dispense with, a unified syntactic analysis of the two constructions. In this analysis, the particle *ann an* can be taken to be an aspectual particle (Cram 1983), with the subject raising to some position just below the finite auxiliary, which I take to be in Fin (see Roberts 2005 for Welsh, Adger 2007 for Gaelic). I revisit the PredP status of the lowest constituent here directly:

(15)



The idea that the particle here is aspectual fits well with the functional inventory of the language, which marks perfect, progressive and prospective aspect via preposition like elements that appear between the subject and the verb phrase:

(16) Scottish Gaelic
Tha Calum ag òl.
Be.PRS Calum ASP drink.VN
'Calum is drinking.'

(17) Scottish Gaelic
Tha Calum air òl.
Be.PRS Calum ASP drink.VN
'Calum has drunk.'

(18) Scottish Gaelic
Tha Calum gu òl.
Be.PRS Calum ASP drink.VN
'Calum is about to drink.'

Furthermore, a small class of verbs, mainly verbs of position, have exactly the syntax of these predicate nominals: after the subject we find *ann an* inflected as though it were followed by a possessive clitic, further followed by the non-finite verbal form. It seems but a short step to take the preposition both in these verbs and in the predicate nominal construction to be marking a certain kind of stative aspect (this is essentially an updating of the analysis presented in Cram 1983 and adopted by Schreiner 2015):

(19) Scottish Gaelic
Tha Calum na shuidhe.
be.PRS Calum in.POSS.3SG.M sit.VN
'Calum is sitting.'

(20) Scottish Gaelic
Tha sinn nar cadal.
be.PRS we in.POSS.1PL sleep.VN
'We are sleeping.'

The idea that the prepositional element in the p-strategy is aspectual seems well motivated.

The agreement on Asp (*ann an*) is obligatory and marks the φ-features of the subject, which would follow if we stipulate that Asp in this language bears agreement features and agrees with the subject. Under such an analysis, the possessive clitic is agreement triggered by movement of the subject, making it parallel to the Romance participial agreement systems discussed by Kayne (1993): agreement is obligatorily triggered when a DP moves through Asp's specifier.

(21) Scottish Gaelic
* Tha Calum ann an oileanach.
Be.PRS Calum in student
'Calum is a student.'

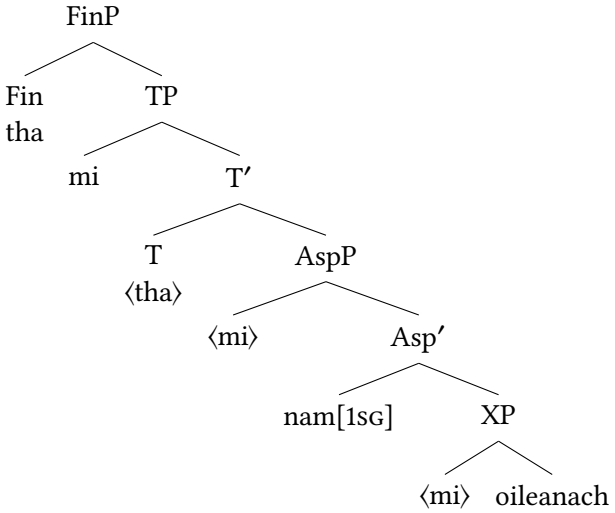
(22) Scottish Gaelic
Tha Calum na oileanach.
Be.PRS Calum in.POSS.3SG.M student
'Calum is a student.'

(23) Scottish Gaelic
Tha mi nam oileanach.
Be.PRS I in.POSS.1SG student
'I am a student.'

(24) Scottish Gaelic
Tha na balaich nan oileanaich.
Be.PRS the boys in.POSS.3PL student
'The boys are students.'

Why should the subject raise? We could either take this to be due to some property of T (a case or extended projection principle (EPP) related property as in Roberts & Roussou 2002), or we could assume, with Chomsky (2013), that the lowest level, where the predication takes place, is not well formed, as there is no head to provide a label. One might follow Chomsky and Moro (1997), dispensing with the Pred structure, and taking the categorial label PredP to be unneeded. Chomsky takes such {XP, YP} structures to be inherently unstable, forcing movement of one of the subconstituents.

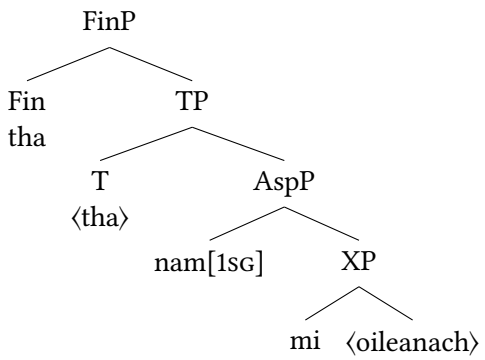
(25)



Once the subject (*mi*) has raised to the specifier of TP, its trace is not counted for the calculation of labels, so the XP receives the same label as the nominal *oileanach* (N).

The cleft-strategy could be then taken to involve the same underlying structure, but with movement of the predicate NP as opposed to the subject, as follows:

(26)



We have seen that if the DP subject moves, we have the p-strategy. If the DP subject stays in situ, the predicate NP must move, on a Moro/Chomsky type analysis. That will derive movement of the predicate NP, but leaves open the question of why Asp does not agree in the cleft-strategy, and why the predicate A-bar extracts, rather than moves to the specifier of TP.

On the first of these, predicates in Gaelic do not, in general, enter into morphosyntactic agreement with their subjects, so we find different inflection on attributive vs. predicative adjectives, with only the former infecting for agreement:

(27) Scottish Gaelic

a. na caileagan mòra
the.PL girls big.PL
'the big girls'

b. Tha na caileagan mòr/*mòra
be.PRS the.PL girls big/*big.PL
'The girls are big.'

Since predicates do not enter into agreement, Asp will not agree when the predicate is extracted across it, presumably because the nominal predicate does not, in fact, bear a full set of φ-features.

The noun does agree with its subject in number, as we can see in examples like the following:

(28) Scottish Gaelic
Tha na caileagan nan oileanaich
be.PRS the girls in.POSS.3PL students
'The girls are students.'

However, this agreement is semantic, not syntactic, as can be seen in the use of a singular predicate nominal with plural morphosyntactic agreement connected to honorificity. Just as in languages like French, the plural of the second person is used to mark respect, but the nominal in such cases shows number marking which is dependent on the plurality of the semantic referent (in this case singular).

(29) Scottish Gaelic
Tha sibh nur oileanach
be.PRS you in.POSS.2PL student
'You are a student.'

I return to the importance of the semantic interpretability of number on these nominals in adjudicating between different analytical approaches to this construction below.

We then need an extra stipulation to force further A-bar extraction into a cleft structure. We do not find predicate adjectives or prepositional phrases in subject position in Gaelic (that is, immediately following the finite auxiliary). If that generalisation is stated across the semantic category of predicate, rather than the syntactic category of nominal (so Gaelic would not allow the kind of inversion of predicate to subject, discussed by Moro (1997) or den Dikken (2006)), that would rule out the following example (I return to this example below – it is not as innocuous as it appears):

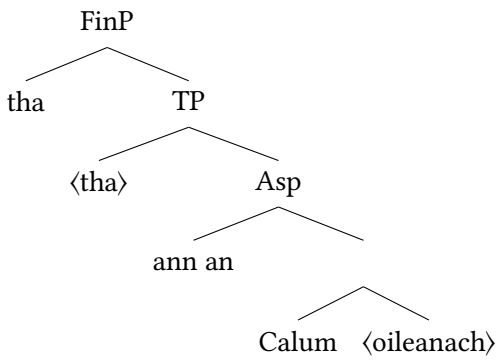
(30) Scottish Gaelic
* Tha oileanach ann an Calum
be.PRS student in Calum
intended: 'Calum is a student.'

The predicate NP cannot move to the specifier of T: the predicate's φ-features are not sufficient to allow the kind of feature sharing that Chomsky's system requires for specifier licensing. In such a derivation TP would never be labelled.

We can however, allow the predicate to be directly A-bar extracted from its base position, giving the relative clause portion of (31) the structure in (32):

(31) Scottish Gaelic
's e oileanach a th' ann an Calum.
COP it student REL be.PRS in Calum
'Calum is a student.'

(32)



The full cleft structure would then incorporate this relative clause as a subpart.

This analysis seems fairly well motivated, and it captures the apparently similar thematic relationship between the two alternative ways to express NP-predication. However, it turns out that there are consistent semantic differences between the two strategies, suggesting that the underlying configuration of the predication is different in the two cases, as opposed to just the surface structures. The syntactic analysis just sketched does not lead to the expectation of such differences, and so I propose an alternative.

4 A syntax/semantics interface analysis

There are interesting semantic differences between the p-strategy and the cleft-strategy, which are not connected to the information structure/focus properties associated with clefts. The differences are somewhat subtle, but also familiar from NP-predicate constructions in other languages (see, for example, Roy 2006).

The first is the oddness of (33), compared to (34):

(33) Scottish Gaelic
?* Tha Lilly na cat
be.PRS Lilly in.POSS.3SG.F cat
'Lilly is a cat'

(34) Scottish Gaelic
'S e cat a th' ann an Lilly
COP it cat REL be.PRS in Lilly
'Lilly is a cat.'

Roughly, the p-strategy is used when the assertion made by the predication is assumed to be non-permanent. (33) improves, for example, if we add an adjective

that restricts the predicate in a way that is sensible for a predicate which holds only temporarily (see also Schreiner 2015 for more detailed discussion and further examples):

(35) Scottish Gaelic
Tha Lilly dìreach na cat òg, an drasta.
be.PRS Lilly just in.POSS.3SG.F cat young, now
'Lilly is just a young cat now.'

This semantic restriction is why occupations (loosely construed) tend to be the only class of nouns used in the p-strategy in everyday discourse. NPs denoting occupations are easily understood as temporary properties of individuals:

(36) Scottish Gaelic
Tha mi nam òraidaiche.
be.PRS I in.POSS.1SG lecturer
'I am a lecturer'

The effect is more striking when we use the two strategies to make claims about class inclusion. It is simply impossible to use the p-strategy to express such propositions:[3]

(37) Scottish Gaelic
* Tha (an) iolaire na eun
be.PRS (the) eagle in.POSS.3SG.M bird
intended: 'The eagle is a bird/An eagle is a bird.'

(38) Scottish Gaelic
's e eun a th' anns an iolaire / a th' ann an iolaire
COP it bird REL be.PRS in.DEF the eagle / REL be.PRS in eagle
'The eagle is a bird/An eagle is a bird.'

[3]It is possible to use the ICC construction, as in (i) (see footnote 1). However, the cleft construction is much preferred in normal discourse:

(i) Scottish Gaelic
Is eun (an) iolaire.
COP bird (the) eagle
'The eagle is a bird/An eagle is a bird.'

I return to this in §6.

However, whereas the p-strategy is restricted in this way in its interpretation, the cleft-strategy is not. So it is perfectly well formed to use the cleft-strategy to express class inclusion, as well as predication involving occupations:

(39) Scottish Gaelic
's e òraidaiche a th' annam
COP it lecturer REL be.PRS in.1SG
'I'm a lecturer.'

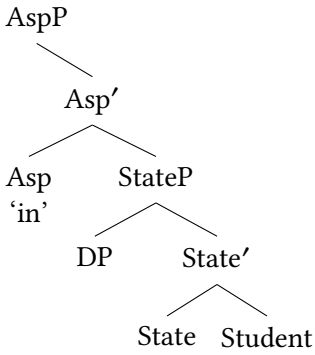
That this semantic difference at least partially tracks the syntactic difference between the two strategies suggests that it would be profitable to link the syntax and semantics tightly here. In contrast to the proposal sketched in the previous section, where the underlying structures for the two strategies are the same, with movement operations driving the surface differences, I suggest instead that there are two distinct ways of constructing nominal predication, correlating with the distinct interpretations that these structures have.

Take first the p-strategy:

(40) Scottish Gaelic
Tha Calum na oileanach.
Be.PRS I in.POSS.3SG.M student
'Calum is a student.'

I propose that the p-strategy does indeed involve an aspectual particle, which combines with a stative category, denoted by functional structure containing the nominal. Schematically:

(41)



The agreement on the aspectual particle is dealt with as before. I motivated in the last section, the idea that the P in these structures is an aspectual particle,

keyed to the aktionsart of its complement, and I will further motivate this idea below. The noun 'student' here, we shall see, cannot have much in the way of functional structure built above it. Following Adger & Ramchand (2003), I take it to denote a property.

The cleft-strategy, on the other hand, involves a "higher" level kind of predication:

(42) Scottish Gaelic
's e oileanach a th' ann an Calum
COP it student REL be.PRS in Calum
'Calum is a student.'

I suggest for this structure that the "subject" is actually the NP *oileanach*, 'student' and that the predication asserts that this is in the set (of sets) denoted by the DP *Calum* (under the generalized quantifier denotation of Calum), extending the proposals in Adger (2011b).

Schematically we have:

(43) $[_{\text{CopP}}$ COP it student$]$ $[_{\text{CP}}$ [⟨student⟩ in Calum]]

Following Adger & Ramchand (2005), the apparent expletive is treated as the predicate of the copular clause, with the meaning of the relative CP being substituted for it during the interpretation procedure.

These two structures give us a hook with which to capture the different meanings of the p- and cleft-strategy, in that the underlying predicational relations are differently represented. The p-strategy involves a kind of stative predication while the cleft-strategy involves property inclusion. I work out the details in the next section.

Before turning to the details and the more general implications, however, it is necessary to show how this analysis I have just suggested is implemented syntactically.

5 Motivating the interface analysis: The p-strategy

As mentioned above, the syntax of p-strategy NP predication constructions is shared by the syntax of certain verbs of position. Typically, grammars of Gaelic list nine or ten such verbs in common use, including *suidh*, 'sit, *seas*, 'stand', *duisg*, 'awaken', *caidil*, 'sleep', *laigh*, 'lie down' etc, although there are others which are rarer. Each of these verbs actually signifies a state transition when used in the

simple past, and they can all occur with the simple aspectual particle *ag*, which marks an overlap between speech and event time, with no temporal terminus to the event time (see Adger 1996; Ramchand 1997).[4]

(44) Scottish Gaelic

a. Shuidh mi
sit.PST I
'I sat (down).'

b. Bha mi a' suidhe
be.PST I SIMP sit.VN
'I sat/was sitting.'

c. Bha mi nam shuidhe
be.PST I in.POSS.1SG sit.VN
'I was sitting/seated.'

(45) Scottish Gaelic

a. Sheas mi
stand.PST I
'I stood (up).'

b. Bha mi a' seasamh
be.PST I SIMP stand.VN
'I stood/was standing.'

c. Bha mi nam sheasamh
be.PST I in.POSS.1SG stand.VN
'I was standing.'

(46) Scottish Gaelic

a. Chaidil mi
sleep.PST I
'I fell asleep.'

b. Bha mi a' cadal
be.PST I SIMP sleep.VN
'I slept/was falling asleep.'

c. Bha mi nam chadal
be.PST I in.POSS.1SG sleep.VN
'I was sleeping/asleep.'

[4]It is interesting that, in various dialectal varieties of English, one finds the use of the passive participle to mark the equivalent of the (c) examples here: *%I was stood/sat there.*

Simple stative verbs, such as *ciallaich*, 'mean', *faic*, 'see' and *crèid*, 'believe', are perfectly well formed with the simple aspectual particle, but not with the various forms of *ann an* in its aspectual incarnation:

(47) Scottish Gaelic

a. Dè tha sin a' ciallachadh
what be.PRS that SIMP mean.VN
'What does that mean?'

b. * Dè tha sin na ciallachadh
what be.PRS that in.POSS.3SG mean.VN
intended: 'What does that mean?'

The crucial difference between simple statives and the stative verbs of position is that the latter involve a change of state followed by a temporary steady-state result of that change while the former do not specify any transitions at all. That is, the verbs of position are interval statives (Dowty 1979: 184) and the contribution of *ann an* is to signal that the predication is included in the interval. If we think of this using a locational metaphor, the state is represented as characterizing a temporal location for the subject.

If this characterization is correct, then we expect to see the *ann an* structure used when the action that leads to the steady-state is in fact non-canonical for such actions (for example, one can be standing even though the event that leads to this state is not an event of standing up). This is correct:

(48) Scottish Gaelic
Dh'èirich e na shuidhe
rise.PST he in.POSS.3SG.M sit.VN
'He sat up (literally, he rose in his sitting).'

(49) Scottish Gaelic
Leum mi nam sheasamh
jump.PST I in.POSS.1SG stand.VN
'I jumped to a standing position (literally, I jumped in my standing).'

This kind of data strongly suggests a kind of event decomposition, as argued for by Ramchand (2008): the state in which the subject is asserted to be is separated from the (sub-)event that initiates it in examples like these.

What of the kind of NP predication that we find in the p-strategy. Here too, the subject is characterized as being in a state which has a transitory nature. We can see this by using the standard temporal modifier test:

(50) Scottish Gaelic
Bha Iain na shuidhe fad uair a thìde
be.PST Iain in.POSS.3SG.M sit.VN length hour of time
'Iain was sitting for an hour.'

(51) Scottish Gaelic
Bha Iain na oileanach fad dà bhliadhna
be.PST Iain in.POSS.3SG.M sit.VN length two year
'Iain was a student for two years.'

If this semantic characterization is correct, it will explain the oddness of (52) as a result of the knowledge that one is not usually a cat for a temporary period, that is, it is equivalent to the oddness of (53) in English:

(52) Scottish Gaelic
?* Tha Lilly na cat
be.PRS Lilly in.POSS.3SG.F cat
'Lilly is a cat'

(53) ?* Lilly is a cat for an hour.

From this perspective, (52) is actually perfectly grammatical, but it is inconsistent with what we know about what it means to be a cat, hence the acceptability judgment given. In fact, one of my consultants said that this sentence was fine if Lilly was a shape-changer, to express which she used the cleft-strategy!

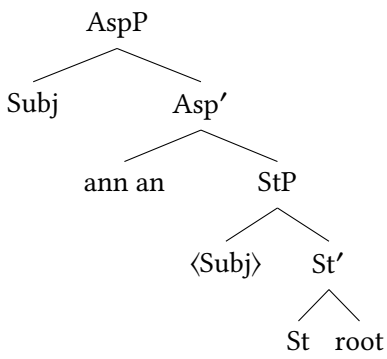
(54) Scottish Gaelic
nam b' e shape-changer a bh' innte
if COP.COND it shape-changer REL be.PST in.3SG.F
'if she was a shape-changer.'

This approach will also explain why verbal states such as *ciallaich*, 'mean' (which lack such transitions) are impossible in p-strategy type structures, since *ann an* requires a state which has the appropriate interval property.

I analyse the syntax of these stative verbs of position by assuming the existence of a St functional category. St creates a bounded interval over which the property denoted by the root holds. Bounded temporal intervals are a kind of eventuality or situation. So I assume, like v, this category has an event variable, and introduces a specifier subject. I'll assume this is done via event-identification (Kratzer 1996), but an implementation in the theory of Ramchand (2008) is equally doable.

The relationship between the interval state given by the St head and the temporal structure of the remainder of the sentence is negotiated by Asp.

(55)



This structure can be embedded under an initiating eventuality. In the case where that eventuality is a verb like 'jump' as in (49) above, we have Figure 20.1, where AspP is the complement of the aspectual structure of *leum*, 'jump' (for concreteness I assume the subject raises to its (nominative) case marking position, the specifier of TP, with the finite verb raised to Fin Adger 2007).

Agreement appears on Asp as a reflex of the movement operation affecting the subject, as in Figure 20.1.

In the situation where the verbal root is compatible with a process, Asp takes the verbal root directly (or a VP built from it), and introduces the subject via the aspectual head *ag/a'*, which signifies that the interpretation involves a process, as we saw above; see Figure 20.2:

(56) Scottish Gaelic

a. Bha mi a' suidhe
be.PST I SIMP sit.VN
'I sat/was sitting.'

b. Bha mi nam shuidhe
be.PST I in.POSS.1SG sit.VN
'I was sitting/seated.'

The general framework here follows Ramchand's in assuming that verbal meanings, including the aspectual meanings and introduction of arguments are distributed across various syntactic elements (see also Borer 2005).

Following this general framework, simple state verbs, like 'mean', 'see', 'believe', etc., also generate their subject in the specifier of AspP, rather than as a subject of St, much like process verbs, so (57) has the structure in Figure 20.3.

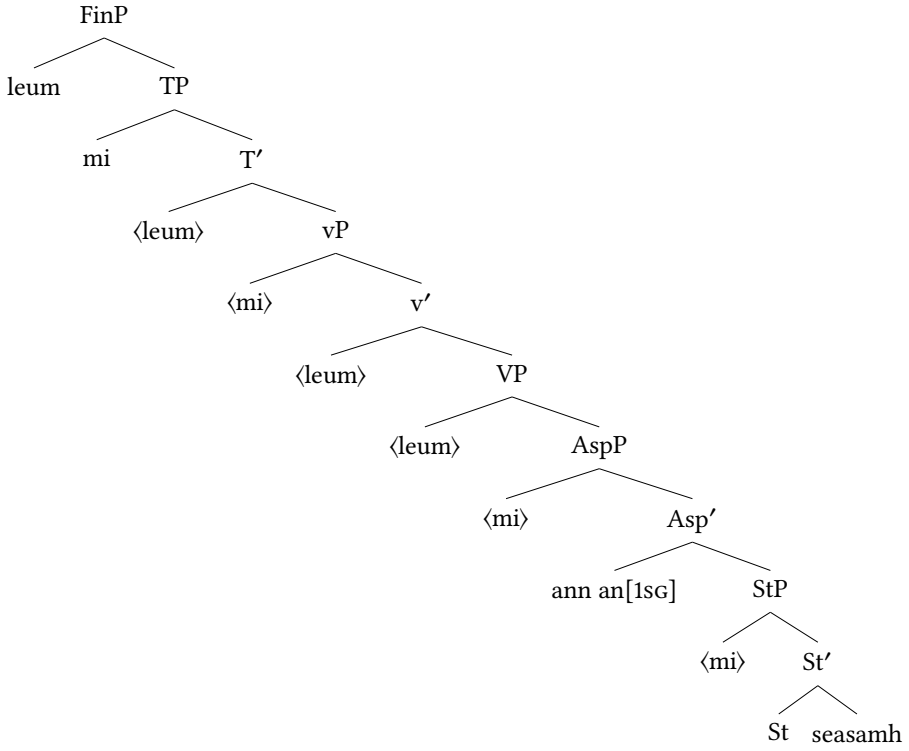


Figure 20.1: Structure of example (49).

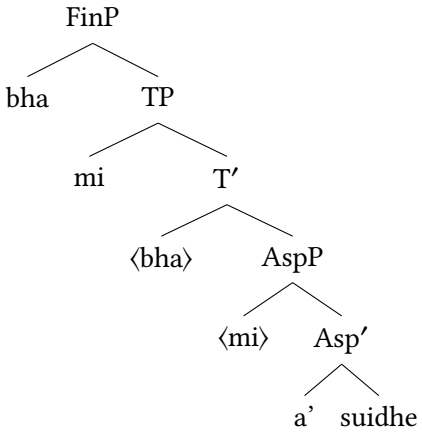


Figure 20.2: Structure of example (56a).

(57) Scottish Gaelic
Tha mi a' faicinn a' chait
be.PRS I SIMP see.VN the.GEN cat.GEN
'I see the cat.'

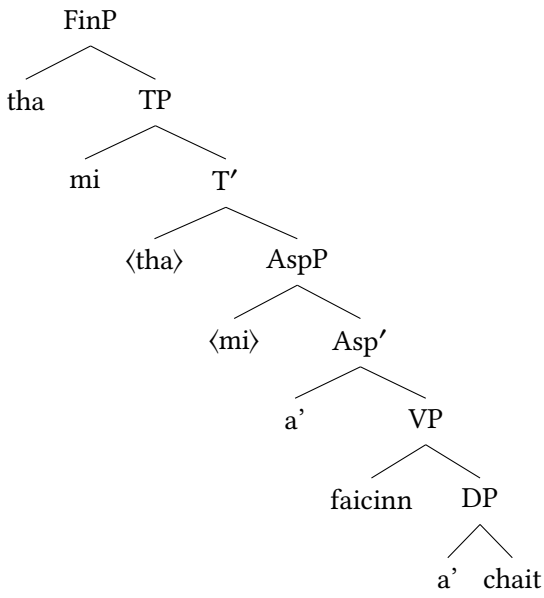


Figure 20.3: Structure of example (57).

For the verbs of position in their stative incarnation that we are concentrating on here, then, AspP is then Merged with TP, giving Figure 20.4 as a representation for (58):

(58) Scottish Gaelic
Bha mi nam shuidhe
be.PST I in.POSS.1SG sit.VN
'I was sitting/seated.'

With this syntax for interval statives in hand, the reason why Gaelic uses thisstructure, and why Gaelic nominal predication has restricted interpretation can be understood to derive from a basic difference in how nouns and verbs work. The theory developed in Adger (2013) takes nouns to be simple sortal predicates of individuals, and verbs to be predicates of eventualities. Indeed, in that theory, the roots are directly contained in a category N or V whose semantics is to introduce either an individual or an event variable.

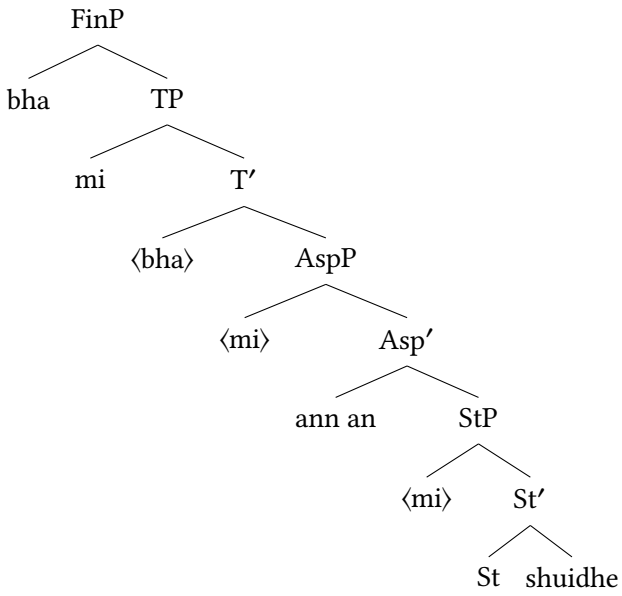


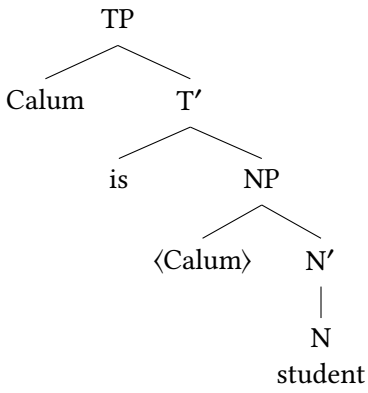
Figure 20.4: Structure of example (58).

However, events have a semantic combinatory capacity to license arguments which are interpreted as participants of the event. This can be done either via some rule of event-identification (Kratzer 1996), or via a semantics which takes the extended projection of V to describe event structure directly (Ramchand 2008). Whatever the implementation, we can strengthen these proposals to the following:

(59) For an XP to act as a syntactic predicate, licensing an argument, it must have a semantically open eventuality variable.

If we put this proposal together with the idea that nouns are simple sortal predicates of individuals, the upshot is that apparent arguments of nouns have to be introduced as modifiers, while those of verbs can be introduced as specifiers. Adger (2013) uses this theory to explain why apparent arguments to nominals behave so differently to arguments to verbs in terms of their licensing, optionality and syntactic position. However, there is a further consequence not explored in Adger (2013): nominal predication cannot involve simply projecting a subject to a noun, as nouns cannot license arguments:

(60)



Since there is no event variable here, Calum cannot be the syntactic subject of a nominal predicate. This is the reason why simple nominal predication is impossible in Gaelic:

(61) Scottish Gaelic
* Tha Calum oileanach.
Be.PRS Calum student
'Calum is a student.'

The solution that Gaelic adopts is to allow St to combine with the root nominal first, as shown in Figure 20.5 and (62).

(62) Scottish Gaelic
Tha Calum na oileanach
be.PRS Calum in.POSS.3SG.M student
'Calum is a student.'

Here the root *oileanach*, 'student', is a property. Usually it will combine with a categorizer like n (or just N in Adger 2013's theory) which associates it with an individual level variable:

(63) $[\![N]\!] = \lambda P \lambda x.\text{holds}(P, x)$

However, St combines with this property, associating it with a variable which ranges over temporally bounded states (cf. Carlsonian stages, Carlson 1977). I will represent such variables as s:

(64) $[\![St]\!] = \lambda P \lambda s.\text{holds}(P, s)$

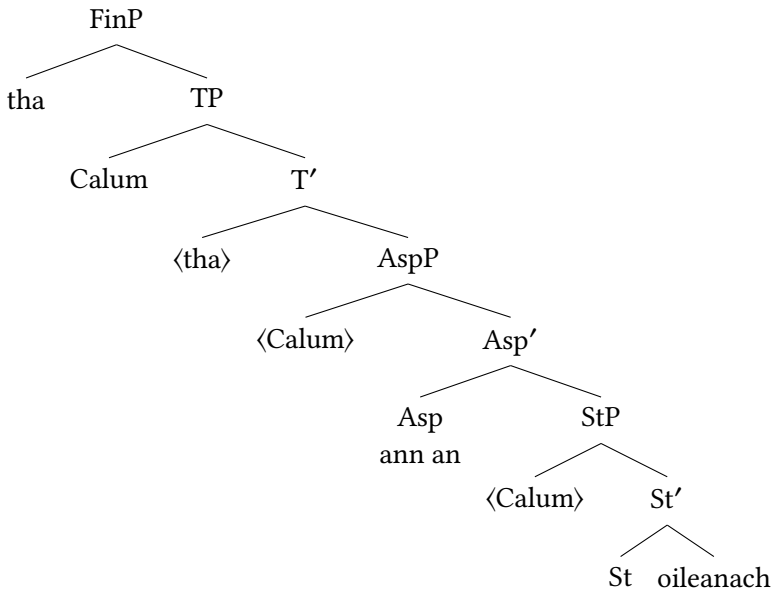


Figure 20.5: Structure of example (62).

Temporally bounded intervals, even if they are temporally bounded intervals of individuals, are a sort of eventuality. This will allow a subject to be Merged to the (now non-nominal) predicate. The linkage between the nominal and the verbal here is, then, because the functional category St generates temporally bounded states, which are a kind of eventuality, even if the state is actually a stage of an individual.

This theory makes a prediction that modifiers which require an individual variable should be impossible in such structures. For example, relative clauses, which require a modification relation to be set up over individual variables, will be ruled out, as these structures never contain an individual level variable. This turns out to be correct:[5]

(65) Scottish Gaelic
* Tha a phiuthair na comhairle a gheibh a' vote
be.PRS her sister in.POSS.3SG.F councillor that get.FUT the vote
agam.
at.1SG
'His sister is a councillor who I will vote for.'

[5]Many thanks to Jason Ostrove for testing a number of these examples for me while on fieldwork in the Hebrides.

Here, *ann an* combines with StP, which denotes a temporally bounded period of an individual (a stage), not an individual. A relative clause combines with an individual (via predicate modification), and hence is impossible here.

A restricted range of modifiers that can work at the stage level, such as *ùr*, 'new', are correctly predicted to be acceptable:

(66) Scottish Gaelic
Tha Calum na oileanach ùr
be.PRS Calum in.POSS.3SG.M student new
'Calum is a new student'

The adjective *ùr*, 'new', modifies a temporal aspect of being a student, and hence is acceptable.

This approach also predicts the absence of quantifiers and numerals in the Gaelic structures. Even though numerals and weak quantifiers are usually thought of as maintaining the predicative type of an NP, they are impossible in the p-strategy.

(67) Scottish Gaelic
a. * Bha iad nan còig oileanaich
be.PST they in.POSS.3PL five students
'They were five students.'
b. * Bha iad nam mòran oileanaich
be.PST they in.POSS.3PL many students
'They were many students.'

The effect follows straightforwardly on the account given here: stages are things that can't be counted (numerals and quantifiers, again, require individual variables).

The fact that these numerals are possible in the cleft-strategy provides a further argument against the unified analysis of the two strategies that I sketched in section (3):

(68) Scottish Gaelic
a. 's e còig oileanaich a bh' annta
COP it five students REL be.PRS in.3PL
'They were five students.'
b. 's e mòran oileanaich a bh' annta
COP it many students REL be.PRS in.3PL
'They were many students.'

Schreiner (2015) presents an analysis of the p-strategy that covers some of the same empirical ground as that presented here. She develops the proposals of Roy (2006), arguing that nominals, in general, have an event variable, and that different kinds of functional structure generated above Ns give rise to the interval stative property. In Gaelic predicative structures, the nominal has to denote what Roy calls a dense predicate (essentially, dense predicates are temporally homogenous; they are analogous to mass predicates, which are homogeneous in mereological structure).

Schreiner's syntactic analysis takes the constituent headed by *ann an* in the p-strategy to be a true PP, with a full DP as its complement. This DP obligatorily has a possessor inside it, which is responsible for the agreement on *ann an*. However, this is inconsistent with the restricted set of modifiers that these nominal predicates allow. While the absence of numerals is expected, if nominal roots in these structures have to be homogeneous, the absence of relative clauses is surprising (relatives are well formed with mass nominals, of course).

To a certain extent, Schreiner's analysis and mine are compatible in terms of the interpretations available for the nominal predicate, as both rely on a specialised functional structure generated above the nominal root. However, because, for Schreiner, Ns have an event variable, her analysis doesn't provide a straightforward explanation for the impossibility of simple NP predication as in (69), which I take to be a desideratum:

(69) Scottish Gaelic
* Tha Calum oileanach.
Be.PRS Calum student
'Calum is a student.'

Schreiner suggests that this may have something to do with transnumerality in the language, and suggests that nouns in Gaelic are number neutral (unspecified for number). However, most nominals in Gaelic, and certainly all the ones in the examples discussed here, work morphologically and semantically as simple count or mass nominals. Strikingly, when the subject is plural, the predicate nominal has to be plural too:

(70) Scottish Gaelic
a. Tha sinn nar deugairean
be.PRS we in.POSS.1PL teenager.PL
'We are teenagers.'

b. Tha i na deugaire
be.PRS she in.POSS.3SG.F teenager
'She is a teenager.'

We can make sense of this if the root, in fact, bears a plural property (e.g. it will apply to some non-atomic point in a lattice, as in Link 1983) vs. a singular property. This means that when the predicate applies to the s variable via St, it is a predicate of stages of multiple individuals. I don't see how these facts about number marking on the predicate nominal can be made compatible with a proposal that nouns are number neutral. These facts are even more striking given the impossibility of number agreement (or any φ-agreement) on predicate adjectives:

(71) Scottish Gaelic

a. na balaich mòra
the.M.PL boy.PL big-PL
'The big boys.'

b. Tha na balaich mòr 'The boys are big.'
be.PRS the.M.PL boy.PL big

c. * Tha na balaich mòra
be.PRS the.M.PL boy.PL big-PL
intended: 'The boys are big.'

Adjectives agree in number in attributive position, but not in predicate position. Predicate position, then, is not accessible to agreement (which conforms with the generalization that verbs do not agree with their subjects in Gaelic). But then that suggests that number in examples like (70) is semantically interpreted, and that nouns are not number neutral. An account of the impossibility of simple nominal predication in Gaelic resting on the idea that nouns are number neutral is untenable.

6 Motivating the interface analysis: The cleft-strategy

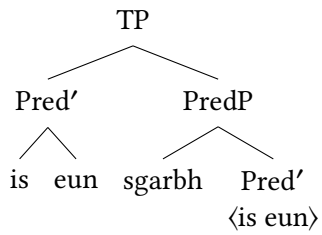
I turn now to the cleft-strategy. The claim here is that the apparent predicate is a subject, but it is the subject of a higher level predication. That is, it is similar to the copular predication mentioned in footnote 3:

(72) Scottish Gaelic
Is eun sgarbh
COP bird cormorant
'A cormorant is a bird' (Generic)

In (72) the subject NP *sgarbh*, 'cormorant' is asserted to be in the set (of sets) denoted by the predicate *eun*, 'bird'.

Adger & Ramchand (2003) argue that this kind of structure involves a predicational head which raises to a higher position, pied-piping its complement, and creating a predicate inversion structure:

(73)



The predicational head is *is*. Adger and Ramchand give *is* a semantics which allows it to combine with a nominal, and assert that the property the nominal denotes holds of a subject as follows.

(74) $\lambda P \lambda x.\text{holds}(P, x)$

The motivation for this semantics is that *is* cannot occur in tensed sentences. It has only two forms: *is*, which marks that the proposition currently holds, and *bu*, which marks that it doesn't currently hold. It may have held in the past, be going to hold in the future, or be a possibility. This copular element then seems to mark a distinction which is close to a notion of "current actuality", perhaps to be related to evidentiality.

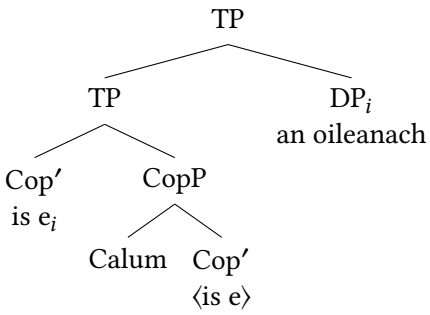
Importantly, for the claims I am making here, the copular structure in Gaelic does not involve predication in the normal sense: the "subject" is not a participant in a situation and is not a thematic argument of the apparent predicate. Rather the copula here denotes a pure inclusion relation: the set of cormorants is in the set of birds. The label Pred here, then, is somewhat misleading, and I'll replace it with simply Cop.

Adger and Ramchand extend their idea to apparent equatives in Gaelic, which have a surface form reminiscent of clefts:

(75) Scottish Gaelic
’s e Calum an oileanach
Cop.PRS it Calum the student
‘Calum is the student.’

We argued that in these constructions the pronominal element *e* acts as the complement to the copula. This pronoun is then anaphoric to a right adjoined definite DP:

(76)



Equatives, then, do not exist and equative meanings are constructed via a copular structure plus an anaphoric dependency.

My suggestion here is simply to extend this idea to true clefts, and specifically to clefts that involve apparent NP predicates. The copula signals inclusion of one class in another in (72), and it performs an identical function in the cleft-strategy for nominal predication.

There are two analytical premisses that underlie this claim: the first is an analysis of the syntax and semantics of the relative clause part of the cleft-strategy; the second is an analysis of what motivates the obligatory nature of the clefting process.

The first premiss is fairly straightforward to motivate: the preposition *ann an* in the relative clause portion of the cleft-strategy behaves, as we have seen, like a normal preposition, so we can assume it is syntactically a true preposition with a DP complement. That is, we have the following syntactic structure:

(77) $[_{\text{PredP}}$ NP $[_{\text{Pred}'}$ Pred $[_{\text{PP}}$ in DP $]]]$

The associated semantics to be justified is that this PP functions as a predicate for a property-denoting subject NP. That is, the DP here is a generalized quantifier, denoting a set of properties and the whole structure is interpreted as asserting that the set of properties denoted by the NP is included in this. This is

similar to the copula, but involves the situational variable usually connected to PP predication.

However, this seems inconsistent with an observation discussed in §3. There I showed that structures of the following sort cannot be used to make a nominal predication:

(78) Scottish Gaelic
* Tha oileanach ann an Calum
be.PRS student in Calum
intended: 'Calum is a student.'

This claim, although true, is not the whole story. In fact this kind of structure can be used to say that Calum has student qualities, although he is not a student. For example, if Calum is a one-year old child, but likes playing with books, then (78) is an appropriate comment. So the * judgment in (78) refers not to a structural impossibility, but to an impossible reading for that structure. It is in fact well formed with the reading that Calum has student qualities.

Similarly, one can say:

(79) Scottish Gaelic
Tha ceann mòr ann an Calum
be.PRS head big in Calum
'Calum is big-headed.'

(79) cannot mean that Calum literally has a big head, but it can mean that he has the qualities associated with big-headedness. In fact, this structure can be used to state that the complement of the P has the inherent quality denoted by the NP in general. Let us roughly symbolize this as (80), where the function Qual returns a set of properties associated with the property denoted by the NP.

(80) Qual(NP) is a set of properties such that each property is characteristic of the individuals denoted by NP

This kind of predication is equivalent to that seen in English constructions like (81):

(81) I see an excellent king in Jason.

Here Jason is not necessarily a king, and certainly not an excellent one, but he has the qualities necessary to be one.

The interpretations of sentences like (79) motivate the idea that the relative clause part of the cleft-strategy has a syntax involving an NP subject with a PP predicate and a semantics where the NP subject denotes a set of properties asserted to be included in the properties denoted by the complement of the preposition *ann an*.

The second part of the analysis that still needs to be explained is why the relativization is obligatory. Why doesn't Gaelic just allow (78) with the meaning 'Calum is a student'?

The answer to this is that the peculiar quality reading of these NP subjects is lost whenever the quality denoting NP is extracted.

Both of the following examples have only literal readings:

(82) Scottish Gaelic
* Dè an oileanach a th' ann an Calum
What the student REL be.PRS in Calum
intended: 'What kind of student is Calum?'

(83) Scottish Gaelic
* 'S e ceann mòr a th' ann an Calum
COP it big head that be.PRS in Calum
intended: 'It's big-headed that Calum is'

The reason for this is not entirely obvious, but the generalization is clear, and constitutes the second step of the argument for justifying the analysis presented here:

(84) Qual cannot apply to an A-bar bound element.

This seems to be true in English as well. The relevant reading is only preserved under extraction when the noun 'kind' is used:

(85) a. What kind of a king do you see in Jason?
b. * What king do you see in Jason?

Similarly for Gaelic:

(86) Scottish Gaelic
Dè an seòrsa oileanach a th' ann an Calum
What the sort student REL be.PRS in Calum
'What kind of a student is Calum.'

(87) Scottish Gaelic
* Dè an oileanach a th' ann an Calum
What the student REL be.PRS in Calum
intended: 'What kind of student is Calum?'

I'll follow Adger & Ramchand (2005) and Adger (2011a) here and take the view that wh-movement, relativization and clefting in Gaelic all involve an A-bar bound bare resumptive pronoun, although nothing about the story presented here changes if we have, instead, a trace of A-bar movement.

With these two analytical premisses in place, we can now take (88) to be the base structure to which the cleft applies:

(88) Tha pro ann an Calum = $\wp \in \lambda$P.P(Calum)
be.PRS pro in Calum

Here the pronominal is an NP, and its interpretation is as a variable ($\wp$) ranging over properties. The preposition *ann an* asserts that whatever property is assigned to pro will be included in the set of properties denoted by Calum. The structure here is the same as (79), but with the subject NP being a pro ranging over properties.

Relativizing over this structure, we create a predicate of properties:

(89) a th' pro ann an Calum = $\lambda\wp.\wp \in \lambda$P.P(Calum)

The function Qual cannot not apply, since pro is A-bar bound.

Putting this outcome together with the analysis I motivated for copular clauses, we derive the structure in Figure 20.6 for the cleft-strategy.

(90) Scottish Gaelic
'S e oileanach a th' ann an Calum
COP it student REL be.PRS in Calum
'Calum is a student.'

Here the relative clause *a th'ann an Calum* abstracts over the property variable denoted by the pro in the specifier of TP, giving the meaning of the relative clause as a set of properties which are properties of Calum. The pronoun in the copular clause gets its meaning by straightforward substitution, and the copula asserts that the property of studenthood is in the set of properties that Calum has. This analysis simply extends the analysis of clefts I offered in (Adger 2011b) to these characterising clefts.

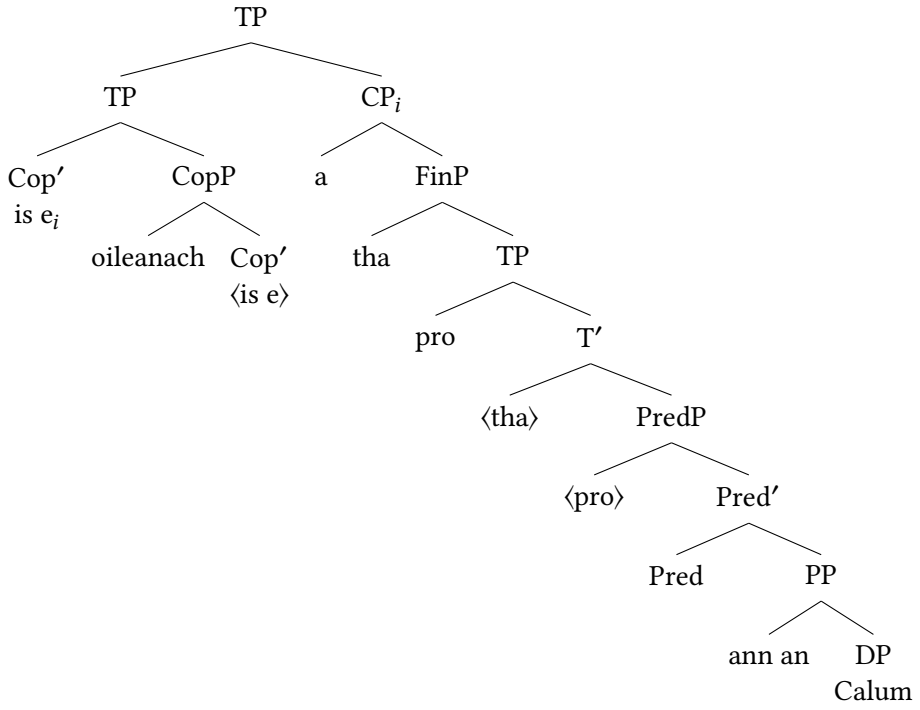


Figure 20.6: Structure of example (90).

The final question is, for this kind of reading, why the cleft is obligatory. The answer to this, from the perspective outlined here, is simply that the Qual function would otherwise apply to the subject of the clause. It may be that this function is itself connected to some syntactic position (for example, perhaps Qual can only apply to case marked DPs, and A-bar bound pro does not have to be case marked because of its lack of overt morphology), but I leave this question open here.

7 Conclusion

A standard view of predicate nominals (e.g. Partee 1987; Higginbotham 1987) is that some projection of the nominal has a predicative type (⟨e, t⟩) and that this is what is seen in apparent examples of NP predication. In developments of such theories, we see three "layers" of projection in the DP (e.g. Zamparelli 2000): a kind level, a predicative level, and an argumental level. The predicative level is that used in cases of NP predication.

However, this is clearly not the case in Gaelic, and the question is why?

One possibility is that Gaelic lacks the predicative projection of the nominal. It has only a property level projection, and an argument level projection (this is the view taken in Adger & Ramchand 2003). But this is stipulative. The alternative I suggest is that subjects of predication in syntactic specifier positions are generally impossible in nominals, as such subjects require eventive functional structure to be introduced. The category N creates predicates of individuals, not events, and the extended projection of N develops the semantics of an individual, not of a state of affairs. This set of constraints on the syntax–semantics interface leaves languages with a problem: how do they build the meaning of NP predication? Gaelic shows us two ways in which a language can solve this problem. The p-strategy involves co-opting structure which does have an event variable, while the cleft-strategy uses a relative clause to create the necessary semantic glue.

What of languages like English? Nominal predication is restricted in such languages too, when the presence of the verb *be* is controlled for. Nominals are decidedly odd in *be*-less predication compared to PPs and APs:

(91) a. With Lilly ?(being) a small cat, she can squeeze through the hole.
b. With Lilly sick, we should get some special cat food.
c. With Lilly under anaesthetic, we can go ahead with the operation

From the perspective of the theory offered in this paper, English *be* is performing a function similar to, but more general than, Gaelic *ann an*. Indeed, even with *be*, we can see the same restriction we found in Gaelic, where, when the predicate is restricted to be an interval state by using a temporal modifier, relative clause modification becomes impossible:

(92) ?* Calum was a student for three years that Ian knew.

The same core principles regulating the relationship between syntax and semantics are at work in both kinds of languages, but they evade the restrictions imposed by those principles in different ways.

Abbreviations

1	first person	COND	conditional
2	second person	COP	copula
3	third person	DEF	definite
ASP	aspect	EPP	extended projection principle

F	feminine	PRS	present
FUT	future	PST	past
GEN	genitive	REL	relative
M	masculine	SG	singular
PL	plural	SIMP	simple aspect
POSS	possessive	VN	verbal noun

Acknowledgements

One of my first grown-up conference papers was at a Celtic syntax workshop organised by Ian Roberts and Bob Borsley in Bangor. That paper argued that measure phrases in Scottish Gaelic were a kind of defective nominal, and because of this defectiveness, they are incorporated into the syntactic and semantic dependencies set up by the verbal extended projection. This paper written in appreciation of Ian's important impact on my linguistic thinking returns to that exact same intuition for predicate nominals, showing either that I'm stubborn, or can't move on! I've presented this set of ideas at the workshop on predication in Ontario, 2009, then, after a long hiatus, at the Université de Paris VIII in 2014 and at the University of Ulster in 2015. Many thanks to all for comments and suggestions as well as to Caroline Heycock for comments on an early version. Many thanks also to Iseabail NicIlleathain and Sìleas NicLeòid for help with data, to Jason Ostrove for checking some examples for me while he was in the field, and to two anonymous reviewers for this volume.

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